Recirculated

# PROPOSED MITIGATED NEGATIVE DECLARATION
# and
# INITIAL STUDY

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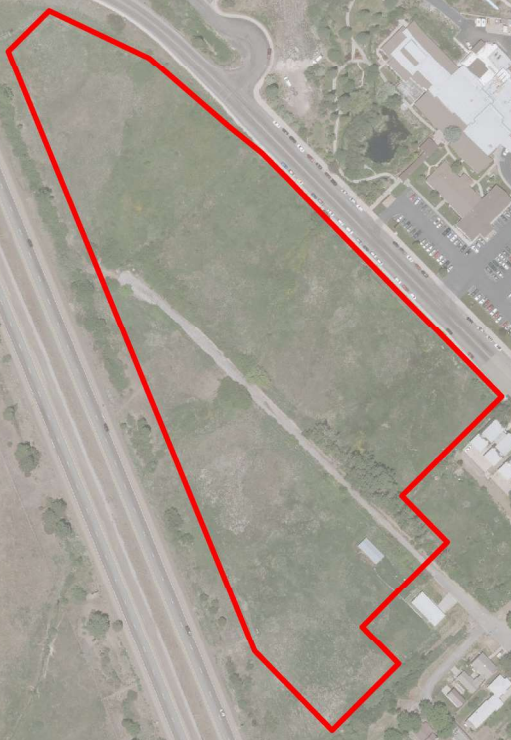
## Golden Eagle Charter School

### City of Mt. Shasta



*Prepared for:*

**City of Mt. Shasta**

**August 2020**

32-46


**ENPLAN**

3179 Bechelli Lane Suite 100
Redding, CA 96002

# RECIRCULATED
# PROPOSED MITIGATED NEGATIVE DECLARATION

| | |
|---|---|
| **LEAD AGENCY:** | City of Mt. Shasta |
| **PROJECT PROPONENT:** | Golden Eagle Charter School |
| **PROJECT NAME:** | **Golden Eagle Charter School Use Permit and Tentative Parcel Map** |
| **STATE CLEARINGHOUSE NO.** | **2019049022** |
| **PROJECT SUMMARY:** | The applicant requests approval of a Conditional Use Permit and Tentative Parcel Map that would allow construction and operation of a new charter school and appurtenant facilities. Access to the school would be from a single driveway off of Pine Street at the northern end of the development site.<br><br>The school building would have a floor area of approximately 33,500 square feet. Parking areas are proposed east of the school building, and a drop-off/pick-up area would be provided adjacent to the east side of the school. Appurtenant improvements include a small play area immediately south of the school, a six-foot tall sound barrier/wall along the western and southern boundaries of the play area, landscaping improvements, two snow storage areas, and one trash disposal area (see **Figures 1 and 2** of the Initial Study). Proposed construction activities are detailed in Section 3.2 (Project Components/Physical Improvements) of the Initial Study.<br><br>The proposed Tentative Parcel Map would merge ten existing parcels and excess road right-of-way (ROW) and establish two parcels. The southern parcel would accommodate the proposed project. No development is proposed for the northern parcel. |
| **LOCATION:** | The project site is located within the City of Mt. Shasta City limits on the west side of Pine Street, generally east of Interstate 5 (I-5), south/southeast of Lassen Lane, and north/northeast of W. Field Street as shown in **Figures 1 and 2** of the Initial Study. Assessor's Parcel Numbers: 057-071-010- and -040; 057-031-030 and -060; 057-051-010 and -020; 057-044-020 and -040; 057-064-030 and -070; City of Mt. Shasta road ROW. |

## FINDINGS / DETERMINATION

As documented in the Initial Study, project implementation could result in visual impacts; loss of riparian habitat; indirect impacts to wetlands; disturbance of nesting migratory birds (if present); impacts to paleontological, cultural, and tribal cultural resources (if present); increased runoff due to the addition of impervious surfaces; the introduction and spread of noxious weeds during construction; temporarily increased risk of wildfires; temporarily increased air emissions; temporarily increased noise and vibration levels; and exposure of sensitive receptors to elevated noise levels.

Design features incorporated into the project would avoid or reduce certain potential environmental impacts, as would compliance with existing regulations and permit conditions. Remaining impacts can be reduced to levels that are less than significant through implementation of the mitigation measures presented in Section 1.9 of the Initial Study. Because the City of Mt. Shasta will adopt mitigation measures as conditions of project approval and will be responsible for ensuring their implementation, it has been determined that the project will not have a significant adverse impact on the environment.

**Final Mitigated Negative Declaration approved by the Planning Commission of the City of Mount Shasta on _____, 2020 by Resolution _____.**

# RECIRCULATED INITIAL STUDY

## SCH# 2019049022

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# GOLDEN EAGLE CHARTER SCHOOL

## CITY OF MT. SHASTA

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**LEAD AGENCY:**

**City of Mt. Shasta**
305 N. Mt. Shasta Blvd.
Mt. Shasta, CA 96067
**530.926.7510**

**PREPARED BY:**

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**530.221.0440**

**August 2020**

# Table of Contents

## Appendices

# SECTION 1.0 INTRODUCTION

## 1.1 PURPOSE OF STUDY

The City of Mt. Shasta (City), as Lead Agency, has prepared this Initial Study to provide the general public and interested public agencies with information about the potential environmental impacts of the proposed Golden Eagle Charter School project (project). The project consists of a Use Permit for construction of a new school and appurtenant facilities, and approval of a Tentative Parcel Map.

The Parcel Map would merge the ten existing parcels and excess road right-of-way (ROW) and establish two parcels. The southern parcel would accommodate the proposed project. No development is proposed on the northern parcel. Details about the proposed project are included in Section 3.0 (Project Description) of this Initial Study.

This Initial Study has been prepared in accordance with the California Environmental Quality Act (CEQA) of 1970 (as amended), codified in California Public Resources Code §21000 et seq., and the State CEQA Guidelines in the Code of Regulations, Title 14, Division 6, Chapter 3. Pursuant to these regulations, this Initial Study identifies potentially significant impacts and, where applicable, includes mitigation measures that would reduce all identified environmental impacts to less-than-significant levels. This Initial Study supports a Mitigated Negative Declaration (MND) pursuant to CEQA Guidelines §15070.

## 1.2 EVALUATION TERMINOLOGY

The environmental analysis in Section 4.0 is patterned after the Initial Study Checklist recommended in the State CEQA Guidelines. For the evaluation of potential impacts, the questions in the Initial Study Checklist are stated and an answer is provided according to the analysis undertaken as part of the Initial Study. The analysis considers the long-term, direct, indirect, and cumulative impacts of the proposed project. To each question, there are four possible responses:

- **No Impact.** The proposed project will not have any measurable environmental impact on the environment.
- **Less-Than-Significant Impact.** The proposed project has the potential to impact the environment; however, this impact will be below established thresholds of significance.
- **Potentially Significant Impact Unless Mitigation Incorporated.** The proposed project has the potential to generate impacts which may be considered a significant effect on the environment; however, mitigation measures or changes to the proposed project's physical or operational characteristics can reduce these impacts to levels that are less than significant.
- **Potentially Significant Impact**. The proposed project will have significant impacts on the environment, and additional analysis is required to determine if it is feasible to adopt mitigation measures or project alternatives to reduce these impacts to less than significant levels.

## 1.3 ORGANIZATION OF THE INITIAL STUDY

This document is organized into the following sections:

**Section 1.0:** **Introduction:** Describes the purpose, contents, and organization of the document and provides a summary of the proposed project.

**Section 2.0:** **CEQA Determination:** Identifies the determination of whether impacts associated with development of the proposed project are significant, and what, if any, additional environmental documentation may be required.

**Section 3.0:** **Project Description:** Includes a detailed description of the proposed project.

**Section 4.0:** **Environmental Impact Analysis (Checklist):** Contains the Environmental Checklist from CEQA Guidelines Appendix G with a discussion of potential environmental effects associated with the proposed project. Mitigation measures, if necessary, are noted following each impact discussion.

**Section 5.0:** **List of Preparers**

**Section 6.0:** **Abbreviations and Acronyms**

**Appendices:** Contains information to supplement Section 4.0.

## 1.4 PROJECT SUMMARY AND LOCATION

| | |
|---|---|
| **Project Title:** | **Golden Eagle Charter School**<br>**Use Permit and Tentative Parcel Map** |
| **Applicant:** | **Golden Eagle Charter School**<br>Representative: Nick Trover |
| **Lead Agency Name and Address:** | **City of Mt. Shasta**<br>305 N. Mt. Shasta Blvd.<br>Mt. Shasta, CA 96067 |
| **Contact Person and Phone Number:** | **Juliana Lucchesi, City Planner**<br>**530.926.7510** |
| **City's Environmental Consultant:** | **ENPLAN**<br>3179 Bechelli Lane<br>Redding, CA 96002 |

**Project Location:**

As shown in **Figure 1**, the project is located within the City of Mt. Shasta on the west side of Pine Street, generally east of Interstate 5 (I-5), south/southeast of Lassen Lane, and north/northeast of W. Field Street in Section 6, Township 40 North, Range 4 West of the U.S. Geological Survey (USGS) City of Mount Shasta quadrangle. Latitude: 41° 19' 2" N; Longitude: 122° 19' 17" W.

