Pleasant Valley High School Athletic Fields Project

DRAFT INITIAL STUDY/ MITIGATED NEGATIVE DECLARATION

CHICO UNIFIED SCHOOL DISTRICT

Prepared for:

CHICO UNIFIED SCHOOL DISTRICT
1163 EAST SEVENTH STREET
CHICO, CA 95928

Prepared by:

Michael Baker INTERNATIONAL

140 INDEPENDENCE CIRCLE, SUITE C
CHICO, CA 95973

AUGUST 2017

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1.0 Introduction

1.1 INTRODUCTION AND REGULATORY GUIDANCE

This document is an Initial Study which concludes that a Mitigated Negative Declaration is the appropriate California Environmental Quality Act (CEQA) document for the Pleasant Valley High School Athletic Fields Project (project; proposed project). This Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared in accordance with the California Environmental Quality Act, Public Resources Code Section 21000 et seq., and the State CEQA Guidelines, California Code of Regulations Section 15000 et seq.

An initial study is conducted by a lead agency to determine whether a project may have a significant effect on the environment. In accordance with CEQA Guidelines Section 15063, an environmental impact report (EIR) must be prepared if an initial study indicates that the proposed project under review may have a potentially significant impact on the environment which cannot be avoided or mitigated to a level that is less than significant. A negative declaration may be prepared if the lead agency also prepares a written statement describing the reasons why the proposed project would not have a significant effect on the environment and therefore why it does not require the preparation of an EIR (CEQA Guidelines Section 15371). According to CEQA Guidelines Section 15070, a negative declaration shall be prepared for a project subject to CEQA when either:

a) The initial study shows there is no substantial evidence, in light of the whole record before the agency, that the proposed project may have a significant effect on the environment, or

b) The initial study identifies potentially significant effects, but:

   (1) Revisions in the project plans or proposals made by or agreed to by the applicant before the proposed negative declaration is released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur; and

   (2) There is no substantial evidence, in light of the whole record before the agency, that the proposed project as revised may have a significant effect on the environment.

If revisions are adopted in the proposed project in accordance with CEQA Guidelines Section 15070(b), including the adoption of mitigation measures included in this document, a mitigated negative declaration is prepared.

CEQA also allows the preparation of a subsequent negative declarations as discussed in CEQA Guidelines Section 151162.

(a) When an EIR has been certified or a negative declaration adopted for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:

   (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;...

   (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

   (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the Negative Declaration was adopted, shows any of the following:

(A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;

(B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;

(C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

(D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

(b) If changes to a project or its circumstances occur or new information becomes available after adoption of a negative declaration, the lead agency shall prepare a subsequent EIR if required under subdivision (a). Otherwise the lead agency shall determine whether to prepare a subsequent negative declaration, an addendum, or no further documentation.

(c) Once a project has been approved, the lead agency's role in project approval is completed, unless further discretionary approval on that project is required. Information appearing after an approval does not require reopening of that approval. If after the project is approved, any of the conditions described in subdivision (a) occurs, a subsequent EIR or negative declaration shall only be prepared by the public agency which grants the next discretionary approval for the project, if any. In this situation no other responsible agency shall grant an approval for the project until the subsequent EIR has been certified or subsequent negative declaration adopted.

(d) A subsequent EIR or subsequent negative declaration shall be given the same notice and public review as required under Section 15087 or Section 15072. A subsequent EIR or no further documentation.

1.2 LEAD AGENCY

The lead agency is the public agency with primary responsibility over a proposed project. Where two or more public agencies will be involved with a project, CEQA Guidelines Section 15051 provides criteria for identifying the lead agency. In accordance with CEQA Guidelines Section 15051(b)(1), "the lead agency will normally be the agency with general governmental powers, such as a city or county, rather than an agency with a single or limited purpose." Based on the criteria above, the Chico Unified School District is the lead agency for the proposed project.

1.3 PURPOSE AND DOCUMENT ORGANIZATION

The purpose of this Initial Study is to evaluate the potential environmental impacts of the proposed project. This document is divided into the following sections:

1.0 Introduction – This section includes an introduction and describes the purpose and organization of the document.

2.0 Project Information – This section provides general information regarding the proposed project, including the project title, lead agency and address, contact person, a brief description of the project location, General Plan land use designation, and zoning district, identification of surrounding land uses, and identification of other public agencies whose review, approval, and/or permits may be required. Also listed in this section is a checklist of the environmental factors that are potentially affected by the project.

3.0 Project Description – This section describes the proposed project in detail.

4.0 Environmental Checklist – This section describes the environmental setting and overview for each of the environmental subject areas, evaluates a range of impacts classified as "no impact," "less than significant impact," "less than significant impact with mitigation incorporated," and "potentially significant impact" in response to the environmental checklist.

5.0 References – This section identifies documents, websites, people, and other sources consulted during the preparation of this IS/MND.

1.4 EVALUATION OF ENVIRONMENTAL IMPACTS

Section 4.0, Environmental Checklist, is the analysis portion of this Initial Study. The section evaluates the potential environmental impacts of the proposed project. Section 4.0 includes 19 environmental issue subsections, including CEQA Mandatory Findings of Significance. The environmental issue subsections, numbered 1 through 19, consist of the following:

1. Aesthetics
2. Agriculture and Forest Resources
3. Air Quality
4. Biological Resources
5. Cultural Resources
6. Geology and Soils
7. Greenhouse Gases
8. Hazards and Hazardous Materials
9. Hydrology and Water Quality
10. Land Use and Planning
11. Mineral Resources
12. Noise
13. Population and Housing
14 Public Services
15. Recreation
16. Transportation/Traffic
17. Tribal Cultural Resources
18. Utilities and Service Systems
19. Mandatory Findings of Significance

Each environmental issue subsection is organized in the following manner:

The **Overview** summarizes the existing conditions at the regional, subregional, and local levels, as appropriate, and identifies applicable plans and technical information for the particular issue area.

The **Discussion of Impacts** provides a detailed discussion of each of the environmental issue checklist questions. The level of significance for each topic is determined by considering the predicted magnitude of the impact. Four levels of impact significance are evaluated in this IS/MND:

No Impact: No project-related impact to the environment would occur with project implementation.

Less Than Significant Impact: The impact would not result in a substantial adverse change in the environment. This impact level does not require mitigation measures.

Less Than Significant Impact With Mitigation Incorporated: An impact that may have a "substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project" (CEQA Guidelines Section 15382). However, the incorporation of mitigation measures that are specified after analysis would reduce the project-related impact to a less than significant level.

Potentially Significant Impact: An impact that is "potentially significant" but for which mitigation measures cannot be immediately suggested or the effectiveness of potential mitigation measures cannot be determined with certainty, because more in-depth analysis of the issue and potential impact is needed. In such cases, an EIR is required.

2.0 PROJECT INFORMATION

1. Project title: Pleasant Valley High School Athletic Fields Project

2. Lead agency name and address: Chico Unified School District
1163 East Seventh Street
Chico, CA 95928

3. Contact person and phone number: Julia Kistle, Director of Facilities and Construction
(530) 891-3140

4. Project location: 1475 East Avenue
Chico, CA 95926
Latitude 39º45'31"N, Longitude 121º49'03"W
(APN: 015-490-001)

5. Project sponsor's name and address: Chico Unified School District
1163 East Seventh Street
Chico, CA 95928

6. General Plan designation: PFS (Public Facilities and Services)

7. Zoning: PQ (Public/Quasi Public Facilities)

8. Description of project: The proposed project includes various components identified in the Pleasant Valley High School Physical Education/Athletics Master Plan. Proposed project components include the following primary elements:

Phase I: Stadium and Amenities

- Replacement and relocation of existing field lighting
- Electronic scoreboard
- Bleachers: aluminum I-beam construction (seating for approximately 2,400 home/1,600 visitor)
- Press box
- Welcoming entry building (tickets, concessions, and restrooms): approximately 1,500 square feet

Future Phase: Baseball and Softball Fields

- Relocation of softball field
- Field lighting for softball field and baseball field
- Natural grass
- Covered dugouts
- Storage facilities: approximately 2,500 square feet
- Fencing, including removable outfield fencing that will allow PE use of the outfield grass
- Batting cages, including power
- Access to restrooms/drinking fountains
- Equivalent spectator seating (i.e., picnic tables, bleachers, etc.)

Future Phase: Soccer Field and Tennis Courts

- Classroom space/team rooms: 13,000 square feet
- All-weather field: 70 yards x 116 yards
- Mat room/fitness room: 5,300-square-foot existing building renovation
- Tennis court expansion: two additional

9. Surrounding land uses and setting: Pleasant Valley High School (PVHS) is located in a predominantly single-family residential neighborhood with commercial and church uses north of the school. Marigold Elementary School is directly east of PVHS.

10. Other public agencies whose approval may be required (e.g., permits, financing approval, or participation agreement):

State of California

- California Department of General Services, Division of the State Architect – building permits
- California Department of Education, School Facilities Planning Division – project plan approval

Regional Agencies

- Central Valley Regional Water Quality Control Board – National Pollutant Discharge Elimination System (NPDES) permit
- Butte County Air Quality Management District

11. Environmental factors potentially affected:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "potentially significant impact" as indicated by the checklist on the following pages.

☒	Aesthetics	☐	Agriculture and Forest Resources	☐	Air Quality
☒	Biological Resources	☒	Cultural Resources	☐	Geology and Soils
☐	Greenhouse Gases	☒	Hazards and Hazardous Materials	☐	Hydrology and Water Quality
☐	Land Use and Planning	☐	Mineral Resources	☐	Noise
☐	Population and Housing	☐	Public Services	☐	Recreation
☐	Transportation/Traffic	☒	Tribal Cultural Resources	☐	Utilities and Service Systems
☒	Mandatory Findings of Significance				

12. 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 EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Julia M. Kistle
Signature

9/12/2017
Date

Julia M. Kistle
Printed Name

Chico Unified School District
Lead Agency

Director of Facilities and Construction
Title

3.0 Project Description

3.1 PROJECT LOCATION

The Pleasant Valley High School (PVHS) campus is located at 1475 East Avenue in Chico, California (see **Figure 3.0-1, Regional Vicinity**). The campus is bounded by East Avenue to the north, Ceanothus Avenue to the west, Marigold Avenue to the east and southeast, and single- and multi-family homes to the south and southwest. The PVHS campus is approximately 1.2 miles northeast of State Route (SR) 99, the only major highway in the greater Chico area.

3.2 EXISTING USE AND CONDITIONS

The proposed project site is located in eastern Chico in a highly urbanized and densely built-out portion of the city on fairly level topography (see **Figure 3.0-2, Aerial View**). The PVHS campus is approximately 36-acres and is currently occupied by approximately 272,056 square feet of building space. The campus comprises 16 large buildings, 2 portable classrooms, and various smaller buildings that accommodate classroom, administration, gymnasium, library, theater, fitness lab, and storage uses. The campus also has four parking lots, a sports stadium, a baseball field, a softball field, a soccer field, and basketball and tennis courts, as well as a number of lawn areas with large mature trees. The school has solar arrays over the main parking lot. See **Figure 3.0-3, Existing Site,** for an illustration of the existing PVHS campus. The main entry to the PVHS campus is located off East Avenue. The primary student drop-off/pickup area is on East Avenue in front of the library building. Additional vehicular and pedestrian entry points are available from Marigold Avenue and Ceanothus Avenue.

3.3 PROJECT CHARACTERISTICS

The proposed project is one of various components identified in the Pleasant Valley High School Physical Education/Athletics Master Plan, which was approved in 2014 by the Chico Unified School District Board of Education and updated in 2016. Some of the projects listed in the Master Plan have been completed and are not a part of the CEQA analysis for the proposed project. No changes to existing campus buildings or parking areas are proposed with this project. The proposed project site comprises approximately 18-acres and includes the following primary elements (see **Figure 3.0-4, Proposed Project Site Plan**):

Phase I: Stadium and Amenities

- Replacement and relocation of existing field lighting
- Electronic scoreboard
- Bleachers: aluminum I-beam construction (seating for approximately 2,400 home/1,600 visitor)
- Press box
- Welcoming entry building (tickets, concessions, and restrooms): approximately 1,500 square feet

Future Phase: Baseball and Softball Fields

- Relocation of softball field
- Replacement and relocation of field lighting for softball field
- Natural grass
- Covered dugouts
- Storage facilities: approximately 2,500 square feet
- Fencing, including removable outfield fencing that will allow PE use of the outfield grass
- Batting cages, including power
- Access to restrooms/drinking fountains
- Equivalent spectator seating (i.e., picnic tables, bleachers, etc.)

Future Phase: Soccer Field and Tennis Courts

- Classroom space/team rooms: 13,000 square feet
- All-weather field: 70 yards x 116 yards
- Mat room/fitness room: 5,300-square-foot existing building renovation
- Tennis court expansion: two additional

CONSTRUCTION TIMING

Phase I

Construction for the elements listed under Phase I is expected to begin in 2017 with installation of the electronic scoreboard. Completion of the remaining elements, which would include the stadium's replacement field lighting, bleachers/press box, and entry building will occur between summer 2017 and November 2018. All of these components would involve minimal ground-disturbing activities, other than the installation of footings for the light poles, scoreboard, bleachers/press box, and entry building, and trenching to provide electricity, water, and sanitary sewers for the restroom and concession facilities.

Future Phase

Construction of those elements listed under Future Phase are dependent on the availability of funding; at this time, no date for start of construction has been determined. It is anticipated that construction of the Future Phase components will not start until 2019 or later.

FIELD USE

PVHS currently has field lights for the stadium and the softball field. The stadium lights would be replaced as part of Phase 1. While the proposed project would replace and relocate those lights, the replacement lighting is not anticipated to increase the use of the stadium or the softball field. It is anticipated that PVHS will have a similar field use schedule for the stadium and softball field as it does currently.

Currently, PVHS's baseball field does not have field lighting. The project's future phase includes the addition of this lighting. The addition of new field lighting is anticipated to result in later varsity baseball spring games starting at 5:30 p.m. and lasting until around 7:30 p.m. In addition, the lighting will allow nighttime Chico American Legion Baseball games to be held in the spring at PVHS. It is anticipated that approximately 20 American Legion Baseball games will be played on the field between 6:30 and 8:30 p.m.

During the past year at PVHS, the lights were used five days a week. Fall sports rotated in the evenings between field hockey and football practices; in addition, the PVHS band practiced on Monday nights. Cheer practiced on Tuesday and Thursday nights after freshman football games. During soccer season, the male and female teams split time on the field in the evenings. This spring (2017), PVHS hosted lacrosse, rugby, Chico Cal (club soccer), and sometimes Butte United (club soccer) play during the evenings. PVHS currently hosts approximately four events that require evening lights during the spring and summer, which include graduation and athletic events.

With the addition of field lighting, the following field uses are anticipated: fall teams will practice later, especially with daylight savings time. The stadium will be used for both football and field hockey. In the winter, both the female and male soccer teams will have practices as well as schedule matches at night. The Chico Jaguars Pop Warner teams practice at PVHS, but have not

been authorized to use the field at night when lights would be required. In addition, it is anticipated that invitational league/sectional track meets would occur from March through June.

ANTICIPATED SPORTING EVENT ATTENDANCE

Implementation of the proposed project would allow games and track meets to occur during the evening hours. Lighting of the stadium and baseball, softball, and soccer fields would increase the use of those facilities. While spectator counts for these sports always vary by opponent and sport, estimates of the anticipated spectators for the various events, based on past PVHS game experience, are listed below.

- 1,900 spectators for varsity football games
- 300 spectators for male and female soccer games
- 150 spectators for baseball games
- 150 spectators for field hockey games
- 75 spectators for softball games

As shown, varsity football is the sporting event at PVHS with the highest number of spectators; therefore, represents the greatest potential for impacts to the physical environment during operation of the proposed project. All of the PVHS football team's night games are scheduled at the high school because it has lighted facilities. Ticket sales from the 2016/17 season show that the average attendance is approximately 1,900 persons. During the upcoming 2017/18 football season, PVHS will play home varsity football games six times between late August and early November, all occurring on Friday nights. Starting times are at 7:30 p.m., with games generally over by 10:30 p.m. Lights would be turned off no later than 11:00 p.m.

IMPLEMENTATION OF PROPOSED PROJECT GROWTH ESTIMATE

CEQA requires an analysis of how and to what extent a proposed project would impact the existing physical environment. As discussed in CEQA Guidelines Section 15064(d):

> In evaluating the significance of the environmental effect of a project, the Lead Agency shall consider direct physical changes in the environment which may be caused by the project and reasonably foreseeable indirect physical changes in the environment which may be caused by the project.

As a part of this analysis, the identification of the site's uses and existing conditions is used as a baseline to determine how the proposed project would result in a change to these conditions. Existing uses for the playing fields include the school's physical education classes during the school day as well as after-school extracurricular activities such as football and baseball practices. The proposed project would not change these practices, although new team rooms might make the facilities more accommodating. While components of the proposed project, including the construction of a classroom/team rooms building, welcoming entry building, storage facilities, etc., would result in short-term construction impacts, these facilities would not cause a substantial increase in the operational use of the athletic facilities. The main difference between the current operational condition of the athletic fields and the proposed project would be the increase in stadium seating and the ability to use the baseball field at night. As such, the main effect of the proposed project would be the addition of field lighting and increased seating at the stadium.

In order to determine the effect that new stadium seating would have on the surrounding area, it is necessary to estimate the increased use over existing conditions. While other sporting events, such as baseball, softball, and soccer games, would also draw spectators, the attendance at these games is considerably less than at varsity football games. In addition, the increase of seating capacity at the stadium represents the largest increase in seating, and therefore attendance, for any of the school's athletic events. From an environmental perspective, this increase in attendance represents the greatest potential for impacts during operation of the proposed project. While the addition of lighting to the baseball field will allow use of the field during the evening hours, as discussed previously, the games are generally over by 8:30 p.m. As such, use of the baseball field lighting would be minimal during nighttime hours when the lights would have the greatest impact on the surrounding area. The baseball field is currently used for PVHS and American Legion Baseball games, so no increase in attendance over current conditions is anticipated. Therefore, the increase in stadium seating capacity is used as the change between existing and future conditions to determine the greatest impact the proposed project would have on the surrounding environment.

Currently the stadium provides 1,000 seats for the home side and from 579 to 972 seats with the addition of temporary bleachers for the visitor side. As shown, the proposed project includes an expansion of seating at the stadium to approximately 2,400 home and 1,600 visitor seats. This would result in an increase in seating capacity of 1,400 home and 628 visitor seats, or 2,028 total seats.

The construction of the various new facilities proposed as part of the project are also considered in this Initial Study. However, the potential environmental effects resulting from these construction activities are generally short term and would only last as long as the project's construction phase.

FIGURE 3.0-1
Regional Vicinity

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FIGURE 3.0-2
Project Location

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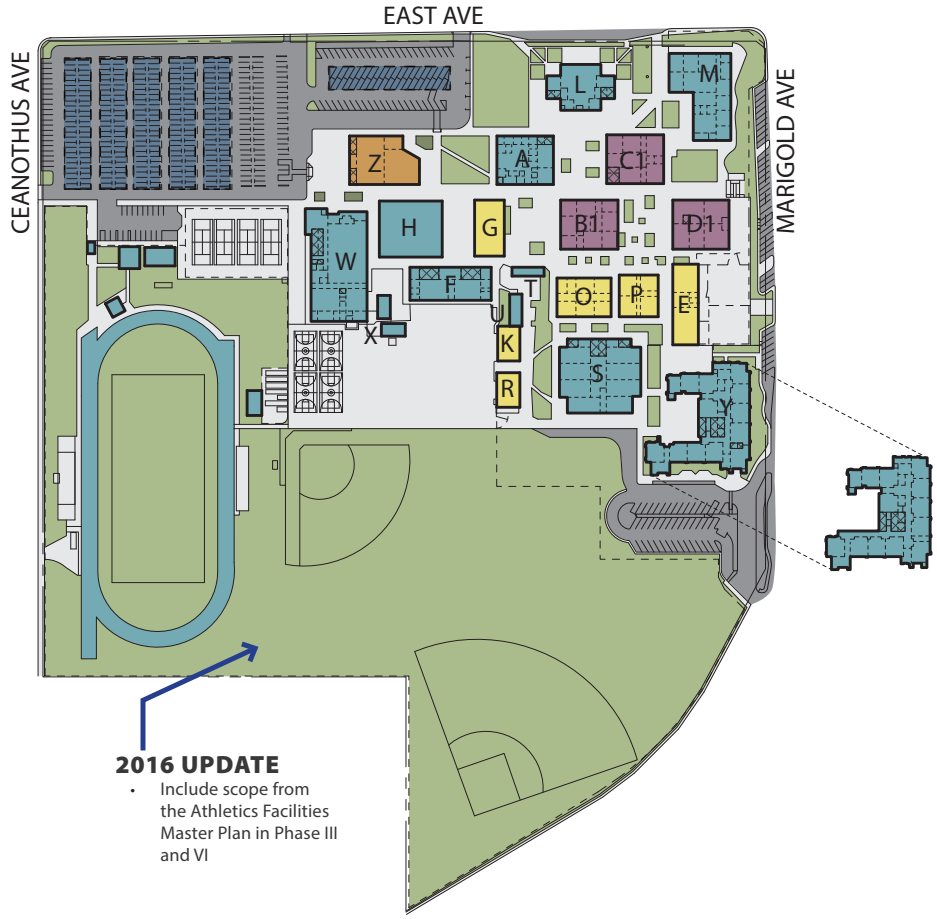
EXISTING SITE PLAN

MASTER SITE PLAN



LEGEND

- Existing Building
- Existing Concrete
- Existing Paving
- Existing Playground Area
- Existing Turf/Planter/Field
- Existing Shade Structure
- Restrooms
- New Building
- Building Modernization
- Building Renovation
- Building Addition
- New Concrete
- New Paving
- New Playground Area
- New Turf/Planter/Field
- Solar and/or Shade Structure
- Future Phase - Beyond FMP

BUILDING DESIGNATIONS

Existing

A	Administration
B	Classrooms
C	Classrooms
D	Home Ec., Art, Woodworking
E	Industrial Arts
F	Gym & Locker Room
G	Gym & Locker Room
H	West Gym
K	Weight Room
L	Library
M	Classrooms
O	Permanent Portable Classrooms
P	Permanent Portable Classrooms
R	PE Mat Room
S	Classrooms
T	Student Center
U	Maintenance Shed
V	Multi-Purpose, Music
W	Center for the Arts
X	Portable
Y	Classrooms

Phase IV

B1	Classroom Renovation
C1	Classroom Renovation
D1	Home Ec., Art, Woodworking Renovation

Phase VI

Z	New Student Activity Center
E, G, K	Building Modernization
O, P, R	Building Modernization

(Athletic Fields to be developed separately)

Source: EP2 Integrated Educational Planning & Programing, LLC, 2017

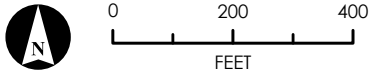


FIGURE 3.0-3
Existing Site Plan

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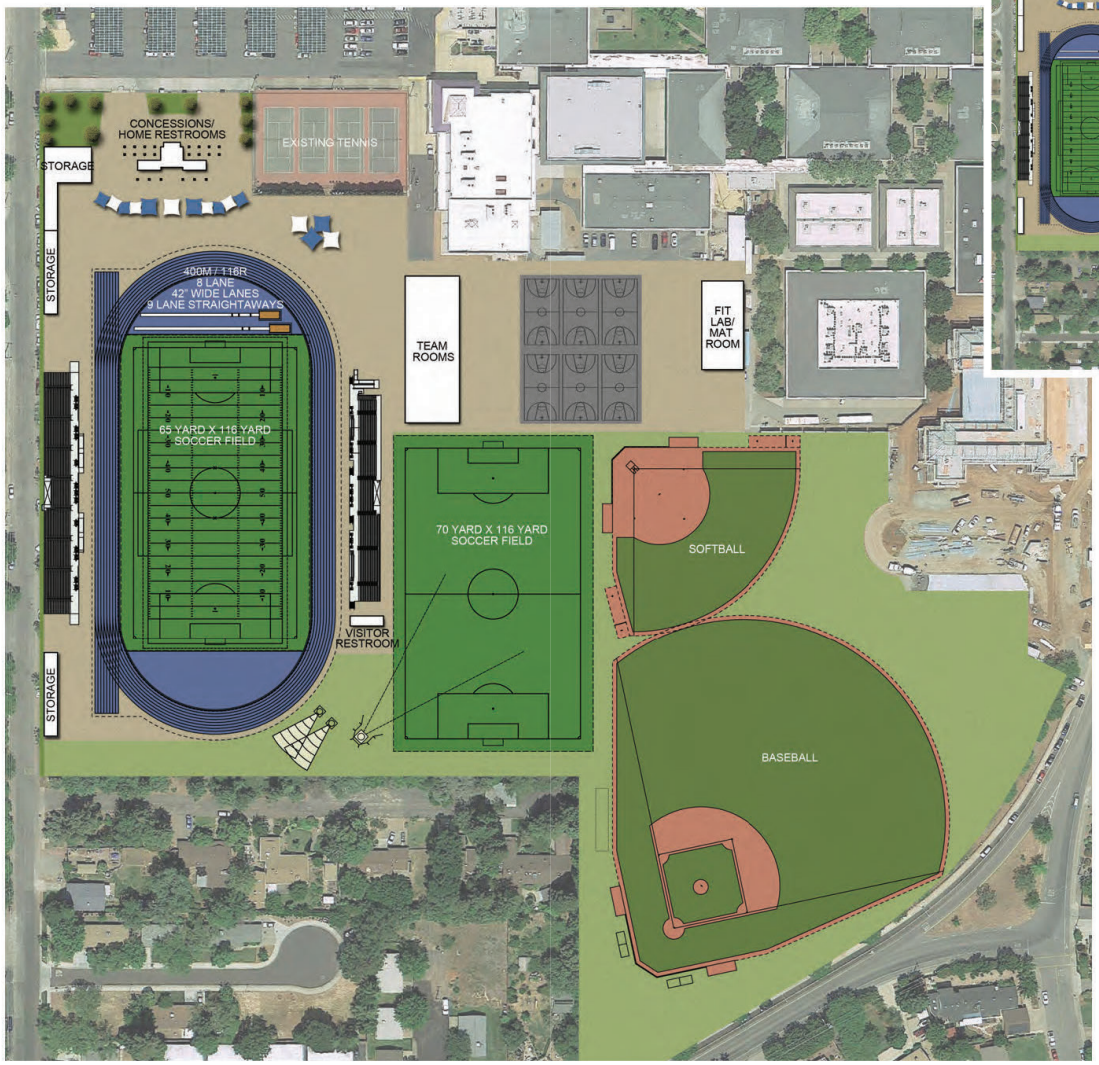
Existing Conditions

Option 1



Source: EP2 Integrated Educational Planning & Programing, LLC, 2017

Not To Scale

FIGURE 3.0-4
Proposed Site

Michael Baker
INTERNATIONAL

3.4 REQUIRED PERMITS AND APPROVALS

LEAD AGENCY APPROVAL

The Chico Unified School District (CUSD; District) is the lead agency for the proposed project. In order to approve the proposed project, the CUSD Board of Education must first adopt the IS/MND, approve the proposed project, and file a Notice of Determination (NOD) within five working days. The Board will consider the information contained in the IS/MND in making its decision to approve or deny the proposed project. The IS/MND is intended to disclose to the public the proposed project's details, analyses of the proposed project's potential environment impacts, and identification of feasible mitigation that will reduce potentially significant impacts to less than significant levels.

Other agency approvals include:

- Central Valley Regional Water Quality Control Board – National Pollutant Discharge Elimination System (NPDES) permit
- Project plan approval from the California Department of Education, School Facilities Planning Division
- Building permits from the California Department of General Services, Division of the State Architect
- Butte County Air Quality Management District

3.5 RELATIONSHIP OF PROJECT TO OTHER PLANS AND PROJECTS

CITY OF CHICO GENERAL PLAN

The City of Chico General Plan is the primary document governing land use development in the city. The General Plan was adopted in April 2011.

The City's General Plan includes numerous goals and policies pertaining to sustainability; land use; circulation; community design; the downtown; economic development; housing; parks, public facilities, and services; open space and environment; cultural resources and historic preservation; safety; and noise. Public schools in California are considered state property and are therefore not subject to the local jurisdiction's general plan. However, as a matter of practice, CUSD abides by the Chico General Plan goals and policies in the development and implementation of new projects related to the District's facilities.

CHICO UNIFIED SCHOOL DISTRICT FACILITIES MASTER PLAN

The purpose of the Facilities Master Plan is to provide a fact-based, data-driven report for CUSD staff and the CUSD Board to make decisions related to the District's educational facilities that best serve the needs of all present and future students. The Facilities Master Plan guides the District in constructing new facilities; evaluating existing facilities and programs by site, age, and type; and integrating student enrollments in the decision-making processes for current, planned, and future facilities. The Facilities Master Plan was approved on April 14, 2014, and updated in 2016.

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4.0 ENVIRONMENTAL CHECKLIST

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.1 AESTHETICS. Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	☐	☒	☐	☐

OVERVIEW

The project site is located in the urbanized area of Chico. The construction and site improvements would occur completely on the existing Pleasant Valley High School (PVHS) campus. The campus is bounded by East Avenue to the north, Ceanothus Avenue to the west, Marigold Avenue to the east and southeast, and single- and multi-family homes to the south and southwest. The PVHS campus is approximately 1.2 miles northeast of State Route (SR) 99, the only major highway in the greater Chico area. All of the proposed project's improvements would occur on the southern and western portions of the campus.

The PVHS campus is located in a highly urbanized area on level topography. PVHS is located in a predominantly single-family residential neighborhood with commercial and church uses to the north of the school. Marigold Elementary School is directly east of PVHS.

The proposed project site is an 18-acre area on the larger approximately 36-acre PVHS campus and contains the school's athletic fields and courts, including a football field, a baseball field, a softball field, a soccer field, and basketball and tennis courts.

Views available from the project site and vicinity include those found in a fully developed dense urban setting, mainly roadways and urban development. The City of Chico General Plan Environmental Impact Report (2010) identifies scenic vistas in the Chico area, including views of the transition between landscapes (the Sierra Nevada foothills to the east and the Central Valley to the west), the agricultural landscape, the foothills and rising elevations to the east of Chico, the major creeks, and Bidwell Park. Distant views of the Sierra Nevada foothills can be seen from the streets surrounding the campus and from open areas of the campus. However, the intervening buildings between the campus and the foothills block most of the views of the foothills. No other scenic vistas are visible from the project site or from residential areas adjoining the campus.

The Chico General Plan (2011) contains many policies and actions that address visual quality and urban design. However, because PVHS is a state-owned facility, as are all public schools in California, the construction and operation of the proposed project would not be subject to the

policies outlined in the General Plan. Nor does the District require the approval of the Chico City Council or Planning Commission in order to implement the project.

There are no officially designated state scenic highways in the Chico area or Butte County. SR 70 north of Oroville to the county line is an eligible scenic highway, but it has not been officially designated as such at this time.

DISCUSSION OF IMPACTS

a) *No Impact.* Scenic vistas include natural features such as topography, watercourses, rock outcroppings, natural vegetation, and man-made alterations to the landscape. The project site is fully developed and consists of a high school campus. The project's surrounding vicinity is urban and is fully developed with residential and other uses. While the City of Chico identifies views of the transition between landscapes (the Sierra Nevada foothills to the east and the Central Valley to the west), the agricultural landscape, the foothills and rising elevations to the east of Chico, the major creeks, and Bidwell Park as scenic resources, with the exception of distant mountain views, views of these scenic resources cannot be seen from the site because of the intervening buildings.

The project site does not contain unique visual features that would distinguish it from surrounding areas, nor is it located in a designated scenic vista. While the project would construct field lighting for the baseball and softball fields, the proposed project is not considered an impediment to scenic vistas because no formal scenic vistas are identified in the area. Furthermore, distant views of the mountains would not be blocked by the field lighting monopoles during the day, as the light banks would be at sufficient height so as to not impede views. As such, the project would have no impact on scenic vistas.

b) *No Impact.* The project would be located on a developed high school campus. No state scenic highways are in the area. Therefore, the project would have no impact on scenic resources within a state scenic highway.

c) *Less Than Significant Impact.* The proposed project site is a developed high school campus, with all construction taking place within the approximate 18-acre athletic field and track area at the south and west portions of the campus. The addition of a stadium entry building, covered dugouts, baseball and softball spectator seating, baseball and softball field lighting, batting cages, and classrooms/team rooms would not change the overall visual character of the site because the site is currently used for athletic activities and events. The additional amenities would provide a more comfortable experience for spectators and athletes. No improvements are proposed that would be uncharacteristic of uses found at a typical high school. The project site would continue to be used as it is currently, and the improvements would not result in a substantial degradation of the site.

The project proposes no changes to the area surrounding the project site. All proposed changes would occur on the site itself. The project would not substantially degrade the existing character surrounding the site, as no change in character to these areas would occur.

Implementation of the proposed project would not detract from the visual character of the site, as these improvements would be consistent with the existing uses currently on the project site and are consistent with uses found at a high school.

Construction activities associated with the project have the potential to cause temporary changes in the existing visual features at the site, which would be visible to residents living close to the school site and school staff and students. These changes would include the presence of construction equipment, materials storage, vegetation (landscape and turf) removal, and exposed soil during site preparation. However, such activities are temporary and would cease with completion of these activities. Due to its temporary nature, this impact is considered less than significant.

d) *Less Than Significant Impact With Mitigation Incorporated.* Individuals have a range of reactions to the perceived effects of lighting on the environment. As such, whether light is considered obtrusive is generally based on perception but is also a function of the actual amount of light emitted from a source. Per the Energy Trust of Oregon (2013) and the Engineering Toolbox (n.d.), the following are examples of light levels, expressed in foot-candles:[1]

- Direct sunlight: 10,000
- Full daylight: 1,000
- Twilight: 1
- Full moon: 0.1
- Covered parking lot: 5
- Gas station canopy: 12.5
- Department store: 40
- Grocery store: 50

Typical nighttime street lighting requirements are 1 to 3 foot-candles, which is generally considered to be unobtrusive. Glare created by sports lighting systems can be measured for impairment of view. Car headlights are typical example of glare effects. When viewed directly in front of a vehicle with the headlights on full beam, vision is impaired, resulting in disabling glare. However, when viewed from the side, the same headlights would not impair vision.

Spill Light – Spill light or light trespass is the light that illuminates surfaces beyond the property line. Typically, spill lighting is from a more horizontal source such as streetlights and wayfinding/security lighting than sky glow, which emanates from a more vertical source into the atmosphere. Spill light can be accurately calculated and the effects of spill light can be measured for general understanding and comparison. However, light that is considered to be obtrusive is a subject of debate. A spill light impact is generally considered significant if the increase in spill lighting would exceed 1 foot-candle at the property line of the nearest sensitive receptor, sky glow is perceptibly increased, or glare is at a level such that it impairs vision.

Sky Glow – Sky glow is the light that illuminates the sky above the horizon and reflects off of moisture and other tiny particles in the atmosphere. Sky glow would be considered a significant impact if it were a permanent addition to the environment. Additionally, in the case of the proposed project, a significant impact could occur if the proposed field

[1] Foot-candle: A unit of measure of the intensity of light falling on a surface, equal to one lumen per square foot and originally defined with reference to a standardized candle burning at one foot from a given surface. One foot-candle = 0.01609696 watts.

lighting were uncontrolled and would significantly increase sky glow. Control features are available on the light sources to reduce sky glow and glare from nighttime lighting. These control features direct light downward, thereby reducing the spill of light that causes sky glow and reducing glare.

Because of the urbanized nature of the surrounding area, a significant amount of ambient nighttime light currently exists, reducing the views of stars and affecting views of the night sky. Streetlights provide the majority of light along the streets surrounding the campus; security and parking lot lighting on campus, as well as at surrounding residential uses, also contributes to nighttime lighting conditions. These lighting features are not considered substantial sources of nighttime illumination and are required by the City of Chico for minimum lighting.

Glare – Glare can be described as direct or reflected light, which can then result in discomfort or disability. A well-designed lighting system controls light to provide maximum useful on-field illumination with minimal destructive off-site glare.

Lighting Analysis

No new light or glare sources visible beyond the project site would be introduced during construction of the proposed project. All construction work would be performed during normal daylight construction hours, thereby eliminating the necessity for temporary lighting at night.

The proposed project would result in new field lighting for the baseball fields. The stadium and the softball field currently have field lighting. Replacement lighting is proposed for the stadium as a part of Phase I of the proposed project. The lighting poles would be slightly moved to allow for better, more efficient lighting of the field. Replacement and relocation of the softball field lighting is proposed as part of a future phase. Timing for this replacement/relocation is unknown at this time and is dependent on funding. Because both the stadium and the softball field currently include field lighting facilities, impacts from the new lighting are expected to be similar to existing conditions. However, because the lighting design has not been finalized at this time, mitigation measure **MM 4.1.1** has been included in this IS/MND. Incorporation of this mitigation measure would reduce any potential lighting impacts from the stadium and softball field lights to a less than significant level.

In addition, the lighting specifications for future lights at the baseball field have not yet been finalized because it is unknown when these facilities may be constructed. As such, the potential to impact surrounding uses with this lighting cannot be determined. However, as with the stadium and softball field lighting, the baseball field lighting can be designed to limit the amount of off-site light spill. To ensure that this will be achieved, mitigation measure **MM 4.1.1** has been included. Incorporation of this mitigation measure would reduce impacts from the baseball field lights to a less than significant level.

As with light spill, glare potential for the future baseball, softball, and stadium field lighting has not been determined at this time. However, this field lighting can be designed to limit the amount of off-site light glare. To ensure that this will be achieved, mitigation measure **MM 4.1.1** has been included. Incorporation of this mitigation measure would reduce glare impacts for the baseball, softball, and stadium field lights to a less than significant level.

The athletic fields would continue to be used after dark. Currently, the field lights at the stadium are shut off at 11:00 p.m. This practice is expected to continue because no new uses at the stadium are anticipated with implementation of the proposed project. Although the athletic field is permitted for use until 11:00 p.m., in the event that the field is not being used for the entire duration, the lights will be promptly shut off. As discussed in Section 3.0, Project Description, the latest games at the softball and baseball fields are expected to last until 8:30 p.m. By restricting the number of nighttime hours in which the field lighting is operational, the potential contribution to sky glow in the area is reduced. Therefore, as the proposed athletic field lighting will be heavily controlled (directional, addition of visors, hours of operation), the proposed project will result in a less than significant sky glow impact.

MITIGATION MEASURES

MM 4.1.1 All new field lighting fixtures shall be designed, located, installed, aimed downward or toward structures, and maintained in good order to prevent glare, light trespass, and light pollution off-site. Lighting fixtures shall be mounted, aimed, and shielded so that their beams fall within the primary playing area and their immediate surroundings, and shall not exceed 1 foot-candle at the property line of adjacent properties. The sports field lighting shall be turned off as soon as possible following the end of the event once players and spectators have departed the field. Where feasible, a low-level lighting system shall be used to facilitate spectators leaving the facility, cleanup, nighttime maintenance, and other closing activities.

Timing/Implementation: *As part of field lighting design and ongoing*

Enforcement/Monitoring: *Chico Unified School District*

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.2 AGRICULTURE AND FOREST 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. 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 nonagricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forestland (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526 and by Government Code Section 51104(f)), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forestland or conversion of forestland to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to nonagricultural use?	☐	☐	☐	☒

OVERVIEW

The California Department of Conservation manages the Farmland Mapping and Monitoring Program, which identifies and maps significant farmland. Farmland is classified using a system of five categories: Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, and Grazing Land. The classification of farmland as Prime Farmland, Unique Farmland, and Farmland of Statewide Importance is based on the suitability of soils for agricultural production, as determined by a soil survey conducted by the Natural Resources Conservation Service. The California Department of Conservation (2014) manages an interactive website called the California Important Farmland Finder. This website identifies the project site as being urban and built-up land; therefore, it is not considered to be agriculturally important land.