**Assessor's Parcel Numbers:** 057-031-030, -060; 057-044-020, -040; 057-051-010, -020; 057-071-010, -040; 057-064-030, -070, and City street ROW.


Path: N:\companyfiles\01-Jobs Active\032-46 PACE - Mt. Shasta Golden Eagle Charter School\3-Project GIS\3-Map Documents\Initial Study\Fig_1_Project_Vicinity 012819.mxd

0 2,000 Feet

All depictions are approximate. Not a survey product. 03.14.19

Figure 1

**Project Vicinity**

ENPLAN

## 1.5 ENVIRONMENTAL SETTING

| | |
|---|---|
| **General Plan Designation:** | High Density Residential (HDR) |
| **Zoning:** | High Density Residential (R-3) and Low Density Residential (R-1) |
| **Surrounding Land Uses:** | Parcels east/northeast of the project site on the opposite side of Pine Street are developed with a hospital and miscellaneous medical offices. The main hospital building is located ±175 feet east of the project's proposed driveway off of Pine Street. Parcels immediately south of the project site on Pine Street are developed with multi-family residences, and parcels to the south on W. Field Street are developed with single-family residences. A building immediately south of the project site on Cedar Street was constructed as a single-family dwelling unit in 1969 but has been used as office space for several years, most recently by the Boys & Girls Club of Greater Shasta. A senior housing facility is located on Kingston Road, ±600 feet north of the project site. Interstate 5 (I-5) is to the west. |
| **Topography:** | The project site is located at an elevation of ±3,525 feet above mean sea level. The property slopes gently to the southwest. |
| **Soils:** | According to the U.S. Department of Agriculture, Natural Resources Conservation Service, one soil unit has been mapped in the project site: Deetz gravelly loamy sand, 5 to 15 percent slopes. |
| **Natural Communities/ Wildlife Habitats:** | As detailed in Section 4.4 (Biological Resources), natural communities in the open space area north of the proposed development site include stream/riverine, seasonal wet meadow, riparian wetland, and perennial grassland.<br><br>Natural communities in the area proposed for development include fresh emergent wetland, riparian wetland, seasonal wet meadow, and perennial grassland. The perennial grassland habitat occupies the majority of the site. ±0.197 acres of riparian wetland habitat is located in the southern area of the site adjacent to Cedar Street; ±0.012 acres of fresh emergent wetland is also located in this area. ±0.068 acres of seasonal wet meadow is located in the southwestern area of the site, immediately west of the proposed school. Vegetated ditches are also present in the southeastern area of the site along Pine Street and extending along the southeastern parcel boundary to Cedar Street. |
| **Climate:** | Climate in the study area is characterized by a Mediterranean climate with cool, wet winters and hot, dry summers. The average annual rainfall is ±39.96 inches. Temperatures range between an average January low of 29.9 degrees Fahrenheit (°F) and an average July high of 84.7 °F. |

## 1.6 REGULATORY REQUIREMENTS

Permits and approvals that may be necessary for construction and operation of the proposed project are identified below.

**City of Mt. Shasta:**

- Adoption of a Mitigated Negative Declaration for the project pursuant to the California Environmental Quality Act (CEQA).

- Adoption of a Mitigation Monitoring and Reporting Program for the project that incorporates the mitigation measures identified in this Initial Study.

- Approval of a Conditional Use Permit for the proposed project.

- Approval of a Tentative Parcel Map and abandonment of City street ROW within the project site.

**U.S. Army Corps of Engineers:**

- Section 404 Permit under the Federal Clean Water Act (if work would result in the discharge of dredged or fill material into wetlands or other waters of the U.S.).

**State Water Resources Control Board (SWRCB)/Central Valley Regional Water Quality Control Board (CVRWQCB):**

- Coverage under the NPDES permit for *Discharges of Storm Water Runoff Associated with Construction Activity* (currently Order No. 2009-009-DWQ). Permit coverage may be obtained by submitting a Notice of Intent to the SWRCB. The permitting process requires the development and implementation of an effective Storm Water Pollution Prevention Plan (SWPPP) that includes Best Management Practices (BMPs) to reduce pollutants and any additional controls necessary to meet water quality standards.

- Section 401 Water Quality Certification (or waiver) and Report of Waste Discharge (if work would result in the discharge of dredged or fill material into wetlands or other waters of the U.S. and State).

- If construction dewatering activities result in the direct discharge of relatively pollutant-free wastewater to waters of the U.S., coverage under CVRWQCB General Order R5-2016-0076-01 (NPDES NO. CAG995002) *Waste Discharge Requirements - Limited Threat Discharges to Surface Water*. This Order includes specific requirements for monitoring, reporting, and implementing BMPs for construction dewatering activities.

**California Department Fish and Wildlife:**

- Issuance of Section 1600 Lake or Streambed Alteration Agreement (if work would divert or obstruct the natural flow of any river, stream, or lake; change the bed, channel, or bank of any river, stream, or lake; use material from any river, stream, or lake; and/or deposit or dispose of material into any river, stream, or lake).

## 1.7 TRIBAL CULTURAL RESOURCES CONSULTATION

Public Resources Code §21084.2 (AB 52, 2014) establishes that *"a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment."* In order to determine whether a project may have such an effect, a lead agency is required to consult with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project if:

1. The California Native American tribe requested to the lead agency, in writing, to be informed through formal notification of proposed projects in the geographical area; and

2. The tribe responds, in writing, within 30 days of receipt of the formal notification and requests the consultation.

On February 4, 2019, the City sent a letter to local Native American tribes identified by the Native American Heritage Commission (NAHC) providing information on the proposed project and requesting information from the Tribes regarding any known cultural resources in the project vicinity. No comments were submitted by any of the Tribes in response to the City's February 4, 2019, letter.

On April 30, 2019, the City received an email from Mark Miyoshi, Tribal Historic Preservation Officer of the Winnemem Wintu Tribe, and provided additional information about the project to Mr. Miyoshi. Mr. Miyoshi provided written comments to the City on June 11, 2019, and stated that the Winnemem Wintu Tribe does not have known tribal cultural resources on the project site, but there are known tribal resources in the vicinity, and it is likely that undiscovered tribal artifacts are present in the area. Mr. Miyoshi requested that a Winnemem Wintu monitor be on-site during ground-disturbing activities and that the monitor be paid by the project proponent or contractor. As documented in Sections 4.5 (Cultural Resources) and 4.18 (Tribal Cultural Resources), mitigation measures are included to address these concerns.

Therefore, with implementation of the mitigation measures identified in Sections 4.5 and 4.18 the requirements of PRC §21080.3.1 have been satisfied.

## 1.8 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by the proposed project, involving at least one impact requiring mitigation to bring it to a less-than-significant level. Impacts to these resources are evaluated using the checklist included in Section 4.0. The Proposed project was determined to have a less-than-significant impact or no impact without mitigation on unchecked resource areas.

| | | |
|---|---|---|
| ☒ Aesthetics | ☐ Greenhouse Gas Emissions | ☐ Public Services |
| ☐ Agricultural and Forestry Resources | ☒ Hazards/Hazardous Materials | ☐ Recreation |
| ☒ Air Quality | ☒ Hydrology and Water Quality | ☐ Transportation |
| ☒ Biological Resources | ☐ Land Use and Planning | ☒ Tribal Cultural Resources |
| ☒ Cultural Resources | ☐ Mineral Resources | ☐ Utilities and Service Systems |
| ☐ Energy | ☒ Noise | ☒ Wildfire |
| ☒ Geology and Soils | ☐ Population and Housing | ☐ Mandatory Findings of Significance |

## 1.9 SUMMARY OF MITIGATION MEASURES

The following mitigation measures are proposed to reduce impacts of the proposed project to less-than-significant levels.

### AESTHETICS

**MM 4.1.1** The building permit application shall be accompanied by a landscaping, signage, parking, lighting, building design, sound wall design, and snow storage plan in accordance with the City's Design Guidelines and Zoning Code. In addition, a roof plan or other documentation that demonstrates that all roof-mounted mechanical equipment is adequately screened from public view and adjacent properties must be submitted.

Prior to issuance of each building permit, the City Planner or his/her designee shall review the plans to verify consistency with the Design Guidelines and Zoning Code. Prior to issuance of each Certificate of Occupancy by the City's Building Official, the Building Official and City Planner shall verify that landscaping, signage, parking, lighting, building design, and screening of mechanical equipment are consistent with the approved plans.

**MM 4.1.2** The proposed sound wall shall be a solid concrete masonry structure. The wall shall be a neutral color to complement the school building and surrounding vegetation. The exterior finish of the wall shall be low reflectivity and not capable of producing glare.

## AIR QUALITY

**MM 4.3.1** The following measures shall be implemented throughout construction:

a. All material excavated, stockpiled, or graded shall be covered or sufficiently watered to prevent fugitive dust from leaving property boundaries and causing a public nuisance or a violation of ambient air quality standards. Watering shall occur at least twice daily with complete site coverage, preferably in the mid-morning and after work is completed each day.

b. All material transported offsite shall be either sufficiently watered or securely covered to prevent a public nuisance.

c. All areas (other than paved roads) with vehicle traffic shall be watered periodically or have dust palliatives applied for stabilization of dust emissions.

d. All on-site vehicles shall be limited to a speed of 15 miles per hour on unpaved roads.

e. All land clearing, grading, earth moving, and excavation activities on the project site shall be suspended when winds are causing excessive dust generation.

f. All trucks hauling dirt, sand, soil, or other loose materials shall be covered or shall maintain at least two feet of free board in accordance with the requirements of Section 23114 of the California Vehicle Code. This provision is enforced by local law enforcement agencies.

g. Paved streets in and adjacent to the construction site shall be swept or washed at the end of the day to remove excessive accumulations of silt and/or mud resulting from activities on the development site.

h. When not in use, motorized construction equipment shall not be left idling for more than five minutes.