DISCUSSION OF IMPACTS

a–e) *No Impact.* The project site is fully developed with existing educational uses, and no farmland exists in the area. The nearest important farmland is over 2 miles southwest of the project site. The project would be located on a developed high school campus site. This site is not subject to a Williamson Act contract, and the site is zoned PQ (Public/Quasi Public

Facilities) by the City of Chico. This zoning district is not intended for agricultural uses. The project site contains no forest or timber resources and is not zoned for forestland protection or timber production. The entirety of the proposed project would occur on the existing approximate 36-acre school campus. The project site is not located adjacent to or in the vicinity of any farmland. Therefore, the proposed project would result in no impact to agriculture or forest resources.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.3 AIR QUALITY. Where available, the significance criteria established by the applicable air quality management 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?	☐	☐	☐	☒
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒

OVERVIEW

The project site is located in the northern Sacramento Valley. The Sacramento Valley is located between two mountain ranges to the east and the west and is bordered at its northern end by more mountains. This topography is conducive to trapping air pollutants. The problem is exacerbated by a temperature inversion layer that traps air at lower levels below an overlying layer of warmer air. Prevailing winds in the area are from the south and southwest. Sea breezes flow over the San Francisco Bay Area and into the Sacramento Valley, transporting pollutants from the large urban areas. Butte County is located in the Northern Sacramento Valley Air Basin (NSVAB), which also includes Shasta, Tehama, Glenn, Colusa, Sutter, and Yuba counties.

Both the US Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) have established ambient air quality standards for common pollutants. These ambient air quality standards are levels of contaminants representing safe levels that avoid specific adverse health effects associated with each pollutant. The ambient air quality standards cover what are called "criteria" pollutants because the health and other effects of each pollutant are described in criteria documents. The six criteria pollutants are ozone, carbon monoxide (CO), particulate matter (PM), nitrogen oxides (NO_x), sulfur dioxide (SO_2), and lead. Areas that meet ambient air quality standards are classified as attainment areas, while areas that do not meet these standards are classified as nonattainment areas. The Butte County portion of the Sacramento Valley is designated as a nonattainment area for ozone, coarse particulate matter (PM_{10}), and fine particulate matter ($PM_{2.5}$) for state standards and ozone and $PM_{2.5}$ for federal standards (CARB 2015).

In Butte County, the air quality regulating authority is the Butte County Air Quality Management District (BCAQMD). The BCAQMD monitors air quality in the county and serves as the lead agency responsible for implementing and enforcing federal, state, and Butte County air quality regulations. Air pollution sources in the county include seasonal burning of agricultural fields, dust from agricultural operations, and motor vehicle emissions.

DISCUSSION OF IMPACTS

a) *No Impact.* As part of its enforcement responsibilities, the EPA requires each state with nonattainment areas to prepare and submit a State Implementation Plan that demonstrates the means to attain the federal standards. The State Implementation Plan must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution in nonattainment areas, using a combination of performance standards and market-based programs. Similarly, under state law, the California Clean Air Act requires an air quality attainment plan to be prepared for areas designated as nonattainment with regard to the federal and state ambient air quality standards. Air quality attainment plans outline emissions limits and control measures to achieve and maintain these standards by the earliest practical date.

The North Sacramento Valley Planning Area (NSVPA) 2015 Air Quality Attainment Plan is the most recent air quality planning document covering Butte County (SVBAPCC 2016). Air quality attainment plans are a compilation of new and previously submitted plans, programs (such as monitoring, modeling, and permitting), district rules, state regulations, and federal controls describing how the state will attain ambient air quality standards for ozone and particulate matter. State law makes CARB the lead agency for all purposes related to the Air Quality Attainment Plan. Local air districts prepare air quality attainment plans and submit them to CARB for review and approval. The NSVPA 2015 Air Quality Attainment Plan includes forecast reactive organic gases (ROG) and NO_x emissions (ozone precursors) for the entire planning area through the year 2020. These emissions are not appropriated by county or municipality. The Butte County portion of the NSVPA is classified as being in a nonattainment status for state and federal ozone standards.

According to the BCAQMD (2014), the consistency of the proposed project with the NSVPA 2015 Air Quality Attainment Plan, which is also the State Implementation Plan for the air basin, should be determined by both (a) the project's consistency with population and vehicle use projections in the Air Quality Attainment Plan and (b) the extent to which the project implements transportation control measures in the plan.

The project would not represent a new type of land use on the campus or a wholly new land use or air emissions generation source. No population growth would occur as a result of the project. When complete, the project would not result in a significant increase over existing traffic trips since the trips associated with the various sporting events already exist. As discussed in detail below, the proposed project would result in negligible operational-related criteria air pollutants and/or precursor emissions and would not exceed BCAQMD thresholds of significance.

Because the project would not result in an increase in population or generate significantly more traffic and would not disrupt or hinder implementation of any NSVPA Air Quality Attainment Plan control measures, no impact would occur.

b) *Less Than Significant Impact*. Implementation of the proposed project would result in air quality impacts during project construction and operation.

Construction Emissions. Implementation of the proposed project would result in short-term emissions from construction activities. Construction-generated emissions would be short term and of temporary duration, lasting only as long as construction activities occur. Emissions commonly associated with construction activities include fugitive dust from soil disturbance, fuel combustion from mobile heavy-duty diesel- and gasoline-powered equipment, portable auxiliary equipment, and worker commute trips. During construction, fugitive dust, the dominant source of PM_{10} and $PM_{2.5}$ (particulate matter smaller than 2.5 microns) emissions, is generated when wheels or blades disturb surface materials. Uncontrolled dust from construction can become a nuisance and potential health hazard to those living and working nearby and students and staff. Emissions of airborne particulate matter are largely dependent on the amount of ground disturbance associated with site preparation activities. Off-road construction equipment is often diesel-powered and can be a substantial source of NO_X emissions, in addition to PM_{10} and $PM_{2.5}$ emissions. Worker commute trips and architectural coatings are dominant sources of ROG emissions.

The predicted maximum daily emissions of ROG, NO_x, PM_{10}, $PM_{2.5}$, and CO associated with project construction are summarized in **Table 4.3-1**.

TABLE 4.3-1
PROJECT CONSTRUCTION EMISSIONS (MAXIMUM) – POUNDS PER DAY

Construction Phase	ROG	NOx	PM_{10}	$PM_{2.5}$	CO
2018 Emissions	6.53	59.65	20.82	12.35	47.97
2019 Emissions	53.65	44.15	5.90	2.61	43.38
BCAQMD Daily Thresholds	**137**	**137**	**80**	**None**	**None**
Exceed BCAQMD Daily Thresholds?	No	No	No	N/A	N/A

*Source: CalEEMod, version 2016.3.1. See **Appendix 4.3** for emission model outputs.*
Note: To model a worst-case scenario, all construction phases were assumed to occur simultaneously.

The predicted annual emissions of ROG, NO_x, PM_{10}, $PM_{2.5}$, and CO associated with project construction are summarized in **Table 4.3-2**.

TABLE 4.3-2
PROJECT CONSTRUCTION EMISSIONS (MAXIMUM) – METRIC TONS PER YEAR

Construction Phase	ROG	NOx	PM_{10}	$PM_{2.5}$	CO
2018 Emissions	0.45	3.89	0.61	0.31	3.15
2019 Emissions	1.06	4.40	0.56	0.25	3.99
BCAQMD Annual Thresholds	**4.5**	**4.5**	**80**	**None**	**None**
Exceed BCAQMD Annual Thresholds?	No	No	No	N/A	N/A

*Source: CalEEMod, version 2016.3.1. See **Appendix 4.3** for emission model outputs.*
Note: To model a worst-case scenario, all construction phases were assumed to occur simultaneously.

As shown in **Tables 4.3-1** and **4.3-2**, daily and annual construction emissions associated with the project would not exceed the BCAQMD significance thresholds. Therefore, the construction impact is less than significant.

Operational Emissions. The main difference between the current operational condition of the athletic fields and the proposed project would be the increase in stadium seating and the ability to use the baseball field at night. Operational air quality impacts could include emissions from facility operations, including landscape maintenance equipment and indirect emissions from the use of field lights. Since the capacity of the stadium will increase, it is possible that there will be a slight increase in vehicular trips. However, since trips associated with the various sporting events already exist and since events at the stadium do not occur frequently (approximately six home football games a year), it is not likely that there will be a significant increase in vehicular trips over existing conditions.

Long-term operational emissions associated with the proposed project are summarized in **Table 4.3-3.**

TABLE 4.3-3
PROJECT OPERATIONAL EMISSIONS (MAXIMUM) – POUNDS PER DAY

Operational Activities	ROG	NO_x	PM_{10}	$PM_{2.5}$	CO
Summer Emissions	1.06	0.14	0.01	0.01	0.12
Winter Emissions	1.06	0.14	0.01	0.01	0.12
BCAQMD Threshold	**25**	**25**	**80**	**None**	**None**
Exceed BCAQMD Threshold?	No	No	No	N/A	N/A

*Source: CalEEMod, version 2016.3.1. See **Appendix 4.3** for emission model outputs.*

As shown in **Table 4.3-3**, operational daily emissions associated with the project would not exceed the BCAQMD significance thresholds. Therefore, the operational impact is less than significant.

c) *Less Than Significant Impact.* The region is nonattainment for the federal O_3 and $PM_{2.5}$ standards, as well as for the state O_3, PM_{10}, and $PM_{2.5}$ standards (CARB 2015). Due to the region's nonattainment status, if project-generated emissions of either of the ozone precursor pollutants (i.e., ROG and NO_x), $PM_{2.5}$, or PM_{10} would exceed the long-term thresholds, the project's cumulative impacts would be considered significant. As discussed in Issue b), long-term thresholds would not be exceeded. Furthermore, the project would not significantly increase existing traffic in the project area; thus, it would not increase existing traffic-generated air pollutants. Operational air quality impacts are considered less than significant.

d) *Less Than Significant Impact*. Sensitive land uses are defined as facilities or land uses that include members of the population who are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of sensitive receptors are residences, schools, hospitals, and day-care centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65 years old, children under the age of 14, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis.

Construction Emissions. Sources of construction-related air toxics potentially affecting sensitive receptors include off-road diesel-powered equipment. Construction would result in the generation of diesel particulate matter (diesel PM) emissions from the use of off-road diesel equipment required for construction activities. The amount to which the receptors are exposed (a function of concentration and duration of exposure) is the primary factor used to determine health risk (i.e., potential exposure to toxic air contaminant emission levels that exceed applicable standards). Health-related risks associated with diesel-exhaust emissions are primarily linked to long-term exposure and the associated risk of contracting cancer.

The use of diesel-powered construction equipment would be temporary and episodic and would occur over several locations isolated from one another. The duration of exposure would be short, and exhaust from construction equipment dissipates rapidly. Current models and methodologies for conducting health risk assessments are associated with longer-term exposure periods of 9, 30, and 70 years, which do not correlate well with the temporary and highly variable nature of construction activities. Furthermore, construction would be subject to and would comply with California regulations limiting the idling of heavy-duty construction equipment to no more than 5 minutes, which would further reduce nearby sensitive receptors' exposure to temporary and variable diesel PM emissions. For these reasons, diesel PM generated by construction activities, in and of itself, would not be expected to expose sensitive receptors to substantial amounts of air toxics. Impacts would be less than significant.

Operational Emissions. Operation of the proposed project would not result in the development of any substantial sources of air toxics, as the improvements at the school would not substantially change existing activities on the campus. There are no stationary sources or delivery trucks associated with the operations of the project. Therefore, the project is not a source of toxic air contaminants, and there would be no impact as a result of the project during operations.

e) *No Impact*. Individual responses to odors are highly variable and can result in various effects, including psychological (i.e., irritation, anger, or anxiety) and physiological (i.e., circulatory and respiratory effects, nausea, vomiting, and headache). Generally, the impact of an odor results from a variety of interacting factors such as frequency, duration, offensiveness, location, and sensory perception.

During construction, the proposed project presents the potential for generation of objectionable odors in the form of diesel exhaust in the immediate vicinity of the site. However, these emissions will rapidly dissipate and be diluted by the atmosphere downwind of the emission sources.

CARB's (2005) Air Quality and Land Use Handbook identifies the sources of the most common operational odor complaints received by local air districts. Typical sources include facilities such as sewage treatment plants, landfills, recycling facilities, petroleum refineries, and livestock operations. The project does not contain any of the land uses identified as typically associated with emissions of objectionable odors. As such, no impact would occur.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.4 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 Wildlife or US Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal wetlands, etc.), through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
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?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
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?	☐	☐	☐	☒

OVERVIEW

This subsection describes the biological resources present within and immediately surrounding the project site and includes a discussion of the special-status species potentially occurring in the area. Also included is an analysis of impacts that could occur to biological resources due to implementation of the proposed project and appropriate mitigation measures to reduce or avoid those impacts. The analysis of biological resources presented in this subsection is based on a review of the current project description and available literature, as well as a site visit and survey conducted by a Michael Baker International biologist on March 30, 2017.

REGULATORY FRAMEWORK

This discussion summarizes laws and regulations that apply to species and habitat. It also identifies environmental review and consultation requirements, as well as permits and approvals that may be required from local, state, and federal agencies, depending on whether protected species or habitats are present and on the location and type of development.

FEDERAL

Endangered Species Act

The federal Endangered Species Act of 1973 (ESA), as amended, establishes protective measures for federally listed threatened and endangered species, including their habitats, from unlawful take (16 United States Code [USC] Sections 1531–1544). The ESA defines "take" to mean "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Title 50, Part 222, of the Code of Federal Regulations (50 Code of Federal Regulations [CFR] 222) further defines "harm" to include "an act which actually kills or injures fish or wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures fish or wildlife by significantly impairing essential behavioral patterns including feeding, spawning, rearing, migrating, feeding, or sheltering."

Migratory Bird Treaty Act

Migratory birds are protected under the Migratory Bird Treaty Act (MBTA) of 1918 (16 USC Sections 703–711). The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR Part 21). The majority of birds found in the project area are protected under the MBTA.

STATE

California Endangered Species Act

Under the California Endangered Species Act (CESA), the California Department of Fish and Wildlife (CDFW) has the responsibility for maintaining a list of endangered and threatened species (California Fish and Game Code [FGC] Section 2070). The CDFW also maintains a list of "candidate species," which are species formally noticed as being under review for potential addition to the list of endangered or threatened species, and a list of "species of special concern," which serves to monitor species in decline, and others on species "watch lists." State-listed species are fully protected under the mandates of the CESA. Take of protected species incidental to otherwise lawful management activities may be authorized under FGC Section 206.591. Authorization from the CDFW would be in the form of an incidental take permit.

California Fish and Game Code

Birds of Prey

Under FGC Section 3503.5, it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by the FGC or any regulation adopted pursuant thereto.

Fully Protected Species

California statutes also afford fully protected status to a number of specifically identified birds, mammals, reptiles, and amphibians. These species cannot be taken, even with an incidental take permit.

LOCAL

City of Chico Municipal Code

Municipal Code Title 16, Chapter 16.66, Tree Preservation Regulations, applies to all undeveloped property in the city which is 10,000 square feet or greater in size and all property that requires discretionary approval of a land use entitlement. No person may remove, cause to be removed, or effectively remove any tree from any property which is subject to this chapter without obtaining a permit from the Director of the Public Works Department or his/her designee. Any person wishing to remove one or more trees is required to apply to the director for a permit. The application for a permit must be made on forms provided by the Public Works Department and must include information described in Municipal Code Section 16.66.070.

NONGOVERNMENTAL AGENCY

California Native Plant Society

The CNPS is a nongovernmental agency that classifies native plant species according to current population distribution and threat level in regard to extinction. The CNPS uses the data to create and maintain a list of native California plants that have low numbers or limited distribution or are otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Plants of California (CNPS 2017). Potential impacts to populations of CNPS-listed plants receive consideration under CEQA review.

The following identifies the definitions of the CNPS listings:

List 1A: Plants presumed extirpated in California and either rare or extinct elsewhere

List 1B: Plants that are rare, threatened, or endangered in California and elsewhere

List 2A: Plants presumed extirpated in California, but common elsewhere

List 2B: Plants that are rare, threatened, or endangered in California, but are more common elsewhere

All of the plant species on Lists 1 and 2 meet the requirements of the Native Plant Protection Act, Section 1901, Chapter 10, or FGC Sections 2062 and 2067, and are eligible for state listing. Plants appearing on List 1 or 2 are considered to meet the criteria of CEQA Section 15380, and effects on these species are considered "significant." Classifications for plants on List 3 (plants about which more information is needed) and/or List 4 (plants of limited distribution), as defined by the CNPS, are not currently protected under state or federal law. Therefore, no detailed descriptions are provided or impact analysis was performed on species with these classifications.

METHODOLOGY

A Michael Baker International biologist evaluated the project to characterize the environmental setting on and adjacent to the proposed project site. The evaluation involved a thorough query of available data and literature from local, state, federal, and nongovernmental agencies, and site surveys to collect site-specific data regarding habitat suitability for special-status species and identify any potentially jurisdictional waters.

Database searches were performed on the following websites:

- US Fish and Wildlife Service (USFWS) Information for Planning and Conservation (IPaC) tool (2017a)
- USFWS Critical Habitat Portal (2017b)
- CDFW California Natural Diversity Database (CNDDB) (2017a)
- CNPS Inventory of Rare, Threatened, and Endangered Plants of California (2017)

A search of the USFWS iPaC tool was conducted for the project area to identify federally listed species under USFWS jurisdiction that may be affected by the proposed project. In addition, a query of the USFWS Critical Habitat Portal was conducted to identify any designated critical habitat on or in the vicinity of the project site. The CNDDB provided a list of processed and unprocessed occurrences of special-status species identified in the Hamlin Canyon, Paradise West, Richardson Springs, Cohasset, Richardson Springs NW, Chico, Ord Ferry, Nord, and Campbell Mound California, US Geological Survey (USGS) 7.5-minute quadrangles (quads) to identify federally listed species under USFWS jurisdiction that may be affected by the proposed project. The CNPS database was also queried to identify special-status plant species with the potential to occur in the aforementioned USGS quads. The raw data returned from the database queries is provided in **Appendix 4.4**.

ENVIRONMENTAL SETTING

The project area was defined using the boundaries of the work area identified in the PVHS Physical Education/Athletics Master Plan. The project site is relatively flat and is on the existing PVHS campus. The project site is bordered by other school facilities to the northeast, Ceanothus Avenue to the west, Manzanita and Marigold avenues to the east, and residences to the south. The surrounding area contains mostly single- and multi-family housing. Manzanita Avenue and residences are located south of the project site. Big Chico Creek is located south of this street and residences, approximately 1 mile southeast of the project site.

The project site consists of athletic facilities including four tennis courts, a blacktop, a softball field, a baseball field, a running track, and mowed grass. The project site is bordered to the east, west, and south by landscaped trees. There are three vegetative communities in the project area: disturbed, ornamental, and urban. Vegetation communities on the project site are discussed below and shown in **Figure 4.4-1**.

VEGETATED COMMUNITIES

Disturbed Habitat

Disturbed habitat occurs in areas of frequent and repeated disturbance (e.g., vehicle activities, mowing), such as along roadsides, trails, and parking lots, and is found in close proximity to urban or developed areas. A large portion of the project site includes disturbed habitat. The baseball and softball fields and the mowed grass surrounding athletic areas are considered disturbed habitat and may support various weedy flora such as bromes (*Bromus* sp.), wild oats (*Avena* sp.), milk thistle (*Silybum marianum*), and other non-native species.

The project site contains roughly 6.3 acres of disturbed habitat, which is surrounded by roads and residences. The grass on the project site is routinely mowed and managed.

Wildlife species typically found in disturbed habitat include western fence lizard (*Sceloporus occidentalis*), black-tailed jackrabbit (*Lepus californicus*), California ground squirrel (*Otospermophilus beecheyi*), western harvest mouse (*Reithrodontomys megalotis*), Botta's pocket gopher (*Thomomys bottae*), California vole (*Microtus californicus*), mourning dove (*Zenaida macroura*), house finch (*Haemorhous mexicanus*), and common raven (*Corvus corax*).

Ornamental

Several native and ornamental trees and shrubs are located on the western boundary of the project site and south and east of the baseball field. These species include but are not limited to eucalyptus, deodar cedar (*Cedrus deodara*), pyracantha, bamboo, coast live oak (*Quercus agrifolia*), and redwood (*Sequoia* sp.).

There is approximately 0.6 acre of ornamental tree habitat on the project site. This vegetation community often supports nesting raptors, corvids, and other avian species, with the potential to support various roosting bat species and western gray squirrel (*Sciurus griseus*).

Urban

Urban habitat includes all of the developed land uses such as paved roads, buildings, and concrete or gravel lots that generally precludes the reestablishment of vegetation. The developed portions of the project site include the tennis courts, running track, and paved areas. There are approximately 12.5 acres of developed habitat on the project site.

These areas do not generally provide suitable habitat for many species; however, some species are suited to developed areas. Wildlife species commonly found in urbanized areas include mockingbird (*Mimus polyglottos*), house finch, rock dove (*Columbidae* spp.), and raccoon (*Procyon lotor*).

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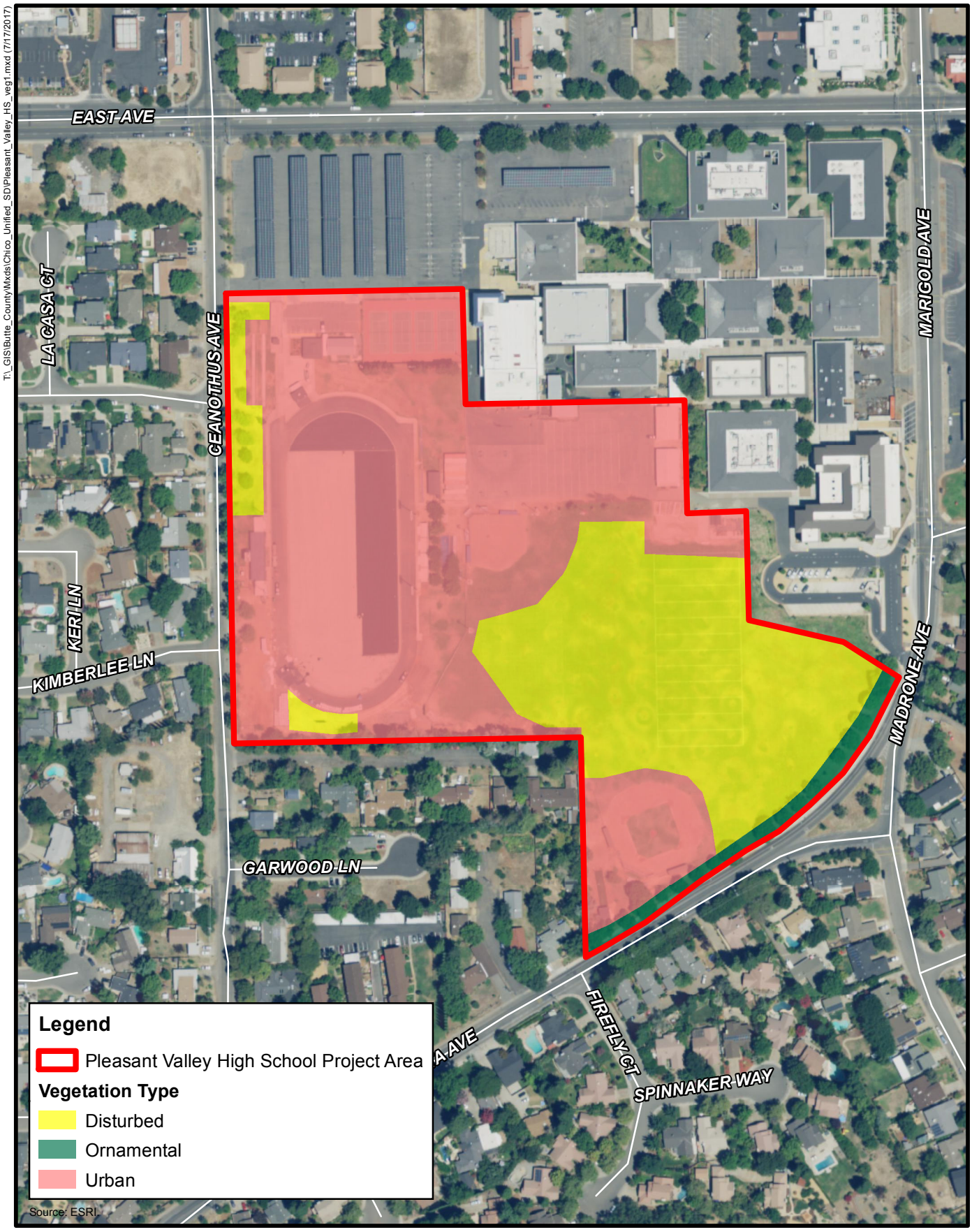

FIGURE 4.4-1
Vegetation Map

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DISCUSSION OF IMPACTS

a) *Less Than Significant Impact With Mitigation Incorporated.* Candidate, sensitive, or special-status species are commonly characterized as species that are at potential risk to their persistence in a given area or across their range. These species have been identified and assigned a status ranking by governmental agencies such as the CDFW and the USFWS or by nongovernmental organizations such as the CNPS. The degree to which a species is at risk of extinction is the determining factor in the assignment of a status ranking. Some common threats to a species' or population's persistence include habitat loss, degradation, and fragmentation, as well as human conflict and intrusion. For the purposes of this biological review, special-status species are defined by the following codes:

1. Listed, proposed, or candidates for listing under the federal Endangered Species Act (50 CFR Section 17.11 – listed; 61 Federal Register [FR] 7591, February 28, 1996, candidates)

2. Listed or proposed for listing under the California Endangered Species Act (FGC 1992 Section 2050 et seq.; 14 CCR Section 670.1 et seq.)

3. Designated as Species of Special Concern by the CDFW

4. Designated as Fully Protected by the CDFW (FGC Sections 3511, 4700, 5050, 5515)

5. Species that meet the definition of rare or endangered under CEQA (14 CCR Section 15380) including CNPS List Rank 1B, 2A, and 2B

The query of the USFWS, CNPS, and CNDDB databases, combined with the site visit and surveys, identified habitat for several special-status species with the potential to occur on the project site. Refer to **Figure 4.4-2** for a depiction of CNDDB occurrences within 1 mile of the project site.

Western Burrowing Owl

The western burrowing owl (*Athene cunicularia*) is a California species of special concern; it has no federal status. Western burrowing owls prefer nesting in mammal burrows in open areas of dry, open, rolling hills, grasslands, fallow fields, sparsely vegetated desert scrub with gullies, washes, arroyos, and along the edges of human disturbed lands.

While the disturbed habitat on the project site may provide suitable habitat for burrowing owl, no small burrows (i.e., home of primary prey species, and preferred starting point for burrowing owl burrows) were observed during the site visit. Therefore, due to the lack of available burrows and prey sources, this species is not expected to occur on the project site.

Raptors and Migratory Birds

Various migratory and resident raptors and other birds have the potential to inhabit the project site. Some species are afforded specific protection, such as Swainson's hawk (*Buteo swainsoni),* which is listed as threatened under the CESA and white-tailed kite (*Elanus leucurus*), which is a CDFW Fully Protected species. However, raptors and other bird species such as American kestrel (*Falco sparverius*), merlin (*Falco columbarius*), red-tailed hawk (*Buteo jamaicensis*), Cooper's hawk (*Accipiter cooperii*), sharp-shinned hawk (*Accipiter striatus*), California horned lark (*Eremophila alpestris actia*), and loggerhead shrike (*Lanius ludovicianus*), species on the CDFW Watch List, are not protected under the

ESA or the CESA. Nonetheless, the nests of all raptor species are protected under the MBTA and FGC Section 3503.5. The nests of nearly all avian species are protected under the MBTA, which makes it illegal to destroy active bird nests.

The large eucalyptus, deodar cedar, coast live oak, redwood, and other mature ornamental trees in and adjacent to the project site may provide suitable nesting habitat for raptors and other birds. The disturbed habitat is suitable foraging habitat for some raptors and other birds, as well as nesting habitat for ground-nesting birds such as killdeer (*Charadrius vociferous*). Construction activities involving tree removal, demolition, grading, and vegetation clearing may cause direct mortality or damage to nests. In addition, construction activities near active nests may result in nest abandonment, which would be a significant impact. Therefore, this IS/MND includes mitigation measures **MM 4.4.1** through **MM 4.4.3**, which would require that preconstruction surveys be conducted by a qualified biologist to identify any potential nests and buffers for any active nests. Implementation of these mitigation measures will reduce impacts to a less than significant level.

Special-Status Bats

The database queries identified three special-status bat species in the project vicinity: western mastiff bat (*Eumops perotis*), western red bat (*Lasiurus blossevillii*), and pallid bat (*Antrozous pallidus*), all CDFW Species of Special Concern. On-site habitat for bat species consists of foraging habitat, night-roosting cover, maternity roost sites, and winter hibernacula. These bat species may forage in a variety of habitats. In general, the CDFW is most concerned about the loss of maternity roosting sites. Suitable roosting sites for these species include caves, rock crevices, cliffs, buildings, tree bark, and snags. The mature trees and buildings on the project site may provide marginally suitable roosting habitat for the bat species listed above.

The large redwood, eucalyptus, and mature ornamental trees may provide suitable roosting habitat for various special-status bat species, and the disturbed habitat provides suitable foraging habitat. Construction activities involving tree removal may cause direct mortality or damage to roosting sites. Therefore, this IS/MND includes mitigation measures **MM 4.4.4** through **MM 4.4.7,** which would require preconstruction surveys for roosting bats and require work to only occur during daylight hours. Implementation of these mitigation measures will reduce impacts to a less than significant level.

b) *No Impact*. Sensitive habitats include (a) areas of special concern to resource agencies, (b) areas protected under CEQA, (c) areas designated as sensitive natural communities by the CDFW, (d) areas outlined in FGC Section 1600, (e) areas regulated under Clean Water Act Section 404, and (f) areas protected under local regulations and policies. The project site does not contain any sensitive habitats or protected communities. No impact would occur.

c) *No Impact.* The project site is located in an urban environment with athletic facilities and routinely mowed grass. There are no wetlands or other waters of the United States on-site, and no impact would occur.

d) *No Impact.* A review of the CDFW (2017b) Biogeographic Information & Observation System (BIOS) was performed for the project to determine if the project site is located in an Essential Connectivity Area. The project site does not occur within an Essential Connectivity Area. Furthermore, the project site is located in an urbanized area used by the school to conduct athletic facilities and is surrounded by urban development. As such, no impact would occur.

e) *No Impact*. The proposed project does not require discretionary approval from the City of Chico. Additionally, because the school campus a state property, the proposed project is not subject to Chico Municipal Code Chapter 16.66. Therefore, this requirement does not apply to the project. As such, no impact would occur.

f) *No Impact*. The proposed project is located in Chico. The City of Chico is a participating member of the Butte Regional Conservation Plan. The Butte Regional Conservation Plan is both a habitat conservation plan and a natural community conservation plan; however, the plan has not been adopted to date. Therefore, the proposed project would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan. As a result, there would be no impact.

MITIGATION MEASURES

MM 4.4.1 If clearing and/or construction activities would occur during the bird breeding season (typically January through July for raptors and February 15 through August 15 for other birds), preconstruction surveys to identify active nests shall be conducted within 14 days of the initiation of construction, particularly vegetation clearing and ground-disturbing activities. Surveys must be performed by a qualified biologist for the purposes of determining the presence/absence of active nest sites within the proposed impact area, including construction access routes and a 200-foot buffer (if feasible). If no active nests are found, no further mitigation is required. Surveys shall be repeated if construction activities are delayed or postponed for more than 7 days.

Timing/Implementation: *Prior to Grading and Construction Activities*

Enforcement/Monitoring: *Chico Unified School District; project contractor*

MM 4.4.2 If an active nest is located during preconstruction surveys, construction activities shall be restricted as necessary to avoid disturbance of the nest until it is deemed inactive by a qualified biologist. Restrictions shall include establishment of exclusion zones (no ingress of personnel or equipment) at a minimum radius of 300 feet around an active raptor nest and 100 feet around other active bird nest(s). Activities permitted within exclusion zones and the size may be adjusted through consultation with the CDFW.

Timing/Implementation: *Prior to Grading and Construction Activities*

Enforcement/Monitoring: *Chico Unified School District; project contractor*

MM 4.4.3 Vegetation containing active nests that must be removed as part of the project shall be removed during the non-breeding season (August 16 through December 31).

Timing/Implementation: *During Grading and Construction Activities*

Enforcement/Monitoring: *Chico Unified School District; project contractor*

MM 4.4.4 Construction-related activities shall occur only during daylight hours.

Timing/Implementation: *During Grading and Construction Activities*

Enforcement/Monitoring: *Chico Unified School District; project contractor*

MM 4.4.5 Prior to the removal of any trees or buildings, a bat survey shall be performed by a qualified biologist if construction activities occur between March 1 and July 31. If bat roosts are identified, the bats shall be safely flushed from the sites where roosting habitat is planned to be removed prior to the roosting season (typically May to August) and prior to the onset of construction activities. If maternity roosts are identified during the maternity roosting season (typically May through September), they must remain undisturbed until a qualified biologist has determined that the young bats are no longer roosting. If roosting is found to occur on-site, replacement roost habitat (e.g., bat boxes) shall be provided to offset roosting sites removed. If no bat roosts are detected, no further action is required if the trees and buildings are removed prior to the next breeding season. If removal is delayed, an additional survey shall be conducted 30 days prior to removal to ensure that a new colony has not established itself.

Timing/Implementation: *Prior to Grading and Construction Activities*

Enforcement/Monitoring: *Chico Unified School District; project contractor*

MM 4.4.6 If a female or maternity colony of bats is found on the project site, and the project can be constructed without the elimination or disturbance of the roosting colony (e.g., if the colony roosts in a large tree not planned for removal), a qualified biologist shall determine the buffer zones to be employed to ensure the colony's continued success. Such buffer zones may include a construction-free barrier of 200 feet from the roost and/or the timing of the construction activities.

Timing/Implementation: *Prior to Grading and Construction Activities*

Enforcement/Monitoring: *Chico Unified School District; project contractor*

MM 4.4.7 If an active nursery roost is documented on-site and the project cannot be conducted outside of the maternity roosting season, bats shall be excluded from the site after July 31 and before March 1 to prevent the formation of maternity colonies. Nonbreeding bats shall be safely evicted, under the direction of a bat specialist in coordination with the CDFW.

Timing/Implementation: *During Grading and Construction Activities*

Enforcement/Monitoring: *Chico Unified School District; project contractor*

T:_GIS\Butte_County\Mxds\Chico_Unified_SD\Pleasant_Valley_HS_CNDDB.mxd (4/7/2017)

Legend

- 1 Mile Buffer around Pleasant Valley Highschool
- Pleasant Valley High School Project Area

CNDDB Occurrence Type

- Amphibian
- Bird
- Fish
- Invertebrate
- Terrestrial Habitat

Source: ESRI.

Map ID	Scientific Name	Common Name	Federal Listing	California List
1	Athene cunicularia	burrowing owl	None	None
2	Branchinecta lynchi	vernal pool fairy shrimp	Threatened	None
3	Desmocerus californicus dimorphus	valley elderberry longhorn beetle	Threatened	None
4	Great Valley Mixed Riparian Forest	Great Valley Mixed Riparian Forest	None	None
5	Great Valley Valley Oak Riparian Forest	Great Valley Valley Oak Riparian Forest	None	None
6	Lepidurus packardi	vernal pool tadpole shrimp	Endangered	None
7	Linderiella occidentalis	California linderiella	None	None
8	Oncorhynchus mykiss irideus	steelhead - Central Valley DPS	Threatened	None
9	Spea hammondii	western spadefoot	None	None

0 1,000 2,000 FEET

FIGURE 4.4-2
Previously Recorded Occurrences of Special-Status Species within One-Mile of the Project Site

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	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.5 CULTURAL RESOURCES. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☒	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	☐	☒	☐	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

OVERVIEW

Chico is located within the boundaries of Konkow or Northwestern Maidu territory. Further, the city is still home to a vibrant Native American community as exemplified by the Mechoopda Indian Tribe of the Chico Rancheria.

A records search conducted at the Northeast Information Center of the California Historical Resources Information System at California State University, Chico, for the City of Chico's General Plan update identified 244 known archaeological sites and isolated features/artifacts, including prehistoric and historic sites, in the city's planning area. There are 177 prehistoric sites, 53 historic sites, and 11 sites that contain both prehistoric and historic elements. The majority of the prehistoric sites were bedrock milling stations and lithic scatters (e.g., areas representing the manufacture of stone tools) located along creeks and streams such as Mud Creek and Big Chico Creek. These are areas of high archaeological sensitivity. Many Mechoopda villages were located along these drainages as recently as the late nineteenth century.

Historic sites in Chico primarily consist of residential and commercial buildings, but several trails and other linear features (e.g., the Southern Pacific Railroad alignment, historic roads, and wagon wheel ruts) are located throughout the city's planning area. One historic district and 497 properties in the city are listed in the current Office of Historic Preservation Directory of Properties, and an additional 17 properties are listed in the vicinity of Chico. The directory identifies 122 properties listed in the National Register of Historic Places (National Register) and the California Register of Historical Resources (California Register); 80 properties that are eligible for inclusion in the National Register; 121 properties that appear eligible for listing in a local historic register; and 168 properties that are not eligible for inclusion in the National Register. More than 250 resources are listed on the City of Chico Historic Resources Inventory (Chico 2010, pp. 4.11-5–4.11-6).

DISCUSSION

a) *Less Than Significant Impact With Mitigation Incorporated*. The proposed project would involve improvements to the existing athletic facilities and construction of bleachers, storage facilities, an entry building, classrooms/team rooms, and other improvements on the PVHS campus within the areas of the existing fields. The football, baseball, softball, and soccer fields are not considered to be of any historical importance and are not identified as such by the California State Historical Resources Commission, the Chico General Plan or General Plan EIR, or the Chico Historic Resources Inventory. No changes to existing PVHS buildings would occur with implementation of the proposed project. Improvements to the athletic fields and the construction of bleachers, storage facilities, an entry building, classrooms/team rooms, and all other improvements described in Section 3.0 would not result in physical changes to the existing PVHS buildings or their historic/non-historic context. However, unanticipated and accidental historical discoveries are possible during project implementation, especially during excavation, and have the potential to impact unknown historical resources. As such, mitigation measure **MM 4.5.1** has been incorporated into the proposed project. This measure requires proper mitigation for the discovery of unknown historical resources; therefore, this impact would be less than significant.

b) *Less Than Significant Impact With Mitigation Incorporated*. The entire project site has been developed and used for school-related activities for many years, and no known cultural resources or significant archaeological resources have been identified in the project area. Unanticipated and accidental archaeological discoveries are possible during project implementation, especially during excavation, and have the potential to impact unique archaeological resources. As such, mitigation measures **MM 4.5.1** and **MM 4.5.3** have been incorporated into the proposed project. These measures require proper mitigation for the discovery of unknown archaeological resources; therefore, this impact would be less than significant.

c) *Less Than Significant Impact With Mitigation Incorporated*. No known paleontological resources exist in the project area. Regardless, unanticipated and accidental paleontological discoveries are possible during project implementation, especially during any excavation, and have the potential to impact unique paleontological resources. Therefore, mitigation measure **MM 4.5.2** has been incorporated into the project to ensure the protection of undiscovered paleontological resources. This mitigation measure requires proper mitigation for the discovery of unknown paleontological resources; therefore, this impact would be less than significant.

d) *Less Than Significant Impact With Mitigation Incorporated*. While there are no records to indicate that a cemetery, burial ground, or other archaeological resource was ever found on the school campus, there is the possibility that human remains could be encountered below the surface during construction activities. Therefore, mitigation measure **MM 4.5.3** has been incorporated into the project to ensure the protection of undiscovered human remains. With implementation of the mitigation measure, impacts would be less than significant.

MITIGATION MEASURES

MM 4.5.1 If any prehistoric and/or historic resources or other indications of cultural resources are found during future development of the site, all work in the immediate vicinity of the find must stop and the project construction contractor shall immediately notify the Chico Unified School District. An archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historical archaeology, as appropriate, shall be retained to evaluate the finds and recommend appropriate mitigation measures.

Timing/Implementation: *During grading and construction activities*

Monitoring/Enforcement: *Chico Unified School District; project contractor*

MM 4.5.2 If any paleontological resources are found during future development of the site, all work in the immediate vicinity of the find must stop and the project construction contractor shall immediately notify the Chico Unified School District. A qualified paleontologist (i.e., one with a graduate degree in paleontology, geology, or a related field and having demonstrated experience in the vertebrate, invertebrate, or botanical paleontology of California) shall be retained to evaluate the finds and recommend appropriate mitigation measures.