## BIOLOGICAL

**MM 4.4.1** Prior to commencement of any earth disturbance (e.g., clearing, grading, trenching, etc.), exclusionary fencing shall be installed around wetlands, other waters of the U.S. and State, and montane riparian habitats. Fencing locations shall be determined by a qualified biologist in consultation with City staff. No construction activities (e.g., clearing, grading, trenching, etc.), including vehicle parking and materials stockpiling, shall occur within the fenced areas. The exclusionary fencing shall be periodically inspected by a qualified biologist throughout project construction to ensure the fencing is properly maintained. The fencing shall be removed upon project completion.

**MM 4.4.2** To promote regeneration of plants from their root systems, removal of plant root systems shall be limited to the extent necessary for construction/installation of project components. Outside of the development footprint, removal of native plants shall be achieved by pruning them at ground level, or crushing them with heavy equipment; the root systems shall be left in place.

**MM 4.4.3** If the final project design would result in permanent impacts to riparian habitat, the applicant shall develop a planting plan describing how impacts would be offset. The planting plan shall be submitted to the City and California Department of Fish and Wildlife for review and approval prior to any earth disturbance that could impact riparian habitat.

Riparian habitat permanently disturbed shall be replaced onsite at a 3:1 ratio. Replacement vegetation shall be native riparian species known to occur in the project area. The planting plan shall include the following information:

a. Required qualifications and experience of individuals performing the revegetation work.

b. Methods to be used to revegetate the impacted areas (e.g., soil preparation, seeding, planting, etc.).

c. An implementation schedule.

d. Criteria and measures to be used to determine success of revegetated areas.

e. Monitoring methods and reporting requirements.

f. Remedial measures to be used to ensure the success of revegetation.

g. Other pertinent data to ensure successful revegetation of riparian habitat.

**MM 4.4.4** The potential for introduction and spread of noxious weeds shall be avoided/minimized by:

a. Using only certified weed-free erosion control materials, mulch, and seed.

b. Limiting any import or export of fill material to material that is known to be weed free.

c. Requiring the construction contractor to thoroughly wash all equipment at a commercial wash facility prior to entering the job site and upon leaving the job site.

**MM 4.4.5** In order to avoid impacts to nesting migratory birds and/or raptors protected under the federal Migratory Bird Treaty Act and California Fish and Game Code §3503 and §3503.5, including their nests and eggs, one of the following shall be implemented:

a. Vegetation removal and other ground-disturbance activities associated with construction shall occur between September 1 and January 31 when birds are not nesting; or

b. If vegetation removal or ground disturbance activities occur during the nesting season, a pre-construction nesting survey shall be conducted by a qualified biologist to identify active nests in and adjacent to the work area.

Surveys shall begin prior to sunrise and continue until vegetation and nests have been sufficiently observed. The survey shall take into account acoustic impacts and line-of-sight disturbances occurring as a result of the project in order to determine a sufficient survey radius to avoid nesting birds. At a minimum, the survey report shall include a description of the area surveyed, date and time of the survey, ambient conditions, bird species observed in the area, a description of any active nests observed, any evidence of breeding behaviors (e.g., courtship, carrying nest materials or food, etc.), and a description of any outstanding conditions that may have impacted the survey results (e.g., weather conditions, excess noise, the presence of predators, etc.).

The results of the survey shall be submitted to the CDFW upon completion. The survey shall be conducted no more than one week prior to the initiation of construction. If construction activities are delayed or suspended for more than one week after the pre-construction survey, the site shall be resurveyed.

If active nests are found, the applicant shall consult with CDFW and the USFWS regarding appropriate action to comply with the Migratory Bird Treaty Act and California

Fish and Game Code §3503. Compliance measures may include, but are not limited to, exclusion buffers, sound-attenuation measures, seasonal work closures based on the known biology and life history of the species identified in the survey, as well as ongoing monitoring by biologists.

**CULTURAL**

**MM 4.5.1** In the event of any inadvertent discovery of cultural resources (i.e., burnt animal bone, midden soils, projectile points or other humanly-modified lithics, historic artifacts, etc.), all work within 50 feet of the find shall be halted until a professional archaeologist can evaluate the significance of the find in accordance with PRC §21083.2(g) and §21084.1, and CEQA Guidelines §15064.5(a). If any find is determined to be significant by the archaeologist, the City shall meet with the archaeologist to determine the appropriate course of action. If necessary, a Treatment Plan prepared by an archeologist outlining recovery of the resource, analysis, and reporting of the find shall be prepared. The Treatment Plan shall be reviewed and approved by the City prior to resuming construction.

**MM 4.5.2** A minimum of one week in advance of any ground-disturbing activities (e.g., tree removal, clearing, grading, trenching, etc.), the Tribal Historic Preservation Officer of the Winnemem Wintu Tribe shall be notified and offered the opportunity for a Native American representative to voluntarily monitor ground-disturbing activities.

**MM 4.5.3** In the event that cultural resources or human remains of Native American descent are identified during earth disturbance, the Winnemem Wintu Tribe shall be requested to provide a Native American monitor to observe subsequent earth-disturbing construction activities on potentially sensitive lands. Costs associated with such Native American monitoring shall be the responsibility of the Developer.

**MM 4.5.4** In the event that human remains are encountered during construction activities, the City shall comply with §15064.5 (e) (1) of the CEQA Guidelines and PRC §7050.5. All project-related ground disturbance within 100 feet of the find shall be halted until the County coroner has been notified. If the coroner determines that the remains are Native American, the coroner will notify the NAHC to identify the most likely descendants of the deceased Native Americans. Project-related ground disturbance in the vicinity of the find shall not resume until the process detailed in §15064.5 (e) has been completed.

**GEOLOGY AND SOILS**

**MM 4.7.1** If paleontological resources (fossils) are discovered during construction, all work within 50 feet of the find shall be halted until a professional paleontologist can evaluate the significance of the find. If any find is determined to be significant by the paleontologist, the City shall meet with the paleontologist to determine the appropriate course of action. If necessary, a Treatment Plan prepared by a paleontologist outlining recovery of the resource, analysis, and reporting of the find shall be prepared. The Treatment Plan shall be reviewed and approved by the City prior to resuming construction.

**HAZARDS / HAZARDOUS MATERIALS**

**MM 4.9.1** During construction, all areas in which work will be completed using spark-producing equipment shall be cleared of dried vegetation or other materials that could serve as fire fuel. To the extent feasible, the contractor shall keep these areas clear of combustible materials in order to maintain a fire break.

**HYDROLOGY AND WATER QUALITY**

**MM 4.10.1** Prior to issuance of a building permit or any earth disturbance for any phase of development, a final drainage/hydrology study, based on final project design, shall be submitted to the City Engineer for review and approval. The drainage/hydrology study

shall be prepared by a registered professional engineer and shall include drainage calculations and a storm drain plan that demonstrates that post-construction runoff from the project will not increase the 10-, 25-, or 100-year flows downstream in accordance with the City's adopted Construction Standards. The storm drain plan shall be consistent with the post-construction measures outlined in the State Water Resources Control Board's NPDES permit for *Discharges of Storm Water Runoff associated with Construction Activity.*

**NOISE**

Implementation of **MM 4.3.1.h.**

**MM 4.13.1** Construction activities shall be limited to between the hours of 7:00 a.m. and 5:00 p.m. Exceptions to these limitations may be approved by the City's Public Works Director or his/her designee for activities that require interruption of utility services to allow work during low demand periods, or to alleviate traffic congestion and safety hazards.

**MM 4.13.2** Construction equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers' recommendations. Equipment engine shrouds shall be closed during equipment operation.

**MM 4.13.3** Prior to issuance of a Certificate of Occupancy by the City, a 6-foot tall sound wall shall be installed around the play area in the location shown in the *Golden Eagle Charter School Environmental Noise Analysis* prepared by j.c. brennan & associates, Inc. (April 16, 2020).

**MM 4.13.4** In order to ensure compliance with the City's interior noise standards for schools, prior to issuance of a building permit, the City's Building Official shall verify that appropriate sound-rated assemblies (e.g., walls, windows, exterior doors) are incorporated into the building design, as recommended in the *Golden Eagle Charter School Environmental Noise Analysis* prepared by j.c. brennan & associates, Inc. (April 16, 2020).

**TRIBAL CULTURAL RESOURCES**

Implementation of **MM 4.5.2** and **MM 4.5.3.**

**WILDFIRE**

Implementation of **MM 4.8.1.**

## SECTION 2.0 CEQA DETERMINATION

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ **I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION has been 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 significant effect(s) 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, if the effect is a "potentially significant impact" or "potentially significant unless mitigated." 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.