Timing/Implementation: *During grading and construction activities*

Monitoring/Enforcement: *Chico Unified School District; project contractor*

MM 4.5.3 Treatment of previously unidentified human remains. The CUSD and/or its contractor shall treat any human remains encountered during ground-disturbing activities in accordance with California Health and Safety Code Section 7050.5. There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the County coroner has determined the manner and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation or to his or her authorized representative. At the same time, an archaeologist shall be contacted to assess the situation and consult with agencies as appropriate. Project personnel/construction workers shall not collect or move any human remains and associated materials. If the human remains are of Native American origin, the remains will be treated in concordance with PRC § 5097.98. To start this process, the coroner must notify the Native American Heritage Commission within 24 hours of this identification. The Native American Heritage Commission will identify a Native American most likely descendant to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods.

Timing/Implementation: *During grading and construction activities*

Monitoring/Enforcement: *Chico Unified School District; project contractor*

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.6 GEOLOGY AND SOILS. Would the project:				
a) Expose people or structures to 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.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Section 1803.5.3 of the 2016 California Building Code, creating substantial risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

OVERVIEW

The topography of the project site is flat, with no significant topographic features. The site is located in the Great Valley geomorphic province, which is primarily a relatively flat alluvial plain, about 50 miles wide and 400 miles long, with thick sequences of sedimentary deposits of Jurassic through Holocene age. Boundaries of the Great Valley geomorphic province are the Klamath and Cascade mountain ranges on the north, the Sierra Nevada mountain range on the east, and the Coast Ranges on the west.

The geologic history of the area includes a mixture of ancient marine and alluvial deposits. Up to 155 million years ago, periods of volcanic activity and uplifting were followed by periods of uplifting and folding, which formed the Coast Ranges. The Sacramento Valley floor is a structural

trough formed by the uplift of the mountains surrounding it. This trough has been filled in by sequences of marine and alluvial sediments ranging in age from 135 million years ago to the present.

According to the Natural Resources Conservation Service (NRCS) through the Web Soil Survey database, project site soils are composed of Redsluff gravely loam, 0 to 2 percent slopes. The Web Soil Survey also identifies drainage, flooding, erosion, runoff, and the linear extensibility potential for the project soils. According to this survey, the soils are moderately well drained and have a negligible runoff potential, but are susceptible to water erosion from sheet flows, as shown in **Table 4.6-1**. The soil composition of the project site allows for a rare frequency of flooding and a low linear extensibility (shrink-swell) (NRCS 2017).

TABLE 4.6-1
PROJECT SOIL CHARACTERISTICS

Soil	Percentage of Site	Drainage	Flooding Frequency Class	Erosion Hazard [a]	Runoff Potential	Linear Extensibility [b]
Redsluff gravely loam, 0 to 2 percent slopes	100%	Moderately well drained	Rare	Class 1	Negligible	2.7%

Source: NRCS 2016

Notes:

a. Erosion Classes. There are five kinds of accelerated erosion: 1 – water erosion, sheet; 2 – water erosion, rill; 3 – water erosion, gully; 4 – water erosion, tunnel; and 5 – wind erosion.

b. Linear extensibility is used to determine the shrink-swell potential of soils. The shrink-swell potential is low if the soil has a linear extensibility of less than 3 percent, moderate if 3 to 6 percent, high if 6 to 9 percent, and very high if more than 9 percent. If the linear extensibility is more than 3, shrinking and swelling can cause damage to buildings, roads, and other structures and to plant roots. Special design commonly is needed.

In California, special definitions for active faults were devised to implement the Alquist-Priolo Earthquake Fault Zoning Act of 1972, which regulates development and construction in order to avoid the hazard of surface fault rupture. The State Mining and Geology Board established policies and criteria in accordance with the act. The board defined an active fault as one which has had surface displacement within Holocene time (about the last 11,000 years). A potentially active fault was considered to be any fault that showed evidence of surface displacement during Quaternary time (last 1.6 million years). Because of the large number of potentially active faults in California, the State Geologist adopted additional definitions and criteria in an effort to limit zoning to only those faults with a relatively high potential for surface rupture. Thus, the term *sufficiently active* was defined as a fault for which there was evidence of Holocene surface displacement. This term was used in conjunction with the term *well-defined*, which relates to the ability to locate a Holocene fault as a surface or near-surface feature (CGS 2010b, p. 4).

The nearest fault to the project site is the Chico Monocline fault, which trends in a northwest–southeast direction from just north of Durham-Dayton Highway and east of the Butte College campus to just north of Little Antelope Creek in Tehama County. This fault is classified as a Quaternary time fault and is considered to be a potentially active fault by the California Geological Survey (CGS) (2010a). The Chico Monocline fault is approximately 3 miles to the east of the project site (CGS 2010a). The Corning fault, which runs in a north–south direction from just north of Willows to the southeastern portion of Red Bluff, is approximately 10.5 miles to the west of the project site. The Corning fault is also a Quaternary time fault and is therefore potentially active (CGS 2010a).

The Alquist-Priolo Earthquake Fault Zoning Act (1972) and the Seismic Hazards Mapping Act (1990) direct the State Geologist to delineate regulatory Zones of Required Investigation to reduce the threat to public health and safety and to minimize the loss of life and property posed by earthquake-triggered ground failures. Cities and counties affected by the zones must regulate certain development projects within them. These acts also require sellers of real property (and their agents) within a mapped hazard zone to disclose at the time of sale that the property is in such a zone.

The project site is not located in an Alquist-Priolo Earthquake Zone. The nearest fault zone mapped by the CGS under the Alquist-Priolo Earthquake Fault Zoning Act is the Bangor fault, which is located approximately 30 miles southeast of Chico. The CGS does not identify Chico as a city affected by this fault or any other Alquist-Priolo Earthquake Fault Zone (CGS 2015).

DISCUSSION OF IMPACTS

a)

i) *No Impact*. The proposed project site is not located within an Alquist-Priolo Earthquake Zone (CGS 2010c, 2015). There would be no impact related to fault rupture.

ii) *Less Than Significant Impact*. According to the California Geological Survey's (2016) Earthquake Shaking Potential for California map, the project site is located in an area which is distant from known, active faults and will experience lower levels of ground shaking less frequently. In most earthquakes, only weaker masonry buildings would be damaged. However, very infrequent earthquakes could still cause strong shaking in the area (CGS 2016). The proposed project includes the construction of buildings, light poles, and bleachers, which may be affected by a seismic event. However, all structures would be required to comply with the 2016 California Building Standards Code, including the required seismic mitigation standards. Because of the required compliance with the California Building Standards Code seismic mitigation standards and the distance from active faults, the proposed project would have a less than significant impact related to strong ground shaking.

iii) *Less Than Significant Impact*. Liquefaction occurs when loose sand and silt that is saturated with water behaves like a liquid when shaken by an earthquake. Liquefaction can result in the following types of seismic-related ground failure:

- Loss of bearing strength – soils liquefy and lose the ability to support structures
- Lateral spreading – soils slide down gentle slopes or toward stream banks
- Flow failures – soils move down steep slopes with large displacement
- Ground oscillation – surface soils, riding on a buried liquefied layer, are thrown back and forth by shaking
- Flotation – floating of light buried structures to the surface
- Settlement – settling of ground surface as soils reconsolidate
- Subsidence – compaction of soil and sediment

Liquefaction potential has been found to be greatest where the groundwater level and loose sands occur at a depth of about 50 feet or less. According to the NRCS, the project site soil, Redsluff gravely loam, has a sand content of 4 percent. The California Department

of Water Resources (DWR) monitors depth to groundwater throughout the state. According to information provided by the DWR, there are multiple groundwater monitoring wells in Chico. The closest well to the project site is located on Rondo Court, south of Bidwell Park. The most recent data for this well is from July 2016. At that time, groundwater was encountered 123 feet below ground surface. The highest recorded groundwater depth was 122 feet below ground surface in August 2009 (DWR 2017). Based on these conditions only, the project site would have little potential for liquefaction. In addition, due to the low potential for ground shaking and the percentage of sand in the project site soils, the site would not be susceptible to liquefaction. Finally, compliance with the general and special requirements of the California Building Standards Code and other regulations, plans, and standards required by the Division of the State Architect regarding seismic safety for schools, the proposed project would result in less than significant impacts with regard to seismic-related ground failure, including liquefaction.

iv) *No Impact.* The project site and surrounding area are on flat topography, indicating no potential for landslides.

b) *Less Than Significant Impact*. Construction activities during project site development, such as grading, excavation, and soil hauling, would disturb soils and potentially expose them to wind and water erosion. CUSD is required to prepare a stormwater pollution prevention plan (SWPPP) to comply with the State Water Resources Control Board's General Construction Storm Water Permit. The SWPPP will identify best management practices (BMPs) to be implemented on the project site to minimize soil erosion and protect local waterways and existing drainage systems. Compliance with the State's General Construction Storm Water Permit would minimize soil erosion and loss of topsoil from project implementation and would reduce this impact to less than significant.

c) *Less Than Significant Impact.* The potential for landslides on the project site was addressed under Issue a)iv) and was determined to have no impact. Because of the project site's flat topography, the potential for lateral spreading is considered very low. Additionally, as indicated under Issue a)iii) above, the soils on the proposed project site are not susceptible to liquefaction. The potential for lateral spreading, liquefaction, subsidence, and other types of ground failure or collapse was addressed under Issue a)iii) above and was determined to be a less than significant impact.

d) *Less Than Significant Impact*. Expansive or shrink-swell soils are soils that swell when subjected to moisture and shrink when dry. Expansive soils typically contain clay minerals that attract and absorb water, greatly increasing the volume of the soil. This increase in volume can cause damage to foundations, structures, and roadways. Linear extensibility is used to determine the expansion potential of soils. The expansion/shrink-swell potential is low if the soil has a linear extensibility of less than 3 percent. As identified by the NRCS and indicated in **Table 4.6-1**, the project site is located on soils that have a very low linear extensibility (2.7 percent). As such, expansion mitigation is not required. Therefore, the proposed project would have a less than significant impact regarding expansive soils.

e) *No Impact*. No septic tanks or alternative wastewater disposal systems will be installed on the site and there is no impact.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.7 GREENHOUSE GASES. Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gasses?	☐	☐	☒	☐

OVERVIEW

Greenhouse gases (GHGs) are released as byproducts of fossil fuel combustion, waste disposal, energy use, land use changes, and other human activities. This release of gases, such as carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and chlorofluorocarbons, creates a blanket around the earth that allows light to pass through but traps heat at the surface, preventing its escape into space. While this is a naturally occurring process known as the greenhouse effect, human activities have accelerated the generation of GHGs beyond natural levels. The overabundance of GHGs in the atmosphere has led to an unexpected warming of the earth and has the potential to severely impact the earth's climate system.

Table 4.7-1 describes the primary GHGs attributed to global climate change, including a description of their physical properties, primary sources, and contribution to the greenhouse effect.

TABLE 4.7-1
GREENHOUSE GASES

Greenhouse Gas	Description
Carbon dioxide (CO_2)	CO_2 is a colorless, odorless gas and is emitted in a number of ways, both naturally and through human activities. The largest source of CO_2 emissions globally is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, industrial facilities, and other sources. A number of industrial production processes and product uses such as mineral production, metal production, and the use of petroleum-based products can also lead to CO_2 emissions. The atmospheric lifetime of CO_2 is variable because it is so readily exchanged in the atmosphere.[a]
Methane (CH_4)	CH_4 is a colorless, odorless gas that is not flammable under most circumstances. CH_4 is the major component of natural gas, about 87 percent by volume. It is also formed and released to the atmosphere by biological processes occurring in anaerobic environments. CH_4 is emitted from both human-related and natural sources. Human-related sources include fossil fuel production, animal husbandry (livestock intestinal fermentation and manure management), biomass burning, and waste management. These activities release significant quantities of CH_4 to the atmosphere. Natural sources of CH_4 include wetlands, gas hydrates, permafrost, termites, oceans, freshwater bodies, non-wetland soils, and other sources such as wildfires. Methane's atmospheric lifetime is about 12 years.[b]
Nitrous oxide (N_2O)	N_2O is a clear, colorless gas with a slightly sweet odor. N_2O is produced by natural and human-related sources. Primary human-related sources are agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuels, adipic acid production, and nitric acid production. N_2O is also produced naturally from a wide variety of biological sources in soil and water, particularly microbial action in wet tropical forests. The atmospheric lifetime of N_2O is approximately 120 years.[c]

Sources: a. EPA 2017a; b. EPA 2017b; c. EPA 2017c

Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. CH_4 traps over 25 times more heat per molecule than CO_2, and N_2O absorbs 298 times more heat per molecule than CO_2. Often, estimates of GHG emissions are presented in carbon dioxide equivalents (CO_2e). Expressing GHG emissions in carbon dioxide equivalents takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO_2 were being emitted.

DISCUSSION OF IMPACTS

a) *Less Than Significant Impact*. GHG emissions contribute, on a cumulative basis, to the significant adverse environmental impacts of global climate change. No single project could generate enough GHG emissions to noticeably change the global average temperature. The combination of GHG emissions from past, present, and future projects contributes substantially to the phenomenon of global climate change and its associated environmental impacts and as such is addressed only as a cumulative impact.

GHG emissions associated with the project would occur over the short term from construction activities, consisting primarily of emissions from equipment exhaust. There would also be long-term regional emissions associated with indirect source emissions, such as electricity usage for lighting.

Thresholds of significance illustrate the extent of an impact and are a basis from which to apply mitigation measures. Numerical significance thresholds for GHG emissions resulting from land use development projects have not been established in Butte County. Rather, the BCAQMD recommends compliance with a qualified GHG Reduction Strategy or consistency with the goals of Assembly Bill (AB) 32. The Chico Climate Action Plan does not include any thresholds and does not present any method of determining whether a school project is consistent with the Climate Action Plan. Therefore, the projected emissions are compared to the nearest air district that does have a threshold. In this case, the Sacramento Metropolitan Air Quality Management District (SMAQMD) has recommended thresholds of 1,100 metric tons of CO_2e annually for construction-related emissions and 1,100 metric tons of CO_2e annually for operations-related emissions. While SMAQMD significance thresholds are not binding on the BCAQMD or the Chico Unified School District, they are instructive for comparison purposes. The project would be considered to have a significant impact if projected emissions would exceed 1,100 metric tons of CO_2e annually.

Construction Emissions. Construction of the proposed project would result in direct emissions of GHGs. The approximate quantity of daily GHG emissions generated by construction equipment used to build the proposed project is depicted in **Table 4.7-2.**

TABLE 4.7-2
CONSTRUCTION GHG EMISSIONS – METRIC TONS PER YEAR

Construction Activities	CO_2e
2018	675
2019	970
SMAQMD Potentially Significant Impact Threshold	1,100
Exceed SMAQMD Threshold?	**No**

*Source: CalEEMod, version 2016.3.1. See **Appendix 4.3** for emission model outputs.*
Note: To model a worst-case scenario, all construction phases were assumed to occur simultaneously.

As shown, construction would generate approximately a maximum of 970 metric tons of CO_2e annually. Therefore, because the project is below the SMAQMD's annual threshold of 1,100 metric tons of CO_2e, the impact is less than significant.

Operational Emissions. As stated above, there would also be long-term regional emissions associated with project-related new indirect-source emissions, such as electricity usage associated with the proposed project. Since the capacity of the stadium will increase, it is possible that there will be an increase in vehicular trips. However, since trips associated with the various sporting events already exist and because events at the stadium do not occur frequently (approximately six home football games a year), it is not likely that there will be a significant increase in vehicular trips over existing conditions. Therefore, the project would not increase existing traffic and thus would not increase existing traffic-generated GHG emissions. The project's long-term operations emissions are shown in **Table 4.7-3.**

TABLE 4.7-3
OPERATIONAL GHG EMISSIONS – METRIC TONS PER YEAR

Emissions Source	CO_2e
Area Source (landscaping, hearth)	0
Energy	81
Mobile	0
Waste	25
Water	8
Total	**114**
SMAQMD Potentially Significant Impact Threshold	1,100
Exceed SMAQMD Threshold?	**No**

Source: CalEEMod, version 2016.3.1. See for emission model outputs.

As shown, energy usage from project operations would generate approximately 114 metric tons of CO_2e annually. Therefore, since the project is below the SMAQMD's annual threshold of 1,100 metric tons of CO_2e, the impact is less than significant.

b) *Less Than Significant Impact*. The project is subject to compliance with the Global Warming Solutions Act (AB 32). As identified under Issue a), project-generated GHG emissions would not exceed GHG significance thresholds, which were prepared with the purpose of complying with the requirements of AB 32. Therefore, the project would not conflict with AB 32. The impact is less than significant.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.8 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?	☐	☐	☒	☐
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?	☐	☒	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
e) For a project located within an airport land use plan area or, where such a plan has not been adopted, within 2 miles of a public airport or a public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☒	☐	☐
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

OVERVIEW

A material is considered hazardous if it appears on a list of hazardous materials prepared by a federal, state, or local agency or if it has characteristics defined as hazardous by such an agency. A hazardous material is defined by California Health and Safety Code Section 25501 as follows:

> "Hazardous material" means any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. "Hazardous

> materials" include, but are not limited to, hazardous substances, hazardous waste, and any material that a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.

A hazardous material is defined in 22 CCR Section 662601.10 as follows:

> A substance or combination of substances which, because of its quantity, concentration, or physical, chemical or infectious characteristics, may either (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of or otherwise managed.

Most hazardous materials regulation and enforcement in Butte County is managed by the Butte County Environmental Health department, which refers large cases of hazardous materials contamination or violations to the Central Valley Regional Water Quality Control Board (RWQCB) and the California Department of Toxic Substances Control (DTSC). It is not at all uncommon for other agencies, such as the BCAQMD and both the federal and state Occupational Safety and Health Administrations, to become involved when issues of hazardous materials arise.

Under Government Code Section 65962.5, both the DTSC and the State Water Resources Control Board (SWRCB) are required to maintain lists of sites known to have hazardous substances present in the environment. Both agencies maintain up-to-date lists on their websites. The project site is not listed by the DTSC or the SWRCB as a hazardous substances site on the list of hazardous waste sites compiled pursuant to Government Code Section 65962.5 (the Cortese List). A search of the DTSC (2017) and SWRCB (2017) lists identified no open cases of hazardous waste violations within a half mile of the project site.

DISCUSSION OF IMPACTS

a) *Less Than Significant Impact*. The proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. The project would not generate any hazardous materials, and only a minimal amount of routine day-to-day materials would be stored on-site for the maintenance of the athletic fields and track. All materials would be used, stored, and disposed in accordance with existing regulations and product labeling and would not create a significant hazard to the public or to the environment.

   The project site has already been in operation as a high school with athletic fields, courts, and a track and related uses. As such, implementation of the proposed project would not introduce any new hazardous materials–related hazards to the public or to the environment that have not already been considered and controlled/stored accordingly.

b) *Less Than Significant Impact With Mitigation Incorporated*. As discussed under Issue a) above, the proposed project would not result in the routine transport, use, disposal, handling, or emission of any hazardous materials that would create a significant hazard to the public or the environment. Potential construction-related hazards could be created during the course of project construction at the project site, given that construction activities would involve the use of heavy equipment, which uses small and incidental amounts of oils and fuels and other potentially flammable substances.

To ensure that the safety of students, staff, and campus visitors is maintained throughout the construction process, various safety measures are needed. Additionally, given the developed nature of the project site, it is possible for underground utility and service lines to be in the vicinity of the trenching and foundation excavations. Potential impacts from risk of upset would be temporary and only be during project construction, but are considered potentially significant due to the potential for student, staff, and visitor interaction. As such, mitigation measure **MM 4.8.1,** which would limit this interaction, is necessary to reduce this impact to less than significant.

Exposure to unanticipated hazardous substances could also occur from previously unidentified soil contamination caused by migrating contaminants originating at nearby listed sites. Generally speaking, exposure to hazardous materials during construction activities could occur as a result of any of the following, and construction workers would be at greatest risk of exposure:

- Direct dermal contact with hazardous materials
- Incidental ingestion of hazardous materials (usually due to improper hygiene, when workers fail to wash their hands before eating, drinking, or smoking)
- Inhalation of airborne dust that may be contaminated with hazardous materials

If any previously unidentified sources of contamination are encountered during excavation, the construction activities required could pose health and safety risks capable of resulting in various short- or long-term adverse health effects in exposed persons. To address the potential for encountering unknown contamination on the project site, mitigation measure **MM 4.8.2** would reduce the potential risk of contamination by implementing investigation and remediation efforts at the proposed project site.

c) *Less Than Significant Impact*. The project site is located on an existing high school campus. Other than PVHS, the nearest public school to the project site is Marigold Elementary School, adjacent to the project site. None of the proposed new sports and athletic field uses would emit any hazardous emissions. There is a potential that common household hazardous materials may be stored in the proposed new buildings, including cleaning solutions, bleach, and lawn care materials. These materials would be stored, used, and disposed of in accordance with product label instructions and existing state and local regulations. Because of the commonplace nature of the substances to be used, the small amount to be stored, and compliance with existing standards and regulations, this impact is considered less than significant.

d) *Less Than Significant Impact.* Under Government Code Section 65962.5, both the DTSC and the SWRCB are required to maintain lists of sites known to have hazardous substances present in the environment. Both agencies maintain up-to-date lists on their websites. A search of the DTSC and SWRCB lists identified no open cases of hazardous waste violations on the project site or within a half mile of the site. Therefore, the project site and the proposed project are not on a parcel included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (DTSC 2017; SWRCB 2017). As a result, the project would not create a significant hazard to the public or the environment.

e) *Less Than Significant Impact With Mitigation Incorporated*. The Chico Municipal Airport, at 150 Airpark Avenue, is located approximately 3 miles northwest of the project site. According to the Butte County Airport Land Use Compatibility Plan (ALUCP), developed

by the Butte County Airport Land Use Commission (2000), approximately half of the PVHS campus is located in the airport's Compatibility Zone C. The ALUCP describes Compatibility Zone C as follows:

> The outer boundary of Zone C is defined as the area commonly overflown by aircraft at an altitude of 1,000 feet or less above ground level. Included are locations beneath the traffic pattern and pattern entry points. (A typical traffic pattern altitude is 1,000 feet above the airport elevation, although it can be lower or, especially for large airplanes, higher).
>
> a) Annoyance associated with aircraft overflights is the major concern within Zone C. Although the zone lies mostly outside of the 55-dB CNEL contour, land uses are nevertheless subjected to frequent aircraft noise events. Risk is a concern mostly only with respect to uses such as schools, hospitals, and one involving very high usage intensities.
>
> b) Compatibility Zone C also includes lands within the Federal Aviation Regulations (FAR) Part 77 Transitional and Horizontal zones. Restrictions may be required on tall objects (ones greater than 70 feet high).

The proposed project includes replacement and new field lighting for the stadium and the baseball and softball fields. The design of these lighting facilities has yet to be determined. Federal Aviation Regulations (FAR) Part 77 includes height restrictions for objects taller than 70 feet. The poles on which stadium and field lighting will be mounted have the potential to exceed this height. Because field lighting design has not been determined, mitigation ensuring that this lighting will be acceptable for Compatibility Zone C must be approved by the Butte County Airport Land Use Commission. As such, mitigation measure **MM 4.8.3** has been included in this IS/MND. Implementation of this mitigation measure would reduce potential airport-related impacts to a less than significant level.

f) *No Impact*. The proposed project site is not located in the vicinity of a private airstrip and would not result in a safety hazard for people residing or working in the project area. Therefore, no impact would occur.

g) *Less Than Significant Impact*. The Butte County Office of Emergency Management has an online link to an emergency preparedness web page stating that in the event of mandatory evacuation, residents will be advised of safe routes to follow, locations of shelters, and other actions that may need to be taken. Butte County has several means of notifying the public of emergencies and possible evacuations, which include a prerecorded telephone message, email message, local radio and television station announcements, and the Emergency Broadcast System. In the event of extreme cases and/or the inability to contact residents in another manner, the Chico Police Department would go door to door. Construction of the proposed project would not obstruct evacuation routes or access to critical emergency facilities, as all construction would occur on the existing school campus. This impact is less than significant.

h) *No Impact*. The project site is located in a fully built-out urban environment. The city is not identified by the California Department of Forestry and Fire Protection (Cal Fire) as a community at risk from wildfire (2008). Therefore, there would be no impact regarding wildland fire hazards as a result of the project.

MITIGATION MEASURES

MM 4.8.1 The construction staging areas for the project site shall be identified on the project plans, including the area that will be used for storing materials and equipment. Where feasible, storage areas shall be located away from sensitive uses (nearby classrooms, drainages, etc.). During project construction, the staging area shall be fenced and secured and shall have access restricted. When on-site maintenance fueling, equipment cleaning, etc., is required, all of these activities shall occur within the construction staging area, and best practices, such as the use of drip pans, shall be used to address potential leakage from construction equipment.

The construction site itself shall be barricaded/fenced in such a way as to ensure students, staff, and campus visitors are not able to enter. Access routes, delivery access, and parking areas for the contractor's employees shall be separated from student traffic, and weekly safety meetings and preconstruction safety instruction for on-site personnel, as well as background checks for on-site personnel, shall also be required of the construction contractor.

Timing/Implementation: *Prior to project construction*

Enforcement/Monitoring: *Chico Unified School District; project contractor*

MM 4.8.2 In the event previously unknown or unidentified soil and/or groundwater contamination that could present a threat to human health or the environment is encountered during construction in the proposed project area, construction activities in the immediate vicinity of the contamination shall cease immediately. If contamination is encountered, a Risk Management Plan shall be prepared and implemented that (1) identifies the contaminants of concern and the potential risk each contaminant would pose to human health and the environment during construction and post-development; and (2) describes measures to be taken to protect workers and the public from exposure to potential site hazards. Such measures could include options such as physical site controls during construction, remediation, long-term monitoring, post-development maintenance, or access limitations, or some combination thereof. Depending on the nature of contamination, if any, appropriate agencies shall be notified (e.g., City of Chico Fire Department). If needed, a Site Health and Safety Plan that meets Occupational Safety and Health Administration requirements shall be prepared and in place prior to commencement of work in any contaminated area.

Timing/Implementation: *During project construction*

Enforcement/Monitoring: *Chico Unified School District; project contractor*

MM 4.8.3 All Stadium, softball field lighting, and baseball field lighting shall be acceptable for Compatibility Zone C as set forth in the Butte County Airport Land Use Compatibility Plan.

Timing/Implementation: *Prior to project field and stadium lighting design*

Enforcement/Monitoring: *Chico Unified School District; Butte County Airport Land Use Commission*

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.9 HYDROLOGY AND WATER QUALITY. Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	☐	☐	☒	☐
e) 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?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☒	☐
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	☐	☐	☒	☐
i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of a failure of a levee or dam?	☐	☐	☒	☐
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☒	☐

OVERVIEW

The Federal Emergency Management Agency (FEMA) has prepared a Flood Insurance Rate Map (FIRM) depicting flood hazard areas in Chico. According to FEMA (2011), no portion of the project site or surrounding area are located within the 100-year floodplain (Flood Map 06007C0339E).

The project area is within the jurisdictional boundaries of the Central Valley RWQCB, one of nine regional boards in the state. The Central Valley RWQCB is the largest water board region, stretching from the Oregon border to the northern tip of Los Angeles County. Specifically, the RWQCB identifies potential water quality problems, confirms and characterizes water quality problems through assessments, remedies problems through imposing or enforcing appropriate measures, and monitors problem areas to assess effectiveness of remedial measures. Remedies for problems include prevention and cleanup. Common means of prevention are the issuance of National Pollutant Discharge Elimination System (NPDES) permits, waste discharge requirements, and discharge prohibitions and restrictions. Cleanup is implemented through enforcement measures such as cease and desist orders and cleanup and abatement orders.

No natural water features exist on the project site. The nearest water feature is Big Chico Creek, which is approximately 1 mile southeast of the project site. Big Chico Creek originates from a series of springs, at an elevation of about 5,400 feet, northeast of the city on the southwest flanks of Colby Mountain. The watershed also encompasses three smaller drainages to the north: Sycamore, Mud, and Rock creeks. Big Chico Creek flows a distance of 45 miles from its origin, crossing portions of Butte and Tehama counties, to its confluence with the Sacramento River, at an elevation of 120 feet, west of Chico (Chico 2010, p. 4.9-2).

Water service in the project area is provided by the California Water Service Company (Cal Water), which obtains groundwater from subbasins of the Sacramento Valley Groundwater Basin, including the Vina Subbasin, the West Butte Subbasin, and the East Butte Subbasin (Chico 2010, p. 4.12-35). The DWR's Bulletin 118 provides groundwater basin information such as groundwater storage capacity, level trends, budget, and water quality. Bulletin 118 is currently being updated by the DWR; however, this update has not been completed at the time of this writing. As such, information from the 2004 Bulletin 118, which is the most recent completed update, is provided for the West Butte, East Butte, and Vina subbasins.

The West Butte Subbasin is bounded on the west and south by the Sacramento River, on the north by Big Chico Creek, on the northeast by the Chico Monocline, and on the east by Butte Creek. The subbasin is hydrologically contiguous with the Vina and East Butte subbasins at depth and is approximately 181,560 aces in size. The total storage capacity of the West Butte Subbasin is estimated to be approximately 2,794,330 acre-feet. In the Chico area, groundwater levels in the unconfined portion of the aquifer system are about 5–7 feet during normal precipitation and up to approximately 16 feet during periods of drought. Annual fluctuation in the confined or semiconfined portion of the aquifer system is approximately 15–25 feet during normal years and up to approximately 30 feet during periods of drought. Long-term comparison of spring-to-spring groundwater levels indicates a 10- to 15-foot decline in levels since the 1950s (DWR 2004a).

The East Butte Subbasin is bounded on the west and northwest by Butte Creek, on the northeast by the Cascade Ranges, on the southeast by the Feather River, and on the south by the Sutter Buttes. The East Butte Subbasin is approximately 265,390 acres in size. The subbasin's total storage capacity is estimated to be approximately 3,128,959 acre-feet. For wells constructed in confined and composite portions of the aquifer, the increased use of groundwater in the northern portion of the subbasin has resulted in wide seasonal fluctuations in groundwater levels. In the northern portion of the subbasin, composite well fluctuations average about 15 feet during normal years and 30–40 feet

during drought years.[2] Annual groundwater fluctuations in the confined and semiconfined aquifer system ranges from 15 to 30 feet during normal years. In the subbasin portion located in the southern part of Butte County, groundwater level fluctuations for composite wells average about 4 feet during normal years and up to 10 feet during drought years. The groundwater fluctuations for wells constructed in the confined and semiconfined aquifer system average 4 feet during normal years and up to 5 feet during drought years (DWR 2004b).

The Vina Subbasin is bounded on the west by the Sacramento River, on the north by Deer Creek, on the east by the Chico Monocline, and on the south by Big Chico Creek. The subbasin is approximately 125,640 acres in size and has a total storage capacity estimated to be approximately 1,468,239 acre-feet. Evaluation of groundwater level data at the northern edge of the Cal Water service area (just north of Chico) shows an average seasonal fluctuation in groundwater levels of approximately 10 feet during years of normal precipitation. Long-term comparison of spring-to-spring groundwater levels shows a decline in levels associated with drought periods with recovery to pre-drought conditions of the early 1970s. Areas unaffected by municipal water use reflect the natural groundwater table distribution and direction of movement. Year-round extraction of groundwater for municipal use in the Chico area causes several small groundwater depressions that tend to alter the natural southwesterly movement of groundwater in the area (DWR 2017). In the Chico area, groundwater levels in the unconfined portion of the aquifer system are about 5–7 feet during normal precipitation and up to approximately 16 feet during periods of drought. Annual fluctuation in the confined or semiconfined portion of the aquifer system is approximately 15–25 feet during normal years and up to approximately 30 feet during periods of drought. Long-term comparison of spring-to-spring groundwater levels for confined or semiconfined portions of the aquifer system indicates a 10- to 15-foot decline in groundwater levels since the 1950s (DWR 2004c).

The high school campus is connected to the City of Chico's stormwater drainage system.

DISCUSSION OF IMPACTS

a) *Less Than Significant Impact*. There is potential for the proposed project to result in degradation of water quality during both the construction and operational phases. Polluted runoff from the project site during construction could include sediment from soil disturbances and oil and grease from construction equipment.

During construction, soil would be exposed to natural processes such as precipitation (depending on the time of year) and runoff. Stormwater discharges generated during construction activities could cause an array of physical, chemical, and biological water quality impacts. Specifically, the physical, chemical, and biological integrity of surface runoff water could become compromised. The interconnected process of erosion, sediment transport, and delivery is the primary pathway for introducing key pollutants, such as nutrients (particularly phosphorous), metals, and organic compounds, into aquatic systems.

However, because the project site is over 1 acre in size, regulations as part of the NPDES permitting process require the Chico Unified School District or its contractor to prepare a stormwater pollution prevention plan pursuant to RWQCB standards and subject to RWQCB review for each component of the proposed project. The SWPPP will include measures designed to reduce or eliminate erosion and runoff into waterways. BMPs include wattles, covering of stockpiles, silt fences, and other physical means of slowing

[2] Composite wells are monitoring wells that represent groundwater levels that combine confined and unconfined portions of the aquifer system.

stormwater flow from graded areas to allow sediment to settle before entering stormwater channels. The method used would be described in the SWPPP and may vary depending on the circumstances of construction. Additionally, the proposed project would not violate any waste discharge requirements. Because of these standard procedures and the requirement to prepare an SWPPP, project impacts to water quality are considered to be less than significant.

b) *Less Than Significant Impact*. Implementation of the proposed project would not result in a depletion of groundwater supplies and would not interfere with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table. Full construction of the proposed project would result in a total of approximately 22,800 square feet of new impervious structures (storage facilities: 2,500 square feet; entry building: 1,500 square feet; classroom space/team rooms: 13,000 square feet; fitness room: 5,300 square feet; and press box: 500 square feet). The project site is located in the West Butte Subbasin, which is approximately 181,560 acres in size (DWR 2004a). The proposed project's new impervious surfaces represent 0.0003 percent of the total groundwater basin area.[3] New impervious surfaces, covering this percentage of the possible groundwater recharge area, would not represent substantial interference with groundwater recharge potential. In addition, all rainwater flowing off the new impervious structures would flow into the existing stormwater facilities or onto the pervious areas surrounding the new structures. This would allow the stormwater to infiltrate into the groundwater basin as it does currently, resulting in a less than significant impact to groundwater recharge.

Potable water for PVHS is supplied by Cal Water, which uses groundwater as its source of water. Because the proposed project would not result in an increase in the school's enrollment capacity, no substantial increase in water demand is anticipated. Therefore, no impacts to groundwater supply would occur. The project site is located on an established educational campus, and no new roads or extensions of existing roads are proposed. The project does not include the construction of any new homes or businesses that would require additional water supplies. Operation of the proposed project would not increase demand for or otherwise deplete groundwater supplies. This impact would be less than significant.

c) *Less Than Significant Impact*. The project site is fully developed with a high school campus with sports fields and amenities and does not contain any surface water features. The site is located in an urbanized area and is not adjacent to any streams, rivers, lakes, or major drainage channels. The closest water body is Big Chico Creek, approximately 1 mile southeast from the project site. Existing stormwater runoff from the project site and the surrounding area is removed by way of street flows and storm drains, some of which flow into Big Chico Creek. The proposed project includes new buildings and structures that would alter site drainage. However, off-site drainage would not be affected during operation of the proposed project. While on- and off-site drainage may be affected during construction, the District will be required to prepare an SWPPP in order to comply with the SWRCB's General Construction Storm Water Permit. The SWPPP will identify best management practices to be implemented on the project site to minimize soil erosion and

[3] West Butte subbasin = 181,560 acres X 43,560 sq. ft. per acre = 7,908,753,600 sq. ft. Project surfaces = 22,800 sq. ft. 22,800 sq. ft. ÷ 7,908,753,600 sq. ft. = 0.0003 percent.

protect existing drainage systems. Compliance with existing regulations developed to minimize erosion and siltation would reduce this impact to a less than significant level.

d) *Less Than Significant Impact*. As indicated under Issue c) above, the project site is located in an urbanized area and is not adjacent to any streams, rivers, lakes, or major drainage channels. Therefore, implementation of the proposed project would not result in the alteration of the course of a natural waterway, nor would it substantially increase the rate or amount of surface runoff in a manner that would result in flooding on-site or off-site. The proposed project would involve some minor changes to the amount of impervious surfaces because of the new structures. However, any stormwater flowing from these structures would be routed into existing drainage and retention facilities. The drainage pattern at the project site and in the surrounding areas, as well as surface runoff conditions after implementation of the proposed project, would be similar to existing conditions and would not result in on- or off-site flooding. Therefore, the proposed project would have a less than significant impact.

e) *Less Than Significant Impact*. See discussion of Issues a) and c), above. Although minor changes to the amount of impervious surfaces on the site would occur, implementation of the proposed project would not alter the existing drainage patterns on the site. However, polluted runoff from the project site during construction and operation could include sediment from soil disturbances, oil and grease from construction equipment, and gross pollutants such as trash and debris. Compliance with NPDES permit requirements would ensure that best management practices would be implemented during the construction phase to effectively minimize excessive soil erosion and sedimentation and eliminate non-stormwater discharge off-site. As required by law, BMPs would be included as part of the proposed project to ensure that potentially significant impacts are reduced to less than significant levels. Therefore, impacts associated with stormwater volumes and polluted runoff during the construction of the proposed project would be less than significant.

Activities associated with operation of the proposed project are not expected to generate substances that can degrade the quality of water runoff. While potential impacts could result from vehicles and other users at the project site during subsequent sporting events, all potential impacts to water quality would be reduced by stormwater pollution control measures and wastewater discharge BMPs already required at the project site as a part of school operation. Therefore, impacts during operation would be considered less than significant.

f) *Less Than Significant Impact*. The proposed project would not otherwise result in degradation of water quality. Compliance with NPDES permit requirements, including implementation of a stormwater pollution prevention plan, would ensure that potential water quality impacts are less than significant.

g) *Less Than Significant Impact*. According to the FEMA flood hazard map (Map 06007C0339E), the project site is located in a Zone X flood area. However, project site is already being used for athletic events and the project does not propose the development of housing. Therefore, implementation of the proposed project will have a less than significant impact related to flooding.

h) *Less Than Significant Impact*. Please refer to Issue g) above.

i) *Less Than Significant Impact*. The project site is not protected by levees from any flood hazard. However, dam failure, another potential flooding risk, is the collapse or failure of an impoundment that causes significant downstream flooding. Large dams that could inundate significant portions of Chico or watersheds in the Chico area, include Shasta Dam (in Shasta County), Oroville Dam on the Feather River, and Black Butte Dam on Stony Creek (Chico 2007). Prior to the terrorist attacks of September 11, 2001, public information was available that provided structural ratings for dams throughout the country. Since that time, the information has been classified and is not readily available. Dams are regulated by the Division of Safety of Dams of the DWR and are routinely inspected during their impoundment life, which includes monitoring for compliance with seismic stability standards. Thus, dam failure is not considered a reasonably foreseeable event, and the proposed project would not affect dam operations. As such, the proposed project would have a less than significant impact from dam or levee failure.

j) *Less Than Significant Impact*. No large bodies of water exist near the proposed project site. The PVHS campus is not located within a potential tsunami or seiche inundation area. Damage to the campus due to a seiche, a seismic-induced wave generated in a restricted body of water, is not likely because no such bodies of water are in close proximity to the PVHS campus. Additionally, the campus is located in a developed urban area that is not prone to flooding. Therefore, no mudflows are anticipated at the campus. A less than significant impact would occur.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.10 LAND USE AND PLANNING. Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

OVERVIEW

The proposed project would further develop an existing school campus to incorporate elements meant to provide for better athletic facilities and uses at the campus. The City of Chico identifies the project site as being within the PFS (Public Facilities and Services) General Plan land use designation and the PQ (Public/Quasi Public Facilities) zoning district. The General Plan classifies the PFS designation as an area that includes sites for schools, hospitals, governmental offices, airports, and other facilities that have a unique public character (Chico 2011, p. 3.14). Chico Municipal Code Title 19, Division III, Chapter 19.50, Section 19.50.010 describes the PQ zoning district as an area appropriate for a wide range of public, institutional, and auxiliary uses that are established in response to the health, safety, cultural, and welfare needs of the city. The PQ zoning district is primarily intended to implement the PFS land use designation of the General Plan. The use of the site as a high school is consistent with the uses allowed for both the PFS land use designation and the PQ zoning district.

The Butte Regional Conservation Plan (BRCP) is being developed by the Butte County Association of Governments on behalf of Butte County, the Cities of Chico, Oroville, Gridley, and Biggs, California Department of Transportation (Caltrans) District 3, the Western Canal Water District, the Richvale Irrigation District, the Biggs West-Gridley Water District, and the Butte Water District. The BRCP is both a federal habitat conservation plan and a state natural community conservation plan. While much of the work for the BRCP has been completed, it has not yet been adopted by the various jurisdictions and agencies.

DISCUSSION OF IMPACTS

a) *No Impact*. The project would not divide an established residential community, as the project would occur entirely on an existing school campus.

b) *No Impact*. The Chico General Plan and Municipal Code identify the site as being in the PFS (Public Facilities and Services) land use designation and the PQ (Public/Quasi Public Facilities) zoning district. The project's proposed uses would be consistent with the land use designation and the zoning for the site. As such, the proposed project would not conflict with applicable land use plans, policies, or regulations, and no impact would occur.

c) *No Impact*. No adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan governs the project site. Therefore, the proposed project would not conflict with any applicable habitat conservation plan or natural community conservation plan. There would be no impact.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.11 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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

OVERVIEW

There are no active mines within or near the project site and no known areas with mineral resources on the project site.

DISCUSSION OF IMPACTS

a, b) *No Impact*. No mineral resource recovery sites are located on or in the immediate vicinity of the project site. Implementation of the proposed project would not result in the loss of availability of a known mineral resource or resource recovery site, and no impact would occur.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.12 NOISE. Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance or of applicable standards of other agencies?	☐	☐	☒	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
e) For a project located within an airport land use plan area or, where such a plan has not been adopted, within 2 miles of a public airport or a public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

OVERVIEW

NOISE FUNDAMENTALS

Noise is generally defined as sound that is loud, disagreeable, or unexpected. The selection of a proper noise descriptor for a specific source is dependent on the spatial and temporal distribution, duration, and fluctuation of the noise. The noise descriptors most often encountered when dealing with traffic, community, and environmental noise include the average hourly noise level (in L_{eq}) and the average daily noise levels (in L_{dn}/CNEL).

Noise can be generated by a number of sources, including mobile sources, such as automobiles, trucks, and airplanes, and stationary sources, such as construction sites, machinery, and industrial operations. The rate depends on the ground surface and the number or type of objects between the noise source and the receiver. Mobile transportation sources, such as highways, and hard and flat surfaces, such as concrete or asphalt, have an attenuation rate of 3.0 dBA [A-weighted decibels] per doubling of distance. Soft surfaces, such as uneven or vegetated terrain, have an attenuation rate of about 4.5 dBA per doubling of distance from the source. Noise generated by stationary sources typically attenuates at a rate of approximately 6.0 to 7.5 dBA per doubling of distance from the source (EPA 1971).

Sound levels can be reduced by placing barriers between the noise source and the receiver. In general, barriers contribute to decreasing noise levels only when the structure breaks the "line of sight" between the source and the receiver. Buildings, concrete walls, and berms can all act as effective noise barriers. Wooden fences or broad areas of dense foliage can also reduce noise, but they are less effective than solid barriers.

VIBRATION

Ground vibration can be measured several ways to quantify the amplitude of vibration produced. This can be through peak particle velocity or root mean square velocity, which measure maximum particle at one point or the average of the squared amplitude of the signal, respectively. Vibration impacts on people can be described as the level of annoyance and can vary depending on an individual's sensitivity. Generally, low-level vibrations may cause window rattling but do not pose any threats to the integrity of buildings or structures.

EXISTING AMBIENT NOISE MEASUREMENTS

In order to quantify existing ambient noise levels in the project area, Michael Baker International conducted four short-term noise measurements on March 10, 2017 (see **Appendix 4.12**). The noise measurement sites were representative of typical existing noise exposure within and immediately adjacent to the project site. The 10-minute measurements were taken between 11:00 a.m. and noon. Short-term (L_{eq}) measurements are considered representative of the noise levels throughout the day. The average noise levels and sources of noise measured at each location are listed in **Table 4.12-1.**

TABLE 4.12-1
EXISTING NOISE MEASUREMENTS

Site No.	Location	L_{eq} (dBA)	L_{min} (dBA)	L_{max} (dBA)	Time
1	Ceanothus Avenue and Paseo Haciendas Court intersection	63.7	40.6	80.2	11:00 a.m.
2	Ceanothus Avenue and Kimberlee Lane intersection	64.1	42.5	76.3	11:12 a.m.
3	Manzanita Avenue adjacent to Manzanita Avenue and Madrone Avenue bus stop	63.8	43.0	77.1	11:26 a.m.
4	Parking lot at Marigold Avenue and Manzanita Avenue	47.0	41.0	59.6	11:41 a.m.

*Source: Michael Baker International 2017. See **Appendix 4.12** for noise measurement outputs.*

As shown, the ambient recorded noise levels near the project site ranged from 47.0 to 64.1 dBA L_{eq}. The most common noise in the project vicinity is produced by automotive vehicles (cars, trucks, buses, motorcycles). Traffic moving along streets and freeways produces a sound level that remains relatively constant and is part of the city's minimum ambient noise level. Vehicular noise varies with the volume, speed, and type of traffic. Slower traffic produces less noise than fast-moving traffic. Trucks typically generate more noise than cars. Infrequent or intermittent noise also is associated with vehicles, including sirens, vehicle alarms, slamming of doors, garbage and construction vehicle activity, and honking of horns. These noises add to urban noise and are regulated by a variety of agencies.

DISCUSSION OF IMPACTS

a) *Less Than Significant Impact.*

Construction Term. Noise levels in the project area would temporarily increase due to short-term construction activities. Construction-related noise increases would be temporary and would vary depending on the type of activities and equipment used.

Excavation and grading activities are typically involved in the site preparation phase of the project and usually generate the highest noise levels. Construction-related noise impacts would typically occur during the initial earthwork phases. These phases of construction have the potential to create the highest levels of noise. Typical noise levels generated by construction equipment are shown in **Table 4.12-2**. Operating cycles for these types of construction equipment may involve 1 or 2 minutes of full power operation followed by 3 to 4 minutes at lower power settings. Other primary sources of acoustical disturbance would be due to random incidents, which would last less than 1 minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts).

TABLE 4.12-2
TYPICAL CONSTRUCTION NOISE LEVELS

Equipment	Typical Noise Level (dBA) at 50 Feet from Source	
	L_{max}	L_{eq}
Air Compressor	80	76
Backhoe/Front End Loader	80	76
Compactor (Ground)	80	73
Concrete Mixer Truck	85	81
Concrete Mixer (Vibratory)	80	73
Concrete Pump Truck	82	75
Concrete Saw	90	83
Crane	85	77
Dozer/Grader/Excavator/Scraper	85	81
Drill Rig Truck	84	77
Generator	82	79
Gradall	85	81
Hydraulic Break Ram	90	80
Jackhammer	85	78
Impact Hammer/Hoe Ram (Mounted)	90	83
Pavement Scarifier/Roller	85	78
Paver	85	82
Pneumatic Tools	85	82
Pumps	77	74
Truck (Dump/Flat Bed)	84	80

Source: FTA 2006

Although City of Chico regulations do not apply to lands under the jurisdiction of the Chico Unified School District, the District will consider local regulations during project implementation and apply them as best practices when deemed necessary.

Chico Municipal Code Title 9, Division V, Chapter 9.38, Section 9.38.060 exempts construction noise if it occurs between the hours of 10:00 a.m. and 6:00 p.m. on Sundays and holidays, and between 7:00 a.m. and 9:00 p.m. on other days. Construction, alteration, or repair of structures are subject to one of the following limits:

- No individual device or piece of equipment shall produce a noise level exceeding 83 dBA at a distance of 25 feet from the source. If the device or equipment is housed within a structure on the property, the measurement shall be made outside the structure at a distance as close as possible to 25 feet from the equipment.

- The noise level at any point outside of the property plane of the project shall not exceed 86 dBA.

During the project's construction phase, exterior noise levels resulting from construction could affect nearby sensitive receivers. As shown in **Table 4.12-2**, noise levels associated with individual construction equipment used for typical construction projects can reach levels of up to approximately 83 dBA L_{eq} at a distance of 50 feet. However, it is acknowledged that construction activities would occur throughout the project site and would not be concentrated at the point closest to the sensitive receptors.

According to the Federal Highway Administration's (2006) Roadway Construction Noise Model (FHWA-HEP-05-054), which models construction noise accounting for typical construction equipment fleets and the size of the construction site, construction noise outside of the property plane would not exceed 86 dBA. Therefore, construction noise associated with the project would be less than significant.

Operational Noise. The main difference between the current operational condition of the athletic fields and the proposed project would be the increase in stadium seating and the ability to use the baseball field at night. Although athletic events at the baseball field could be held later in the day, these will not be new uses. Additionally, since the capacity of the stadium will increase, it is possible that there will be an increase in the number of spectators and vehicle trips. However, since the various sporting events already exist and since events at the stadium do not occur frequently (approximately six home football games a year), it is not likely that there will be a significant increase in traffic or crowd noise over existing conditions. Therefore, the impact of operational noise is considered less than significant.

b) *Less Than Significant Impact*. Sources of earthborne vibration include natural phenomena (earthquakes, volcanic eruptions, sea waves, landslides, etc.) or man-made causes (explosions, machinery, traffic, trains, construction equipment, etc.). Vibration sources may be continuous, such as factory machinery, or transient, such as explosions. As is the case with airborne sound, earthborne vibration may be described by amplitude and frequency. Increases in groundborne vibration levels attributable to the proposed project would be primarily associated with short-term construction-related activities.

Construction activities are expected to use equipment such as backhoes, bulldozers, draglines, front loaders, and earthmoving and compacting equipment, which includes compactors, scrapers, and graders. Vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. This

evaluation uses Caltrans's (2004) recommended standard of 0.2 inches per second peak particle velocity with respect to the prevention of structural damage for older residential buildings. This is also the level at which vibrations may begin to annoy people in buildings. **Table 4.12-3** displays vibration levels for typical construction equipment.

TABLE 4.12-3
TYPICAL CONSTRUCTION EQUIPMENT VIBRATION LEVELS

Equipment Type	Peak Particle Velocity at 25 Feet (inches per second)
Large Bulldozer	0.089
Loaded Trucks	0.076
Jackhammer	0.035
Small Bulldozer/Tractor	0.003

Source: FTA 2006; Caltrans 2004

It is acknowledged that construction activities would occur throughout the project site and would not be concentrated at the point closest to the nearest structure. The nearest off-site structure to any of the construction areas is a residence 25 feet away. Based on the vibration levels presented in **Table 4.12-3**, ground vibration generated by heavy-duty equipment would not be anticipated to exceed approximately 0.2 inches per second peak particle velocity at 25 feet. Therefore, predicted vibration levels at the nearest off-site structures would not exceed recommended criteria. Once operational, the project would not be a source of groundborne vibration. For these reasons, the impact would be less than significant.

c) *Less Than Significant Impact*. See discussion under Issue a), above.

d) *Less Than Significant Impact*. See discussion under Issue a), above.

e) *Less Than Significant Impact.* The Chico Municipal Airport, at 150 Airpark Avenue, is located approximately 3 miles northwest of the project site. According to the Butte County Airport Land Use Compatibility Plan (ALUCP), developed by the Butte County Airport Land Use Commission (2000), approximately half of the PVHS campus is located in the airport's Compatibility Zone C. Although land uses in Zone C are subjected to frequent aircraft noise events, the zone lies mostly outside of the 55 dB CNEL contour. Therefore, the Chico Municipal Airport would not be anticipated to expose people residing or working in the project area to excessive noise levels. A less than significant impact would occur in this regard.

f) *No Impact*. The project site is not in the vicinity of a private airstrip. Therefore, there would be no impact.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.13 POPULATION AND HOUSING. Would the project:				
a) Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

OVERVIEW

The project site is located in Chico on an existing high school campus. No residences are proposed as part of the project.

DISCUSSION OF IMPACTS

a) *No Impact*. The project site is located on an established school campus, and no new roads or extensions of existing roads are proposed. The project does not include the construction of any new homes or businesses**.** The objective of the proposed project is to provide athletic field/track improvements and lighting. Therefore, direct or indirect increases in population growth would not occur as a result of the proposed project.

b) *No Impact*. The project site is within the PVHS campus. No residences would be displaced or removed as a result of the proposed project, and the project would have no impact on existing housing.

c) *No Impact.* As discussed under Issue b), the project would not involve the removal or relocation of any housing and would therefore not displace any people or necessitate the construction of any replacement housing.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.14 PUBLIC SERVICES. 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 following public services:				
a) Fire protection?	☐	☐	☒	☐
b) Police protection?	☐	☐	☒	☐
c) Schools?	☐	☐	☐	☒
d) Parks?	☐	☐	☐	☒
e) Other public facilities?	☐	☐	☒	☐

OVERVIEW

FIRE PROTECTION

The City of Chico Fire-Rescue Department provides fire protection and emergency medical services to the project site. Chico Fire-Rescue services include fire suppression, emergency medical service, rescue service, hazardous material emergency service, public assistance (post-fire/accident cleanup, water removal, flooding assistance, fire prevention and life safety, and emergency preparedness including operation of the Emergency Operations Center at the Fire Training Center. Chico Fire-Rescue has mutual aid agreements with Cal Fire and the Butte County Fire Department. Chico Fire-Rescue currently operates four fire stations and has 64 full-time personnel, 62 of whom are uniformed firefighters. There are currently 9 active volunteer firefighters in the department. The fire station closest to the project site is Station 2 located near the corner of The Esplanade and Fifth Avenue, approximately 0.6 mile away. Equipment at this station includes a fire engine, a patrol vehicle, and a foam trailer (Chico 2017a).

POLICE PROTECTION

The Chico Police Department (Chico PD) provides law enforcement services to the project site. If requested by the Butte County Sheriff's Office or the California Highway Patrol, Chico PD may provide assistance on a case-by-case basis. Chico PD has 140 full-time employees with an additional 100 police volunteers, including Volunteers in Police Service, Explorers, chaplains, and interns. Chico PD personnel are organized into two divisions: Operations and Support. The Operations Division comprises the Patrol Section, Special Operations Section, and Animal Control Unit. The Support Division comprises the Communications Section, Records Section, Property Section, Detective Bureau, Juvenile Bureau, Crime Analysis Unit, Training Unit, and Tech Services Unit. Business Services for the Chico PD and the Public Information Unit are managed out of the Office of the Chief of Police. The department recently adopted a new community policing emphasis and command structure to better serve the needs of the community and to enhance that interaction. This new command structure consists of a deputy chief, five lieutenants, and two civilian managers, all under the Office of the Chief of Police. Of the five lieutenants, three are assigned as watch commanders, each with a geographic area of responsibility, classified as east, west, or central (Chico 2017b).

SCHOOLS

The Chico Unified School District was formed in 1965 and now serves a 322-square-mile area that includes the entire city as well as the surrounding unincorporated areas of Butte County. The district operates eleven kindergarten through 6th grade (K–6) elementary schools, one kindergarten through 8th grade (K–8) open structure classroom school, three junior high schools, two comprehensive high schools, one continuation high school, one charter high school, one independent study program, and one community day school.

PARKS

Park, recreation, and open space resources, facilities, and services have historically been provided by both the City of Chico Park Division and the Chico Area Recreation and Park District (CARD). In the past, the City had primary responsibility for Bidwell Park and neighborhood parks and CARD had primary responsibility for recreation programming and community parks. In 2010, the City of Chico and CARD entered into a Memorandum of Understanding of Intergovernmental Cooperation, Coordination and Understanding that streamlines the provision of parks and recreational services to the city and surrounding community through a realignment of the roles and responsibilities of each agency. Through this arrangement, the City will retain ownership and maintenance responsibility for Bidwell Park, creekside greenways, and City-owned preserves, while CARD will assume ownership and operation of the various other developed parks and recreation systems in Chico.

DISCUSSION OF IMPACTS

a) *Less Than Significant Impact.* The proposed project would not require any additional Chico Fire-Rescue facilities, equipment, and/or staff and is not anticipated to create an additional burden on Chico Fire-Rescue.

Chico Fire-Rescue requires emergency vehicle access to all portions of the proposed site. In addition, water for fire suppression must be available to the site. The campus includes fire lanes and fire hydrants; water pressures on the site exceed the minimum required for fire suppression support. Compliance with these requirements would ensure that this impact is less than significant.

b) *Less Than Significant Impact.* The proposed project would not result in a significant increase in demand for police protection resulting in new or expanded police facilities. Police facilities and the need for expanded facilities are based on the staffing levels these facilities have to accommodate. Police staffing levels are generally based on the ratio of population to the number of police officers, and an increase in population is usually the result of an increase in housing or employment. Because the proposed project would not increase the population of Chico, the project would not result in the need for an increase in police protection or police facilities. Therefore, the proposed project would have a less than significant impact.

c) *No Impact*. The purpose of the proposed project is the improvement of existing athletic facilities. This development will not result in an increase of student enrollment at PVHS. The proposed project does not result in an increase in housing or population in the city that would require additional educational facilities. Therefore, the proposed project would have no impact.

d) *No Impact*. While improvements are being made to the on-site athletic fields and track, PVHS students may not be able to use the recreational amenities. However, this impact would be temporary and less than significant since other recreational amenities would still be available on-site. Given that the proposed project would not increase the enrollment capacity of the school or increase the city's population, the project would not burden any parks in the surrounding area beyond capacity by generating additional recreational users. Adequate recreational facilities would continue to be provided on-campus during construction, as not all proposed improvements would happen concurrently. Students would not need to use off-site recreational facilities. Therefore, the proposed project would not require the construction or expansion of off-campus recreational facilities and would also not result in an increase in demand for parks and recreation facilities in the surrounding area.

e) *Less Than Significant Impact*. Because the proposed project does not result in an increase in housing or population in the city, the project is not anticipated to have significant impacts on other public facilities.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.15 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?	☐	☐	☐	☒
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?	☐	☐	☒	☐

OVERVIEW

Chico currently includes a total of 4,317 acres of park, recreation, and open space areas, including Bidwell Park. Park, recreation, and open space resources, facilities, and services are provided by both the City of Chico Park Division and CARD.

DISCUSSION OF IMPACTS

a) *No Impact*. See the discussion of Issue d) in subsection 4.14, Public Services. While improvements are being made to the on-site athletic fields and track, PVHS students would be able to use these recreational amenities as not all proposed improvements would occur concurrently. Any impact during construction would be temporary and would not result in the need for additional facilities. The proposed project would not require additional staffing at nearby parks and recreation-oriented public facilities. Additionally, significant and/or accelerated deterioration at parks and recreation-oriented public facilities from possible increased usage is not expected because the proposed project would not result in an increased use of these facilities.

b) *Less Than Significant Impact*. The proposed project would result in a change of the existing athletic amenities at PVHS. These improvements would not require the construction or expansion of off-campus recreational facilities. The environmental impacts of the proposed project are analyzed in this IS/MND, and it has been determined through this analysis that the proposed project would not result in an adverse physical effect on the environment with implementation of the included mitigation measures. As such, the proposed project would have a less than significant impact.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.16 TRANSPORTATION/TRAFFIC. Would the project:				
a) Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒	☐
b) Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☒
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location which results in substantial safety risks?	☐	☒	☐	☐
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☐	☒
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

OVERVIEW

The PVHS campus is bordered by East Avenue on the north, Ceanothus Avenue to the west, Marigold Avenue to the east and southeast, and single- and multi-family homes to the south and southwest.

The major thoroughfare in the vicinity is East Avenue. SR 99 is located approximately 1.2 miles southwest of the project site. SR 32 is approximately 1.4 miles to the south of the project site. Depending on the starting point, the site can be accessed from East Avenue, Ceanothus Avenue, or Marigold Avenue. All surrounding roadways are fully developed with curb, gutter, and sidewalk improvements. The East Avenue/Ceanothus Avenue intersection and the East Avenue/Marigold Avenue intersection are signalized.

The school campus has four parking lots. There are a total of 526 spaces on the campus, including spaces compliant with the Americans with Disabilities Act of 1990, and an area for bus parking. The nearest parking lots to the stadium would be the student lots located on East Avenue, which would be the lots most likely to be used for the stadium events.

TRIP GENERATION

It is expected that the highest trip-generating use of the new athletic facilities will be varsity football games, which typically start at 7:30 p.m. on Friday evenings. Other events could be hosted at the facility throughout the year, including junior varsity and freshman football games, soccer matches, and track meets. However, varsity football games have historically drawn the most spectators. These events are not considered part of the school's typical weekday trip generation because they occur infrequently throughout the year and often on days (e.g., Friday) that fall outside the Tuesday to Thursday range, which is considered the typical weekday for commuter traffic. Further, varsity football games typically start after the commuter peak period has ended. Some events (e.g., junior varsity football games) may take place during the weekday p.m. commute peak, but only a few of these events are expected during the year and they generate a much smaller amount of spectator traffic.

The proposed project would not increase traffic related to team practices because the teams already practice on the existing fields, the team members are already at the school as part of their everyday school schedule, and the proposed improvements would not result in increased participation in the practices.

The trip generation potential of the proposed stadium is not documented in land uses contained in the Trip Generation manual published by the Institute of Transportation Engineers (ITE). Athletic facilities are typically constructed in conjunction with the adjacent school and are accounted for in the school's potential trip generation. The school itself is the largest trip generator on a typical weekday, so separate traffic operations analyses are not usually required for athletic facilities.

Further, school athletic fields are built to host a relatively small number of events per year with varying levels of attendance. As such, data collection at a similar facility would be difficult because usage varies widely on a day-to-day or week-to-week basis and is specific to an individual site. Varsity football games have the highest number of spectators in attendance and therefore would represent the largest amount of traffic caused by implementation of the proposed project. While other sporting events, such as baseball, softball, and soccer games, would also draw spectators, the attendance at these games is considerably less than at varsity football games. In order to determine the effect that new stadium seating would have on the surrounding area, an estimate of increased use over existing conditions is necessary. In addition, the increase of seating capacity at the stadium represents the largest increase in seating, and therefore attendance, at any of the school's athletic events. From a traffic perspective, this increase in attendance represents the greatest potential for traffic-related environmental impacts during operation of the proposed project.

Currently the stadium provides 1,000 seats for the home side and from 579 to 972 seats with the addition of temporary bleachers for the visitor side. As shown, the proposed project includes an expansion of seating at the stadium to approximately 2,400 home and 1,600 visitor seats. This would result in an increase in seating capacity of 1,400 home and 628 visitor, or 2,028 total.

Based on the 2017 schedule, all of PVHS's varsity football games start at 7:30 p.m. on Friday, and it is assumed that this will continue to be the case in the coming years.

The average vehicle occupancy is derived from previously published traffic impact studies, such as the Walla Walla High School Track and Football Stadium Relocation – Transportation Review completed by Kittelson & Associates (2015) and the Traffic Study for John Glenn High School Athletic Fields Improvement Project prepared by the KOA Corporation (2017). The average vehicular occupancy for these types of events is generally higher than for commuting trips as people are more likely to travel together as groups (e.g., families and friends arriving together).

The assumptions to determine the potential vehicle trips are shown in **Table 4.16-1**.

TABLE 4.16-1
VARSITY FOOTBALL GAME TRIP GENERATION ASSUMPTIONS

Trip Factors	Assumptions
Typical day/time of event	Friday/7:30 p.m. to 10:00 p.m.
Mode split of attendees	Assumed 85% automobile, 15% walking/biking
Vehicle occupancy of attendees	2.5 persons per vehicle
Current seating capacity	1,972 (maximum includes temporary bleachers)
Project seating capacity	4,000
Difference in seating capacity	2,028
Potential new vehicle trips	690 (2,028 seats x 85 % ÷ 2.5 persons per vehicle = 690 new trips)

Based on these assumptions, it is estimated that there could be up to 690 new vehicles (2,028 new seats x 85 percent vehicle mode of travel rate ÷ 2.5 persons per vehicle = 690 new vehicles) traveling to PVHS for a varsity football game. These would be new trips to PVHS during night games. These vehicles would not all arrive during a single hour, with staff and players and some spectators arriving more than an hour before the game.

PUBLIC TRANSIT

PVHS is served by a number of public transit bus routes from Butte Regional Transit (B-Line). Routes 4 and 7 travel up and down East Avenue. Route 4 provides bus transit from 6:15 a.m. to 9:00 p.m., and Route 7 provides services from 6:45 a.m. to 5:30 p.m.

PEDESTRIAN AND BICYCLE

The Chico Urban Area Bicycle Plan (2012) identifies existing and planned bikeway facilities in the city. The facilities identified in the Master Plan are defined as follows:

- Class I Bike Path. Provides a completely separated facility designed for the exclusive use of bicycles and pedestrians with minimal cross flows by motorists. Caltrans standards call for Class I bikeways to have a minimum of 8 feet of pavement with 2-foot graded shoulders on either side, for a total right-of-way of 12 feet. These bikeways must also be at least 5 feet from the edge of a paved roadway.

- Class II Bike Lane. Provides a restricted right-of-way designated for the exclusive or semi-exclusive use of bicycles with through travel by motor vehicles or pedestrians prohibited, but with vehicle parking and cross flows by pedestrians and motorists permitted. Caltrans

standards generally require a 5-foot bike lane from face of curb or edge of roadway with a 6-inch white stripe separating the roadway from the bike lane.

- Class III Bike Route. Provides a right-of-way designated by signs or permanent markings and shared with pedestrians and motorists. Roadways designated as Class III bike routes should have sufficient width to accommodate motorists, bicyclists, and pedestrians. Other than a street sign, there are no special markings required for a Class III bike route.

Pedestrian facilities are available adjacent to the campus by existing sidewalks on all of the surrounding roadways. The city has the most extensive bikeway system in Butte County. Existing bicycle transportation facilities include 52.9 miles of Class I bicycle facilities, 80.2 miles of Class II bicycle lanes, and 82.0 miles of Class III routes, for a total of 215.1 miles. Identified bicycle facilities adjacent to the project site include a Class II bike lane on Manzanita Avenue and a Class II bike path on East Avenue.

DISCUSSION OF IMPACTS

a) *Less Than Significant Impact*.

Construction Traffic. During construction, it is anticipated that traffic impacts would be primarily due to construction worker trips, the movement of heavy equipment that would be used for construction to and from the site, and material hauling. The total number of construction-related trips would vary from month to month depending on the type and intensity of construction work being performed. However, due to the limited amount of construction, the number of construction workers for the project would not be substantial and would not result in a substantial increase in traffic in the area.

Operational Traffic. The proposed project's would increase stadium seating over existing conditions allowing greater attendance at varsity football games and other events planned for the stadium. Because the most direct routes to the proposed project site would be via East Avenue and Manzanita Avenue to Ceanothus Avenue, it is assumed that the majority of vehicles coming to the campus for a sporting event would use these two roadways to access the site. The Chico General Plan identifies East Avenue as an arterial roadway (four lanes) and Manzanita Avenue and Ceanothus Avenue as collector roadways (two lanes) (Chico 2011).

Vehicle traffic operations conditions at intersections and roadway segments can be described in terms of level of service (LOS). LOS is a common qualitative measurement of the effects that various factors such as speed, travel time, traffic interruptions, freedom to maneuver, and safety have on traffic operations from the perspective of the driver. Intersection and roadway segment level of service criteria range from LOS A, representing the best conditions, to LOS F, representing overcapacity conditions. LOS E represents "at capacity" operations. The Transportation Research Board developed empirical level of service standards that were published in the 2000 edition of the *Highway Capacity Manual 2000* (HCM), which was current at the time the Chico General Plan EIR was produced. The HCM was updated in 2010.

Table 4.16-2 describes HCM 2000 criteria for peak-hour LOS by roadway function and shows the PM peak-hour traffic volume thresholds for each level of service. Except as noted in the table, the thresholds represent two-way traffic volumes.

TABLE 4.16-2
HCM 2000 PM PEAK-HOUR ROADWAY SEGMENT LEVEL OF SERVICE THRESHOLDS

Facility Type	Level of Service					
	A	B	C	D	E	F
Minor 2-Lane Highway	90	200	680	1,410	1,740	>1,740
Major 2-Lane Highway	120	290	790	1,600	2,050	>2,050
4-Lane, Multilane Highway [a]	1,070	1,760	2,530	3,280	3,650	>3,650
Major 2-Lane Collector	—	—	550	1,180	1,520	>1,520
2-Lane Arterial	—	—	970	1,760	1,870	>1,870
4-Lane Arterial, Undivided	—	—	1,750	2,740	2,890	>2,890
4-Lane Arterial, Divided	—	—	1,920	3,540	3,740	>3,740
6-Lane Arterial, Divided	—	—	2,710	5,320	5,600	>5,600
8-Lane Arterial, Divided	—	—	3,720	7,110	7,470	>7.470
2-Lane Freeway [a]	1,110	2,010	2,880	3,570	4,010	>4,010
2-Lane Freeway + Auxiliary Lane [a]	1,410	2,550	3,640	4,490	5,035	>5,035
3-Lane Freeway [a]	1,700	3,080	4,400	5,410	6,060	>6,060
3-Lane Freeway + Auxiliary Lane [a]	2,010	3,640	5,180	6,350	7,100	>7,100
4-Lane Freeway [a]	2,320	4,200	5,950	7,280	8,140	>8,140
6-Lane Freeway	3,400	6,160	8,800	10,820	12,120	>12,120
6-Lane Freeway + Auxiliary Lane	3,740	6,720	9,580	11,760	13,160	>13,160

Source: Chico 2010, Table 4.5-1
Notes: a. LOS capacity threshold is for one direction.
— = LOS is not achievable due to type of facility

The Chico General Plan EIR analyzes the city's roadway networks and the acceptable LOS for certain roadways. Both East Avenue and Manzanita Avenue are included in this analysis. **Table 4.16-3** identifies the existing PM peak-hour conditions and the acceptable level of service for these streets near the project site.[4]

[4] In urban and suburban areas, the peak hour normally occurs every weekday, during what is considered "rush hour" traffic.

TABLE 4.16-3
HCM 2000 EXISTING PM PEAK-HOUR ROADWAY SEGMENT LEVEL OF SERVICE THRESHOLDS

Roadway Segment	Facility Type	General Plan LOS Threshold	PM Peak		
			Volume	V/C	LOS
East Avenue					
Floral Avenue to Coleman Court	4-Lane Arterial Undivided	D	1,700	0.59	C
Manzanita Avenue					
Mariposa Avenue to Lakewood Way	Major 2-Lane Collector	D	900	0.59	D

Source: Chico 2010, Table 4.5-5
Note: V/C = volume to capacity

The nearest traffic counts to the project site on East Avenue were taken between Floral Avenue and Coleman Court. While this roadway segment does not include the area adjacent to PVHS, it is the closest segment with traffic count information available. This roadway segment has a PM peak-hour count of 1,700 vehicles and a General Plan acceptable threshold of LOS D. As shown in **Table 4.16-2**, four-lane undivided arterials have a volume of 2,740 vehicles for LOS D. The addition of the proposed project's game day traffic of 690 vehicles would not increase the level of service beyond the acceptable threshold for the East Avenue roadway segment.

The nearest traffic counts to the project site on Manzanita Avenue were taken between Mariposa Avenue and Lakewood Way. As with East Avenue, this roadway segment does not include the area adjacent to PVHS. However, it is the closest segment with traffic count information available. This roadway segment has a PM peak-hour count of 900 vehicles and a General Plan acceptable threshold of LOS D. As shown in **Table 4.16-2**, major two-lane collectors have a volume of 1,180 vehicles for LOS D. The addition of the proposed project's game day traffic of 690 vehicles would not increase the level of service beyond the acceptable thresholds for the Manzanita Avenue roadway segment.

Additionally, the games' start time at 7:30 p.m. would occur at the end of the PM peak hour. Chico's rush hour is generally over by 6:00 p.m., and not all of the 690 vehicles would use these roadways to access the site. Furthermore, since events at the stadium do not occur frequently (approximately six home football games a year), it is not likely that there will be a significant increase in vehicular trips over existing conditions. Therefore, the proposed project would have a less than significant impact on established level of service standards for all site access roads.

b) *No Impact*. See the discussion under Issue a) above. The Chico General Plan Circulation Element includes a number of policies intended to improve the City's roadway, bicycle, pedestrian, and public transit circulation system. The Butte County Association of Governments 2016 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) also includes policies for improving the transportation system in the county. As discussed above, the proposed project would have a less than significant impact on established level of service standards for all site access roads. The project is proposed on an existing school campus, and the proposed project would not add new streets or bicycle/pedestrian paths to the city's existing circulation system. In addition, project implementation would not result in a change to the existing bicycle, pedestrian, or public transit routes or result in the need for expanding these routes. Finally, the proposed project

would not result in a conflict with transportation/traffic-related policies listed in the Chico General Plan or the RTP/SCS. The project would have no impact.

c) *Less than Significant with Mitigation Incorporated*. The Chico Municipal Airport, at 150 Airpark Avenue, is located approximately 3 miles northwest of the project site. According to the Butte County Airport Land Use Compatibility Plan (ALUCP), developed by the Butte County Airport Land Use Commission (2000), approximately half of the PVHS campus is located in the airport's Compatibility Zone C. The ALUCP describes Compatibility Zone C as follows: Compatibility Zone C also includes lands within the Federal Aviation Regulations (FAR) Part 77 Transitional and Horizontal zones. Restrictions may be required on tall objects (ones greater than 70 feet high). The proposed project includes replacement and new field lighting for the stadium and the baseball and softball fields. The design of these lighting facilities has yet to be determined. Federal Aviation Regulations (FAR) Part 77 includes height restrictions for objects taller than 70 feet. The poles on which stadium and field lighting will be mounted have the potential to exceed this height. Because field lighting design has not been determined, mitigation ensuring that this lighting will be acceptable for Compatibility Zone C must be approved by the Butte County Airport Land Use Commission. Mitigation Measure **MM 4.8.3** has been included in this IS/MND to reduce potential airport-related impacts to a less than significant level.

d) *No Impact*. No change in existing access points/roadways are proposed with the project. Access to the project site would be via existing access points. The existing access points would not create hazards due to design features or incompatible uses. There would be no impact.

e) *No Impact*. No changes in emergency vehicle access are proposed for the project. The existing on-site access would continue to accommodate through movements of emergency vehicles. There would be no impact from the proposed project.

f) *No Impact*. The project proposes the construction of improvements to existing athletic facilities as well as the addition of design components to improve enjoyment of these facilities and allow for expanded use. PVHS is already served by bus routes and bicycle/pedestrian paths. Implementation of the proposed project would not decrease the ability to use these facilities. The proposed project will not conflict with adopted plans for alternative transportation and would not have an impact on alternative transportation.

MITIGATION MEASURES

Implement mitigation measure **MM 4.8.3**

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.17 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)?	☐	☒	☐	☐
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 Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

OVERVIEW

Tribal cultural resources are defined in CEQA as a site, feature, place, cultural landscape, sacred place, or object with cultural value to a California Native American tribe, which may include non-unique archeological resources previously subject to limited review under CEQA.

Chico is located within the boundaries of Konkow or Northwestern Maidu territory. Chico is home to a Native American community (Mechoopda Indian Tribe of the Chico Rancheria). Assembly Bill 52 (AB 52) requires the a lead agency (in this case the CUSD) to begin consultation with any California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project prior to the release of a negative declaration or mitigated negative declaration if (1) the California Native American tribe requested to the lead agency, in writing, to be informed by the lead agency through formal notification of proposed projects in the geographic area that is traditionally and culturally affiliated with the tribe, and (2) the California Native American tribe responds, in writing, within 30 days of receipt of the formal notification and requests the consultation (Public Resources Code Section 21080.3.1[d]).

No Native American tribes have requested consultation with CUSD pursuant to AB 52. No tribal cultural resources (as defined in Public Resources Code Section 21074) have been reported on the project site.

DISCUSSION OF IMPACTS

a) *Less Than Significant Impact With Mitigation Incorporated*. The proposed project would involve improvements to the existing athletic facilities and construction of bleachers, storage facilities, an entry building, classrooms/team rooms, and other improvements on the PVHS campus within the areas of the existing fields. The football, baseball, softball, and soccer fields are not considered to be of any historical importance and are not identified

as such by the California State Historical Resources Commission, the Chico General Plan or General Plan EIR, or the Chico Historic Resources Inventory (see subsection 4.5.a). No changes to existing PVHS buildings would occur with implementation of the proposed project. Improvements to the athletic fields and the construction of bleachers, storage facilities, an entry building, classrooms/team rooms, and all other improvements would occur within the existing field area and would not result in changes to the existing PVHS buildings. However, unanticipated and accidental historical discoveries are possible during project implementation, especially during ground-disturbing activities, and have the potential to impact unknown historical resources. As such, mitigation measure **MM 4.5.1** has been incorporated into the proposed project. This measure requires proper mitigation for the discovery of unknown historical resources; therefore, this impact would be less than significant.

b) *Less Than Significant Impact With Mitigation Incorporated*. The entire project site has been developed and used for school-related activities for many years, and the site has not been identified as either a site, feature, place, cultural landscape, sacred place, or object with cultural value to a California Native American tribe. However, unanticipated and accidental discovery of California Native American tribal cultural resources are possible during project implementation, especially during ground-disturbing activities. As such, mitigation measures **MM 4.5.1** and **MM 4.5.3** have been incorporated into the proposed project. These measures require proper mitigation for the discovery of unknown resources including human remains; therefore, this impact would be less than significant.

MITIGATION MEASURES

Implement mitigation measures **MM 4.5.1** and **MM 4.5.3**.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.18 UTILITIES AND SERVICE SYSTEMS. Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐
e) Result in a determination by the wastewater treatment provider that 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?	☐	☐	☒	☐
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

OVERVIEW

The City of Chico Public Works Department is responsible for wastewater and storm drainage services for the city, including PVHS. Water service in the project area is provided by Cal Water. The Solid Waste and Recycling division of the Chico Public Works Department oversees solid waste and recycling in the city.

WASTEWATER COLLECTION AND TREATMENT

The City of Chico maintains facilities to convey, treat, and dispose of municipal wastewater generated within the city limits. Wastewater in the city is either discharged to septic systems or routed to the sanitary sewer system. Wastewater discharged to septic systems eventually percolates into the aquifer underlying the city.

The city's gravity-flow sewer system consists of gravity sewers and pumping stations to collect wastewater from residential, commercial, and industrial customers. The system includes 388 miles of pipelines, consisting of 384 miles of gravity sewers and 4 miles of force mains, with 14 lift stations

(Chico 2014, p. i). Once collected, wastewater is discharged to trunk sewers and conveyed to the Water Pollution Control Plant (WPCP) for treatment.

Wastewater is treated at the WPCP, located at 4827 Chico River Road, approximately 4 miles southwest of the city in the western portion of Butte County. The WPCP serves development both within and outside the city limits. The WPCP is a modern 12 million gallon per day (mgd) capacity, secondary treatment, activated sludge, wastewater treatment plant with future expandability to 15 mgd capacity (Chico 2017c). As of 2015, the average daily dry weather flow was approximately 6.0 mgd (Central Valley RWQCB 2016).

WATER SERVICE

Water service in the project area is provided by Cal Water, which supplies water service to 1.7 million people (435,000 connections) in California. In Butte County, Cal Water obtains groundwater from subbasins of the Sacramento Valley Groundwater Basin, including the Vina Subbasin, the West Butte Subbasin, and the East Butte Subbasin (Chico 2010, p. 4.12-35). The Cal Water 2015 Urban Water Management Plan (UWMP) for the Chico-Hamilton City District provides water supply and demand information through 2040. The water supply available to the city is identified in the UWMP and is based on three water supply condition scenarios: average/normal water year, single dry water year, and multiple dry water years. As shown in **Table 4.18-1**, Cal Water has adequate water supply to meet projected demand through 2040 for all scenarios. Because Cal Water obtains its water from groundwater, allocated supply is not a factor in the 2015 UWMP. Sufficient amounts of groundwater would be pumped to supply the needs of water customers.