**Juliana Lucchesi** Date
City Planner

# SECTION 3.0 PROJECT DESCRIPTION

## 3.1 PROJECT BACKGROUND, COMPONENTS, AND OBJECTIVES

Golden Eagle Charter School (GECS), established in August 2008, is a county-wide benefit charter authorized by the Siskiyou County Board of Education. GECS presently leases four facilities: three locations in the City of Mt. Shasta and one in the City of Yreka. In Mt. Shasta, the School's main office and library are located at 2405 South Mt. Shasta Boulevard; the grade K-5 learning center is located at 2411 South Mt. Shasta Boulevard; and the grade 6-12 learning center is located at 2226 Mt. Shasta Boulevard. The resource center in the City of Yreka is located at 1515 South Oregon Street.

GECS is outgrowing its current facilities in the City of Mt. Shasta and is proposing to construct a new school and appurtenant facilities and consolidate operations at the new location. According to the 2017-2018 School Accountability Report Card published by the School, Golden Eagle Charter school had an enrollment of 495 for the 2017-18 school year; 183 students were in grades K-5; 137 students were in grades 6-8; and 175 students were in grades 9-12. Due to intentional scheduling, it is anticipated that no more than 200 students and 15 staff members would be on-site at the new location at any given time. GECS operates from mid-August through May. Hours of operation are Monday through Friday from 8:00 A.M. to 4:30 P.M. Transportation of students to and from school and school-related functions is the responsibility of the parents/ guardians.

As shown in **Figure 2**, the building would have a floor area of approximately 33,500 square feet and include parking areas east of the school, drop-off/pick-up areas for students, two snow storage areas, a playground, sound wall, and landscaping improvements. A single driveway off of Pine Street would be constructed at the northern boundary of the project site. A secondary emergency-only access route from Cedar Street would be provided in the southern project area.

The project site is ±12.4 acres and is comprised of ten legal parcels under a single ownership, as well as City street ROW. The project includes abandoning the existing ROW within the project site and establishing two parcels for financing purposes. The Tentative Parcel Map is shown in **Figure 3.** As indicated, easements for existing public utilities would be deeded to the City as part of the tentative map approval process.

For purposes of this evaluation, "study area" includes the entire ±12.4-acres. "Development site" includes proposed Parcel A as shown in **Figure 3** (±6.8 acres) and encompasses areas in which improvements would occur. Proposed Parcel B (±5.6 acres) includes the majority of wetlands and other waters of the U.S. and State. No development is proposed on Parcel B.

Charter schools are regulated pursuant to California Code of Regulations (CCR) Title 5, Division 1, Chapter 11, Subchapter 19 (Charter Schools). The proposed project is a non-Department of State Architect project and is subject to California Building Standards Code requirements that are enforced by the City's Building Official. It is anticipated that construction of the school would commence in 2021 and be completed in approximately eight months.

DETENTION BASIN

LANDSCAPING TYP.

INTERSTATE 5

DETENTION BASIN

SOUND WALL

NEW SCHOOL BUILDING

PLAY AREA

PICK-UP/DROP-OFF

PARKING AREA

CEDAR STREET

SNOW STORAGE

TRASH

WETLANDS TYP.

WETLANDS TYP.

NATIVE GRASS TYP.

PARKING AREA

TREES TYP

SNOW STORAGE

VEGETATED DITCH

PINE STREET

New Crosswalk

Figure 2

**Proposed Site Plan**

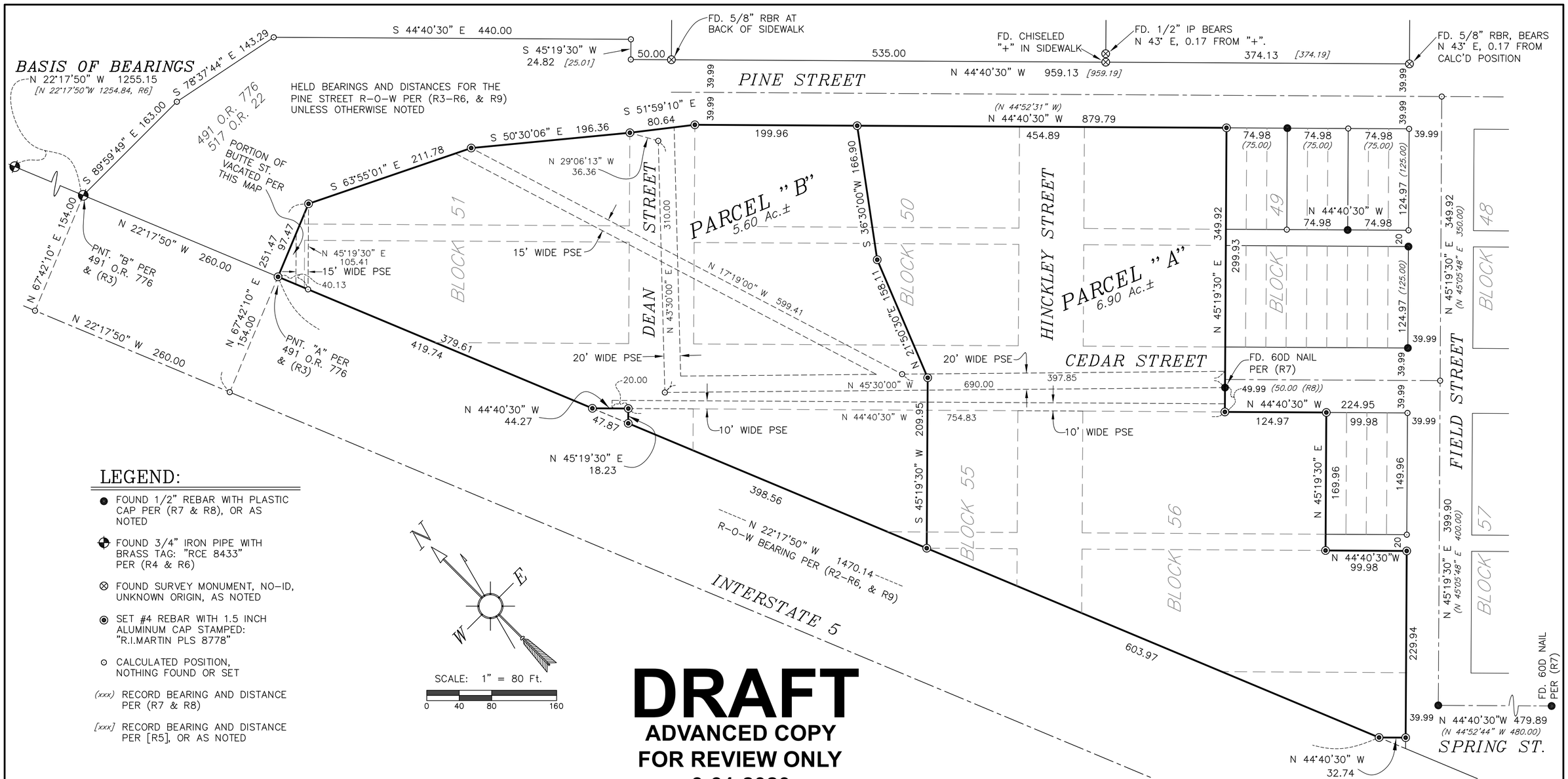
REVISION

TROVER
CONSTRUCTION PROJECT MANAGEMENT
530-519-7132 • INFO@TROVERCPM.COM
974 FOREST AVE CHICO CA 95926

GOLDEN EAGLE CHARTER SCHOOL
CONCEPTUAL SITE PLAN

6-16-20

C1




## LEGEND:

- ● FOUND 1/2" REBAR WITH PLASTIC CAP PER (R7 & R8), OR AS NOTED
- ⊕ FOUND 3/4" IRON PIPE WITH BRASS TAG: "RCE 8433" PER (R4 & R6)
- ⊗ FOUND SURVEY MONUMENT, NO-ID, UNKNOWN ORIGIN, AS NOTED
- ◉ SET #4 REBAR WITH 1.5 INCH ALUMINUM CAP STAMPED: "R.I.MARTIN PLS 8778"
- ○ CALCULATED POSITION, NOTHING FOUND OR SET
- (xxx) RECORD BEARING AND DISTANCE PER (R7 & R8)
- [xxx] RECORD BEARING AND DISTANCE PER [R5], OR AS NOTED

**DRAFT**
**ADVANCED COPY**
**FOR REVIEW ONLY**
**3-31-2020**

## NOTES:

1) BEARINGS AND DISTANCES SHOWN ARE GRID CCS ZONE 1, NAD 27, BASED ON (R2 – R6).

2) EASEMENTS SHOWN AND NOTED BELOW ARE BASED ON PRELIMINARY PARCEL MAP GUARANTEE, PROVIDED BY MT. SHASTA TITLE & ESCROW COMPANY, GUARANTEE NUMBER 5026900-6190068, DATED: MARCH 16, 2020.