TABLE 4.18-1
WATER SUPPLY AND DEMAND

	Water Supply and Demand by Year (acre-feet)				
	2020	**2025**	**2030**	**2035**	**2040**
Normal Year Scenario					
Supply	29,397	32,162	33,981	35,916	37,974
Demand	29,397	32,162	33,981	35,916	37,974
Supply/Demand Difference	0	0	0	0	0
Single Dry Year Scenario					
Supply	31,978	34,986	36,965	39,070	41,309
Demand	31,978	34,986	36,965	39,070	41,309
Supply/Demand Difference	0	0	0	0	0
Multiple Dry Years Scenario (3rd Year shown)					
Supply	31,978	34,986	36,965	39,070	41,309
Demand	31,978	34,986	36,965	39,070	41,309
Supply/Demand Difference	0	0	0	0	0

Source: Cal Water 2015, Tables 3-4, 7-2, 7-3, and 7-4

STORM DRAINAGE

The existing storm drainage system in the city is generally a conventional drop inlet storm drainage pipeline collection and conveyance system. This system collects storm runoff from rain that falls in local neighborhoods and conveys this runoff to the creeks that flow through the city. The surface drainage system that collects overland storm runoff from adjacent properties consists of paved street shoulders with curbs and gutters, dirt or gravel street shoulders with curbs, or dirt or gravel shoulders shaped to form a roadside swale. These surface drainage systems transport runoff from the city's underground pipe system and/or to the creeks that flow through the city. Five channels traversing the urban area accept stormwater runoff: Comanche Creek, Little Chico Creek, Big Chico Creek, Lindo Channel, and Mud/Sycamore Creek (Chico 2007, p. 5-39).

SOLID WASTE

The Solid Waste and Recycling division of the Chico Public Works Department oversees solid waste and recycling in the city. As shown in **Table 4.18-2**, the majority of the city's solid waste is disposed of at the Neal Road Recycling and Waste Facility. According to the figures published by the California Department of Resources Recycling and Recovery (CalRecycle) (2017a), in 2015, the Neal Road Recycling and Waste Facility received approximately 77.8 percent of Chico's solid waste, or 68,933 tons. As of July 2009, the facility had a remaining capacity of 20 million cubic yards.

TABLE 4.18-2
SOLID WASTE DISPOSAL FACILITIES USED BY THE CITY OF CHICO

Destination Facility	Solid Waste Disposal (tons per year)			Landfill Information		
	2013	2014	2015	Remaining Capacity (cubic yards)	Remaining Capacity Date	Cease Operation Date
Altamont Landfill & Resource Recovery	—	3	270	64,400,000	12/31/14	1/1/2025
Anderson Landfill, Inc.	45	19	31	11,914,025	3/16/2008	1/1/2093
Azusa Land Reclamation Co. Landfill	39	19	39	51,512,201	9/30/12	1/1/2045
Forward Landfill, Inc.	138	105	59	22,100,000	12/31/2012	1/1/2020
Highway 59 Disposal Site	—	58	—	28,025,334	9/1/2005	1/1/2030
McKittrick Waste Treatment Site	24	—	—	769,790	4/5/2012	12/31/2059
Monterey Peninsula Landfill	—	1	7	48,560,000	12/31/2004	2/28/2107
Neal Road Recycling and Waste Facility	64,109	64,679	68,933	20,874,970	7/1/2009	1/1/2033
North County Landfill & Recycling	185	58	188	35,400,000	12/31/2009	12/31/2048
Potrero Hills Landfill	6	—	45	13,872,000	1/1/2006	2/14/2048
Recology Hay Road	37	—	47	30,433,000	7/28/2010	1/1/2077
Recology Ostrom Road LF Inc.	8,543	3,550	3,020	39,223,000	6/1/2007	12/31/2066
Sacramento County Landfill (Kiefer)	252	191	139	112,900,000	9/12/2005	1/1/2064
Yolo County Central Landfill	37	24	28	n/a	n/a	1/1/2081
Yearly Total	73,415	68,706	72,806			
Average per Resident (pounds per day)	4.6	4.3	4.5			

Source: CalRecycle 2017a, 2017b, 2017c

DISCUSSION OF IMPACTS

a) *No Impact*. PVHS is connected to the City of Chico's existing wastewater collection treatment system, which includes the WPCP. The plant is currently in compliance with all wastewater standards and treatment requirements of the Central Valley RWQCB. The proposed project would not result in an increase in student enrollment at PVHS or generate substantial amounts of wastewater over existing conditions. The chemical and physical characteristics of wastewater flows from the proposed new restrooms would be the same as existing flows from the campus. As such, the proposed project would not result in an exceedance of the wastewater standards of the Central Valley RWQCB.

b) *No Impact*. There is no proposed increase in student capacity as part of this project. The project would result in a minimal additional demand for water from the city's water supply and increase in wastewater flows entering the WPCP as a result of project operation. As such, the project would not result in the construction of new water or wastewater facilities that would result in a physical impact to the environment. Therefore, the project will have no impact on water and wastewater facilities.

c) *Less Than Significant Impact*. Implementation of the proposed project would increase the amount of impervious surfaces on the project site, which would result in a slight increase in stormwater runoff. However, existing on-site drainage and retention facilities at PVHS are sufficient to accommodate this increase in stormwater runoff, as the proposed project would not result in a large increase in impervious surfaces. The school is connected to the City of Chico's storm drain system. Therefore, the proposed project would have a less than significant impact.

d) *Less Than Significant Impact*. PVHS is provided domestic water service by Cal Water. While the proposed project would construct new restroom facilities, there would be no increase in the student population. Therefore, water service demand would not be substantially greater than the existing demand for water service. This impact is considered less than significant.

e) *Less Than Significant Impact*. The project site is currently provided sanitary sewer service by the City of Chico through its wastewater collection and treatment system. Wastewater is treated at the WPCP. Capacity at the plant is 12 mgd and average wastewater flow is 6.0 mgd. While the proposed project would construct new restroom facilities, there would be no increase in the student population. The proposed project would not result in substantially greater wastewater collection and treatment demand than that associated with current operations at the campus. The impact is less than significant.

f) *Less Than Significant Impact*. Regarding the production and disposal of solid waste during operation of the proposed project, the main difference in solid waste generation when comparing existing conditions and future conditions with implementation of the proposed project would result from the use the proposed classrooms and the ability to use the softball and baseball fields at night. Because no increase in student enrollment is anticipated with the proposed project, the project would not significantly increase the amount of solid waste already generated at PVHS. Adequate capacity is projected through 2033 at the Neal Road Recycling and Waste Facility. However, the proposed project would not substantially increase the amount of solid waste in the city and existing landfills have sufficient capacity to accommodate the relatively minor amounts of waste that would be generated by the proposed project. This impact would be less than significant.

g) *Less Than Significant Impact*. The proposed project is required to comply with all state and federal statutes regarding solid waste. This impact is considered less than significant.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.19 MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wild-life population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of rare or endangered plants or animals, or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
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.	☐	☐	☒	☐
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

DISCUSSION OF IMPACTS

a) *Less Than Significant Impact With Mitigation Incorporated*. As discussed in subsection 4.4, Biological Resources, the proposed project may impact special-status bird and bat species. However, mitigation measures **MM 4.4.1** through **MM 4.4.7** would reduce these impacts to less than significant levels. Additionally, the proposed project has the potential to impact undiscovered cultural resources, as discussed in subsection 4.5, Cultural Resources. However, with implementation of mitigation measures **MM 4.5.1** through **MM 4.5.3**, these potential impacts would be reduced to a level that is considered less than significant.

b) *Less Than Significant Impact.* The proposed project would take place on an existing school campus and would improve existing athletic facilities. While the project does include the addition of lighting facilities for the stadium, baseball, softball, and soccer fields, these facilities would not impact the scenic quality or substantially increase nighttime glare and sky glow in the area on a cumulative basis as these facilities would be used for short periods of time and would not result in a continual increase in nighttime glare or sky glow. The proposed project would have a less than significant cumulative impact.

c) *Less Than Significant Impact With Mitigation Incorporated.* With implementation of the mitigation measures included in this IS/MND, the various improvements to the PVHS athletic facilities would not result in adverse impacts on human beings.

5.0 REFERENCES

5.1 DOCUMENTS REFERENCED IN INITIAL STUDY AND/OR INCORPORATED BY REFERENCE

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APPENDIX 4.3
AIR QUALITY

Pleasant Valley High School Athletic Fields Project

Butte County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
High School	13.00	1000sqft	0.30	13,000.00	0
Unrefrigerated Warehouse-No Rail	2.50	1000sqft	0.06	2,500.00	0
Other Non-Asphalt Surfaces	17.48	Acre	17.48	761,428.80	0
Arena	0.50	1000sqft	0.16	500.00	0
Arena	1.50	1000sqft	0.48	1,500.00	0
Health Club	5.30	1000sqft	0.12	5,300.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	71
Climate Zone	3			**Operational Year**	2019
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase -

Vehicle Trips - No additional trips assumed.

Pleasant Valley High School Athletic Fields Project - Butte County, Annual

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	PhaseEndDate	1/6/2022	11/14/2019
tblConstructionPhase	PhaseEndDate	11/12/2020	10/17/2019
tblConstructionPhase	PhaseStartDate	11/13/2020	10/18/2019
tblProjectCharacteristics	OperationalYear	2018	2019
tblVehicleTrips	ST_TR	10.71	0.00
tblVehicleTrips	ST_TR	20.87	0.00
tblVehicleTrips	ST_TR	4.37	0.00
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	10.71	0.00
tblVehicleTrips	SU_TR	26.73	0.00
tblVehicleTrips	SU_TR	1.79	0.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	10.71	0.00
tblVehicleTrips	WD_TR	32.93	0.00
tblVehicleTrips	WD_TR	12.89	0.00
tblVehicleTrips	WD_TR	1.68	0.00

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					
2018	0.4464	3.8854	3.1500	7.3300e-003	0.4603	0.1514	0.6117	0.1690	0.1415	0.3105	0.0000	672.0310	672.0310	0.0990	0.0000	674.5063
2019	1.0565	4.3987	3.9915	0.0106	0.4041	0.1514	0.5555	0.1102	0.1425	0.2527	0.0000	967.2324	967.2324	0.1160	0.0000	970.1323
Maximum	**1.0565**	**4.3987**	**3.9915**	**0.0106**	**0.4603**	**0.1514**	**0.6117**	**0.1690**	**0.1425**	**0.3105**	**0.0000**	**967.2324**	**967.2324**	**0.1160**	**0.0000**	**970.1323**

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					
2018	0.4464	3.8854	3.1500	7.3300e-003	0.4603	0.1514	0.6117	0.1690	0.1415	0.3105	0.0000	672.0308	672.0308	0.0990	0.0000	674.5061
2019	1.0565	4.3987	3.9915	0.0106	0.4041	0.1514	0.5555	0.1102	0.1425	0.2527	0.0000	967.2321	967.2321	0.1160	0.0000	970.1320
Maximum	**1.0565**	**4.3987**	**3.9915**	**0.0106**	**0.4603**	**0.1514**	**0.6117**	**0.1690**	**0.1425**	**0.3105**	**0.0000**	**967.2321**	**967.2321**	**0.1160**	**0.0000**	**970.1320**

	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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	6-1-2018	8-31-2018	1.9424	1.9424
2	9-1-2018	11-30-2018	1.8027	1.8027
3	12-1-2018	2-28-2019	1.6887	1.6887
4	3-1-2019	5-31-2019	1.6487	1.6487
5	6-1-2019	8-31-2019	1.6383	1.6383
6	9-1-2019	9-30-2019	0.4047	0.4047
		Highest	1.9424	1.9424

2.2 Overall Operational

Unmitigated Operational

	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					
Area	0.1912	0.0000	3.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.2000e-004	7.2000e-004	0.0000	0.0000	7.7000e-004
Energy	2.8400e-003	0.0258	0.0217	1.5000e-004		1.9600e-003	1.9600e-003		1.9600e-003	1.9600e-003	0.0000	80.6870	80.6870	2.9200e-003	1.0100e-003	81.0600
Mobile	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
Waste						0.0000	0.0000		0.0000	0.0000	10.0521	0.0000	10.0521	0.5941	0.0000	24.9037
Water						0.0000	0.0000		0.0000	0.0000	0.6931	4.8209	5.5140	0.0714	1.7300e-003	7.8136
Total	**0.1940**	**0.0258**	**0.0220**	**1.5000e-004**	**0.0000**	**1.9600e-003**	**1.9600e-003**	**0.0000**	**1.9600e-003**	**1.9600e-003**	**10.7452**	**85.5086**	**96.2539**	**0.6684**	**2.7400e-003**	**113.7781**

2.2 Overall Operational

Mitigated Operational

	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					
Area	0.1912	0.0000	3.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.2000e-004	7.2000e-004	0.0000	0.0000	7.7000e-004
Energy	2.8400e-003	0.0258	0.0217	1.5000e-004		1.9600e-003	1.9600e-003		1.9600e-003	1.9600e-003	0.0000	80.6870	80.6870	2.9200e-003	1.0100e-003	81.0600
Mobile	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
Waste						0.0000	0.0000		0.0000	0.0000	10.0521	0.0000	10.0521	0.5941	0.0000	24.9037
Water						0.0000	0.0000		0.0000	0.0000	0.6931	4.8209	5.5140	0.0714	1.7300e-003	7.8136
Total	**0.1940**	**0.0258**	**0.0220**	**1.5000e-004**	**0.0000**	**1.9600e-003**	**1.9600e-003**	**0.0000**	**1.9600e-003**	**1.9600e-003**	**10.7452**	**85.5086**	**96.2539**	**0.6684**	**2.7400e-003**	**113.7781**

	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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Pleasant Valley High School Athletic Fields Project - Butte County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/1/2018	6/14/2018	5	10	
2	Grading	Grading	6/15/2018	7/26/2018	5	30	
3	Building Construction	Building Construction	7/27/2018	9/19/2019	5	300	
4	Paving	Paving	9/20/2019	10/17/2019	5	20	
5	Architectural Coating	Architectural Coating	10/18/2019	11/14/2019	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 17.48

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 34,200; Non-Residential Outdoor: 11,400; Striped Parking Area: 45,686 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

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	7	18.00	0.00	0.00	12.54	10.52	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	12.54	10.52	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	329.00	129.00	0.00	12.54	10.52	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	12.54	10.52	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	66.00	0.00	0.00	12.54	10.52	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2018

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					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0228	0.2410	0.1124	1.9000e-004		0.0129	0.0129		0.0119	0.0119	0.0000	17.3800	17.3800	5.4100e-003	0.0000	17.5152
Total	**0.0228**	**0.2410**	**0.1124**	**1.9000e-004**	**0.0903**	**0.0129**	**0.1032**	**0.0497**	**0.0119**	**0.0615**	**0.0000**	**17.3800**	**17.3800**	**5.4100e-003**	**0.0000**	**17.5152**

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	6.7000e-004	6.2000e-004	5.8300e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.3000e-004	2.2000e-004	1.0000e-005	2.3000e-004	0.0000	0.7984	0.7984	5.0000e-005	0.0000	0.7997
Total	**6.7000e-004**	**6.2000e-004**	**5.8300e-003**	**1.0000e-005**	**8.2000e-004**	**1.0000e-005**	**8.3000e-004**	**2.2000e-004**	**1.0000e-005**	**2.3000e-004**	**0.0000**	**0.7984**	**0.7984**	**5.0000e-005**	**0.0000**	**0.7997**

3.2 Site Preparation - 2018

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					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0228	0.2410	0.1124	1.9000e-004		0.0129	0.0129		0.0119	0.0119	0.0000	17.3799	17.3799	5.4100e-003	0.0000	17.5152
Total	**0.0228**	**0.2410**	**0.1124**	**1.9000e-004**	**0.0903**	**0.0129**	**0.1032**	**0.0497**	**0.0119**	**0.0615**	**0.0000**	**17.3799**	**17.3799**	**5.4100e-003**	**0.0000**	**17.5152**

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	6.7000e-004	6.2000e-004	5.8300e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.3000e-004	2.2000e-004	1.0000e-005	2.3000e-004	0.0000	0.7984	0.7984	5.0000e-005	0.0000	0.7997
Total	**6.7000e-004**	**6.2000e-004**	**5.8300e-003**	**1.0000e-005**	**8.2000e-004**	**1.0000e-005**	**8.3000e-004**	**2.2000e-004**	**1.0000e-005**	**2.3000e-004**	**0.0000**	**0.7984**	**0.7984**	**5.0000e-005**	**0.0000**	**0.7997**

3.3 Grading - 2018

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					0.1301	0.0000	0.1301	0.0540	0.0000	0.0540	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0764	0.8928	0.5263	9.3000e-004		0.0395	0.0395		0.0364	0.0364	0.0000	84.9728	84.9728	0.0265	0.0000	85.6341
Total	**0.0764**	**0.8928**	**0.5263**	**9.3000e-004**	**0.1301**	**0.0395**	**0.1696**	**0.0540**	**0.0364**	**0.0903**	**0.0000**	**84.9728**	**84.9728**	**0.0265**	**0.0000**	**85.6341**

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	2.2200e-003	2.0800e-003	0.0195	3.0000e-005	2.7400e-003	3.0000e-005	2.7700e-003	7.3000e-004	2.0000e-005	7.5000e-004	0.0000	2.6615	2.6615	1.6000e-004	0.0000	2.6656
Total	**2.2200e-003**	**2.0800e-003**	**0.0195**	**3.0000e-005**	**2.7400e-003**	**3.0000e-005**	**2.7700e-003**	**7.3000e-004**	**2.0000e-005**	**7.5000e-004**	**0.0000**	**2.6615**	**2.6615**	**1.6000e-004**	**0.0000**	**2.6656**

3.3 Grading - 2018

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					0.1301	0.0000	0.1301	0.0540	0.0000	0.0540	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0764	0.8928	0.5263	9.3000e-004		0.0395	0.0395		0.0364	0.0364	0.0000	84.9727	84.9727	0.0265	0.0000	85.6340
Total	**0.0764**	**0.8928**	**0.5263**	**9.3000e-004**	**0.1301**	**0.0395**	**0.1696**	**0.0540**	**0.0364**	**0.0903**	**0.0000**	**84.9727**	**84.9727**	**0.0265**	**0.0000**	**85.6340**

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	2.2200e-003	2.0800e-003	0.0195	3.0000e-005	2.7400e-003	3.0000e-005	2.7700e-003	7.3000e-004	2.0000e-005	7.5000e-004	0.0000	2.6615	2.6615	1.6000e-004	0.0000	2.6656
Total	**2.2200e-003**	**2.0800e-003**	**0.0195**	**3.0000e-005**	**2.7400e-003**	**3.0000e-005**	**2.7700e-003**	**7.3000e-004**	**2.0000e-005**	**7.5000e-004**	**0.0000**	**2.6615**	**2.6615**	**1.6000e-004**	**0.0000**	**2.6656**

3.4 Building Construction - 2018

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	0.1501	1.3098	0.9845	1.5100e-003		0.0840	0.0840		0.0790	0.0790	0.0000	133.1497	133.1497	0.0326	0.0000	133.9652
Total	**0.1501**	**1.3098**	**0.9845**	**1.5100e-003**		**0.0840**	**0.0840**		**0.0790**	**0.0790**	**0.0000**	**133.1497**	**133.1497**	**0.0326**	**0.0000**	**133.9652**

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	0.0577	1.3115	0.3072	2.8400e-003	0.0680	0.0134	0.0814	0.0197	0.0128	0.0325	0.0000	269.6184	269.6184	0.0243	0.0000	270.2256
Worker	0.1366	0.1275	1.1943	1.8200e-003	0.1683	1.5800e-003	0.1699	0.0448	1.4600e-003	0.0462	0.0000	163.4504	163.4504	0.0100	0.0000	163.7010
Total	**0.1943**	**1.4391**	**1.5015**	**4.6600e-003**	**0.2363**	**0.0150**	**0.2513**	**0.0645**	**0.0143**	**0.0787**	**0.0000**	**433.0688**	**433.0688**	**0.0343**	**0.0000**	**433.9266**

3.4 Building Construction - 2018

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	0.1501	1.3098	0.9845	1.5100e-003		0.0840	0.0840		0.0790	0.0790	0.0000	133.1495	133.1495	0.0326	0.0000	133.9650
Total	**0.1501**	**1.3098**	**0.9845**	**1.5100e-003**		**0.0840**	**0.0840**		**0.0790**	**0.0790**	**0.0000**	**133.1495**	**133.1495**	**0.0326**	**0.0000**	**133.9650**

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	0.0577	1.3115	0.3072	2.8400e-003	0.0680	0.0134	0.0814	0.0197	0.0128	0.0325	0.0000	269.6184	269.6184	0.0243	0.0000	270.2256
Worker	0.1366	0.1275	1.1943	1.8200e-003	0.1683	1.5800e-003	0.1699	0.0448	1.4600e-003	0.0462	0.0000	163.4504	163.4504	0.0100	0.0000	163.7010
Total	**0.1943**	**1.4391**	**1.5015**	**4.6600e-003**	**0.2363**	**0.0150**	**0.2513**	**0.0645**	**0.0143**	**0.0787**	**0.0000**	**433.0688**	**433.0688**	**0.0343**	**0.0000**	**433.9266**

3.4 Building Construction - 2019

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	0.2220	1.9814	1.6134	2.5300e-003		0.1213	0.1213		0.1140	0.1140	0.0000	220.9979	220.9979	0.0538	0.0000	222.3439
Total	**0.2220**	**1.9814**	**1.6134**	**2.5300e-003**		**0.1213**	**0.1213**		**0.1140**	**0.1140**	**0.0000**	**220.9979**	**220.9979**	**0.0538**	**0.0000**	**222.3439**

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	0.0824	2.0562	0.4405	4.7400e-003	0.1142	0.0181	0.1323	0.0330	0.0173	0.0504	0.0000	449.5773	449.5773	0.0404	0.0000	450.5872
Worker	0.2008	0.1854	1.7273	2.9600e-003	0.2825	2.4700e-003	0.2849	0.0752	2.2800e-003	0.0774	0.0000	266.6449	266.6449	0.0147	0.0000	267.0120
Total	**0.2832**	**2.2416**	**2.1678**	**7.7000e-003**	**0.3967**	**0.0206**	**0.4172**	**0.1082**	**0.0196**	**0.1278**	**0.0000**	**716.2222**	**716.2222**	**0.0551**	**0.0000**	**717.5992**

3.4 Building Construction - 2019

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	0.2220	1.9814	1.6134	2.5300e-003		0.1213	0.1213		0.1140	0.1140	0.0000	220.9977	220.9977	0.0538	0.0000	222.3436
Total	**0.2220**	**1.9814**	**1.6134**	**2.5300e-003**		**0.1213**	**0.1213**		**0.1140**	**0.1140**	**0.0000**	**220.9977**	**220.9977**	**0.0538**	**0.0000**	**222.3436**

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	0.0824	2.0562	0.4405	4.7400e-003	0.1142	0.0181	0.1323	0.0330	0.0173	0.0504	0.0000	449.5773	449.5773	0.0404	0.0000	450.5872
Worker	0.2008	0.1854	1.7273	2.9600e-003	0.2825	2.4700e-003	0.2849	0.0752	2.2800e-003	0.0774	0.0000	266.6449	266.6449	0.0147	0.0000	267.0120
Total	**0.2832**	**2.2416**	**2.1678**	**7.7000e-003**	**0.3967**	**0.0206**	**0.4172**	**0.1082**	**0.0196**	**0.1278**	**0.0000**	**716.2222**	**716.2222**	**0.0551**	**0.0000**	**717.5992**

3.5 Paving - 2019

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	0.0145	0.1524	0.1467	2.3000e-004		8.2500e-003	8.2500e-003		7.5900e-003	7.5900e-003	0.0000	20.4752	20.4752	6.4800e-003	0.0000	20.6371
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0145**	**0.1524**	**0.1467**	**2.3000e-004**		**8.2500e-003**	**8.2500e-003**		**7.5900e-003**	**7.5900e-003**	**0.0000**	**20.4752**	**20.4752**	**6.4800e-003**	**0.0000**	**20.6371**

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	9.7000e-004	9.0000e-004	8.3800e-003	1.0000e-005	1.3700e-003	1.0000e-005	1.3800e-003	3.6000e-004	1.0000e-005	3.8000e-004	0.0000	1.2933	1.2933	7.0000e-005	0.0000	1.2951
Total	**9.7000e-004**	**9.0000e-004**	**8.3800e-003**	**1.0000e-005**	**1.3700e-003**	**1.0000e-005**	**1.3800e-003**	**3.6000e-004**	**1.0000e-005**	**3.8000e-004**	**0.0000**	**1.2933**	**1.2933**	**7.0000e-005**	**0.0000**	**1.2951**

3.5 Paving - 2019

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	0.0145	0.1524	0.1467	2.3000e-004		8.2500e-003	8.2500e-003		7.5900e-003	7.5900e-003	0.0000	20.4752	20.4752	6.4800e-003	0.0000	20.6371
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0145**	**0.1524**	**0.1467**	**2.3000e-004**		**8.2500e-003**	**8.2500e-003**		**7.5900e-003**	**7.5900e-003**	**0.0000**	**20.4752**	**20.4752**	**6.4800e-003**	**0.0000**	**20.6371**

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	9.7000e-004	9.0000e-004	8.3800e-003	1.0000e-005	1.3700e-003	1.0000e-005	1.3800e-003	3.6000e-004	1.0000e-005	3.8000e-004	0.0000	1.2933	1.2933	7.0000e-005	0.0000	1.2951
Total	**9.7000e-004**	**9.0000e-004**	**8.3800e-003**	**1.0000e-005**	**1.3700e-003**	**1.0000e-005**	**1.3800e-003**	**3.6000e-004**	**1.0000e-005**	**3.8000e-004**	**0.0000**	**1.2933**	**1.2933**	**7.0000e-005**	**0.0000**	**1.2951**

3.6 Architectural Coating - 2019

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					
Archit. Coating	0.5289					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6600e-003	0.0184	0.0184	3.0000e-005		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	2.5533	2.5533	2.2000e-004	0.0000	2.5587
Total	**0.5316**	**0.0184**	**0.0184**	**3.0000e-005**		**1.2900e-003**	**1.2900e-003**		**1.2900e-003**	**1.2900e-003**	**0.0000**	**2.5533**	**2.5533**	**2.2000e-004**	**0.0000**	**2.5587**

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	4.2900e-003	3.9600e-003	0.0369	6.0000e-005	6.0300e-003	5.0000e-005	6.0800e-003	1.6000e-003	5.0000e-005	1.6500e-003	0.0000	5.6905	5.6905	3.1000e-004	0.0000	5.6984
Total	**4.2900e-003**	**3.9600e-003**	**0.0369**	**6.0000e-005**	**6.0300e-003**	**5.0000e-005**	**6.0800e-003**	**1.6000e-003**	**5.0000e-005**	**1.6500e-003**	**0.0000**	**5.6905**	**5.6905**	**3.1000e-004**	**0.0000**	**5.6984**

3.6 Architectural Coating - 2019

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					
Archit. Coating	0.5289					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6600e-003	0.0184	0.0184	3.0000e-005		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	2.5533	2.5533	2.2000e-004	0.0000	2.5586
Total	**0.5316**	**0.0184**	**0.0184**	**3.0000e-005**		**1.2900e-003**	**1.2900e-003**		**1.2900e-003**	**1.2900e-003**	**0.0000**	**2.5533**	**2.5533**	**2.2000e-004**	**0.0000**	**2.5586**

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	4.2900e-003	3.9600e-003	0.0369	6.0000e-005	6.0300e-003	5.0000e-005	6.0800e-003	1.6000e-003	5.0000e-005	1.6500e-003	0.0000	5.6905	5.6905	3.1000e-004	0.0000	5.6984
Total	**4.2900e-003**	**3.9600e-003**	**0.0369**	**6.0000e-005**	**6.0300e-003**	**5.0000e-005**	**6.0800e-003**	**1.6000e-003**	**5.0000e-005**	**1.6500e-003**	**0.0000**	**5.6905**	**5.6905**	**3.1000e-004**	**0.0000**	**5.6984**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	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					
Mitigated	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
Unmitigated	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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Arena	0.00	0.00	0.00		
Arena	0.00	0.00	0.00		
Health Club	0.00	0.00	0.00		
High School	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Arena	10.52	10.52	10.52	0.00	81.00	19.00	66	28	6
Arena	10.52	10.52	10.52	0.00	81.00	19.00	66	28	6
Health Club	10.52	10.52	10.52	16.90	64.10	19.00	52	39	9
High School	10.52	10.52	10.52	77.80	17.20	5.00	75	19	6
Other Non-Asphalt Surfaces	10.52	10.52	10.52	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	10.52	10.52	10.52	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
High School	0.488379	0.037237	0.184894	0.132358	0.042014	0.007577	0.018418	0.076572	0.001721	0.001591	0.006262	0.001327	0.001651
Unrefrigerated Warehouse-No Rail	0.488379	0.037237	0.184894	0.132358	0.042014	0.007577	0.018418	0.076572	0.001721	0.001591	0.006262	0.001327	0.001651
Other Non-Asphalt Surfaces	0.488379	0.037237	0.184894	0.132358	0.042014	0.007577	0.018418	0.076572	0.001721	0.001591	0.006262	0.001327	0.001651
Arena	0.488379	0.037237	0.184894	0.132358	0.042014	0.007577	0.018418	0.076572	0.001721	0.001591	0.006262	0.001327	0.001651
Arena	0.488379	0.037237	0.184894	0.132358	0.042014	0.007577	0.018418	0.076572	0.001721	0.001591	0.006262	0.001327	0.001651
Health Club	0.488379	0.037237	0.184894	0.132358	0.042014	0.007577	0.018418	0.076572	0.001721	0.001591	0.006262	0.001327	0.001651

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Pleasant Valley High School Athletic Fields Project - Butte County, Annual

	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					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	52.6003	52.6003	2.3800e-003	4.9000e-004	52.8064
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	52.6003	52.6003	2.3800e-003	4.9000e-004	52.8064
NaturalGas Mitigated	2.8400e-003	0.0258	0.0217	1.5000e-004		1.9600e-003	1.9600e-003		1.9600e-003	1.9600e-003	0.0000	28.0867	28.0867	5.4000e-004	5.1000e-004	28.2536
NaturalGas Unmitigated	2.8400e-003	0.0258	0.0217	1.5000e-004		1.9600e-003	1.9600e-003		1.9600e-003	1.9600e-003	0.0000	28.0867	28.0867	5.4000e-004	5.1000e-004	28.2536

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	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
Land Use	kBTU/yr	tons/yr										MT/yr					
Arena	31425	1.7000e-004	1.5400e-003	1.2900e-003	1.0000e-005		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004	0.0000	1.6770	1.6770	3.0000e-005	3.0000e-005	1.6869
Arena	10475	6.0000e-005	5.1000e-004	4.3000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.5590	0.5590	1.0000e-005	1.0000e-005	0.5623
Health Club	111035	6.0000e-004	5.4400e-003	4.5700e-003	3.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	5.9253	5.9253	1.1000e-004	1.1000e-004	5.9605
High School	327990	1.7700e-003	0.0161	0.0135	1.0000e-004		1.2200e-003	1.2200e-003		1.2200e-003	1.2200e-003	0.0000	17.5028	17.5028	3.4000e-004	3.2000e-004	17.6068
Other Non-Asphalt Surfaces	0	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
Unrefrigerated Warehouse-No Rail	45400	2.4000e-004	2.2300e-003	1.8700e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	2.4227	2.4227	5.0000e-005	4.0000e-005	2.4371
Total		**2.8400e-003**	**0.0258**	**0.0217**	**1.5000e-004**		**1.9600e-003**	**1.9600e-003**		**1.9600e-003**	**1.9600e-003**	**0.0000**	**28.0867**	**28.0867**	**5.4000e-004**	**5.1000e-004**	**28.2536**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	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
Land Use	kBTU/yr	tons/yr										MT/yr					
Arena	10475	6.0000e-005	5.1000e-004	4.3000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.5590	0.5590	1.0000e-005	1.0000e-005	0.5623
Arena	31425	1.7000e-004	1.5400e-003	1.2900e-003	1.0000e-005		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004	0.0000	1.6770	1.6770	3.0000e-005	3.0000e-005	1.6869
Health Club	111035	6.0000e-004	5.4400e-003	4.5700e-003	3.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	5.9253	5.9253	1.1000e-004	1.1000e-004	5.9605
High School	327990	1.7700e-003	0.0161	0.0135	1.0000e-004		1.2200e-003	1.2200e-003		1.2200e-003	1.2200e-003	0.0000	17.5028	17.5028	3.4000e-004	3.2000e-004	17.6068
Other Non-Asphalt Surfaces	0	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
Unrefrigerated Warehouse-No Rail	45400	2.4000e-004	2.2300e-003	1.8700e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	2.4227	2.4227	5.0000e-005	4.0000e-005	2.4371
Total		**2.8400e-003**	**0.0258**	**0.0217**	**1.5000e-004**		**1.9600e-003**	**1.9600e-003**		**1.9600e-003**	**1.9600e-003**	**0.0000**	**28.0867**	**28.0867**	**5.4000e-004**	**5.1000e-004**	**28.2536**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Arena	13485	3.9229	1.8000e-004	4.0000e-005	3.9383
Arena	4495	1.3077	6.0000e-005	1.0000e-005	1.3128
Health Club	47647	13.8611	6.3000e-004	1.3000e-004	13.9154
High School	93860	27.3050	1.2300e-003	2.6000e-004	27.4119
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	21325	6.2037	2.8000e-004	6.0000e-005	6.2280
Total		**52.6003**	**2.3800e-003**	**5.0000e-004**	**52.8064**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Arena	13485	3.9229	1.8000e-004	4.0000e-005	3.9383
Arena	4495	1.3077	6.0000e-005	1.0000e-005	1.3128
Health Club	47647	13.8611	6.3000e-004	1.3000e-004	13.9154
High School	93860	27.3050	1.2300e-003	2.6000e-004	27.4119
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	21325	6.2037	2.8000e-004	6.0000e-005	6.2280
Total		**52.6003**	**2.3800e-003**	**5.0000e-004**	**52.8064**

6.0 Area Detail

6.1 Mitigation Measures Area

	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					
Mitigated	0.1912	0.0000	3.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.2000e-004	7.2000e-004	0.0000	0.0000	7.7000e-004
Unmitigated	0.1912	0.0000	3.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.2000e-004	7.2000e-004	0.0000	0.0000	7.7000e-004

6.2 Area by SubCategory

Unmitigated

	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
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0529					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1383					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	3.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.2000e-004	7.2000e-004	0.0000	0.0000	7.7000e-004
Total	**0.1912**	**0.0000**	**3.7000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**7.2000e-004**	**7.2000e-004**	**0.0000**	**0.0000**	**7.7000e-004**

6.2 Area by SubCategory

Mitigated

	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
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0529					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1383					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	3.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.2000e-004	7.2000e-004	0.0000	0.0000	7.7000e-004
Total	**0.1912**	**0.0000**	**3.7000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**7.2000e-004**	**7.2000e-004**	**0.0000**	**0.0000**	**7.7000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	5.5140	0.0714	1.7300e-003	7.8136
Unmitigated	5.5140	0.0714	1.7300e-003	7.8136

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Arena	0.86154 / 0.0549919	1.6855	0.0281	6.8000e-004	2.5904
Health Club	0.313459 / 0.19212	0.7885	0.0103	2.5000e-004	1.1184
High School	0.43166 / 1.10998	1.9466	0.0142	3.5000e-004	2.4043
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0.578125 / 0	1.0935	0.0189	4.5000e-004	1.7005
Total		**5.5140**	**0.0714**	**1.7300e-003**	**7.8136**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Arena	0.86154 / 0.0549919	1.6855	0.0281	6.8000e-004	2.5904
Health Club	0.313459 / 0.19212	0.7885	0.0103	2.5000e-004	1.1184
High School	0.43166 / 1.10998	1.9466	0.0142	3.5000e-004	2.4043
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0.578125 / 0	1.0935	0.0189	4.5000e-004	1.7005
Total		**5.5140**	**0.0714**	**1.7300e-003**	**7.8136**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	10.0521	0.5941	0.0000	24.9037
Unmitigated	10.0521	0.5941	0.0000	24.9037

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Arena	0.06	0.0122	7.2000e-004	0.0000	0.0302
Health Club	30.21	6.1324	0.3624	0.0000	15.1927
High School	16.9	3.4306	0.2027	0.0000	8.4990
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	2.35	0.4770	0.0282	0.0000	1.1818
Total		**10.0521**	**0.5941**	**0.0000**	**24.9037**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Arena	0.06	0.0122	7.2000e-004	0.0000	0.0302
Health Club	30.21	6.1324	0.3624	0.0000	15.1927
High School	16.9	3.4306	0.2027	0.0000	8.4990
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	2.35	0.4770	0.0282	0.0000	1.1818
Total		**10.0521**	**0.5941**	**0.0000**	**24.9037**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Pleasant Valley High School Athletic Fields Project

Butte County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
High School	13.00	1000sqft	0.30	13,000.00	0
Unrefrigerated Warehouse-No Rail	2.50	1000sqft	0.06	2,500.00	0
Other Non-Asphalt Surfaces	17.48	Acre	17.48	761,428.80	0
Arena	0.50	1000sqft	0.16	500.00	0
Arena	1.50	1000sqft	0.48	1,500.00	0
Health Club	5.30	1000sqft	0.12	5,300.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	71
Climate Zone	3			**Operational Year**	2019
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase -

Vehicle Trips - No additional trips assumed.

Pleasant Valley High School Athletic Fields Project - Butte County, Summer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	PhaseEndDate	1/6/2022	11/14/2019
tblConstructionPhase	PhaseEndDate	11/12/2020	10/17/2019
tblConstructionPhase	PhaseStartDate	11/13/2020	10/18/2019
tblProjectCharacteristics	OperationalYear	2018	2019
tblVehicleTrips	ST_TR	10.71	0.00
tblVehicleTrips	ST_TR	20.87	0.00
tblVehicleTrips	ST_TR	4.37	0.00
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	10.71	0.00
tblVehicleTrips	SU_TR	26.73	0.00
tblVehicleTrips	SU_TR	1.79	0.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	10.71	0.00
tblVehicleTrips	WD_TR	32.93	0.00
tblVehicleTrips	WD_TR	12.89	0.00
tblVehicleTrips	WD_TR	1.68	0.00

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					
2018	6.5258	59.6474	47.9660	0.1143	18.2379	2.6355	20.8164	9.9762	2.4246	12.3484	0.0000	11,554.2272	11,554.2272	1.9576	0.0000	11,587.2569
2019	53.6538	44.1457	43.3777	0.1129	4.3961	1.5073	5.9034	1.1944	1.4198	2.6142	0.0000	11,391.0218	11,391.0218	1.2777	0.0000	11,422.9632
Maximum	**53.6538**	**59.6474**	**47.9660**	**0.1143**	**18.2379**	**2.6355**	**20.8164**	**9.9762**	**2.4246**	**12.3484**	**0.0000**	**11,554.2272**	**11,554.2272**	**1.9576**	**0.0000**	**11,587.2569**

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					
2018	6.5258	59.6474	47.9660	0.1143	18.2379	2.6355	20.8164	9.9762	2.4246	12.3484	0.0000	11,554.2272	11,554.2272	1.9576	0.0000	11,587.2569
2019	53.6538	44.1457	43.3777	0.1129	4.3961	1.5073	5.9034	1.1944	1.4198	2.6142	0.0000	11,391.0218	11,391.0218	1.2777	0.0000	11,422.9632
Maximum	**53.6538**	**59.6474**	**47.9660**	**0.1143**	**18.2379**	**2.6355**	**20.8164**	**9.9762**	**2.4246**	**12.3484**	**0.0000**	**11,554.2272**	**11,554.2272**	**1.9576**	**0.0000**	**11,587.2569**

	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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	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					
Area	1.0478	4.0000e-005	4.1500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.8200e-003	8.8200e-003	2.0000e-005		9.4100e-003
Energy	0.0156	0.1414	0.1188	8.5000e-004		0.0107	0.0107		0.0107	0.0107		169.6455	169.6455	3.2500e-003	3.1100e-003	170.6536
Mobile	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
Total	**1.0634**	**0.1414**	**0.1229**	**8.5000e-004**	**0.0000**	**0.0108**	**0.0108**	**0.0000**	**0.0108**	**0.0108**		**169.6543**	**169.6543**	**3.2700e-003**	**3.1100e-003**	**170.6630**

Mitigated Operational

	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					
Area	1.0478	4.0000e-005	4.1500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.8200e-003	8.8200e-003	2.0000e-005		9.4100e-003
Energy	0.0156	0.1414	0.1188	8.5000e-004		0.0107	0.0107		0.0107	0.0107		169.6455	169.6455	3.2500e-003	3.1100e-003	170.6536
Mobile	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
Total	**1.0634**	**0.1414**	**0.1229**	**8.5000e-004**	**0.0000**	**0.0108**	**0.0108**	**0.0000**	**0.0108**	**0.0108**		**169.6543**	**169.6543**	**3.2700e-003**	**3.1100e-003**	**170.6630**

	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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**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	6/1/2018	6/14/2018	5	10	
2	Grading	Grading	6/15/2018	7/26/2018	5	30	
3	Building Construction	Building Construction	7/27/2018	9/19/2019	5	300	
4	Paving	Paving	9/20/2019	10/17/2019	5	20	
5	Architectural Coating	Architectural Coating	10/18/2019	11/14/2019	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 17.48

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 34,200; Non-Residential Outdoor: 11,400; Striped Parking Area: 45,686 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

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	7	18.00	0.00	0.00	12.54	10.52	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	12.54	10.52	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	329.00	129.00	0.00	12.54	10.52	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	12.54	10.52	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	66.00	0.00	0.00	12.54	10.52	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2018

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.5627	48.1988	22.4763	0.0380		2.5769	2.5769		2.3708	2.3708		3,831.6239	3,831.6239	1.1928		3,861.4448
Total	**4.5627**	**48.1988**	**22.4763**	**0.0380**	**18.0663**	**2.5769**	**20.6432**	**9.9307**	**2.3708**	**12.3014**		**3,831.6239**	**3,831.6239**	**1.1928**		**3,861.4448**

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	0.1545	0.1131	1.3764	1.9700e-003	0.1717	1.5500e-003	0.1732	0.0455	1.4300e-003	0.0470		195.3369	195.3369	0.0122		195.6424
Total	**0.1545**	**0.1131**	**1.3764**	**1.9700e-003**	**0.1717**	**1.5500e-003**	**0.1732**	**0.0455**	**1.4300e-003**	**0.0470**		**195.3369**	**195.3369**	**0.0122**		**195.6424**

3.2 Site Preparation - 2018

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.5627	48.1988	22.4763	0.0380		2.5769	2.5769		2.3708	2.3708	0.0000	3,831.6239	3,831.6239	1.1928		3,861.4448
Total	**4.5627**	**48.1988**	**22.4763**	**0.0380**	**18.0663**	**2.5769**	**20.6432**	**9.9307**	**2.3708**	**12.3014**	**0.0000**	**3,831.6239**	**3,831.6239**	**1.1928**		**3,861.4448**

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	0.1545	0.1131	1.3764	1.9700e-003	0.1717	1.5500e-003	0.1732	0.0455	1.4300e-003	0.0470		195.3369	195.3369	0.0122		195.6424
Total	**0.1545**	**0.1131**	**1.3764**	**1.9700e-003**	**0.1717**	**1.5500e-003**	**0.1732**	**0.0455**	**1.4300e-003**	**0.0470**		**195.3369**	**195.3369**	**0.0122**		**195.6424**

3.3 Grading - 2018

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					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	5.0901	59.5218	35.0894	0.0620		2.6337	2.6337		2.4230	2.4230		6,244.4284	6,244.4284	1.9440		6,293.0278
Total	**5.0901**	**59.5218**	**35.0894**	**0.0620**	**8.6733**	**2.6337**	**11.3071**	**3.5965**	**2.4230**	**6.0195**		**6,244.4284**	**6,244.4284**	**1.9440**		**6,293.0278**

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	0.1717	0.1256	1.5293	2.1900e-003	0.1907	1.7200e-003	0.1925	0.0506	1.5900e-003	0.0522		217.0410	217.0410	0.0136		217.3804
Total	**0.1717**	**0.1256**	**1.5293**	**2.1900e-003**	**0.1907**	**1.7200e-003**	**0.1925**	**0.0506**	**1.5900e-003**	**0.0522**		**217.0410**	**217.0410**	**0.0136**		**217.3804**

3.3 Grading - 2018

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					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	5.0901	59.5218	35.0894	0.0620		2.6337	2.6337		2.4230	2.4230	0.0000	6,244.4284	6,244.4284	1.9440		6,293.0278
Total	**5.0901**	**59.5218**	**35.0894**	**0.0620**	**8.6733**	**2.6337**	**11.3071**	**3.5965**	**2.4230**	**6.0195**	**0.0000**	**6,244.4284**	**6,244.4284**	**1.9440**		**6,293.0278**

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	0.1717	0.1256	1.5293	2.1900e-003	0.1907	1.7200e-003	0.1925	0.0506	1.5900e-003	0.0522		217.0410	217.0410	0.0136		217.3804
Total	**0.1717**	**0.1256**	**1.5293**	**2.1900e-003**	**0.1907**	**1.7200e-003**	**0.1925**	**0.0506**	**1.5900e-003**	**0.0522**		**217.0410**	**217.0410**	**0.0136**		**217.3804**

3.4 Building Construction - 2018

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	2.6795	23.3900	17.5804	0.0269		1.4999	1.4999		1.4099	1.4099		2,620.9351	2,620.9351	0.6421		2,636.9883
Total	**2.6795**	**23.3900**	**17.5804**	**0.0269**		**1.4999**	**1.4999**		**1.4099**	**1.4099**		**2,620.9351**	**2,620.9351**	**0.6421**		**2,636.9883**

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	1.0217	22.7410	5.2281	0.0513	1.2585	0.2376	1.4961	0.3622	0.2273	0.5895		5,362.9674	5,362.9674	0.4557		5,374.3609
Worker	2.8246	2.0665	25.1575	0.0361	3.1376	0.0282	3.1658	0.8322	0.0261	0.8583		3,570.3247	3,570.3247	0.2233		3,575.9077
Total	**3.8463**	**24.8075**	**30.3856**	**0.0873**	**4.3961**	**0.2659**	**4.6619**	**1.1944**	**0.2534**	**1.4478**		**8,933.2920**	**8,933.2920**	**0.6791**		**8,950.2686**

3.4 Building Construction - 2018

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	2.6795	23.3900	17.5804	0.0269		1.4999	1.4999		1.4099	1.4099	0.0000	2,620.9351	2,620.9351	0.6421		2,636.9883
Total	**2.6795**	**23.3900**	**17.5804**	**0.0269**		**1.4999**	**1.4999**		**1.4099**	**1.4099**	**0.0000**	**2,620.9351**	**2,620.9351**	**0.6421**		**2,636.9883**

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	1.0217	22.7410	5.2281	0.0513	1.2585	0.2376	1.4961	0.3622	0.2273	0.5895		5,362.9674	5,362.9674	0.4557		5,374.3609
Worker	2.8246	2.0665	25.1575	0.0361	3.1376	0.0282	3.1658	0.8322	0.0261	0.8583		3,570.3247	3,570.3247	0.2233		3,575.9077
Total	**3.8463**	**24.8075**	**30.3856**	**0.0873**	**4.3961**	**0.2659**	**4.6619**	**1.1944**	**0.2534**	**1.4478**		**8,933.2920**	**8,933.2920**	**0.6791**		**8,950.2686**

3.4 Building Construction - 2019

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	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127		2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**		**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

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	0.8685	21.2746	4.4302	0.0509	1.2585	0.1911	1.4497	0.3622	0.1829	0.5451		5,328.3568	5,328.3568	0.4504		5,339.6165
Worker	2.4852	1.7923	21.7838	0.0350	3.1376	0.0263	3.1638	0.8322	0.0243	0.8564		3,471.0848	3,471.0848	0.1959		3,475.9832
Total	**3.3536**	**23.0669**	**26.2140**	**0.0860**	**4.3961**	**0.2174**	**4.6135**	**1.1944**	**0.2071**	**1.4015**		**8,799.4416**	**8,799.4416**	**0.6463**		**8,815.5997**

3.4 Building Construction - 2019

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	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127	0.0000	2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**	**0.0000**	**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

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	0.8685	21.2746	4.4302	0.0509	1.2585	0.1911	1.4497	0.3622	0.1829	0.5451		5,328.3568	5,328.3568	0.4504		5,339.6165
Worker	2.4852	1.7923	21.7838	0.0350	3.1376	0.0263	3.1638	0.8322	0.0243	0.8564		3,471.0848	3,471.0848	0.1959		3,475.9832
Total	**3.3536**	**23.0669**	**26.2140**	**0.0860**	**4.3961**	**0.2174**	**4.6135**	**1.1944**	**0.2071**	**1.4015**		**8,799.4416**	**8,799.4416**	**0.6463**		**8,815.5997**

3.5 Paving - 2019

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	1.4544	15.2441	14.6648	0.0228		0.8246	0.8246		0.7586	0.7586		2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4544**	**15.2441**	**14.6648**	**0.0228**		**0.8246**	**0.8246**		**0.7586**	**0.7586**		**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

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	0.1133	0.0817	0.9932	1.6000e-003	0.1431	1.2000e-003	0.1443	0.0379	1.1100e-003	0.0391		158.2562	158.2562	8.9300e-003		158.4795
Total	**0.1133**	**0.0817**	**0.9932**	**1.6000e-003**	**0.1431**	**1.2000e-003**	**0.1443**	**0.0379**	**1.1100e-003**	**0.0391**		**158.2562**	**158.2562**	**8.9300e-003**		**158.4795**

3.5 Paving - 2019

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	1.4544	15.2441	14.6648	0.0228		0.8246	0.8246		0.7586	0.7586	0.0000	2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4544**	**15.2441**	**14.6648**	**0.0228**		**0.8246**	**0.8246**		**0.7586**	**0.7586**	**0.0000**	**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

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	0.1133	0.0817	0.9932	1.6000e-003	0.1431	1.2000e-003	0.1443	0.0379	1.1100e-003	0.0391		158.2562	158.2562	8.9300e-003		158.4795
Total	**0.1133**	**0.0817**	**0.9932**	**1.6000e-003**	**0.1431**	**1.2000e-003**	**0.1443**	**0.0379**	**1.1100e-003**	**0.0391**		**158.2562**	**158.2562**	**8.9300e-003**		**158.4795**

3.6 Architectural Coating - 2019

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					
Archit. Coating	52.8888					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	**53.1553**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**282.0423**

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	0.4985	0.3596	4.3700	7.0200e-003	0.6294	5.2700e-003	0.6347	0.1669	4.8700e-003	0.1718		696.3270	696.3270	0.0393		697.3097
Total	**0.4985**	**0.3596**	**4.3700**	**7.0200e-003**	**0.6294**	**5.2700e-003**	**0.6347**	**0.1669**	**4.8700e-003**	**0.1718**		**696.3270**	**696.3270**	**0.0393**		**697.3097**

3.6 Architectural Coating - 2019

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					
Archit. Coating	52.8888					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		282.0423
Total	**53.1553**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**282.0423**

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	0.4985	0.3596	4.3700	7.0200e-003	0.6294	5.2700e-003	0.6347	0.1669	4.8700e-003	0.1718		696.3270	696.3270	0.0393		697.3097
Total	**0.4985**	**0.3596**	**4.3700**	**7.0200e-003**	**0.6294**	**5.2700e-003**	**0.6347**	**0.1669**	**4.8700e-003**	**0.1718**		**696.3270**	**696.3270**	**0.0393**		**697.3097**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	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					
Mitigated	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
Unmitigated	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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Arena	0.00	0.00	0.00		
Arena	0.00	0.00	0.00		
Health Club	0.00	0.00	0.00		
High School	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Arena	10.52	10.52	10.52	0.00	81.00	19.00	66	28	6
Arena	10.52	10.52	10.52	0.00	81.00	19.00	66	28	6
Health Club	10.52	10.52	10.52	16.90	64.10	19.00	52	39	9
High School	10.52	10.52	10.52	77.80	17.20	5.00	75	19	6
Other Non-Asphalt Surfaces	10.52	10.52	10.52	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	10.52	10.52	10.52	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
High School	0.488379	0.037237	0.184894	0.132358	0.042014	0.007577	0.018418	0.076572	0.001721	0.001591	0.006262	0.001327	0.001651
Unrefrigerated Warehouse-No Rail	0.488379	0.037237	0.184894	0.132358	0.042014	0.007577	0.018418	0.076572	0.001721	0.001591	0.006262	0.001327	0.001651
Other Non-Asphalt Surfaces	0.488379	0.037237	0.184894	0.132358	0.042014	0.007577	0.018418	0.076572	0.001721	0.001591	0.006262	0.001327	0.001651
Arena	0.488379	0.037237	0.184894	0.132358	0.042014	0.007577	0.018418	0.076572	0.001721	0.001591	0.006262	0.001327	0.001651
Arena	0.488379	0.037237	0.184894	0.132358	0.042014	0.007577	0.018418	0.076572	0.001721	0.001591	0.006262	0.001327	0.001651
Health Club	0.488379	0.037237	0.184894	0.132358	0.042014	0.007577	0.018418	0.076572	0.001721	0.001591	0.006262	0.001327	0.001651

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Pleasant Valley High School Athletic Fields Project - Butte County, Summer

	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					
NaturalGas Mitigated	0.0156	0.1414	0.1188	8.5000e-004		0.0107	0.0107		0.0107	0.0107		169.6455	169.6455	3.2500e-003	3.1100e-003	170.6536
NaturalGas Unmitigated	0.0156	0.1414	0.1188	8.5000e-004		0.0107	0.0107		0.0107	0.0107		169.6455	169.6455	3.2500e-003	3.1100e-003	170.6536

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	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
Land Use	kBTU/yr	lb/day										lb/day					
Arena	86.0959	9.3000e-004	8.4400e-003	7.0900e-003	5.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004		10.1289	10.1289	1.9000e-004	1.9000e-004	10.1891
Arena	28.6986	3.1000e-004	2.8100e-003	2.3600e-003	2.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		3.3763	3.3763	6.0000e-005	6.0000e-005	3.3964
Health Club	304.205	3.2800e-003	0.0298	0.0251	1.8000e-004		2.2700e-003	2.2700e-003		2.2700e-003	2.2700e-003		35.7889	35.7889	6.9000e-004	6.6000e-004	36.0016
High School	898.603	9.6900e-003	0.0881	0.0740	5.3000e-004		6.7000e-003	6.7000e-003		6.7000e-003	6.7000e-003		105.7180	105.7180	2.0300e-003	1.9400e-003	106.3462
Other Non-Asphalt Surfaces	0	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
Unrefrigerated Warehouse-No Rail	124.384	1.3400e-003	0.0122	0.0102	7.0000e-005		9.3000e-004	9.3000e-004		9.3000e-004	9.3000e-004		14.6334	14.6334	2.8000e-004	2.7000e-004	14.7203
Total		**0.0156**	**0.1414**	**0.1187**	**8.5000e-004**		**0.0108**	**0.0108**		**0.0108**	**0.0108**		**169.6455**	**169.6455**	**3.2500e-003**	**3.1200e-003**	**170.6536**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	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
Land Use	kBTU/yr	lb/day										lb/day					
Arena	0.0286986	3.1000e-004	2.8100e-003	2.3600e-003	2.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		3.3763	3.3763	6.0000e-005	6.0000e-005	3.3964
Arena	0.0860959	9.3000e-004	8.4400e-003	7.0900e-003	5.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004		10.1289	10.1289	1.9000e-004	1.9000e-004	10.1891
Health Club	0.304205	3.2800e-003	0.0298	0.0251	1.8000e-004		2.2700e-003	2.2700e-003		2.2700e-003	2.2700e-003		35.7889	35.7889	6.9000e-004	6.6000e-004	36.0016
High School	0.898603	9.6900e-003	0.0881	0.0740	5.3000e-004		6.7000e-003	6.7000e-003		6.7000e-003	6.7000e-003		105.7180	105.7180	2.0300e-003	1.9400e-003	106.3462
Other Non-Asphalt Surfaces	0	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
Unrefrigerated Warehouse-No Rail	0.124384	1.3400e-003	0.0122	0.0102	7.0000e-005		9.3000e-004	9.3000e-004		9.3000e-004	9.3000e-004		14.6334	14.6334	2.8000e-004	2.7000e-004	14.7203
Total		**0.0156**	**0.1414**	**0.1187**	**8.5000e-004**		**0.0108**	**0.0108**		**0.0108**	**0.0108**		**169.6455**	**169.6455**	**3.2500e-003**	**3.1200e-003**	**170.6536**

6.0 Area Detail

6.1 Mitigation Measures Area

	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					
Mitigated	1.0478	4.0000e-005	4.1500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.8200e-003	8.8200e-003	2.0000e-005		9.4100e-003
Unmitigated	1.0478	4.0000e-005	4.1500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.8200e-003	8.8200e-003	2.0000e-005		9.4100e-003

6.2 Area by SubCategory

Unmitigated

	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
SubCategory	lb/day										lb/day					
Architectural Coating	0.2898					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.7576					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.9000e-004	4.0000e-005	4.1500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.8200e-003	8.8200e-003	2.0000e-005		9.4100e-003
Total	**1.0478**	**4.0000e-005**	**4.1500e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**8.8200e-003**	**8.8200e-003**	**2.0000e-005**		**9.4100e-003**

6.2 Area by SubCategory

Mitigated

	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
SubCategory	lb/day										lb/day					
Architectural Coating	0.2898					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.7576					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.9000e-004	4.0000e-005	4.1500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.8200e-003	8.8200e-003	2.0000e-005		9.4100e-003
Total	**1.0478**	**4.0000e-005**	**4.1500e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**8.8200e-003**	**8.8200e-003**	**2.0000e-005**		**9.4100e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Pleasant Valley High School Athletic Fields Project

Butte County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
High School	13.00	1000sqft	0.30	13,000.00	0
Unrefrigerated Warehouse-No Rail	2.50	1000sqft	0.06	2,500.00	0
Other Non-Asphalt Surfaces	17.48	Acre	17.48	761,428.80	0
Arena	0.50	1000sqft	0.16	500.00	0
Arena	1.50	1000sqft	0.48	1,500.00	0
Health Club	5.30	1000sqft	0.12	5,300.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	71
Climate Zone	3			**Operational Year**	2019
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase -

Vehicle Trips - No additional trips assumed.

Pleasant Valley High School Athletic Fields Project - Butte County, Winter

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	PhaseEndDate	1/6/2022	11/14/2019
tblConstructionPhase	PhaseEndDate	11/12/2020	10/17/2019
tblConstructionPhase	PhaseStartDate	11/13/2020	10/18/2019
tblProjectCharacteristics	OperationalYear	2018	2019
tblVehicleTrips	ST_TR	10.71	0.00
tblVehicleTrips	ST_TR	20.87	0.00
tblVehicleTrips	ST_TR	4.37	0.00
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	10.71	0.00
tblVehicleTrips	SU_TR	26.73	0.00
tblVehicleTrips	SU_TR	1.79	0.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	10.71	0.00
tblVehicleTrips	WD_TR	32.93	0.00
tblVehicleTrips	WD_TR	12.89	0.00
tblVehicleTrips	WD_TR	1.68	0.00

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					
2018	6.3303	59.6776	45.1102	0.1084	18.2379	2.6355	20.8164	9.9762	2.4246	12.3484	0.0000	10,965.6118	10,965.6118	1.9559	0.0000	10,999.3159
2019	53.6099	45.2784	40.7285	0.1071	4.3961	1.5104	5.9064	1.1944	1.4228	2.6172	0.0000	10,812.4241	10,812.4241	1.3079	0.0000	10,845.1226
Maximum	**53.6099**	**59.6776**	**45.1102**	**0.1084**	**18.2379**	**2.6355**	**20.8164**	**9.9762**	**2.4246**	**12.3484**	**0.0000**	**10,965.6118**	**10,965.6118**	**1.9559**	**0.0000**	**10,999.3159**

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					
2018	6.3303	59.6776	45.1102	0.1084	18.2379	2.6355	20.8164	9.9762	2.4246	12.3484	0.0000	10,965.6118	10,965.6118	1.9559	0.0000	10,999.3159
2019	53.6099	45.2784	40.7285	0.1071	4.3961	1.5104	5.9064	1.1944	1.4228	2.6172	0.0000	10,812.4241	10,812.4241	1.3079	0.0000	10,845.1226
Maximum	**53.6099**	**59.6776**	**45.1102**	**0.1084**	**18.2379**	**2.6355**	**20.8164**	**9.9762**	**2.4246**	**12.3484**	**0.0000**	**10,965.6118**	**10,965.6118**	**1.9559**	**0.0000**	**10,999.3159**

	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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	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					
Area	1.0478	4.0000e-005	4.1500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.8200e-003	8.8200e-003	2.0000e-005		9.4100e-003
Energy	0.0156	0.1414	0.1188	8.5000e-004		0.0107	0.0107		0.0107	0.0107		169.6455	169.6455	3.2500e-003	3.1100e-003	170.6536
Mobile	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
Total	**1.0634**	**0.1414**	**0.1229**	**8.5000e-004**	**0.0000**	**0.0108**	**0.0108**	**0.0000**	**0.0108**	**0.0108**		**169.6543**	**169.6543**	**3.2700e-003**	**3.1100e-003**	**170.6630**

Mitigated Operational

	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					
Area	1.0478	4.0000e-005	4.1500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.8200e-003	8.8200e-003	2.0000e-005		9.4100e-003
Energy	0.0156	0.1414	0.1188	8.5000e-004		0.0107	0.0107		0.0107	0.0107		169.6455	169.6455	3.2500e-003	3.1100e-003	170.6536
Mobile	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
Total	**1.0634**	**0.1414**	**0.1229**	**8.5000e-004**	**0.0000**	**0.0108**	**0.0108**	**0.0000**	**0.0108**	**0.0108**		**169.6543**	**169.6543**	**3.2700e-003**	**3.1100e-003**	**170.6630**

	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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**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	6/1/2018	6/14/2018	5	10	
2	Grading	Grading	6/15/2018	7/26/2018	5	30	
3	Building Construction	Building Construction	7/27/2018	9/19/2019	5	300	
4	Paving	Paving	9/20/2019	10/17/2019	5	20	
5	Architectural Coating	Architectural Coating	10/18/2019	11/14/2019	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 17.48

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 34,200; Non-Residential Outdoor: 11,400; Striped Parking Area: 45,686 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

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	7	18.00	0.00	0.00	12.54	10.52	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	12.54	10.52	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	329.00	129.00	0.00	12.54	10.52	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	12.54	10.52	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	66.00	0.00	0.00	12.54	10.52	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2018

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.5627	48.1988	22.4763	0.0380		2.5769	2.5769		2.3708	2.3708		3,831.6239	3,831.6239	1.1928		3,861.4448
Total	**4.5627**	**48.1988**	**22.4763**	**0.0380**	**18.0663**	**2.5769**	**20.6432**	**9.9307**	**2.3708**	**12.3014**		**3,831.6239**	**3,831.6239**	**1.1928**		**3,861.4448**

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	0.1419	0.1402	1.1822	1.7200e-003	0.1717	1.5500e-003	0.1732	0.0455	1.4300e-003	0.0470		170.3949	170.3949	0.0108		170.6637
Total	**0.1419**	**0.1402**	**1.1822**	**1.7200e-003**	**0.1717**	**1.5500e-003**	**0.1732**	**0.0455**	**1.4300e-003**	**0.0470**		**170.3949**	**170.3949**	**0.0108**		**170.6637**

3.2 Site Preparation - 2018

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.5627	48.1988	22.4763	0.0380		2.5769	2.5769		2.3708	2.3708	0.0000	3,831.6239	3,831.6239	1.1928		3,861.4448
Total	**4.5627**	**48.1988**	**22.4763**	**0.0380**	**18.0663**	**2.5769**	**20.6432**	**9.9307**	**2.3708**	**12.3014**	**0.0000**	**3,831.6239**	**3,831.6239**	**1.1928**		**3,861.4448**

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	0.1419	0.1402	1.1822	1.7200e-003	0.1717	1.5500e-003	0.1732	0.0455	1.4300e-003	0.0470		170.3949	170.3949	0.0108		170.6637
Total	**0.1419**	**0.1402**	**1.1822**	**1.7200e-003**	**0.1717**	**1.5500e-003**	**0.1732**	**0.0455**	**1.4300e-003**	**0.0470**		**170.3949**	**170.3949**	**0.0108**		**170.6637**

3.3 Grading - 2018

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					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	5.0901	59.5218	35.0894	0.0620		2.6337	2.6337		2.4230	2.4230		6,244.4284	6,244.4284	1.9440		6,293.0278
Total	**5.0901**	**59.5218**	**35.0894**	**0.0620**	**8.6733**	**2.6337**	**11.3071**	**3.5965**	**2.4230**	**6.0195**		**6,244.4284**	**6,244.4284**	**1.9440**		**6,293.0278**

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	0.1576	0.1558	1.3135	1.9100e-003	0.1907	1.7200e-003	0.1925	0.0506	1.5900e-003	0.0522		189.3277	189.3277	0.0119		189.6263
Total	**0.1576**	**0.1558**	**1.3135**	**1.9100e-003**	**0.1907**	**1.7200e-003**	**0.1925**	**0.0506**	**1.5900e-003**	**0.0522**		**189.3277**	**189.3277**	**0.0119**		**189.6263**

3.3 Grading - 2018

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					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	5.0901	59.5218	35.0894	0.0620		2.6337	2.6337		2.4230	2.4230	0.0000	6,244.4284	6,244.4284	1.9440		6,293.0278
Total	**5.0901**	**59.5218**	**35.0894**	**0.0620**	**8.6733**	**2.6337**	**11.3071**	**3.5965**	**2.4230**	**6.0195**	**0.0000**	**6,244.4284**	**6,244.4284**	**1.9440**		**6,293.0278**

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	0.1576	0.1558	1.3135	1.9100e-003	0.1907	1.7200e-003	0.1925	0.0506	1.5900e-003	0.0522		189.3277	189.3277	0.0119		189.6263
Total	**0.1576**	**0.1558**	**1.3135**	**1.9100e-003**	**0.1907**	**1.7200e-003**	**0.1925**	**0.0506**	**1.5900e-003**	**0.0522**		**189.3277**	**189.3277**	**0.0119**		**189.6263**

3.4 Building Construction - 2018

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	2.6795	23.3900	17.5804	0.0269		1.4999	1.4999		1.4099	1.4099		2,620.9351	2,620.9351	0.6421		2,636.9883
Total	**2.6795**	**23.3900**	**17.5804**	**0.0269**		**1.4999**	**1.4999**		**1.4099**	**1.4099**		**2,620.9351**	**2,620.9351**	**0.6421**		**2,636.9883**

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	1.0578	23.5506	5.9222	0.0500	1.2585	0.2410	1.4995	0.3622	0.2306	0.5928		5,230.2361	5,230.2361	0.5096		5,242.9753
Worker	2.5930	2.5626	21.6076	0.0315	3.1376	0.0282	3.1658	0.8322	0.0261	0.8583		3,114.4406	3,114.4406	0.1965		3,119.3524
Total	**3.6508**	**26.1132**	**27.5298**	**0.0815**	**4.3961**	**0.2693**	**4.6653**	**1.1944**	**0.2567**	**1.4511**		**8,344.6767**	**8,344.6767**	**0.7060**		**8,362.3276**

3.4 Building Construction - 2018

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	2.6795	23.3900	17.5804	0.0269		1.4999	1.4999		1.4099	1.4099	0.0000	2,620.9351	2,620.9351	0.6421		2,636.9883
Total	**2.6795**	**23.3900**	**17.5804**	**0.0269**		**1.4999**	**1.4999**		**1.4099**	**1.4099**	**0.0000**	**2,620.9351**	**2,620.9351**	**0.6421**		**2,636.9883**

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	1.0578	23.5506	5.9222	0.0500	1.2585	0.2410	1.4995	0.3622	0.2306	0.5928		5,230.2361	5,230.2361	0.5096		5,242.9753
Worker	2.5930	2.5626	21.6076	0.0315	3.1376	0.0282	3.1658	0.8322	0.0261	0.8583		3,114.4406	3,114.4406	0.1965		3,119.3524
Total	**3.6508**	**26.1132**	**27.5298**	**0.0815**	**4.3961**	**0.2693**	**4.6653**	**1.1944**	**0.2567**	**1.4511**		**8,344.6767**	**8,344.6767**	**0.7060**		**8,362.3276**

3.4 Building Construction - 2019

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	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127		2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**		**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

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	0.8996	21.9790	5.0651	0.0497	1.2585	0.1942	1.4527	0.3622	0.1858	0.5480		5,194.3664	5,194.3664	0.5058		5,207.0121
Worker	2.2661	2.2206	18.4996	0.0305	3.1376	0.0263	3.1638	0.8322	0.0243	0.8564		3,026.4775	3,026.4775	0.1708		3,030.7470
Total	**3.1656**	**24.1996**	**23.5648**	**0.0802**	**4.3961**	**0.2205**	**4.6166**	**1.1944**	**0.2101**	**1.4045**		**8,220.8439**	**8,220.8439**	**0.6766**		**8,237.7591**

3.4 Building Construction - 2019

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	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127	0.0000	2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**	**0.0000**	**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

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	0.8996	21.9790	5.0651	0.0497	1.2585	0.1942	1.4527	0.3622	0.1858	0.5480		5,194.3664	5,194.3664	0.5058		5,207.0121
Worker	2.2661	2.2206	18.4996	0.0305	3.1376	0.0263	3.1638	0.8322	0.0243	0.8564		3,026.4775	3,026.4775	0.1708		3,030.7470
Total	**3.1656**	**24.1996**	**23.5648**	**0.0802**	**4.3961**	**0.2205**	**4.6166**	**1.1944**	**0.2101**	**1.4045**		**8,220.8439**	**8,220.8439**	**0.6766**		**8,237.7591**

3.5 Paving - 2019

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	1.4544	15.2441	14.6648	0.0228		0.8246	0.8246		0.7586	0.7586		2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4544**	**15.2441**	**14.6648**	**0.0228**		**0.8246**	**0.8246**		**0.7586**	**0.7586**		**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

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	0.1033	0.1012	0.8435	1.3900e-003	0.1431	1.2000e-003	0.1443	0.0379	1.1100e-003	0.0391		137.9853	137.9853	7.7900e-003		138.1800
Total	**0.1033**	**0.1012**	**0.8435**	**1.3900e-003**	**0.1431**	**1.2000e-003**	**0.1443**	**0.0379**	**1.1100e-003**	**0.0391**		**137.9853**	**137.9853**	**7.7900e-003**		**138.1800**

3.5 Paving - 2019

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	1.4544	15.2441	14.6648	0.0228		0.8246	0.8246		0.7586	0.7586	0.0000	2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4544**	**15.2441**	**14.6648**	**0.0228**		**0.8246**	**0.8246**		**0.7586**	**0.7586**	**0.0000**	**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

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	0.1033	0.1012	0.8435	1.3900e-003	0.1431	1.2000e-003	0.1443	0.0379	1.1100e-003	0.0391		137.9853	137.9853	7.7900e-003		138.1800
Total	**0.1033**	**0.1012**	**0.8435**	**1.3900e-003**	**0.1431**	**1.2000e-003**	**0.1443**	**0.0379**	**1.1100e-003**	**0.0391**		**137.9853**	**137.9853**	**7.7900e-003**		**138.1800**

3.6 Architectural Coating - 2019

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					
Archit. Coating	52.8888					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	**53.1553**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**282.0423**

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	0.4546	0.4455	3.7112	6.1200e-003	0.6294	5.2700e-003	0.6347	0.1669	4.8700e-003	0.1718		607.1353	607.1353	0.0343		607.9918
Total	**0.4546**	**0.4455**	**3.7112**	**6.1200e-003**	**0.6294**	**5.2700e-003**	**0.6347**	**0.1669**	**4.8700e-003**	**0.1718**		**607.1353**	**607.1353**	**0.0343**		**607.9918**

3.6 Architectural Coating - 2019

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					
Archit. Coating	52.8888					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		282.0423
Total	**53.1553**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**282.0423**

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	0.4546	0.4455	3.7112	6.1200e-003	0.6294	5.2700e-003	0.6347	0.1669	4.8700e-003	0.1718		607.1353	607.1353	0.0343		607.9918
Total	**0.4546**	**0.4455**	**3.7112**	**6.1200e-003**	**0.6294**	**5.2700e-003**	**0.6347**	**0.1669**	**4.8700e-003**	**0.1718**		**607.1353**	**607.1353**	**0.0343**		**607.9918**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	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					
Mitigated	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
Unmitigated	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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Arena	0.00	0.00	0.00		
Arena	0.00	0.00	0.00		
Health Club	0.00	0.00	0.00		
High School	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Arena	10.52	10.52	10.52	0.00	81.00	19.00	66	28	6
Arena	10.52	10.52	10.52	0.00	81.00	19.00	66	28	6
Health Club	10.52	10.52	10.52	16.90	64.10	19.00	52	39	9
High School	10.52	10.52	10.52	77.80	17.20	5.00	75	19	6
Other Non-Asphalt Surfaces	10.52	10.52	10.52	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	10.52	10.52	10.52	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
High School	0.488379	0.037237	0.184894	0.132358	0.042014	0.007577	0.018418	0.076572	0.001721	0.001591	0.006262	0.001327	0.001651
Unrefrigerated Warehouse-No Rail	0.488379	0.037237	0.184894	0.132358	0.042014	0.007577	0.018418	0.076572	0.001721	0.001591	0.006262	0.001327	0.001651
Other Non-Asphalt Surfaces	0.488379	0.037237	0.184894	0.132358	0.042014	0.007577	0.018418	0.076572	0.001721	0.001591	0.006262	0.001327	0.001651
Arena	0.488379	0.037237	0.184894	0.132358	0.042014	0.007577	0.018418	0.076572	0.001721	0.001591	0.006262	0.001327	0.001651
Arena	0.488379	0.037237	0.184894	0.132358	0.042014	0.007577	0.018418	0.076572	0.001721	0.001591	0.006262	0.001327	0.001651
Health Club	0.488379	0.037237	0.184894	0.132358	0.042014	0.007577	0.018418	0.076572	0.001721	0.001591	0.006262	0.001327	0.001651

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Pleasant Valley High School Athletic Fields Project - Butte County, Winter

	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					
NaturalGas Mitigated	0.0156	0.1414	0.1188	8.5000e-004		0.0107	0.0107		0.0107	0.0107		169.6455	169.6455	3.2500e-003	3.1100e-003	170.6536
NaturalGas Unmitigated	0.0156	0.1414	0.1188	8.5000e-004		0.0107	0.0107		0.0107	0.0107		169.6455	169.6455	3.2500e-003	3.1100e-003	170.6536

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	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
Land Use	kBTU/yr	lb/day										lb/day					
Arena	86.0959	9.3000e-004	8.4400e-003	7.0900e-003	5.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004		10.1289	10.1289	1.9000e-004	1.9000e-004	10.1891
Arena	28.6986	3.1000e-004	2.8100e-003	2.3600e-003	2.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		3.3763	3.3763	6.0000e-005	6.0000e-005	3.3964
Health Club	304.205	3.2800e-003	0.0298	0.0251	1.8000e-004		2.2700e-003	2.2700e-003		2.2700e-003	2.2700e-003		35.7889	35.7889	6.9000e-004	6.6000e-004	36.0016
High School	898.603	9.6900e-003	0.0881	0.0740	5.3000e-004		6.7000e-003	6.7000e-003		6.7000e-003	6.7000e-003		105.7180	105.7180	2.0300e-003	1.9400e-003	106.3462
Other Non-Asphalt Surfaces	0	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
Unrefrigerated Warehouse-No Rail	124.384	1.3400e-003	0.0122	0.0102	7.0000e-005		9.3000e-004	9.3000e-004		9.3000e-004	9.3000e-004		14.6334	14.6334	2.8000e-004	2.7000e-004	14.7203
Total		**0.0156**	**0.1414**	**0.1187**	**8.5000e-004**		**0.0108**	**0.0108**		**0.0108**	**0.0108**		**169.6455**	**169.6455**	**3.2500e-003**	**3.1200e-003**	**170.6536**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	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
Land Use	kBTU/yr	lb/day										lb/day					
Arena	0.0286986	3.1000e-004	2.8100e-003	2.3600e-003	2.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		3.3763	3.3763	6.0000e-005	6.0000e-005	3.3964
Arena	0.0860959	9.3000e-004	8.4400e-003	7.0900e-003	5.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004		10.1289	10.1289	1.9000e-004	1.9000e-004	10.1891
Health Club	0.304205	3.2800e-003	0.0298	0.0251	1.8000e-004		2.2700e-003	2.2700e-003		2.2700e-003	2.2700e-003		35.7889	35.7889	6.9000e-004	6.6000e-004	36.0016
High School	0.898603	9.6900e-003	0.0881	0.0740	5.3000e-004		6.7000e-003	6.7000e-003		6.7000e-003	6.7000e-003		105.7180	105.7180	2.0300e-003	1.9400e-003	106.3462
Other Non-Asphalt Surfaces	0	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
Unrefrigerated Warehouse-No Rail	0.124384	1.3400e-003	0.0122	0.0102	7.0000e-005		9.3000e-004	9.3000e-004		9.3000e-004	9.3000e-004		14.6334	14.6334	2.8000e-004	2.7000e-004	14.7203
Total		**0.0156**	**0.1414**	**0.1187**	**8.5000e-004**		**0.0108**	**0.0108**		**0.0108**	**0.0108**		**169.6455**	**169.6455**	**3.2500e-003**	**3.1200e-003**	**170.6536**

6.0 Area Detail

6.1 Mitigation Measures Area

	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					
Mitigated	1.0478	4.0000e-005	4.1500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.8200e-003	8.8200e-003	2.0000e-005		9.4100e-003
Unmitigated	1.0478	4.0000e-005	4.1500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.8200e-003	8.8200e-003	2.0000e-005		9.4100e-003

6.2 Area by SubCategory

Unmitigated

	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
SubCategory	lb/day										lb/day					
Architectural Coating	0.2898					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.7576					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.9000e-004	4.0000e-005	4.1500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.8200e-003	8.8200e-003	2.0000e-005		9.4100e-003
Total	**1.0478**	**4.0000e-005**	**4.1500e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**8.8200e-003**	**8.8200e-003**	**2.0000e-005**		**9.4100e-003**

6.2 Area by SubCategory

Mitigated

	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
SubCategory	lb/day										lb/day					
Architectural Coating	0.2898					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.7576					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.9000e-004	4.0000e-005	4.1500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.8200e-003	8.8200e-003	2.0000e-005		9.4100e-003
Total	**1.0478**	**4.0000e-005**	**4.1500e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**8.8200e-003**	**8.8200e-003**	**2.0000e-005**		**9.4100e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX 4.4
BIOLOGICAL RESOURCES – DATABASE QUERIES

CNDDB 9-Quad Species List 230 records.