   THE FOLLOWING EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES ARE BLANKET IN NATURE, AND NOT SHOWN HEREON: 1 O.R. 65, 414 O.R. 310, 485 O.R. 346, 508 O.R. 368, & 508 O.R. 688

## REFERENCE DATA:

R1) TMB 1, PAGE 9, MAP OF SISSON, 1910

R2) RSB 4, PAGE 2, H.S. MILES, 1963

R3) HMB 2, PAGES 56 & 57, CAL-TRANS, 1967

R4) RSB 7, PAGE 57, O.J. PIEMME, 1973

R5) PMB 2, PAGE 9, O.J. PIEMME, 1973

R6) PMB 2, PAGE 74, O.J. PIEMME, 1974

R7) RSB 20, PAGE 110. A.D. MORRIS, 2006

R8) PMB 13, PAGE 149, G. NEITSCH, 2007

R9) OFFICIAL RECORDS VOL. 491, PAGE 776, 1963 GRANT DEED FROM SCHMID TO STATE OF CALIFORNIA

# PARCEL MAP No. 2020-__

FOR:

## GOLDEN EAGLE CHARTER SCHOOL

LOCATED IN BLOCKS 49, 50, 51, 55 & 56,
CITY OF MOUNT SHASTA, (T.M.B. 1, PAGE 9)
SECTION 16, TOWNSHIP 40 NORTH, RANGE 4 WEST, M.D.M.,

SISKIYOU COUNTY – – – CALIFORNIA

FILE #: 18016
ROBERT I. MARTIN,
PROFESSIONAL LAND SURVEYING
P.O. BOX 111, MONTAGUE, CA 96064
(530) 459-4432 www.rimartin.com

SCALE: 1"= 80 Ft.
DATE: MAY, 2020
MAPPING: R.I.M.
SH. NO. 2 OF 2

Figure 3
**Tentative Parcel Map**

## 3.2 PROJECT COMPONENTS/PHYSICAL IMPROVEMENTS

***Structures, Parking Areas, and Driveways***

Areas in which structures, parking areas, and driveways would be installed would be cleared of all vegetation and graded to accommodate the proposed improvements. It is estimated that no more than 10 trees would be removed to accommodate the proposed improvements. Construction of the school would include excavation for footings, installation of a foundation system, structural framing, electrical, plumbing, and mechanical work, and application of architectural coatings. Driveways and parking areas would be paved.

***Utilities***

Public utilities, including water, sewer, electric, and other dry utilities, are present adjacent to the project site on Pine Street and/or Cedar Street as shown in **Figure 3**. The proposed project would connect to existing utility infrastructure, and no significant extension or upsizing of utility infrastructure would be required. Underground utilities would be installed using open-cut trenching.

***Landscaping***

Landscaping would be installed in accordance with Mt. Shasta Municipal Code (MSMC) §18.70.080 in the areas shown in **Figure 2**. Requirements include a mixture of trees, shrubs, and groundcover. A 30-foot landscape buffer would be maintained along the southeastern edge of the property, and would include trees in accordance with MSMC §18.70.080(J). Due to the presence of the vegetated ditch along Pine Street, landscaping would be planted along the edge of the easternmost parking area as shown in **Figure 2** in order to maintain the Pine Street frontage in a natural condition. Landscaped areas would be irrigated in accordance with State requirements for water efficient landscaping; alternatively, native plants that can be maintained and survive without artificial irrigation would be planted.

***Playground***

A playground, approximately 4,200 square feet in size, would be installed south of the school building. The playground would include standard play equipment (e.g., swing set, slides, etc.)

***Sound Wall***

A concrete masonry sound wall, six feet in height, would be installed on the west and south sides of the playground, south of the school building.

***Fencing***

Security fencing would be installed around the perimeter of the school site in accordance with the City's Design Guidelines.

***Signage***

Identifying signage would be placed in front of the building along Pine Street in accordance with MSMC §8.32 (Requirements for Graphic Zone 2) and MSMC Chapter 9.40 (General Requirements-All Graphic Zones).

***Stormwater Drainage and Performance Measures***

As discussed in Section 4.10 (Hydrology and Water Quality), as required by the SWRCB's NPDES permit for *Discharges of Storm Water Runoff Associated with Construction Activity*, the applicant will implement post-construction measures to replicate the pre-project runoff water balance. Measures may include rooftop and impervious area disconnection (rerouting rooftop drainage pipes to drain rainwater to rain barrels, cisterns, or permeable areas instead of to the

storm sewer); using porous pavement that allows runoff to pass through it; and/or installing vegetated swales to treat and attenuate stormwater runoff.

***Staging Areas***

Temporary staging of materials and construction equipment for construction of the school would occur on proposed Parcel A. Minor clearing of vegetation may be required to establish the staging area; however, no grading or tree removal would occur.

## 3.3 CUMULATIVE IMPACTS ANALYSIS

As defined in §15355 of the CEQA Guidelines, a cumulative impact consists of an impact that is created as a result of the combination of a proposed project together with other closely related past, present, and reasonably foreseeable future projects that cause related impacts. As noted in §15064(h)(4) of the CEQA Guidelines, the mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable.

Further, §15130(b) of the CEQA Guidelines states, *"The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact."*

In addition to growth associated with the build-out projections in the City's and County's General Plans, the projects described below were considered in determining whether the proposed project's impacts would be cumulatively considerable in accordance with §15064(h) of the CEQA Guidelines. No other related projects were identified as being reasonably foreseeable in accordance with §15144 of the CEQA Guidelines.

***Proposed PacifiCorp Lassen Substation***

PacifiCorp presently owns and operates the Mount Shasta Substation on S. Old Stage Road. In 2016, PacifiCorp submitted an application to the California Public Utilities Commission to replace and upgrade the substation, complete improvements to existing distribution lines, and install new overhead and underground distribution lines. The distribution system improvements include replacing 36 transmission poles along a 1.5-mile segment of the existing transmission system; installing three additional poles to connect to the proposed substation; reconductoring two existing distribution lines; removing an existing overhead distribution line; and undergrounding approximately 1,200 feet of the existing overhead line.

On April 25, 2019, the CPUC adopted a Mitigated Negative Declaration for the proposed project (State Clearinghouse Number [SCH#] 2016112057). The Lassen Substation improvements include installing a new underground distribution line in the northernmost area of proposed Parcel B for the GECS Parcel Map. Although the proposed project does not include any development in this area, construction contractors for the Lassen Substation project would travel on the same streets as contractors for the GECS improvements. The Lassen Substation project would contribute to cumulative traffic, traffic noise, construction noise, and temporarily increased air emissions during construction.

***Crystal Geyser Bottling Plant***

On September 20, 2017, Siskiyou County certified the Final Environmental Impact Report (FEIR) for the Crystal Geyser Bottling Plant (CG) (SCH# 2016062056). An appeal challenging the certification was filed, and the Board of Supervisors denied the appeal on December 12, 2017. Legal action was subsequently taken against the project, and it is not

known when the legal action will conclude. The proposed bottling plant is located ±0.5 miles northeast of the GECS site. Because CG does not include any infrastructure or construction-related improvements in proximity to the proposed project, it would not contribute to cumulative impacts associated with the project during construction. During operations, the CG project could potentially contribute to cumulative noise, air emissions, greenhouse gas (GHG) emissions, and increased traffic.

***Mt. Shasta Sewer Interceptor Improvements***

On May 13, 2019, the City adopted a Mitigated Negative Declaration for the Sewer Interceptor Improvements project (SCH#2019029045). The proposed project includes improvements to the City's wastewater collection system on both the east and west sides of I-5. Improvements on the east side of I-5 include replacement of an existing sewer interceptor in W. Jessie Street between W. Ivy Street and I-5. Improvements would occur approximately 1,000 feet southeast of the GECS site. Construction contractors for the Sewer Interceptor Improvements project may travel on the same streets as contractors for the GECS improvements. If the Sewer Interceptor improvements are constructed simultaneously with the GECS improvements, cumulative traffic, traffic noise, construction noise, and temporarily increased air emissions during construction would occur.

***Mt. Shasta Water System Improvements***

On May 8, 2019, a CEQA Categorical Exemption was filed with the State Clearinghouse for the Mt. Shasta Water System Improvements project (SCH# 2019058145). The project includes replacement of existing water mains on W. Jessie Street, Spring Street, Cedar Street, Pine Street, W. Ivy Street, W. Field Street, W. Alma Street, N. Mt. Shasta Boulevard, and S. Mt. Shasta Boulevard. Water main improvements on Pine Street would occur adjacent to the GECS project site. Construction contractors for the water distribution system improvements would travel on the same streets as contractors for the GECS improvements. The Water System Improvements project would contribute to cumulative traffic and traffic noise impacts if the project is constructed simultaneously with the GECS improvements. There is also a potential for cumulative noise impacts and temporarily increased air emissions during construction.

***Freeze Mini-Storage and Car Wash Project***

In July 2017, the City circulated an IS/MND for the Freeze Mini-Storage and Car Wash project for a 30-day public review period (SCH#2017072042). Based on comments submitted during the public review period, the IS/MND was revised and recirculated on June 19, 2019. During a public meeting on September 17, 2019, the Planning Commission voted to deny approval of the car wash portion of the project and requested additional information on the mini-storage. The applicant filed an appeal with the City Council on the Planning Commission's denial of the car wash portion of the project; however, the appeal was not filed in accordance with City procedures, and the City Council voted to deny consideration of the appeal. As of July 24, 2020, development of the mini-storage portion of the project has not been approved.

The Freeze project site is located on N. Mt. Shasta Boulevard at its intersection with Ski Village Drive, ±0.7 miles north of the proposed GECS. Because the project does not include any infrastructure or construction-related improvements in proximity to the proposed GECS, it would not contribute to cumulative impacts associated with the project during construction. During operations, the mini-storage project could potentially contribute to cumulative air emissions, greenhouse gas (GHG) emissions, and increased traffic.