Element Type	Scientific Name	Common Name	Element Code	Federal Status	State Status	CDFW Status	CA Rare Plant Rank	Quad Code	Quad Name	Data Status	Taxonomic Sort
Animals - Amphibians	Rana boylii	foothill yellow-legged frog	AAABH01050	None	None	SSC	-	3912166	Hamlin Canyon	Mapped and Unprocessed	Animals - Amphibians - Ranidae - Rana boylii
Animals - Amphibians	Rana boylii	foothill yellow-legged frog	AAABH01050	None	None	SSC	-	3912176	Paradise West	Unprocessed	Animals - Amphibians - Ranidae - Rana boylii
Animals - Amphibians	Rana boylii	foothill yellow-legged frog	AAABH01050	None	None	SSC	-	3912177	Richardson Springs	Unprocessed	Animals - Amphibians - Ranidae - Rana boylii
Animals - Amphibians	Rana boylii	foothill yellow-legged frog	AAABH01050	None	None	SSC	-	3912186	Cohasset	Unprocessed	Animals - Amphibians - Ranidae - Rana boylii
Animals - Amphibians	Spea hammondii	western spadefoot	AAABF02020	None	None	SSC	-	3912177	Richardson Springs	Mapped	Animals - Amphibians - Scaphiopodidae - Spea hammondii
Animals - Amphibians	Spea hammondii	western spadefoot	AAABF02020	None	None	SSC	-	3912188	Richardson Springs NW	Mapped	Animals - Amphibians - Scaphiopodidae - Spea hammondii
Animals - Birds	Aquila chrysaetos	golden eagle	ABNKC22010	None	None	FP , WL	-	3912188	Richardson Springs NW	Unprocessed	Animals - Birds - Accipitridae - Aquila chrysaetos
Animals - Birds	Aquila chrysaetos	golden eagle	ABNKC22010	None	None	FP , WL	-	3912176	Paradise West	Unprocessed	Animals - Birds - Accipitridae - Aquila chrysaetos
Animals - Birds	Buteo swainsoni	Swainson's hawk	ABNKC19070	None	Threatened	-	-	3912167	Chico	Mapped	Animals - Birds - Accipitridae - Buteo swainsoni
Animals - Birds	Buteo swainsoni	Swainson's hawk	ABNKC19070	None	Threatened	-	-	3912168	Ord Ferry	Mapped	Animals - Birds - Accipitridae - Buteo swainsoni
Animals - Birds	Buteo swainsoni	Swainson's hawk	ABNKC19070	None	Threatened	-	-	3912188	Richardson Springs NW	Mapped	Animals - Birds - Accipitridae - Buteo swainsoni
Animals - Birds	Buteo swainsoni	Swainson's hawk	ABNKC19070	None	Threatened	-	-	3912178	Nord	Mapped	Animals - Birds - Accipitridae - Buteo swainsoni
Animals - Birds	Haliaeetus leucocephalus	bald eagle	ABNKC10010	Delisted	Endangered	FP	-	3912167	Chico	Unprocessed	Animals - Birds - Accipitridae - Haliaeetus leucocephalus
Animals - Birds	Haliaeetus leucocephalus	bald eagle	ABNKC10010	Delisted	Endangered	FP	-	3912166	Hamlin Canyon	Unprocessed	Animals - Birds - Accipitridae - Haliaeetus leucocephalus
Animals - Birds	Haliaeetus leucocephalus	bald eagle	ABNKC10010	Delisted	Endangered	FP	-	3912177	Richardson Springs	Mapped	Animals - Birds - Accipitridae - Haliaeetus leucocephalus
Animals - Birds	Pandion haliaetus	osprey	ABNKC01010	None	None	WL	-	3912167	Chico	Unprocessed	Animals - Birds - Accipitridae - Pandion haliaetus
Animals - Birds	Pandion haliaetus	osprey	ABNKC01010	None	None	WL	-	3912168	Ord Ferry	Mapped and Unprocessed	Animals - Birds - Accipitridae - Pandion haliaetus
Animals - Birds	Ardea alba	great egret	ABNGA04040	None	None	-	-	3912168	Ord Ferry	Mapped and Unprocessed	Animals - Birds - Ardeidae - Ardea alba
Animals - Birds	Ardea herodias	great blue heron	ABNGA04010	None	None	-	-	3912168	Ord Ferry	Mapped and Unprocessed	Animals - Birds - Ardeidae - Ardea herodias
Animals - Birds	Egretta thula	snowy egret	ABNGA06030	None	None	-	-	3912168	Ord Ferry	Unprocessed	Animals - Birds - Ardeidae - Egretta thula
Animals - Birds	Gymnogyps californianus	California condor	ABNKA03010	Endangered	Endangered	FP	-	3912167	Chico	Unprocessed	Animals - Birds - Cathartidae - Gymnogyps californianus

Animals - Birds	Gymnogyps californianus	California condor	ABNKA03010	Endangered	Endangered	FP	-	3912177	Richardson Springs	Unprocessed	Animals - Birds - Cathartidae - Gymnogyps californianus
Animals - Birds	Coccyzus americanus occidentalis	western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	-	-	3912168	Ord Ferry	Mapped	Animals - Birds - Cuculidae - Coccyzus americanus occidentalis
Animals - Birds	Falco peregrinus anatum	American peregrine falcon	ABNKD06071	Delisted	Delisted	FP	-	3912166	Hamlin Canyon	Mapped	Animals - Birds - Falconidae - Falco peregrinus anatum
Animals - Birds	Falco peregrinus anatum	American peregrine falcon	ABNKD06071	Delisted	Delisted	FP	-	3912176	Paradise West	Mapped	Animals - Birds - Falconidae - Falco peregrinus anatum
Animals - Birds	Grus canadensis tabida	greater sandhill crane	ABNMK01014	None	Threatened	FP	-	3912166	Hamlin Canyon	Unprocessed	Animals - Birds - Gruidae - Grus canadensis tabida
Animals - Birds	Progne subis	purple martin	ABPAU01010	None	None	SSC	-	3912167	Chico	Unprocessed	Animals - Birds - Hirundinidae - Progne subis
Animals - Birds	Progne subis	purple martin	ABPAU01010	None	None	SSC	-	3912177	Richardson Springs	Unprocessed	Animals - Birds - Hirundinidae - Progne subis
Animals - Birds	Riparia riparia	bank swallow	ABPAU08010	None	Threatened	-	-	3912168	Ord Ferry	Mapped and Unprocessed	Animals - Birds - Hirundinidae - Riparia riparia
Animals - Birds	Agelaius tricolor	tricolored blackbird	ABPBXB0020	None	Candidate Endangered	SSC	-	3912167	Chico	Mapped	Animals - Birds - Icteridae - Agelaius tricolor
Animals - Birds	Icteria virens	yellow-breasted chat	ABPBX24010	None	None	SSC	-	3912167	Chico	Unprocessed	Animals - Birds - Parulidae - Icteria virens
Animals - Birds	Icteria virens	yellow-breasted chat	ABPBX24010	None	None	SSC	-	3912177	Richardson Springs	Unprocessed	Animals - Birds - Parulidae - Icteria virens
Animals - Birds	Icteria virens	yellow-breasted chat	ABPBX24010	None	None	SSC	-	3912168	Ord Ferry	Unprocessed	Animals - Birds - Parulidae - Icteria virens
Animals - Birds	Setophaga petechia	yellow warbler	ABPBX03010	None	None	SSC	-	3912177	Richardson Springs	Unprocessed	Animals - Birds - Parulidae - Setophaga petechia
Animals - Birds	Setophaga petechia	yellow warbler	ABPBX03010	None	None	SSC	-	3912167	Chico	Unprocessed	Animals - Birds - Parulidae - Setophaga petechia
Animals - Birds	Setophaga petechia	yellow warbler	ABPBX03010	None	None	SSC	-	3912168	Ord Ferry	Unprocessed	Animals - Birds - Parulidae - Setophaga petechia
Animals - Birds	Phalacrocorax auritus	double-crested cormorant	ABNFD01020	None	None	WL	-	3912168	Ord Ferry	Unprocessed	Animals - Birds - Phalacrocoracidae - Phalacrocorax auritus
Animals - Birds	Laterallus jamaicensis coturniculus	California black rail	ABNME03041	None	Threatened	FP	-	3912166	Hamlin Canyon	Mapped	Animals - Birds - Rallidae - Laterallus jamaicensis coturniculus
Animals - Birds	Laterallus jamaicensis coturniculus	California black rail	ABNME03041	None	Threatened	FP	-	3912177	Richardson Springs	Mapped	Animals - Birds - Rallidae - Laterallus jamaicensis coturniculus
Animals - Birds	Laterallus jamaicensis coturniculus	California black rail	ABNME03041	None	Threatened	FP	-	3912176	Paradise West	Mapped	Animals - Birds - Rallidae - Laterallus jamaicensis coturniculus
Animals - Birds	Athene cunicularia	burrowing owl	ABNSB10010	None	None	SSC	-	3912177	Richardson Springs	Mapped and Unprocessed	Animals - Birds - Strigidae - Athene cunicularia
Animals - Birds	Athene cunicularia	burrowing owl	ABNSB10010	None	None	SSC	-	3912166	Hamlin Canyon	Unprocessed	Animals - Birds - Strigidae - Athene cunicularia
Animals - Birds	Athene cunicularia	burrowing owl	ABNSB10010	None	None	SSC	-	3912167	Chico	Mapped and Unprocessed	Animals - Birds - Strigidae - Athene cunicularia
Animals - Birds	Athene cunicularia	burrowing owl	ABNSB10010	None	None	SSC	-	3912178	Nord	Unprocessed	Animals - Birds - Strigidae - Athene cunicularia
Animals - Birds	Athene cunicularia	burrowing owl	ABNSB10010	None	None	SSC	-	3912188	Richardson Springs NW	Unprocessed	Animals - Birds - Strigidae - Athene cunicularia

Animals - Birds	Strix nebulosa	great gray owl	ABNSB12040	None	Endangered	-	-	3912167	Chico	Unprocessed	Animals - Birds - Strigidae - Strix nebulosa
Animals - Birds	Strix nebulosa	great gray owl	ABNSB12040	None	Endangered	-	-	3912166	Hamlin Canyon	Unprocessed	Animals - Birds - Strigidae - Strix nebulosa
Animals - Birds	Strix nebulosa	great gray owl	ABNSB12040	None	Endangered	-	-	3912177	Richardson Springs	Unprocessed	Animals - Birds - Strigidae - Strix nebulosa
Animals - Birds	Strix nebulosa	great gray owl	ABNSB12040	None	Endangered	-	-	3912176	Paradise West	Unprocessed	Animals - Birds - Strigidae - Strix nebulosa
Animals - Birds	Selasphorus rufus	rufous hummingbird	ABNUC51020	None	None	-	-	3912177	Richardson Springs	Unprocessed	Animals - Birds - Trochilidae - Selasphorus rufus
Animals - Birds	Selasphorus rufus	rufous hummingbird	ABNUC51020	None	None	-	-	3912167	Chico	Unprocessed	Animals - Birds - Trochilidae - Selasphorus rufus
Animals - Birds	Selasphorus rufus	rufous hummingbird	ABNUC51020	None	None	-	-	3912168	Ord Ferry	Unprocessed	Animals - Birds - Trochilidae - Selasphorus rufus
Animals - Birds	Vireo bellii pusillus	least Bell's vireo	ABPBW01114	Endangered	Endangered	-	-	3912167	Chico	Mapped	Animals - Birds - Vireonidae - Vireo bellii pusillus
Animals - Crustaceans	Branchinecta conservatio	Conservancy fairy shrimp	ICBRA03010	Endangered	None	-	-	3912188	Richardson Springs NW	Mapped	Animals - Crustaceans - Branchinectidae - Branchinecta conservatio
Animals - Crustaceans	Branchinecta conservatio	Conservancy fairy shrimp	ICBRA03010	Endangered	None	-	-	3912178	Nord	Mapped and Unprocessed	Animals - Crustaceans - Branchinectidae - Branchinecta conservatio
Animals - Crustaceans	Branchinecta lynchi	vernal pool fairy shrimp	ICBRA03030	Threatened	None	-	-	3912178	Nord	Mapped and Unprocessed	Animals - Crustaceans - Branchinectidae - Branchinecta lynchi
Animals - Crustaceans	Branchinecta lynchi	vernal pool fairy shrimp	ICBRA03030	Threatened	None	-	-	3912188	Richardson Springs NW	Mapped	Animals - Crustaceans - Branchinectidae - Branchinecta lynchi
Animals - Crustaceans	Branchinecta lynchi	vernal pool fairy shrimp	ICBRA03030	Threatened	None	-	-	3912177	Richardson Springs	Mapped	Animals - Crustaceans - Branchinectidae - Branchinecta lynchi
Animals - Crustaceans	Branchinecta mesovallensis	midvalley fairy shrimp	ICBRA03150	None	None	-	-	3912178	Nord	Mapped	Animals - Crustaceans - Branchinectidae - Branchinecta mesovallensis
Animals - Crustaceans	Linderiella occidentalis	California linderiella	ICBRA06010	None	None	-	-	3912178	Nord	Unprocessed	Animals - Crustaceans - Linderiellidae - Linderiella occidentalis
Animals - Crustaceans	Linderiella occidentalis	California linderiella	ICBRA06010	None	None	-	-	3912188	Richardson Springs NW	Mapped and Unprocessed	Animals - Crustaceans - Linderiellidae - Linderiella occidentalis
Animals - Crustaceans	Linderiella occidentalis	California linderiella	ICBRA06010	None	None	-	-	3912177	Richardson Springs	Mapped and Unprocessed	Animals - Crustaceans - Linderiellidae - Linderiella occidentalis
Animals - Crustaceans	Lepidurus packardi	vernal pool tadpole shrimp	ICBRA10010	Endangered	None	-	-	3912177	Richardson Springs	Mapped	Animals - Crustaceans - Triopsidae - Lepidurus packardi
Animals - Crustaceans	Lepidurus packardi	vernal pool tadpole shrimp	ICBRA10010	Endangered	None	-	-	3912167	Chico	Mapped	Animals - Crustaceans - Triopsidae - Lepidurus packardi
Animals - Crustaceans	Lepidurus packardi	vernal pool tadpole shrimp	ICBRA10010	Endangered	None	-	-	3912166	Hamlin Canyon	Mapped	Animals - Crustaceans - Triopsidae - Lepidurus packardi

Animals - Crustaceans	Lepidurus packardi	vernal pool tadpole shrimp	ICBRA10010	Endangered	None	-	-	3912188	Richardson Springs NW	Mapped	Animals - Crustaceans - Triopsidae - Lepidurus packardi
Animals - Crustaceans	Lepidurus packardi	vernal pool tadpole shrimp	ICBRA10010	Endangered	None	-	-	3912178	Nord	Mapped and Unprocessed	Animals - Crustaceans - Triopsidae - Lepidurus packardi
Animals - Fish	Oncorhynchus mykiss irideus	steelhead - Central Valley DPS	AFCHA0209K	Threatened	None	-	-	3912178	Nord	Mapped	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus
Animals - Fish	Oncorhynchus mykiss irideus	steelhead - Central Valley DPS	AFCHA0209K	Threatened	None	-	-	3912186	Cohasset	Mapped	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus
Animals - Fish	Oncorhynchus mykiss irideus	steelhead - Central Valley DPS	AFCHA0209K	Threatened	None	-	-	3912188	Richardson Springs NW	Mapped	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus
Animals - Fish	Oncorhynchus mykiss irideus	steelhead - Central Valley DPS	AFCHA0209K	Threatened	None	-	-	3912166	Hamlin Canyon	Mapped and Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus
Animals - Fish	Oncorhynchus mykiss irideus	steelhead - Central Valley DPS	AFCHA0209K	Threatened	None	-	-	3912167	Chico	Mapped and Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus
Animals - Fish	Oncorhynchus mykiss irideus	steelhead - Central Valley DPS	AFCHA0209K	Threatened	None	-	-	3912177	Richardson Springs	Mapped and Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus
Animals - Fish	Oncorhynchus mykiss irideus	steelhead - Central Valley DPS	AFCHA0209K	Threatened	None	-	-	3912176	Paradise West	Mapped	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus
Animals - Fish	Oncorhynchus mykiss irideus	steelhead - Central Valley DPS	AFCHA0209K	Threatened	None	-	-	3912168	Ord Ferry	Mapped	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus
Animals - Fish	Oncorhynchus tshawytscha	chinook salmon - Central Valley spring-run ESU	AFCHA0205A	Threatened	Threatened	-	-	3912176	Paradise West	Mapped	Animals - Fish - Salmonidae - Oncorhynchus tshawytscha
Animals - Fish	Oncorhynchus tshawytscha	chinook salmon - Central Valley spring-run ESU	AFCHA0205A	Threatened	Threatened	-	-	3912167	Chico	Mapped and Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus tshawytscha
Animals - Fish	Oncorhynchus tshawytscha	chinook salmon - Central Valley spring-run ESU	AFCHA0205A	Threatened	Threatened	-	-	3912166	Hamlin Canyon	Mapped and Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus tshawytscha
Animals - Fish	Oncorhynchus tshawytscha	chinook salmon - Central Valley spring-run ESU	AFCHA0205A	Threatened	Threatened	-	-	3912186	Cohasset	Mapped	Animals - Fish - Salmonidae - Oncorhynchus tshawytscha
Animals - Insects	Anthicus antiochensis	Antioch Dunes anthicid beetle	IICOL49020	None	None	-	-	3912168	Ord Ferry	Mapped	Animals - Insects - Anthicidae - Anthicus antiochensis
Animals - Insects	Anthicus sacramento	Sacramento anthicid beetle	IICOL49010	None	None	-	-	3912168	Ord Ferry	Mapped	Animals - Insects - Anthicidae - Anthicus sacramento
Animals - Insects	Desmocerus californicus dimorphus	valley elderberry longhorn beetle	IICOL48011	Threatened	None	-	-	3912168	Ord Ferry	Mapped	Animals - Insects - Cerambycidae - Desmocerus californicus dimorphus
Animals - Insects	Desmocerus californicus dimorphus	valley elderberry longhorn beetle	IICOL48011	Threatened	None	-	-	3912177	Richardson Springs	Mapped	Animals - Insects - Cerambycidae - Desmocerus californicus dimorphus
Animals - Insects	Desmocerus californicus dimorphus	valley elderberry longhorn beetle	IICOL48011	Threatened	None	-	-	3912167	Chico	Mapped	Animals - Insects - Cerambycidae - Desmocerus californicus dimorphus

Animals - Mammals	Eumops perotis californicus	western mastiff bat	AMACD02011	None	None	SSC	-	3912167	Chico	Mapped	Animals - Mammals - Molossidae - Eumops perotis californicus
Animals - Mammals	Eumops perotis californicus	western mastiff bat	AMACD02011	None	None	SSC	-	3912168	Ord Ferry	Mapped	Animals - Mammals - Molossidae - Eumops perotis californicus
Animals - Mammals	Eumops perotis californicus	western mastiff bat	AMACD02011	None	None	SSC	-	3912178	Nord	Mapped	Animals - Mammals - Molossidae - Eumops perotis californicus
Animals - Mammals	Eumops perotis californicus	western mastiff bat	AMACD02011	None	None	SSC	-	3912188	Richardson Springs NW	Mapped	Animals - Mammals - Molossidae - Eumops perotis californicus
Animals - Mammals	Pekania pennanti	fisher - West Coast DPS	AMAJF01021	Proposed Threatened	Candidate Threatened	SSC	-	3912188	Richardson Springs NW	Unprocessed	Animals - Mammals - Mustelidae - Pekania pennanti
Animals - Mammals	Pekania pennanti	fisher - West Coast DPS	AMAJF01021	Proposed Threatened	Candidate Threatened	SSC	-	3912187	Campbell Mound	Unprocessed	Animals - Mammals - Mustelidae - Pekania pennanti
Animals - Mammals	Pekania pennanti	fisher - West Coast DPS	AMAJF01021	Proposed Threatened	Candidate Threatened	SSC	-	3912178	Nord	Unprocessed	Animals - Mammals - Mustelidae - Pekania pennanti
Animals - Mammals	Pekania pennanti	fisher - West Coast DPS	AMAJF01021	Proposed Threatened	Candidate Threatened	SSC	-	3912186	Cohasset	Unprocessed	Animals - Mammals - Mustelidae - Pekania pennanti
Animals - Mammals	Antrozous pallidus	pallid bat	AMACC10010	None	None	SSC	-	3912168	Ord Ferry	Unprocessed	Animals - Mammals - Vespertilionidae - Antrozous pallidus
Animals - Mammals	Antrozous pallidus	pallid bat	AMACC10010	None	None	SSC	-	3912167	Chico	Mapped	Animals - Mammals - Vespertilionidae - Antrozous pallidus
Animals - Mammals	Lasionycteris noctivagans	silver-haired bat	AMACC02010	None	None	-	-	3912167	Chico	Mapped	Animals - Mammals - Vespertilionidae - Lasionycteris noctivagans
Animals - Mammals	Lasionycteris noctivagans	silver-haired bat	AMACC02010	None	None	-	-	3912168	Ord Ferry	Mapped	Animals - Mammals - Vespertilionidae - Lasionycteris noctivagans
Animals - Mammals	Lasiurus blossevillii	western red bat	AMACC05060	None	None	SSC	-	3912168	Ord Ferry	Mapped	Animals - Mammals - Vespertilionidae - Lasiurus blossevillii
Animals - Mammals	Lasiurus cinereus	hoary bat	AMACC05030	None	None	-	-	3912168	Ord Ferry	Mapped	Animals - Mammals - Vespertilionidae - Lasiurus cinereus
Animals - Mammals	Lasiurus cinereus	hoary bat	AMACC05030	None	None	-	-	3912167	Chico	Mapped	Animals - Mammals - Vespertilionidae - Lasiurus cinereus
Animals - Mammals	Myotis yumanensis	Yuma myotis	AMACC01020	None	None	-	-	3912168	Ord Ferry	Mapped	Animals - Mammals - Vespertilionidae - Myotis yumanensis
Animals - Mammals	Myotis yumanensis	Yuma myotis	AMACC01020	None	None	-	-	3912176	Paradise West	Mapped	Animals - Mammals - Vespertilionidae - Myotis yumanensis
Animals - Mollusks	Anodonta californiensis	California floater	IMBIV04020	None	None	-	-	3912168	Ord Ferry	Unprocessed	Animals - Mollusks - Unionidae - Anodonta californiensis
Animals - Reptiles	Emys marmorata	western pond turtle	ARAAD02030	None	None	SSC	-	3912176	Paradise West	Mapped and Unprocessed	Animals - Reptiles - Emydidae - Emys marmorata
Animals - Reptiles	Emys marmorata	western pond turtle	ARAAD02030	None	None	SSC	-	3912168	Ord Ferry	Mapped and Unprocessed	Animals - Reptiles - Emydidae - Emys marmorata
Animals - Reptiles	Emys marmorata	western pond turtle	ARAAD02030	None	None	SSC	-	3912167	Chico	Mapped	Animals - Reptiles - Emydidae - Emys marmorata
Animals - Reptiles	Emys marmorata	western pond turtle	ARAAD02030	None	None	SSC	-	3912166	Hamlin Canyon	Unprocessed	Animals - Reptiles - Emydidae - Emys marmorata
Animals - Reptiles	Thamnophis gigas	giant gartersnake	ARADB36150	Threatened	Threatened	-	-	3912168	Ord Ferry	Mapped	Animals - Reptiles - Natricidae - Thamnophis gigas

Animals - Reptiles	Phrynosoma blainvillii	coast horned lizard	ARACF12100	None	None	SSC	-	3912166	Hamlin Canyon	Mapped and Unprocessed	Animals - Reptiles - Phrynosomatidae - Phrynosoma blainvillii
Community - Aquatic	Central Valley Drainage Fall Run Chinook Stream	Central Valley Drainage Fall Run Chinook Stream	CARA2442CA	None	None	-	-	3912188	Richardson Springs NW	Mapped	Community - Aquatic - Central Valley Drainage Fall Run Chinook Stream
Community - Aquatic	Central Valley Drainage Hardhead/Squawfish Stream	Central Valley Drainage Hardhead/Squawfish Stream	CARA2443CA	None	None	-	-	3912188	Richardson Springs NW	Mapped	Community - Aquatic - Central Valley Drainage Hardhead/Squawfish Stream
Community - Terrestrial	Coastal and Valley Freshwater Marsh	Coastal and Valley Freshwater Marsh	CTT52410CA	None	None	-	-	3912168	Ord Ferry	Mapped	Community - Terrestrial - Coastal and Valley Freshwater Marsh
Community - Terrestrial	Great Valley Cottonwood Riparian Forest	Great Valley Cottonwood Riparian Forest	CTT61410CA	None	None	-	-	3912168	Ord Ferry	Mapped	Community - Terrestrial - Great Valley Cottonwood Riparian Forest
Community - Terrestrial	Great Valley Cottonwood Riparian Forest	Great Valley Cottonwood Riparian Forest	CTT61410CA	None	None	-	-	3912166	Hamlin Canyon	Mapped	Community - Terrestrial - Great Valley Cottonwood Riparian Forest
Community - Terrestrial	Great Valley Mixed Riparian Forest	Great Valley Mixed Riparian Forest	CTT61420CA	None	None	-	-	3912167	Chico	Mapped	Community - Terrestrial - Great Valley Mixed Riparian Forest
Community - Terrestrial	Great Valley Mixed Riparian Forest	Great Valley Mixed Riparian Forest	CTT61420CA	None	None	-	-	3912168	Ord Ferry	Mapped	Community - Terrestrial - Great Valley Mixed Riparian Forest
Community - Terrestrial	Great Valley Mixed Riparian Forest	Great Valley Mixed Riparian Forest	CTT61420CA	None	None	-	-	3912177	Richardson Springs	Mapped	Community - Terrestrial - Great Valley Mixed Riparian Forest
Community - Terrestrial	Great Valley Valley Oak Riparian Forest	Great Valley Valley Oak Riparian Forest	CTT61430CA	None	None	-	-	3912177	Richardson Springs	Mapped	Community - Terrestrial - Great Valley Valley Oak Riparian Forest
Community - Terrestrial	Great Valley Valley Oak Riparian Forest	Great Valley Valley Oak Riparian Forest	CTT61430CA	None	None	-	-	3912168	Ord Ferry	Mapped	Community - Terrestrial - Great Valley Valley Oak Riparian Forest
Community - Terrestrial	Great Valley Valley Oak Riparian Forest	Great Valley Valley Oak Riparian Forest	CTT61430CA	None	None	-	-	3912167	Chico	Mapped	Community - Terrestrial - Great Valley Valley Oak Riparian Forest
Community - Terrestrial	Great Valley Willow Scrub	Great Valley Willow Scrub	CTT63410CA	None	None	-	-	3912168	Ord Ferry	Mapped	Community - Terrestrial - Great Valley Willow Scrub
Community - Terrestrial	Northern Hardpan Vernal Pool	Northern Hardpan Vernal Pool	CTT44110CA	None	None	-	-	3912166	Hamlin Canyon	Mapped	Community - Terrestrial - Northern Hardpan Vernal Pool
Community - Terrestrial	Northern Hardpan Vernal Pool	Northern Hardpan Vernal Pool	CTT44110CA	None	None	-	-	3912188	Richardson Springs NW	Unprocessed	Community - Terrestrial - Northern Hardpan Vernal Pool
Community - Terrestrial	Northern Hardpan Vernal Pool	Northern Hardpan Vernal Pool	CTT44110CA	None	None	-	-	3912178	Nord	Mapped	Community - Terrestrial - Northern Hardpan Vernal Pool
Community - Terrestrial	Northern Volcanic Mud Flow Vernal Pool	Northern Volcanic Mud Flow Vernal Pool	CTT44132CA	None	None	-	-	3912177	Richardson Springs	Mapped	Community - Terrestrial - Northern Volcanic Mud Flow Vernal Pool
Plants - Bryophytes	Campylopodiella stenocarpa	flagella-like atractylocarpus	NBMUS84010	None	None	-	2B.2	3912177	Richardson Springs	Mapped	Plants - Bryophytes - Dicranaceae - Campylopodiella stenocarpa
Plants - Vascular	Sagittaria sanfordii	Sanford's arrowhead	PMALI040Q0	None	None	-	1B.2	3912188	Richardson Springs NW	Mapped	Plants - Vascular - Alismataceae - Sagittaria sanfordii
Plants - Vascular	Allium sanbornii var. sanbornii	Sanborn's onion	PMLIL02212	None	None	-	4.2	3912186	Cohasset	Unprocessed	Plants - Vascular - Alliaceae - Allium sanbornii var. sanbornii
Plants - Vascular	Balsamorhiza macrolepis	big-scale balsamroot	PDAST11061	None	None	-	1B.2	3912167	Chico	Mapped	Plants - Vascular - Asteraceae - Balsamorhiza macrolepis

Plants - Vascular	Calycadenia oppositifolia	Butte County calycadenia	PDAST1P070	None	None	-	4.2	3912167	Chico	Unprocessed	Plants - Vascular - Asteraceae - Calycadenia oppositifolia
Plants - Vascular	Calycadenia oppositifolia	Butte County calycadenia	PDAST1P070	None	None	-	4.2	3912166	Hamlin Canyon	Unprocessed	Plants - Vascular - Asteraceae - Calycadenia oppositifolia
Plants - Vascular	Calycadenia oppositifolia	Butte County calycadenia	PDAST1P070	None	None	-	4.2	3912177	Richardson Springs	Unprocessed	Plants - Vascular - Asteraceae - Calycadenia oppositifolia
Plants - Vascular	Calycadenia oppositifolia	Butte County calycadenia	PDAST1P070	None	None	-	4.2	3912176	Paradise West	Unprocessed	Plants - Vascular - Asteraceae - Calycadenia oppositifolia
Plants - Vascular	Hesperevax caulescens	hogwallow starfish	PDASTE5020	None	None	-	4.2	3912177	Richardson Springs	Unprocessed	Plants - Vascular - Asteraceae - Hesperevax caulescens
Plants - Vascular	Hesperevax caulescens	hogwallow starfish	PDASTE5020	None	None	-	4.2	3912166	Hamlin Canyon	Unprocessed	Plants - Vascular - Asteraceae - Hesperevax caulescens
Plants - Vascular	Hesperevax caulescens	hogwallow starfish	PDASTE5020	None	None	-	4.2	3912178	Nord	Unprocessed	Plants - Vascular - Asteraceae - Hesperevax caulescens
Plants - Vascular	Hesperevax caulescens	hogwallow starfish	PDASTE5020	None	None	-	4.2	3912188	Richardson Springs NW	Unprocessed	Plants - Vascular - Asteraceae - Hesperevax caulescens
Plants - Vascular	Lasthenia glabrata ssp. coulteri	Coulter's goldfields	PDAST5L0A1	None	None	-	1B.1	3912188	Richardson Springs NW	Mapped	Plants - Vascular - Asteraceae - Lasthenia glabrata ssp. coulteri
Plants - Vascular	Azolla microphylla	Mexican mosquito fern	PPAZO01030	None	None	-	4.2	3912176	Paradise West	Unprocessed	Plants - Vascular - Azollaceae - Azolla microphylla
Plants - Vascular	Cryptantha crinita	silky cryptantha	PDBOR0A0Q0	None	None	-	1B.2	3912168	Ord Ferry	Mapped	Plants - Vascular - Boraginaceae - Cryptantha crinita
Plants - Vascular	Cryptantha crinita	silky cryptantha	PDBOR0A0Q0	None	None	-	1B.2	3912188	Richardson Springs NW	Mapped	Plants - Vascular - Boraginaceae - Cryptantha crinita
Plants - Vascular	Cardamine pachystigma var. dissectifolia	dissected-leaved toothwort	PDBRA0K1B1	None	None	-	1B.2	3912186	Cohasset	Mapped	Plants - Vascular - Brassicaceae - Cardamine pachystigma var. dissectifolia
Plants - Vascular	Cardamine pachystigma var. dissectifolia	dissected-leaved toothwort	PDBRA0K1B1	None	None	-	1B.2	3912176	Paradise West	Mapped	Plants - Vascular - Brassicaceae - Cardamine pachystigma var. dissectifolia
Plants - Vascular	Downingia pusilla	dwarf downingia	PDCAM060C0	None	None	-	2B.2	3912188	Richardson Springs NW	Mapped	Plants - Vascular - Campanulaceae - Downingia pusilla
Plants - Vascular	Paronychia ahartii	Ahart's paronychia	PDCAR0L0V0	None	None	-	1B.1	3912188	Richardson Springs NW	Mapped	Plants - Vascular - Caryophyllaceae - Paronychia ahartii
Plants - Vascular	Paronychia ahartii	Ahart's paronychia	PDCAR0L0V0	None	None	-	1B.1	3912177	Richardson Springs	Mapped	Plants - Vascular - Caryophyllaceae - Paronychia ahartii
Plants - Vascular	Calystegia atriplicifolia ssp. buttensis	Butte County morning-glory	PDCON04012	None	None	-	4.2	3912176	Paradise West	Mapped	Plants - Vascular - Convolvulaceae - Calystegia atriplicifolia ssp. buttensis
Plants - Vascular	Calystegia atriplicifolia ssp. buttensis	Butte County morning-glory	PDCON04012	None	None	-	4.2	3912186	Cohasset	Mapped and Unprocessed	Plants - Vascular - Convolvulaceae - Calystegia atriplicifolia ssp. buttensis
Plants - Vascular	Rhynchospora californica	California beaked-rush	PMCYP0N060	None	None	-	1B.1	3912177	Richardson Springs	Mapped	Plants - Vascular - Cyperaceae - Rhynchospora californica

Plants - Vascular	Rhynchospora californica	California beaked-rush	PMCYP0N060	None	None	-	1B.1	3912176	Paradise West	Mapped	Plants - Vascular - Cyperaceae - Rhynchospora californica
Plants - Vascular	Rhynchospora capitellata	brownish beaked-rush	PMCYP0N080	None	None	-	2B.2	3912176	Paradise West	Mapped	Plants - Vascular - Cyperaceae - Rhynchospora capitellata
Plants - Vascular	Euphorbia hooveri	Hoover's spurge	PDEUP0D150	Threatened	None	-	1B.2	3912166	Hamlin Canyon	Mapped	Plants - Vascular - Euphorbiaceae - Euphorbia hooveri
Plants - Vascular	Euphorbia hooveri	Hoover's spurge	PDEUP0D150	Threatened	None	-	1B.2	3912178	Nord	Mapped	Plants - Vascular - Euphorbiaceae - Euphorbia hooveri
Plants - Vascular	Euphorbia hooveri	Hoover's spurge	PDEUP0D150	Threatened	None	-	1B.2	3912188	Richardson Springs NW	Mapped	Plants - Vascular - Euphorbiaceae - Euphorbia hooveri
Plants - Vascular	Astragalus pauperculus	depauperate milk-vetch	PDFAB0F6N0	None	None	-	4.3	3912187	Campbell Mound	Unprocessed	Plants - Vascular - Fabaceae - Astragalus pauperculus
Plants - Vascular	Astragalus pauperculus	depauperate milk-vetch	PDFAB0F6N0	None	None	-	4.3	3912178	Nord	Unprocessed	Plants - Vascular - Fabaceae - Astragalus pauperculus
Plants - Vascular	Astragalus pauperculus	depauperate milk-vetch	PDFAB0F6N0	None	None	-	4.3	3912186	Cohasset	Unprocessed	Plants - Vascular - Fabaceae - Astragalus pauperculus
Plants - Vascular	Astragalus pauperculus	depauperate milk-vetch	PDFAB0F6N0	None	None	-	4.3	3912166	Hamlin Canyon	Unprocessed	Plants - Vascular - Fabaceae - Astragalus pauperculus
Plants - Vascular	Astragalus pauperculus	depauperate milk-vetch	PDFAB0F6N0	None	None	-	4.3	3912167	Chico	Unprocessed	Plants - Vascular - Fabaceae - Astragalus pauperculus
Plants - Vascular	Astragalus pauperculus	depauperate milk-vetch	PDFAB0F6N0	None	None	-	4.3	3912177	Richardson Springs	Unprocessed	Plants - Vascular - Fabaceae - Astragalus pauperculus
Plants - Vascular	Astragalus pauperculus	depauperate milk-vetch	PDFAB0F6N0	None	None	-	4.3	3912176	Paradise West	Unprocessed	Plants - Vascular - Fabaceae - Astragalus pauperculus
Plants - Vascular	Astragalus tener var. ferrisiae	Ferris' milk-vetch	PDFAB0F8R3	None	None	-	1B.1	3912178	Nord	Mapped	Plants - Vascular - Fabaceae - Astragalus tener var. ferrisiae
Plants - Vascular	Rupertia hallii	Hall's rupertia	PDFAB62010	None	None	-	1B.2	3912186	Cohasset	Mapped and Unprocessed	Plants - Vascular - Fabaceae - Rupertia hallii
Plants - Vascular	California macrophylla	round-leaved filaree	PDGER01070	None	None	-	1B.2	3912188	Richardson Springs NW	Mapped	Plants - Vascular - Geraniaceae - California macrophylla
Plants - Vascular	Juncus leiospermus var. leiospermus	Red Bluff dwarf rush	PMJUN011L2	None	None	-	1B.1	3912187	Campbell Mound	Mapped	Plants - Vascular - Juncaceae - Juncus leiospermus var. leiospermus
Plants - Vascular	Juncus leiospermus var. leiospermus	Red Bluff dwarf rush	PMJUN011L2	None	None	-	1B.1	3912177	Richardson Springs	Mapped	Plants - Vascular - Juncaceae - Juncus leiospermus var. leiospermus
Plants - Vascular	Monardella venosa	veiny monardella	PDLAM18082	None	None	-	1B.1	3912166	Hamlin Canyon	Mapped	Plants - Vascular - Lamiaceae - Monardella venosa
Plants - Vascular	Wolffia brasiliensis	Brazilian watermeal	PMLEM03020	None	None	-	2B.3	3912168	Ord Ferry	Mapped	Plants - Vascular - Lemnaceae - Wolffia brasiliensis
Plants - Vascular	Fritillaria eastwoodiae	Butte County fritillary	PMLIL0V060	None	None	-	3.2	3912176	Paradise West	Mapped	Plants - Vascular - Liliaceae - Fritillaria eastwoodiae
Plants - Vascular	Fritillaria eastwoodiae	Butte County fritillary	PMLIL0V060	None	None	-	3.2	3912166	Hamlin Canyon	Mapped	Plants - Vascular - Liliaceae - Fritillaria eastwoodiae
Plants - Vascular	Fritillaria eastwoodiae	Butte County fritillary	PMLIL0V060	None	None	-	3.2	3912167	Chico	Mapped	Plants - Vascular - Liliaceae - Fritillaria eastwoodiae

Plants - Vascular	Fritillaria eastwoodiae	Butte County fritillary	PMLIL0V060	None	None	-	3.2	3912186	Cohasset	Mapped	Plants - Vascular - Liliaceae - Fritillaria eastwoodiae
Plants - Vascular	Fritillaria pluriflora	adobe-lily	PMLIL0V0F0	None	None	-	1B.2	3912178	Nord	Mapped	Plants - Vascular - Liliaceae - Fritillaria pluriflora
Plants - Vascular	Fritillaria pluriflora	adobe-lily	PMLIL0V0F0	None	None	-	1B.2	3912188	Richardson Springs NW	Mapped	Plants - Vascular - Liliaceae - Fritillaria pluriflora
Plants - Vascular	Fritillaria pluriflora	adobe-lily	PMLIL0V0F0	None	None	-	1B.2	3912167	Chico	Mapped	Plants - Vascular - Liliaceae - Fritillaria pluriflora
Plants - Vascular	Fritillaria pluriflora	adobe-lily	PMLIL0V0F0	None	None	-	1B.2	3912177	Richardson Springs	Mapped and Unprocessed	Plants - Vascular - Liliaceae - Fritillaria pluriflora
Plants - Vascular	Lilium humboldtii ssp. humboldtii	Humboldt lily	PMLIL1A071	None	None	-	4.2	3912176	Paradise West	Unprocessed	Plants - Vascular - Liliaceae - Lilium humboldtii ssp. humboldtii
Plants - Vascular	Lilium humboldtii ssp. humboldtii	Humboldt lily	PMLIL1A071	None	None	-	4.2	3912186	Cohasset	Unprocessed	Plants - Vascular - Liliaceae - Lilium humboldtii ssp. humboldtii
Plants - Vascular	Limnanthes floccosa ssp. californica	Butte County meadowfoam	PDLIM02042	Endangered	Endangered	-	1B.1	3912178	Nord	Mapped	Plants - Vascular - Limnanthaceae - Limnanthes floccosa ssp. californica
Plants - Vascular	Limnanthes floccosa ssp. californica	Butte County meadowfoam	PDLIM02042	Endangered	Endangered	-	1B.1	3912177	Richardson Springs	Mapped	Plants - Vascular - Limnanthaceae - Limnanthes floccosa ssp. californica
Plants - Vascular	Limnanthes floccosa ssp. californica	Butte County meadowfoam	PDLIM02042	Endangered	Endangered	-	1B.1	3912167	Chico	Mapped	Plants - Vascular - Limnanthaceae - Limnanthes floccosa ssp. californica
Plants - Vascular	Limnanthes floccosa ssp. floccosa	woolly meadowfoam	PDLIM02043	None	None	-	4.2	3912177	Richardson Springs	Mapped and Unprocessed	Plants - Vascular - Limnanthaceae - Limnanthes floccosa ssp. floccosa
Plants - Vascular	Limnanthes floccosa ssp. floccosa	woolly meadowfoam	PDLIM02043	None	None	-	4.2	3912178	Nord	Mapped and Unprocessed	Plants - Vascular - Limnanthaceae - Limnanthes floccosa ssp. floccosa
Plants - Vascular	Limnanthes floccosa ssp. floccosa	woolly meadowfoam	PDLIM02043	None	None	-	4.2	3912187	Campbell Mound	Mapped	Plants - Vascular - Limnanthaceae - Limnanthes floccosa ssp. floccosa
Plants - Vascular	Limnanthes floccosa ssp. floccosa	woolly meadowfoam	PDLIM02043	None	None	-	4.2	3912188	Richardson Springs NW	Mapped and Unprocessed	Plants - Vascular - Limnanthaceae - Limnanthes floccosa ssp. floccosa
Plants - Vascular	Hibiscus lasiocarpos var. occidentalis	woolly rose-mallow	PDMAL0H0R3	None	None	-	1B.2	3912177	Richardson Springs	Mapped	Plants - Vascular - Malvaceae - Hibiscus lasiocarpos var. occidentalis
Plants - Vascular	Hibiscus lasiocarpos var. occidentalis	woolly rose-mallow	PDMAL0H0R3	None	None	-	1B.2	3912176	Paradise West	Mapped	Plants - Vascular - Malvaceae - Hibiscus lasiocarpos var. occidentalis
Plants - Vascular	Hibiscus lasiocarpos var. occidentalis	woolly rose-mallow	PDMAL0H0R3	None	None	-	1B.2	3912168	Ord Ferry	Mapped	Plants - Vascular - Malvaceae - Hibiscus lasiocarpos var. occidentalis
Plants - Vascular	Hibiscus lasiocarpos var. occidentalis	woolly rose-mallow	PDMAL0H0R3	None	None	-	1B.2	3912166	Hamlin Canyon	Mapped	Plants - Vascular - Malvaceae - Hibiscus lasiocarpos var. occidentalis
Plants - Vascular	Sidalcea robusta	Butte County checkerbloom	PDMAL110P0	None	None	-	1B.2	3912166	Hamlin Canyon	Mapped	Plants - Vascular - Malvaceae - Sidalcea robusta
Plants - Vascular	Sidalcea robusta	Butte County checkerbloom	PDMAL110P0	None	None	-	1B.2	3912167	Chico	Mapped	Plants - Vascular - Malvaceae - Sidalcea robusta
Plants - Vascular	Sidalcea robusta	Butte County checkerbloom	PDMAL110P0	None	None	-	1B.2	3912176	Paradise West	Mapped	Plants - Vascular - Malvaceae - Sidalcea robusta
Plants - Vascular	Sidalcea robusta	Butte County checkerbloom	PDMAL110P0	None	None	-	1B.2	3912177	Richardson Springs	Mapped	Plants - Vascular - Malvaceae - Sidalcea robusta

Plants - Vascular	Sidalcea robusta	Butte County checkerbloom	PDMAL110P0	None	None	-	1B.2	3912186	Cohasset	Mapped	Plants - Vascular - Malvaceae - Sidalcea robusta
Plants - Vascular	Claytonia palustris	marsh claytonia	PDPOR030S0	None	None	-	4.3	3912186	Cohasset	Unprocessed	Plants - Vascular - Montiaceae - Claytonia palustris
Plants - Vascular	Claytonia palustris	marsh claytonia	PDPOR030S0	None	None	-	4.3	3912176	Paradise West	Unprocessed	Plants - Vascular - Montiaceae - Claytonia palustris
Plants - Vascular	Claytonia palustris	marsh claytonia	PDPOR030S0	None	None	-	4.3	3912167	Chico	Unprocessed	Plants - Vascular - Montiaceae - Claytonia palustris
Plants - Vascular	Claytonia palustris	marsh claytonia	PDPOR030S0	None	None	-	4.3	3912166	Hamlin Canyon	Unprocessed	Plants - Vascular - Montiaceae - Claytonia palustris
Plants - Vascular	Clarkia gracilis ssp. albicaulis	white-stemmed clarkia	PDONA050J1	None	None	-	1B.2	3912177	Richardson Springs	Mapped	Plants - Vascular - Onagraceae - Clarkia gracilis ssp. albicaulis
Plants - Vascular	Clarkia gracilis ssp. albicaulis	white-stemmed clarkia	PDONA050J1	None	None	-	1B.2	3912176	Paradise West	Mapped	Plants - Vascular - Onagraceae - Clarkia gracilis ssp. albicaulis
Plants - Vascular	Clarkia gracilis ssp. albicaulis	white-stemmed clarkia	PDONA050J1	None	None	-	1B.2	3912186	Cohasset	Mapped and Unprocessed	Plants - Vascular - Onagraceae - Clarkia gracilis ssp. albicaulis
Plants - Vascular	Clarkia mildrediae ssp. mildrediae	Mildred's clarkia	PDONA050Q2	None	None	-	1B.3	3912186	Cohasset	Mapped	Plants - Vascular - Onagraceae - Clarkia mildrediae ssp. mildrediae
Plants - Vascular	Castilleja rubicundula var. rubicundula	pink creamsacs	PDSCR0D482	None	None	-	1B.2	3912178	Nord	Mapped	Plants - Vascular - Orobanchaceae - Castilleja rubicundula var. rubicundula
Plants - Vascular	Castilleja rubicundula var. rubicundula	pink creamsacs	PDSCR0D482	None	None	-	1B.2	3912166	Hamlin Canyon	Mapped	Plants - Vascular - Orobanchaceae - Castilleja rubicundula var. rubicundula
Plants - Vascular	Erythranthe glaucescens	shield-bracted monkeyflower	PDSCR1B1B0	None	None	-	4.3	3912166	Hamlin Canyon	Unprocessed	Plants - Vascular - Phrymaceae - Erythranthe glaucescens
Plants - Vascular	Erythranthe glaucescens	shield-bracted monkeyflower	PDSCR1B1B0	None	None	-	4.3	3912167	Chico	Unprocessed	Plants - Vascular - Phrymaceae - Erythranthe glaucescens
Plants - Vascular	Erythranthe glaucescens	shield-bracted monkeyflower	PDSCR1B1B0	None	None	-	4.3	3912176	Paradise West	Unprocessed	Plants - Vascular - Phrymaceae - Erythranthe glaucescens
Plants - Vascular	Erythranthe glaucescens	shield-bracted monkeyflower	PDSCR1B1B0	None	None	-	4.3	3912178	Nord	Unprocessed	Plants - Vascular - Phrymaceae - Erythranthe glaucescens
Plants - Vascular	Erythranthe glaucescens	shield-bracted monkeyflower	PDSCR1B1B0	None	None	-	4.3	3912186	Cohasset	Unprocessed	Plants - Vascular - Phrymaceae - Erythranthe glaucescens
Plants - Vascular	Erythranthe glaucescens	shield-bracted monkeyflower	PDSCR1B1B0	None	None	-	4.3	3912188	Richardson Springs NW	Unprocessed	Plants - Vascular - Phrymaceae - Erythranthe glaucescens
Plants - Vascular	Erythranthe glaucescens	shield-bracted monkeyflower	PDSCR1B1B0	None	None	-	4.3	3912177	Richardson Springs	Unprocessed	Plants - Vascular - Phrymaceae - Erythranthe glaucescens
Plants - Vascular	Erythranthe glaucescens	shield-bracted monkeyflower	PDSCR1B1B0	None	None	-	4.3	3912187	Campbell Mound	Unprocessed	Plants - Vascular - Phrymaceae - Erythranthe glaucescens
Plants - Vascular	Gratiola heterosepala	Boggs Lake hedge-hyssop	PDSCR0R060	None	Endangered	-	1B.2	3912188	Richardson Springs NW	Mapped	Plants - Vascular - Plantaginaceae - Gratiola heterosepala
Plants - Vascular	Imperata brevifolia	California satintail	PMPOA3D020	None	None	-	2B.1	3912187	Campbell Mound	Mapped	Plants - Vascular - Poaceae - Imperata brevifolia

Plants - Vascular	Imperata brevifolia	California satintail	PMPOA3D020	None	None	-	2B.1	3912176	Paradise West	Mapped	Plants - Vascular - Poaceae - Imperata brevifolia
Plants - Vascular	Imperata brevifolia	California satintail	PMPOA3D020	None	None	-	2B.1	3912177	Richardson Springs	Mapped	Plants - Vascular - Poaceae - Imperata brevifolia
Plants - Vascular	Orcuttia pilosa	hairy Orcutt grass	PMPOA4G040	Endangered	Endangered	-	1B.1	3912188	Richardson Springs NW	Mapped	Plants - Vascular - Poaceae - Orcuttia pilosa
Plants - Vascular	Orcuttia tenuis	slender Orcutt grass	PMPOA4G050	Threatened	Endangered	-	1B.1	3912188	Richardson Springs NW	Mapped	Plants - Vascular - Poaceae - Orcuttia tenuis
Plants - Vascular	Tuctoria greenei	Greene's tuctoria	PMPOA6N010	Endangered	Rare	-	1B.1	3912188	Richardson Springs NW	Mapped	Plants - Vascular - Poaceae - Tuctoria greenei
Plants - Vascular	Tuctoria greenei	Greene's tuctoria	PMPOA6N010	Endangered	Rare	-	1B.1	3912178	Nord	Mapped	Plants - Vascular - Poaceae - Tuctoria greenei
Plants - Vascular	Tuctoria greenei	Greene's tuctoria	PMPOA6N010	Endangered	Rare	-	1B.1	3912166	Hamlin Canyon	Mapped	Plants - Vascular - Poaceae - Tuctoria greenei
Plants - Vascular	Navarretia heterandra	Tehama navarretia	PDPLM0C0A0	None	None	-	4.3	3912166	Hamlin Canyon	Unprocessed	Plants - Vascular - Polemoniaceae - Navarretia heterandra
Plants - Vascular	Navarretia heterandra	Tehama navarretia	PDPLM0C0A0	None	None	-	4.3	3912177	Richardson Springs	Unprocessed	Plants - Vascular - Polemoniaceae - Navarretia heterandra
Plants - Vascular	Navarretia heterandra	Tehama navarretia	PDPLM0C0A0	None	None	-	4.3	3912178	Nord	Unprocessed	Plants - Vascular - Polemoniaceae - Navarretia heterandra
Plants - Vascular	Navarretia heterandra	Tehama navarretia	PDPLM0C0A0	None	None	-	4.3	3912188	Richardson Springs NW	Unprocessed	Plants - Vascular - Polemoniaceae - Navarretia heterandra
Plants - Vascular	Eriogonum umbellatum var. ahartii	Ahart's buckwheat	PDPGN086UY	None	None	-	1B.2	3912186	Cohasset	Mapped and Unprocessed	Plants - Vascular - Polygonaceae - Eriogonum umbellatum var. ahartii
Plants - Vascular	Eriogonum umbellatum var. ahartii	Ahart's buckwheat	PDPGN086UY	None	None	-	1B.2	3912176	Paradise West	Mapped	Plants - Vascular - Polygonaceae - Eriogonum umbellatum var. ahartii
Plants - Vascular	Polygonum bidwelliae	Bidwell's knotweed	PDPGN0L0C0	None	None	-	4.3	3912176	Paradise West	Unprocessed	Plants - Vascular - Polygonaceae - Polygonum bidwelliae
Plants - Vascular	Polygonum bidwelliae	Bidwell's knotweed	PDPGN0L0C0	None	None	-	4.3	3912177	Richardson Springs	Unprocessed	Plants - Vascular - Polygonaceae - Polygonum bidwelliae
Plants - Vascular	Polygonum bidwelliae	Bidwell's knotweed	PDPGN0L0C0	None	None	-	4.3	3912187	Campbell Mound	Unprocessed	Plants - Vascular - Polygonaceae - Polygonum bidwelliae
Plants - Vascular	Stuckenia filiformis ssp. alpina	slender-leaved pondweed	PMPOT03091	None	None	-	2B.2	3912167	Chico	Mapped	Plants - Vascular - Potamogetonaceae - Stuckenia filiformis ssp. alpina

IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Butte County, California

Local office

Sacramento Fish And Wildlife Office

(916) 414-6600
(916) 414-6713

Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species

[1] are managed by the Endangered Species Program of the U.S. Fish and Wildlife Service.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information.

The following species are potentially affected by activities in this location:

Amphibians

NAME	STATUS
California Red-legged Frog Rana draytonii There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. https://ecos.fws.gov/ecp/species/2891	Threatened

Crustaceans

NAME	STATUS
Conservancy Fairy Shrimp Branchinecta conservatio There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. https://ecos.fws.gov/ecp/species/8246	Endangered
Vernal Pool Fairy Shrimp Branchinecta lynchi There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. https://ecos.fws.gov/ecp/species/498	Threatened
Vernal Pool Tadpole Shrimp Lepidurus packardi There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. https://ecos.fws.gov/ecp/species/2246	Endangered

Fishes

NAME	STATUS
Delta Smelt Hypomesus transpacificus There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. https://ecos.fws.gov/ecp/species/321	Threatened
Steelhead Oncorhynchus (=Salmo) mykiss There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. https://ecos.fws.gov/ecp/species/1007	Threatened

Flowering Plants

NAME	STATUS
Butte County Meadowfoam Limnanthes floccosa ssp. californica There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. https://ecos.fws.gov/ecp/species/4223	Endangered
Slender Orcutt Grass Orcuttia tenuis There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. https://ecos.fws.gov/ecp/species/1063	Threatened

Insects

NAME	STATUS
Valley Elderberry Longhorn Beetle Desmocerus californicus dimorphus There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. https://ecos.fws.gov/ecp/species/7850	Threatened

Reptiles

NAME	STATUS
Giant Garter Snake Thamnophis gigas No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4482	Threatened

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act

[1] and the Bald and Golden Eagle Protection Act[2].

Any activity that results in the take (to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct) of migratory birds or eagles is prohibited unless authorized by the U.S. Fish and Wildlife Service

[3]. There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

Any person or organization who plans or conducts activities that may result in the take of migratory birds is responsible for complying with the appropriate regulations and implementing appropriate conservation measures.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Conservation measures for birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Year-round bird occurrence data http://www.birdscanada.org/birdmon/default/datasummaries.jsp

The migratory birds species listed below are species of particular conservation concern (e.g. Birds of Conservation Concern) that may be potentially affected by activities in this location. It is not a list of every bird species you may find in this location, nor a guarantee that all of the bird species on this list will be found on or near this location. Although it is important to try to avoid and minimize impacts to all birds, special attention should be made to avoid and minimize impacts to birds of priority concern. To view available data on other bird species that may occur in your project area, please visit the AKN Histogram Tools and Other Bird Data Resources. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

NAME	SEASON(S)
Bald Eagle *Haliaeetus leucocephalus* https://ecos.fws.gov/ecp/species/1626	Year-round
Black Rail *Laterallus jamaicensis* https://ecos.fws.gov/ecp/species/7717	Breeding
Burrowing Owl *Athene cunicularia* https://ecos.fws.gov/ecp/species/9737	Year-round
Calliope Hummingbird *Stellula calliope* https://ecos.fws.gov/ecp/species/9526	Breeding
Fox Sparrow *Passerella iliaca*	Year-round
Lewis's Woodpecker *Melanerpes lewis* https://ecos.fws.gov/ecp/species/9408	Wintering

Loggerhead Shrike Lanius ludovicianus https://ecos.fws.gov/ecp/species/8833	Year-round
Long-billed Curlew Numenius americanus https://ecos.fws.gov/ecp/species/5511	Wintering
Mountain Plover Charadrius montanus https://ecos.fws.gov/ecp/species/3638	Wintering
Nuttall's Woodpecker Picoides nuttallii https://ecos.fws.gov/ecp/species/9410	Year-round
Oak Titmouse Baeolophus inornatus https://ecos.fws.gov/ecp/species/9656	Year-round
Peregrine Falcon Falco peregrinus https://ecos.fws.gov/ecp/species/8831	Wintering
Short-eared Owl Asio flammeus https://ecos.fws.gov/ecp/species/9295	Wintering
Swainson's Hawk Buteo swainsoni https://ecos.fws.gov/ecp/species/1098	Breeding
Western Grebe aechmophorus occidentalis https://ecos.fws.gov/ecp/species/6743	Year-round
Williamson's Sapsucker Sphyrapicus thyroideus https://ecos.fws.gov/ecp/species/8832	Year-round
Willow Flycatcher Empidonax traillii https://ecos.fws.gov/ecp/species/3482	Breeding
Yellow-billed Magpie Pica nuttalli https://ecos.fws.gov/ecp/species/9726	Year-round

What does IPaC use to generate the list of migratory bird species potentially occurring in my specified location?

Landbirds:

Migratory birds that are displayed on the IPaC species list are based on ranges in the latest edition of the National Geographic Guide, Birds of North America (6th Edition, 2011 by Jon L. Dunn, and Jonathan Alderfer). Although these ranges are coarse in nature, a number of U.S. Fish and Wildlife Service migratory bird biologists agree that these maps are some of the best range maps to date. These ranges were clipped to a specific Bird Conservation Region (BCR) or USFWS Region/Regions, if it was indicated in the 2008 list of Birds of Conservation Concern (BCC) that a species was a BCC species only in a particular Region/Regions. Additional modifications have been made to some ranges based on more local or refined range information and/or information provided by U.S. Fish and Wildlife Service biologists with species expertise. All migratory birds that show in areas on land in IPaC are those that appear in the 2008 Birds of Conservation Concern report.

Atlantic Seabirds:

Ranges in IPaC for birds off the Atlantic coast are derived from species distribution models developed by the National Oceanic and Atmospheric Association (NOAA) National Centers for Coastal Ocean Science (NCCOS) using the best available seabird survey data for the offshore Atlantic Coastal region to date. NOAANCCOS assisted USFWS in developing seasonal species ranges from their models for specific use in IPaC. Some of these birds are not BCC species but were of interest for inclusion because they may occur in high abundance off the coast at different times throughout the year, which potentially makes them more susceptible to certain types of development and activities taking place in that area. For more refined details about the abundance and richness of bird species within your project area off the Atlantic Coast, see the Northeast Ocean Data Portal. The Portal also offers data and information about other types of taxa that may be helpful in your project review.

About the NOAANCCOS models: the models were developed as part of the NOAANCCOS project: Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf. The models resulting from this project are being used in a number of decision-support/mapping products in order to help guide decision-making on activities off the Atlantic Coast with the goal of reducing impacts to migratory birds. One such product is the Northeast Ocean Data Portal, which can be used to explore details about the relative occurrence and abundance of bird species in a particular area off the Atlantic Coast.

All migratory bird range maps within IPaC are continuously being updated as new and better information becomes available.

Can I get additional information about the levels of occurrence in my project area of specific birds or groups of birds listed in IPaC?

Landbirds:

The Avian Knowledge Network (AKN) provides a tool currently called the "Histogram Tool", which draws from the data within the AKN (latest,survey, point count, citizen science datasets) to create a view of relative abundance of species within a particular location over the course of the year. The results of the tool depict the frequency of detection of a species in survey events, averaged between multiple datasets within AKN in a particular week of the year. You may access the histogram tools through the Migratory Bird Programs AKN Histogram Tools webpage.

The tool is currently available for 4 regions (California, Northeast U.S., Southeast U.S. and Midwest), which encompasses the following 32 states: Alabama, Arkansas, California, Connecticut, Delaware, Florida, Georgia, Illinois, Indiana, Iowa, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, New Hampshire, New Jersey, New York, North, Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, Virginia, West Virginia, and Wisconsin.

In the near future, there are plans to expand this tool nationwide within the AKN, and allow the graphs produced to appear with the list of trust resources generated by IPaC, providing you with an additional level of detail about the level of occurrence of the species of particular concern potentially occurring in your project area throughout the course of the year.

Atlantic Seabirds:

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAANCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Facilities

Wildlife refuges

Any activity proposed on National Wildlife Refuge lands must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGES AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

THERE ARE NO KNOWN WETLANDS AT THIS LOCATION.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Scientific Name	Common Name	Family	Lifeform	Rare Pl	State	Globa	CESA	FESA	Elevat	Elevati	CA En
Allium sanbornii var. sanbornii	Sanborn's onion	Alliaceae	perennial bulbife	4.2	S4?	G3T4?	None	None	1510	260	F
Astragalus pauperculus	depauperate milk-vetch	Fabaceae	annual herb	4.3	S4	G4	None	None	1215	60	T
Astragalus tener var. ferrisiae	Ferris' milk-vetch	Fabaceae	annual herb	1B.1	S1	G2T1	None	None	75	2	T
Balsamorhiza macrolepis	big-scale balsamroot	Asteraceae	perennial herb	1B.2	S2	G2	None	None	1555	90	T
California macrophylla	round-leaved filaree	Geraniaceae	annual herb	1B.2	S3?	G3?	None	None	1200	15	F
Calycadenia oppositifolia	Butte County calycadenia	Asteraceae	annual herb	4.2	S3	G3	None	None	945	90	T
Calystegia atriplicifolia ssp. bu	Butte County morning-glory	Convolvulaceae	perennial rhizom	4.2	S3	G5T3	None	None	1524	565	T
Campylopodiella stenocarpa	flagella-like atractylocarpus	Dicranaceae	moss	2B.2	S1?	G5	None	None	500	100	F
Cardamine pachystigma var. d	dissected-leaved toothwort	Brassicaceae	perennial rhizom	1B.2	S2	G3G5	None	None	2100	255	T
Castilleja rubicundula var. rubi	pink creamsacs	Orobanchaceae	annual herb (her	1B.2	S2	G5T2	None	None	910	20	T
Clarkia gracilis ssp. albicaulis	white-stemmed clarkia	Onagraceae	annual herb	1B.2	S2S3	G5T2T	None	None	1085	245	T
Clarkia mildrediae ssp. mildrec	Mildred's clarkia	Onagraceae	annual herb	1B.3	S3	G3T3	None	None	1710	245	T
Claytonia palustris	marsh claytonia	Montiaceae	perennial herb	4.3	S4	G4	None	None	2500	1000	T
Cryptantha crinita	silky cryptantha	Boraginaceae	annual herb	1B.2	S2	G2	None	None	1215	61	T
Downingia pusilla	dwarf downingia	Campanulaceae	annual herb	2B.2	S2	GU	None	None	445	1	F
Erythranthe glaucescens	shield-bracted monkeyflower	Phrymaceae	annual herb	4.3	S3	G3	None	None	1240	60	T
Euphorbia hooveri	Hoover's spurge	Euphorbiaceae	annual herb	1B.2	S1	G1	None	FT	250	25	T
Fritillaria eastwoodiae	Butte County fritillary	Liliaceae	perennial bulbife	3.2	S3	G3Q	None	None	1500	50	F
Fritillaria pluriflora	adobe-lily	Liliaceae	perennial bulbife	1B.2	S2S3	G2G3	None	None	705	60	T
Gratiola heterosepala	Boggs Lake hedge-hyssop	Plantaginaceae	annual herb	1B.2	S2	G2	CE	None	2375	10	F
Hesperevax caulescens	hogwallow starfish	Asteraceae	annual herb	4.2	S3	G3	None	None	505	0	T
Hibiscus lasiocarpos var. occid	woolly rose-mallow	Malvaceae	perennial rhizom	1B.2	S3	G5T3	None	None	120	0	T
Imperata brevifolia	California satintail	Poaceae	perennial rhizom	2B.1	S3	G4	None	None	1215	0	F
Juncus leiospermus var. leiosp	Red Bluff dwarf rush	Juncaceae	annual herb	1B.1	S2	G2T2	None	None	1250	35	T
Lasthenia glabrata ssp. coulter	Coulter's goldfields	Asteraceae	annual herb	1B.1	S2	G4T2	None	None	1220	1	F
Lilium humboldtii ssp. humbol	Humboldt lily	Liliaceae	perennial bulbife	4.2	S3	G4T3	None	None	1280	90	T
Limnanthes floccosa ssp. califc	Butte County meadowfoam	Limnanthaceae	annual herb	1B.1	S1	G4T1	CE	FE	930	46	T
Limnanthes floccosa ssp. flocc	woolly meadowfoam	Limnanthaceae	annual herb	4.2	S3	G4T4	None	None	1335	60	F
Monardella venosa	veiny monardella	Lamiaceae	annual herb	1B.1	S1	G1	None	None	410	60	T
Navarretia heterandra	Tehama navarretia	Polemoniaceae	annual herb	4.3	S4	G4	None	None	1010	30	F
Navarretia nigelliformis ssp. ni	adobe navarretia	Polemoniaceae	annual herb	4.2	S3	G4T3	None	None	1000	100	T
Orcuttia pilosa	hairy Orcutt grass	Poaceae	annual herb	1B.1	S1	G1	CE	FE	200	46	T
Orcuttia tenuis	slender Orcutt grass	Poaceae	annual herb	1B.1	S2	G2	CE	FT	1760	35	T

Paronychia ahartii	Ahart's paronychia	Caryophyllacea	annual herb	1B.1	S3	G3	None	None	510	30	T
Polygonum bidwelliae	Bidwell's knotweed	Polygonaceae	annual herb	4.3	S4	G4	None	None	1200	60	T
Rhynchospora californica	California beaked-rush	Cyperaceae	perennial rhizom	1B.1	S1	G1	None	None	1010	45	T
Rhynchospora capitellata	brownish beaked-rush	Cyperaceae	perennial herb	2B.2	S1	G5	None	None	2000	45	F
Rupertia hallii	Hall's rupertia	Fabaceae	perennial herb	1B.2	S2S3	G2G3	None	None	2250	545	T
Sagittaria sanfordii	Sanford's arrowhead	Alismataceae	perennial rhizom	1B.2	S3	G3	None	None	650	0	T
Sidalcea robusta	Butte County checkerbloom	Malvaceae	perennial rhizom	1B.2	S2	G2	None	None	1600	90	T
Streptanthus longisiliquus	long-fruit jewelflower	Brassicaceae	perennial herb	4.3	S3	G3	None	None	1500	715	T
Stuckenia filiformis ssp. alpina	slender-leaved pondweed	Potamogetonac	perennial rhizom	2B.2	S3	G5T5	None	None	2150	300	F
Tuctoria greenei	Greene's tuctoria	Poaceae	annual herb	1B.1	S1	G1	CR	FE	1070	30	T
Wolffia brasiliensis	Brazilian watermeal	Araceae	perennial herb	2B.3	S1	G5	None	None	100	20	F

APPENDIX 4.12
NOISE MEASUREMENTS

Summary

File Name on meter	EF_HS.016
File Name on PC	SLM_0003788_EF_HS_016.00.ldbin
Serial Number	0003788
Model	SoundExpert® LxT
Firmware Version	2.301
User	
Location	
Job Description	
Note	

Measurement

Description	Pleasant Valley School Site 1
Start	2017-03-10 11:00:13
Stop	2017-03-10 11:10:13
Duration	00:10:00.0
Run Time	00:10:00.0
Pause	00:00:00.0
Pre Calibration	2017-03-10 10:18:04
Post Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamp	PRMLxT1L
Microphone Correction	Off
Integration Method	Exponential
OBA Range	High
OBA Bandwidth	1/1 and 1/3
OBA Freq. Weighting	A Weighting
OBA Max Spectrum	At LMax

Overload	120.2 dB		
	A	**C**	**Z**
Under Range Peak	**76.5**	73.5	78.5
Under Range Limit	**25.3**	24.8	31.3
Noise Floor	15.9	15.7	21.3

Results

LASeq	63.7 dB		
LASE	91.4 dB		
EAS	154.890 µPa²h		
LASpeak (max)	2017-03-10 11:05:06	96.2 dB	
LASmax	2017-03-10 11:07:34	80.2 dB	
LASmin	2017-03-10 11:09:38	40.6 dB	
SEA	-99.9 dB		

LAS > 85.0 dB (Exceedance Counts / Duration)	0	0.0 s
LAS > 115.0 dB (Exceedance Counts / Duration)	0	0.0 s
LASpeak > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
LASpeak > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
LASpeak > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s

Community Noise	**Ldn**	**LDay 07:00-23:00**	**LNight 23:00-07:00**
	63.7	63.7	-99.9

LCSeq	68.7 dB	
LASeq	63.7 dB	
LCSeq - LASeq	5.0 dB	
LAIeq	65.8 dB	
LAeq	63.7 dB	
LAIeq - LAeq	2.2 dB	

	A		
	dB	**Time Stamp**	**dB**
Leq	63.7		-99.9
LS(max)	80.2	2017/03/10 11:07:34	-99.9

$L_{F(max)}$	-99.9	1970/01/01 0:00:00	-99.9
$L_{I(max)}$	-99.9	1970/01/01 0:00:00	-99.9
$L_{S(min)}$	40.6	2017/03/10 11:09:38	-99.9
$L_{F(min)}$	-99.9	1970/01/01 0:00:00	-99.9
$L_{I(min)}$	-99.9	1970/01/01 0:00:00	-99.9
$L_{Peak(max)}$	96.2	2017/03/10 11:05:06	-99.9

# Overloads	0	
Overload Duration	0.0	s
# OBA Overloads	0	
OBA Overload Duration	0.0	s

Statistics

LAS5.00	71.1	dB
LAS10.00	68.8	dB
LAS33.30	57.2	dB
LAS50.00	52.3	dB
LAS66.60	48.8	dB
LAS90.00	44.4	dB

Calibration History

Preamp	Date	dB re. 1V/Pa
Direct	2017-01-03 10:54:35	-27.0
Direct	2017-01-03 10:30:13	-26.0
Direct	2014-07-01 09:45:44	-27.0
PRMLxT1L	2017-03-10 10:18:04	-26.5
PRMLxT1L	2017-03-07 09:33:39	-26.7
PRMLxT1L	2017-03-07 09:33:11	-26.6
PRMLxT1L	2017-01-05 08:48:43	-26.7
PRMLxT1L	2017-01-05 08:46:51	-26.7
PRMLxT1L	2017-01-05 08:46:31	-26.7
PRMLxT1L	2017-01-04 10:50:48	-26.6
PRMLxT1L	2017-01-03 12:55:52	-26.5

Summary

File Name on meter	EF_HS.017
File Name on PC	SLM_0003788_EF_HS_017.00.ldbin
Serial Number	0003788
Model	SoundExpert® LxT
Firmware Version	2.301
User	
Location	
Job Description	
Note	

Measurement

Description	Pleasant Valley School Site 2
Start	2017-03-10 11:12:54
Stop	2017-03-10 11:22:54
Duration	00:10:00.0
Run Time	00:10:00.0
Pause	00:00:00.0
Pre Calibration	2017-03-10 10:18:04
Post Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamp	PRMLxT1L
Microphone Correction	Off
Integration Method	Exponential
OBA Range	High
OBA Bandwidth	1/1 and 1/3
OBA Freq. Weighting	A Weighting
OBA Max Spectrum	At LMax

Overload	120.2 dB		
	A	**C**	**Z**
Under Range Peak	**76.5**	73.5	78.5
Under Range Limit	**25.3**	24.8	31.3
Noise Floor	15.9	15.7	21.3

Results

LASeq	64.2 dB		
LASE	92.0 dB		
EAS	174.269 µPa²h		
LASpeak (max)	2017-03-10 11:20:53	90.6 dB	
LASmax	2017-03-10 11:15:58	76.3 dB	
LASmin	2017-03-10 11:13:20	42.5 dB	
SEA	-99.9 dB		
LAS > 85.0 dB (Exceedance Counts / Duration)	0	0.0 s	
LAS > 115.0 dB (Exceedance Counts / Duration)	0	0.0 s	
LASpeak > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s	
LASpeak > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s	
LASpeak > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s	

Community Noise	**Ldn**	**LDay 07:00-23:00**	**LNight 23:00-07:00**
	64.2	64.2	-99.9

LCSeq	70.4 dB		
LASeq	64.2 dB		
LCSeq - LASeq	6.2 dB		
LAIeq	66.1 dB		
LAeq	64.1 dB		
LAIeq - LAeq	2.0 dB		

	A		
	dB	**Time Stamp**	**dB**
Leq	64.1		-99.9
LS(max)	76.3	2017/03/10 11:15:58	-99.9

$L_{F(max)}$	-99.9	1970/01/01 0:00:00	-99.9
$L_{I(max)}$	-99.9	1970/01/01 0:00:00	-99.9
$L_{S(min)}$	42.5	2017/03/10 11:13:20	-99.9
$L_{F(min)}$	-99.9	1970/01/01 0:00:00	-99.9
$L_{I(min)}$	-99.9	1970/01/01 0:00:00	-99.9
$L_{Peak(max)}$	90.6	2017/03/10 11:20:53	-99.9

# Overloads	0	
Overload Duration	0.0	s
# OBA Overloads	0	
OBA Overload Duration	0.0	s

Statistics

LAS5.00	71.2	dB
LAS10.00	68.8	dB
LAS33.30	60.4	dB
LAS50.00	58.3	dB
LAS66.60	56.3	dB
LAS90.00	48.6	dB

Calibration History

Preamp	**Date**	**dB re. 1V/Pa**
Direct	2017-01-03 10:54:35	-27.0
Direct	2017-01-03 10:30:13	-26.0
Direct	2014-07-01 09:45:44	-27.0
PRMLxT1L	2017-03-10 10:18:04	-26.5
PRMLxT1L	2017-03-07 09:33:39	-26.7
PRMLxT1L	2017-03-07 09:33:11	-26.6
PRMLxT1L	2017-01-05 08:48:43	-26.7
PRMLxT1L	2017-01-05 08:46:51	-26.7
PRMLxT1L	2017-01-05 08:46:31	-26.7
PRMLxT1L	2017-01-04 10:50:48	-26.6
PRMLxT1L	2017-01-03 12:55:52	-26.5

Summary

File Name on meter	EF_HS.018
File Name on PC	SLM_0003788_EF_HS_018.00.ldbin
Serial Number	0003788
Model	SoundExpert® LxT
Firmware Version	2.301
User	
Location	
Job Description	
Note	

Measurement

Description	Pleasant Valley School Site 3
Start	2017-03-10 11:26:58
Stop	2017-03-10 11:36:58
Duration	00:10:00.0
Run Time	00:10:00.0
Pause	00:00:00.0
Pre Calibration	2017-03-10 10:18:04
Post Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamp	PRMLxT1L
Microphone Correction	Off
Integration Method	Exponential
OBA Range	High
OBA Bandwidth	1/1 and 1/3
OBA Freq. Weighting	A Weighting
OBA Max Spectrum	At LMax

Overload	120.2 dB		
	A	**C**	**Z**
Under Range Peak	**76.5**	73.5	78.5
Under Range Limit	**25.3**	24.8	31.3
Noise Floor	15.9	15.7	21.3

Results

LASeq	63.9 dB		
LASE	91.6 dB		
EAS	161.891 µPa²h		
LASpeak (max)	2017-03-10 11:31:37	98.4 dB	
LASmax	2017-03-10 11:35:34	77.1 dB	
LASmin	2017-03-10 11:28:10	43.0 dB	
SEA	-99.9 dB		

LAS > 85.0 dB (Exceedance Counts / Duration)	0	0.0 s	
LAS > 115.0 dB (Exceedance Counts / Duration)	0	0.0 s	
LASpeak > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s	
LASpeak > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s	
LASpeak > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s	

Community Noise	**Ldn**	**LDay 07:00-23:00**	**LNight 23:00-07:00**
	63.9	63.9	-99.9

LCSeq	75.0 dB		
LASeq	63.9 dB		
LCSeq - LASeq	11.1 dB		
LAIeq	67.5 dB		
LAeq	63.8 dB		
LAIeq - LAeq	3.6 dB		

	A		
	dB	**Time Stamp**	**dB**
Leq	63.8		-99.9
LS(max)	77.1	2017/03/10 11:35:34	-99.9

$L_{F(max)}$	-99.9	1970/01/01 0:00:00	-99.9
$L_{I(max)}$	-99.9	1970/01/01 0:00:00	-99.9
$L_{S(min)}$	43.0	2017/03/10 11:28:10	-99.9
$L_{F(min)}$	-99.9	1970/01/01 0:00:00	-99.9
$L_{I(min)}$	-99.9	1970/01/01 0:00:00	-99.9
$L_{Peak(max)}$	98.4	2017/03/10 11:31:37	-99.9

# Overloads	0	
Overload Duration	0.0	s
# OBA Overloads	0	
OBA Overload Duration	0.0	s

Statistics

LAS5.00	69.9	dB
LAS10.00	68.0	dB
LAS33.30	63.0	dB
LAS50.00	59.5	dB
LAS66.60	55.0	dB
LAS90.00	48.4	dB

Calibration History

Preamp	**Date**	**dB re. 1V/Pa**
Direct	2017-01-03 10:54:35	-27.0
Direct	2017-01-03 10:30:13	-26.0
Direct	2014-07-01 09:45:44	-27.0
PRMLxT1L	2017-03-10 10:18:04	-26.5
PRMLxT1L	2017-03-07 09:33:39	-26.7
PRMLxT1L	2017-03-07 09:33:11	-26.6
PRMLxT1L	2017-01-05 08:48:43	-26.7
PRMLxT1L	2017-01-05 08:46:51	-26.7
PRMLxT1L	2017-01-05 08:46:31	-26.7
PRMLxT1L	2017-01-04 10:50:48	-26.6
PRMLxT1L	2017-01-03 12:55:52	-26.5

Summary

File Name on meter	EF_HS.019
File Name on PC	SLM_0003788_EF_HS_019.00.ldbin
Serial Number	0003788
Model	SoundExpert® LxT
Firmware Version	2.301
User	
Location	
Job Description	
Note	

Measurement

Description	Pleasant Valley School Site 4
Start	2017-03-10 11:41:25
Stop	2017-03-10 11:51:25
Duration	00:10:00.0
Run Time	00:10:00.0
Pause	00:00:00.0
Pre Calibration	2017-03-10 10:18:04
Post Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamp	PRMLxT1L
Microphone Correction	Off
Integration Method	Exponential
OBA Range	High
OBA Bandwidth	1/1 and 1/3
OBA Freq. Weighting	A Weighting
OBA Max Spectrum	At LMax

Overload	120.2 dB		
	A	**C**	**Z**
Under Range Peak	**76.5**	73.5	78.5
Under Range Limit	**25.3**	24.8	31.3
Noise Floor	15.9	15.7	21.3

Results

LASeq	47.0 dB		
LASE	74.8 dB		
EAS	3.347 µPa²h		
LASpeak (max)	2017-03-10 11:46:03	84.6 dB	
LASmax	2017-03-10 11:46:19	59.6 dB	
LASmin	2017-03-10 11:48:38	41.0 dB	
SEA	-99.9 dB		

LAS > 85.0 dB (Exceedance Counts / Duration)	0	0.0 s	
LAS > 115.0 dB (Exceedance Counts / Duration)	0	0.0 s	
LASpeak > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s	
LASpeak > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s	
LASpeak > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s	

Community Noise	**Ldn**	**LDay 07:00-23:00**	**LNight 23:00-07:00**
	47.0	47.0	-99.9

LCSeq	61.5 dB		
LASeq	47.0 dB		
LCSeq - LASeq	14.5 dB		
LAIeq	49.9 dB		
LAeq	47.0 dB		
LAIeq - LAeq	2.9 dB		

	A		
	dB	**Time Stamp**	**dB**
Leq	47.0		-99.9
LS(max)	59.6	2017/03/10 11:46:19	-99.9

$L_{F(max)}$	-99.9	1970/01/01 0:00:00	-99.9
$L_{I(max)}$	-99.9	1970/01/01 0:00:00	-99.9
$L_{S(min)}$	41.0	2017/03/10 11:48:38	-99.9
$L_{F(min)}$	-99.9	1970/01/01 0:00:00	-99.9
$L_{I(min)}$	-99.9	1970/01/01 0:00:00	-99.9
$L_{Peak(max)}$	84.6	2017/03/10 11:46:03	-99.9

# Overloads	0	
Overload Duration	0.0	s
# OBA Overloads	0	
OBA Overload Duration	0.0	s

Statistics

LAS5.00	50.8	dB
LAS10.00	48.8	dB
LAS33.30	45.8	dB
LAS50.00	44.6	dB
LAS66.60	44.0	dB
LAS90.00	42.6	dB

Calibration History

Preamp	**Date**	**dB re. 1V/Pa**
Direct	2017-01-03 10:54:35	-27.0
Direct	2017-01-03 10:30:13	-26.0
Direct	2014-07-01 09:45:44	-27.0
PRMLxT1L	2017-03-10 10:18:04	-26.5
PRMLxT1L	2017-03-07 09:33:39	-26.7
PRMLxT1L	2017-03-07 09:33:11	-26.6
PRMLxT1L	2017-01-05 08:48:43	-26.7
PRMLxT1L	2017-01-05 08:46:51	-26.7
PRMLxT1L	2017-01-05 08:46:31	-26.7
PRMLxT1L	2017-01-04 10:50:48	-26.6
PRMLxT1L	2017-01-03 12:55:52	-26.5


East Ave
La Casa Ct
Paseo Haciendas Ct
Keri Ln
Kimberlee Ln
Ceanothus Ave
Marydith Ln
Danbury Way
Garwood Ln
Hillsboro Cir
Claremont Cir
Arlington Dr
Dove Creek Ct
Firefly Ct
Lakewood Way
Marigold Ave
Madrone Ave
Jenooke Ln
Brittany Ln
Nicole Ln
1
2
3
4
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Imagery Date: 4/20/2016 39°45'28.27" N 121°49'04.83" W elev 240 ft eye alt 3090 ft