***Southern Oregon Ready Mix Project***

On June 12, 2020, Siskiyou County released a Notice of Intent to Adopt a Mitigated Negative Declaration for the Southern Oregon Ready Mix project (SCH#2020069019), and the IS/MND was made available for a 30-day public review period; the project was scheduled for Planning Commission consideration at their July 15, 2020, meeting. The project includes a request to rezone two parcels from Non-Prime Agriculture to Light Industrial. The project would include construction of a 4,000-square-foot shop building, a concrete grinding residue washout basin and areas for concrete crushing and screening. The project would also include a contractor's yard, materials and vehicle storage area, maintenance area for ongoing construction activities. Access to the site would be from the I-5 Abrams Lake Road Exit to Spring Hill Drive.

The proposed project site is located ±2.5 miles northwest of the GECS site. Because the Southern Oregon Ready Mix project does not include any infrastructure or construction-related improvements in proximity to the proposed project, it would not contribute to cumulative construction-related impacts. During operations, the Southern Oregon Ready Mix project could potentially contribute to cumulative air emissions and greenhouse gas (GHG) emissions.

Potential cumulative impacts are further discussed in the applicable resource sections in Section 4.0 below.

# SECTION 4.0 ENVIRONMENTAL ANALYSIS (CHECKLIST)

## 4.1 AESTHETICS

Except as provided in Public Resources Code §21099, would the project:

| Issues and Supporting Evidence | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| 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. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality? | ☐ | ☒ | ☐ | ☐ |
| d. Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area? | ☐ | ☐ | ☒ | ☐ |

### REGULATORY CONTEXT

#### FEDERAL

There are no federal regulations pertaining to aesthetics that apply to the proposed project.

#### STATE

**California Scenic Highway Program**

The California Scenic Highway Program, administered by the California Department of Transportation (Caltrans), was established in 1963 to preserve and protect the natural beauty of scenic highway corridors in the State. The Scenic Highway System includes a list of highways that have been designated as scenic highways as well as a list of highways that are eligible for designation as scenic highways. Local jurisdictions can nominate scenic highways for official designation by identifying and defining the scenic corridor of the highway and adopting a Corridor Protection Program that includes measures that strictly limit development and control outdoor advertising along the scenic corridor.

**California Building Standards Code**

Title 24 of the CCR, also known as the California Building Standards Code (CBSC), is based on the International Building Code (IBC) used widely throughout the country. The CBSC has been modified for California conditions to include more detailed and/or more stringent regulations. Part 11 of the CBSC is the Green Building Standards Code, also known as CALGreen. Section 5.106.8 (Light Pollution Reduction) of the CALGreen Code includes standards and restrictions for outdoor lighting systems. The intent of this requirement is to minimize light pollution in an effort to maintain dark skies and to ensure that newly constructed projects reduce the amount of backlight, uplight, light, and glare from exterior light sources.

## LOCAL

### City of Mt. Shasta

The City's General Plan includes the following Goals, Policies, and Implementation Measures (IMs) that apply to the proposed project:

| Open Space and Conservation Element | | |
|---|---|---|
| **Goal** | OC-7 | Protect the scenic resources of the Mt. Shasta area. |
| **Policy** | OC-7.1 | Promote the protection of the scenic beauty of the Mt. Shasta area through appropriate zoning, development standards, and the development review process involving lands in both the City and outside the city limits. The County is encouraged to support and help implement this policy. |
| **IM** | OC-7.1(b) | Establish and enforce standards for new development to protect visible hillsides and ridges. These standards will address screening, design, and setbacks from the tops of ridges. |

## DISCUSSION OF IMPACTS

### Questions A and C

Scenic vistas are defined as expansive views of highly valued landscapes from publicly accessible viewpoints. Scenic vistas include views of natural features such as mountains, hills, valleys, water courses, outcrops, and natural vegetation, as well as man-made scenic structures. Scenic resources in the project area include Mount Shasta, Black Butte, trees and other vegetation, creeks, streams, open space, and forested hills that surround the community. The project site is visible to individuals living and working in the area and to travelers on adjacent roadways, including I-5, Pine Street, W. Field Street, Cedar Street, and Kingston Road. The project site is presently undeveloped (see **Photo A-1**), with the exception of an old barn located near the southern boundary of the site. The barn would be demolished to accommodate the proposed development. In addition, the trees along Cedar Street would be removed (see **Photo A-2**), and the site would be cleared and graded to accommodate the proposed improvements.

*Photo A-1. View of Project site from Pine Street, facing northwest.*

*Photo A-2. Southern end of Project site, facing north on Cedar Street.*

Surrounding properties east and northeast of the project site are developed with a hospital and miscellaneous medical offices. The project site is visible from these areas (See **Photo A-3**).

*Photo A-3. Project site from hospital parking lot, facing west*

I-5 borders the project site to the west. As shown in **Photos A-4 and A-5**, trees and other vegetation along the project site's western boundary provides screening of the property, although the site is visible from some areas of I-5. No clearing or earth disturbance would occur in the vegetated areas along I-5. There would be temporary visual impacts due to the use of construction equipment and grading/ earthwork; however, this would cease when the project is complete.

*Photo A-4. View of Project site from northbound I-5, facing northeast.*

*Photo A-5. View of Project site from southbound I-5, facing southeast.*

In terms of long-term operational impacts, pursuant to Mt. Shasta Municipal Code (MSMC) Chapter 18.60 (Architectural Review), the City of Mt. Shasta Design Guidelines apply to all new projects that require a building permit. As stated in the Guidelines, *"[it] is a goal of the City of Mount Shasta to ensure that development is harmoniously integrated with its surroundings, and to encourage excellence in urban design and improvement in overall City appearance."*

The City's design review procedures require that the following findings be made:

a. The proposed building and site plan are consistent with the photographic examples shown in the guidelines of acceptable styles, elements, themes, materials, massing, detailing, landscaping, and relationships to street frontages and abutting properties.
b. The design of the proposed building or structure includes universally acceptable wall materials, or alternative treatments for panelized or prefabricated structures, identified in the guidelines under Color/Materials.
c. Roof design includes appropriate detail to match the surrounding structures, does not create glare, and is complementary in color to the building.
d. Design of the structure is sufficient to prevent vibrations or noise from sources internal to the structure from being detected at the property lines.
e. The proposed color scheme is consistent with the preferences identified in the guidelines under Color/Materials. The base color is a neutral color and the trim color accents or contrasts the base color.
f. The site plan demonstrates both motorized and non-motorized connectivity from the public right-of-way to the buildings and other site amenities.
g. The proposed development is in conformity with the standards of the City's land development code and other applicable ordinances insofar as the location and appearance of the building and structures are involved.

The school building would be a pre-engineered steel building with a standing seam metal roof. The applicant has submitted four options for exterior building design for the City's consideration. Option 1 (**Figure 4.1-1a**) depicts slate gray and charcoal wall panels with a blue roof. Option 2 (**Figure 4.1-1b**) depicts slate gray and charcoal wall panels with stone accents.

Option 3 (**Figure 4.1-1c**) depicts slate gray and blue wall panels with stone accents. Option 4 (**Figure 4.1-1d**) depicts brown and beige wall panels with stone accents. All four options include neutral colors that would blend with the surroundings and are consistent with the examples of non-residential buildings included in the City's Design Guidelines. Further, building aesthetics would be enhanced with installation of landscaping around the building in areas shown in **Figure 2**.

A 30-foot wide landscape buffer, including trees planted at 30-foot intervals, would be planted along the southern property line as shown in **Figure 2**. This landscape area would provide partial screening of the school from northbound travelers on I-5 and also from residences to the south.

As stated in Section 3.0 (Project Description), a sound wall would be installed along the west and south sides of the play area south of the school building. The location of the sound wall is shown in **Figure 2**. The west side of the sound wall would be ±90 feet in length; the south side of the sound wall would be ±60 feet in length. The wall is proposed as a concrete masonry wall. **MM 4.1.2** requires that the sound wall be a neutral color to complement the school building and surrounding vegetation. The exterior finish of the wall shall be low reflectivity and not capable of producing glare.

Compliance with the City's Design Guidelines is confirmed during plan review of the final building and site plans submitted with the Building Permit application. Implementation of the approved design features are verified by the City's Building Official and City Planner prior to issuance of a Certificate of Occupancy for the building.

GG - SCHEMATIC EAST ELEVATION PERSPECTIVE

EE - FRONT ELEVATED PERSPECTIVE

FF - FRONT ENTRANCE PERSPECTIVE

CC - PERSPECTIVE FROM I-5 LOOKING WEST

DD - PERSPECTIVE FROM I-5 LOOKING NORTH

AA - FRONT ENTRANCE PERSPECTIVE

BB - REAR ELEVATED PERSPECTIVE

r·g·a

GOLDEN EAGLE CHARTER SCHOOL

DRAWING SCALE:

PERSPECTIVE VIEWS

2020.05.25

BUTTE CONSTRUCTION COMPANY

**Figure 4.1-1a**
Building Design - Option 1

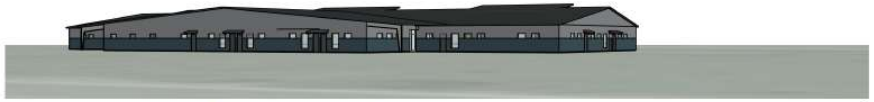
GG - SCHEMATIC EAST ELEVATION PERSPECTIVE

EE - FRONT ELEVATED PERSPECTIVE

FF - FRONT ENTRANCE PERSPECTIVE

CC - PERSPECTIVE FROM I-5 LOOKING WEST

NOTE: PERSPECTIVE VIEW FROM FREEWAY SCREENED BY HEAVY VEGETATION



DD - PERSPECTIVE FROM I-5 LOOKING NORTH

NOTE: PERSPECTIVE VIEW FROM FREEWAY SCREENED BY HEAVY VEGETATION

AA - FRONT ENTRANCE PERSPECTIVE

BB - REAR ELEVATED PERSPECTIVE

r·g·a

GOLDEN EAGLE CHARTER SCHOOL

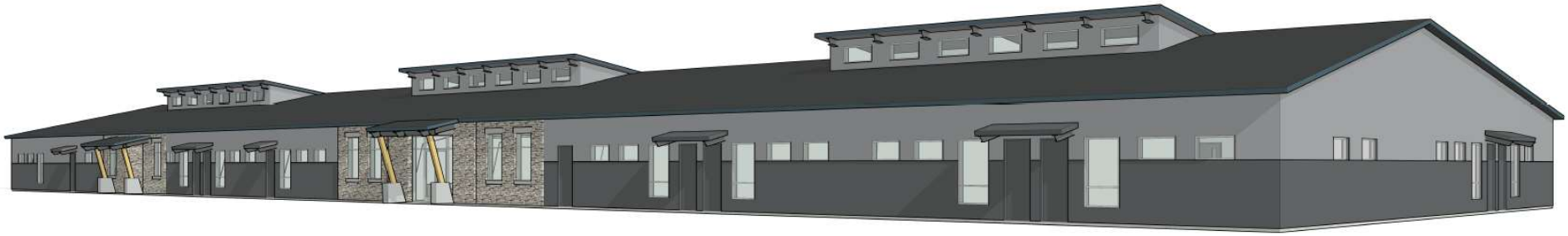
DRAWING SCALE:

PERSPECTIVE VIEWS

2020.05.25

BUTTE CONSTRUCTION COMPANY

**Figure 4.1-1b**
Building Design - Option 2



GG - SCHEMATIC EAST ELEVATION PERSPECTIVE

EE - FRONT ELEVATED PERSPECTIVE

FF - FRONT ENTRANCE PERSPECTIVE

CC - PERSPECTIVE FROM I-5 LOOKING WEST

NOTE: PERSPECTIVE VIEW FROM FREEWAY SCREENED BY HEAVY VEGETATION

DD - PERSPECTIVE FROM I-5 LOOKING NORTH

NOTE: PERSPECTIVE VIEW FROM FREEWAY SCREENED BY HEAVY VEGETATION

AA - FRONT ENTRANCE PERSPECTIVE

BB - REAR ELEVATED PERSPECTIVE

r·g·a

# GOLDEN EAGLE CHARTER SCHOOL

DRAWING SCALE:

PERSPECTIVE VIEWS

2020.05.25

BUTTE CONSTRUCTION COMPANY

**Figure 4.1-1c**
Building Design - Option 3

GG - SCHEMATIC EAST ELEVATION PERSPECTIVE

EE - FRONT ELEVATED PERSPECTIVE

FF - FRONT ENTRANCE PERSPECTIVE

CC - PERSPECTIVE FROM I-5 LOOKING WEST

DD - PERSPECTIVE FROM I-5 LOOKING NORTH

AA - FRONT ENTRANCE PERSPECTIVE

BB - REAR ELEVATED PERSPECTIVE

r·g·a

GOLDEN EAGLE CHARTER SCHOOL

DRAWING SCALE:

PERSPECTIVE VIEWS

2020.05.25

BUTTE CONSTRUCTION COMPANY

**Figure 4.1-1d**
Building Design - Option 4

All rooftop mechanical equipment, loading areas, and trash receptacles would be screened from public view. Roofing would be non-reflective. Landscaping consisting of native trees and shrubs would be installed around the building and in the parking areas to further enhance the aesthetic character of the building. Security fencing in areas visible from the Pine Street road ROW would be of similar or complimentary materials to the primary structure. Covered pedestrian walkways would be provided around the building to provide shelter and visual appeal.

**Mitigation Measure (MM) MM 4.1.1** requires landscaping, signage, parking, lighting, fencing, building design, and sound wall design plans to be submitted with the building permit application in accordance with the City's Design Guidelines and Zoning Code. In addition, a roof plan or other documentation must be submitted with the building permit application to demonstrate that all roof-mounted equipment is adequately screened from public view and adjacent properties. Prior to issuance of a building permit, the City Planner must review the plans to verify consistency with the Design Guidelines and Zoning Code.

Prior to issuance of a Certificate of Occupancy by the City's Building Official, the Building Official shall verify that the project is constructed in accordance with the approved plans. Therefore, because impacts during construction are temporary and would cease at completion of the improvements, and **MM 4.1.1** ensures that the project complies with the City's Design Guidelines and Zoning Code provisions for design review, impacts would be less than significant.

**Question B**

Although the segment of I-5 in the project area is eligible for scenic highway designation, there are currently no officially designated State Scenic Highways in Siskiyou County. Therefore, there would be no impact.

**Question D**

As discussed under Regulatory Context above, the CALGreen Code includes requirements and restrictions intended to minimize light pollution in an effort to maintain dark skies. The City's Design Guidelines also require that lighting be adequately shielded from adjacent properties and designed to minimize the potential for unnecessary lighting of the night sky.

The proposed project includes the installation of new permanent exterior lighting designed to illuminate the project's buildings and parking lots (See **Appendix A**, Preliminary Lighting Plan). As shown in the Lighting Plan, external lighting does not encroach into neighboring properties. It is the responsibility of the City's Building Official to review construction documents, including electrical plans and specifications for exterior lighting, prior to issuance of a building permit to ensure that CALGreen and City requirements for outside lighting conform to adopted standards. Therefore, impacts would be less than significant.

## CUMULATIVE IMPACTS

Potential cumulative projects in the area include growth according to the build-out projections in the City's General Plan. All new development projects are subject to the City's Design Guidelines that ensure new development is compatible with its surroundings and consistent with the City's aesthetic vision for the community. Implementation of **MM 4.1.1** ensures that the project's cumulative contribution to visual impacts is less than significant.

## MITIGATION

**MM 4.1.1** The building permit application shall be accompanied by a landscaping, signage, parking, lighting, building design, sound wall design, and snow storage plan in accordance with the City's Design Guidelines and Zoning Code. In addition, a roof plan or other

documentation that demonstrates that all roof-mounted mechanical equipment is adequately screened from public view and adjacent properties must be submitted.

Prior to issuance of each building permit, the City Planner or his/her designee shall review the plans to verify consistency with the Design Guidelines and Zoning Code. Prior to issuance of each Certificate of Occupancy by the City's Building Official, the Building Official and City Planner shall verify that landscaping, signage, parking, lighting, building design, and screening of mechanical equipment are consistent with the approved plans.

**MM 4.1.2** The proposed sound wall shall be a solid concrete masonry structure. The wall shall be a neutral color to complement the school building and surrounding vegetation. The exterior finish of the wall shall be low reflectivity and not capable of producing glare.

### DOCUMENTATION


**California Building Standards Code.** 2019. Guide to the 2019 California Green Building Standards Code (Nonresidential). https://www.dgs.ca.gov/BSC/Resources/Page-Content/Building-Standards-Commission-Resources-List-Folder/CALGreen. Accessed June 2020.

**California Department of Transportation.** 2017. California State Scenic Highway Mapping System. Siskiyou County. http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm. Accessed December 2019.

**City of Mt. Shasta.** 2007. Mt. Shasta General Plan. https://mtshastaca.gov/?s=general+plan. Accessed December 2019.

_____. 2010. Design Guidelines, City of Mount Shasta. https://mtshastaca.gov/wp/wp-content/uploads/2016/01/Architectural_Design_Guidelines_wApp.pdf. Accessed July 2020.

_____. 2018. Mt. Shasta Municipal Code, Title 18 (Zoning). https://www.codepublishing.com/CA/MtShasta/#!/MtShasta18/MtShasta18.html. Accessed December 2019.

**Siskiyou County**. 1975. Siskiyou County General Plan, Scenic Highways Element. http://www.co.siskiyou.ca.us/sites/default/files/docs/GP_ScenicHighwaysElement.pdf. Accessed December 2019.


## 4.2 AGRICULTURE AND FOREST RESOURCES

Would the project:

| Issues and Supporting Evidence | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | ☐ | ☐ | ☐ | ☒ |
| b. Conflict with existing zoning for agricultural use, or a Williamson Act contract? | ☐ | ☐ | ☐ | ☒ |

| | | | | |
|---|---|---|---|---|
| c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)) or result in the loss of forest land or conversion of forest land to non-forest use? | ☐ | ☐ | ☐ | ☒ |
| d. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use? | ☐ | ☐ | ☒ | ☐ |

## REGULATORY CONTEXT

### FEDERAL

There are no federal regulations pertaining to agriculture or forest resources that apply to the proposed project.

### STATE

#### California Farmland Mapping and Monitoring Program (FMMP)

The FMMP was established in 1982 to provide data to decision makers to assist them in making informed decisions for the best utilization of California's farmland. Under the FMMP, the Department of Conservation (DOC) is responsible for mapping, monitoring, and reporting on the conversion of the State's farmland to and from agricultural use. Important Farmland Maps are updated and released every two years. The following mapping categories, which are determined based on soil qualities and current land use information, are included in the FMMP: prime farmland, farmland of statewide importance, unique farmland, farmland of local importance, grazing land, urban and built-up land, other land, and water.

#### Williamson Act

The Williamson Act (California Land Conservation Act of 1965) was enacted as a means to protect agricultural uses in the State. Under the Williamson Act, local governments can enter into contracts with private landowners to ensure that specific parcels are restricted to agricultural and related open space uses. In return, landowners receive reduced property tax assessments. The minimum term for a Williamson Act contract is ten years, and the contract is automatically renewed for one-year terms unless the landowner files a notice of nonrenewal or a petition for cancellation. When a notice of non-renewal is filed, the annual tax assessment gradually increases over a ten-year period until it reaches the market value tax rate, at which time the contract is terminated. The landowner may also petition the local government to immediately cancel the contract. If the cancellation is approved, the landowner must pay a cancellation fee, and the property is thereafter taxed at its current market value.

#### Forest Land and Timberland

Public Resources Code §12220(g) defines Forest Land as *"land that can support 10% native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits."* Public Resources Code §4526 defines timberland as *"land, other than land owned by the federal government, which is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forest products, including Christmas trees."* Government Code §51104(g) defines Timberland Production Zone as *"an area which has been zoned pursuant to [Government Code] §51112 or §51113 and is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses, as defined in subdivision (h)."*

## LOCAL

### City of Mt. Shasta

The City's General Plan includes the following Goals, Policies, and Implementation Measures (IMs) that apply to the proposed project:

| Open Space and Conservation Element | | |
|---|---|---|
| **Goals** | OC-4 | Encourage and conserve lands for agricultural purposes. |
| | OC-5 | Encourage and conserve lands for timber purposes. |
| **Policies** | OC 4.1 | Allow agricultural production lands to remain available for agriculture and rural uses. |
| | OC 5.1 | Allow timber production lands to remain available for the harvest and replanting of timber resources, as well as rural and recreation uses. |

## DISCUSSION OF IMPACTS

### Questions A, B, and D

According to the *Important Farmland in California* map published by the FMMP, neither the project site nor surrounding properties are designated as prime farmland, unique farmland, or farmland of statewide importance; however, the project site is designated as farmland of local importance.

In Siskiyou County, farmland of local importance includes dryland, or sub-irrigated hay and grain, and improved pasture forage species; farmlands presently irrigated but which do not meet the soil characteristics of prime farmland or farmland of statewide importance; and areas currently shown as prime agricultural land in the Siskiyou County General Plan.

Although the project site is designated as farmland of local importance, aerial photographs from 1951 through 2018 were reviewed and indicate that the property has not historically been used for agricultural purposes, although portions of the property are used for grazing by horses. There are presently no lands within the City limits that are zoned for agricultural production, and the Siskiyou County General Plan does not identify the property as prime agricultural land.

In addition, the property is not irrigated, and the soil type (Deetz gravelly loamy sand, 5 to 15 percent slopes), is not considered prime farmland. Further, according to the NRCS, the land capability classification for the soil indicates that the soil has very severe limitations that reduce the choice of plants or require very careful management, or both. In addition, the project site is not under a Williamson Act contract.

Because the proposed project would not convert prime farmland, unique farmland, or farmland of statewide importance, would not conflict with zoning or a Williamson Act contract, and does not include any components that would have an indirect effect on farmland, impacts would be less than significant.

### Question C

According to the City's and County's General Plans, the project site and surrounding area are not designated as timberland and are not zoned for timberland production. Therefore, the proposed project would have no impact on timberland or cause rezoning of timberland.

As stated under Regulatory Context above, "forest land" is defined in PRC §12220(g) as land that can

support 10 percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.

However, the development site does not support ten percent cover by native trees. In addition, the project site and surrounding area are not designated as forest land. Therefore, there would be no impact.

## CUMULATIVE IMPACTS

Potential cumulative projects in the area include growth according to the build-out projections in the City's and County's General Plans. As documented above, although the project would be located in an area designated as farmland of local importance, the land has not historically been used for agricultural purposes. In addition, there are presently no lands within the City limits that are zoned for agricultural production, and the Siskiyou County General Plan does not identify the property as prime agricultural land; therefore, the project's impact to farmland would not be cumulatively considerable.

The project site and surrounding area are not designated as timberland or zoned for timberland production. In addition, the project is not "forest land" as defined in PRC §12220(g); therefore, the proposed project would not cumulatively contribute to adverse impacts associated with the loss of timberland or forest land.

## MITIGATION

None necessary

## DOCUMENTATION

**City of Mt. Shasta.** 2007. Mt. Shasta General Plan. https://mtshastaca.gov/?s=general+plan. Accessed December 2019.

**Siskiyou County.** 2016. Siskiyou County Code of Ordinances, Article 48, Rural Residential Agricultural District. https://www.municode.com/library/ca/siskiyou_county/codes/code_of_ordinances?nodeId=TIT10PLZO_CH6ZO_ART48RUREAGDI_S10-6.4801DI. Accessed December 2019.

**State of California, Department of Conservation**, Farmland Mapping and Monitoring Program. Siskiyou County Important Farmland 2012. ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2012/sis12.pdf. Accessed January 2019.

# 4.3 AIR QUALITY

Would the project:

| Issues and Supporting Evidence | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a. Conflict with or obstruct implementation of the applicable air quality plan? | ☐ | ☐ | ☐ | ☒ |
| b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard? | ☐ | ☐ | ☐ | ☒ |
| c. Expose sensitive receptors to substantial pollutant concentrations? | ☐ | ☒ | ☐ | ☐ |
| d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people? | ☐ | ☐ | ☒ | ☐ |

## REGULATORY CONTEXT

### FEDERAL

#### Federal Ambient Air Quality Standards

The U.S. Environmental Protection Agency (USEPA), under the federal Clean Air Act (CAA), establishes maximum ambient concentrations for criteria air pollutants (CAP), known as the National Ambient Air Quality Standards (NAAQSs). The NAAQSs are established to protect the health and welfare of the populace with a reasonable margin of safety. **Table 4.3-1** identifies the seven CAPs as well as characteristics, health effects and typical sources for each CAP:

**TABLE 4.3-1**
**Federal Criteria Air Pollutants**

| Pollutant | Characteristics | Primary Effects | Major Sources |
|---|---|---|---|
| **Ozone ($O_3$)** | Ozone is a colorless or bluish gas formed through chemical reactions between two major classes of air pollutants: reactive organic gases (ROG) and oxides of nitrogen ($NO_X$). These reactions are stimulated by sunlight and temperature; thus, ozone occurs in higher concentrations during warmer times of the year. | • Respiratory symptoms.<br>• Worsening of lung disease leading to premature death.<br>• Damage to lung tissue.<br>• Crop, forest, and ecosystem damage.<br>• Damage to a variety of materials, including rubber, plastics, fabrics, paints, and metals. | Motor vehicle exhaust, industrial emissions, gasoline storage and transport, solvents, paints, and landfills. |
| **Carbon Monoxide (CO)** | Carbon monoxide is an odorless, colorless gas produced by the incomplete combustion of carbon-containing fuels, such as gasoline and wood. Because CO is emitted directly from internal | • Chest pain in patients with heart disease.<br>• Headache.<br>• Light-headedness.<br>• Reduced mental alertness. | Motor vehicle exhaust, combustion of fuels, combustion of wood in woodstoves and fireplaces. |

| | | | |
|---|---|---|---|
| | combustion engines, motor vehicles operating at slow speeds are the primary source of carbon monoxide. | | |
| **Nitrogen Dioxide ($NO_2$)** | Nitrogen dioxide is a reddish-brown gas formed when nitrogen ($N_2$) combines with oxygen ($O_2$). Nitrogen oxides are typically created during combustion processes and are major contributors to smog formation and acid deposition. Of the seven types of nitrogen oxide compounds, $NO_2$ is the most abundant in the atmosphere and is related to traffic density. | • Respiratory symptoms.<br>• Damage to lung tissue.<br>• Worsening of cardiovascular disease.<br>• Precursor to ozone and acid rain.<br>• Contributes to global warming and nutrient overloading which deteriorates water quality.<br>• Causes brown discoloration of the atmosphere. | Automobile and diesel truck exhaust, petroleum-refining operations, industrial sources, aircraft, ships, railroads, and fossil-fueled power plants. |
| **Sulfur Dioxide ($SO_2$)** | Sulfur dioxide is a colorless, nonflammable gas that results mainly from burning high-sulfur-content fuel oils and coal and from chemical processes occurring at chemical plants and refineries. | • Respiratory symptoms.<br>• Worsening of cardiovascular disease.<br>• Damage to a variety of materials, including marble, iron, and steel.<br>• Damages crops and natural vegetation.<br>• Impairs visibility.<br>• Precursor to acid rain. | Petroleum refineries, cement manufacturing, metal processing facilities, locomotives, and large ships, and fuel combustion in diesel engines. |
| **Particulate Matter ($PM_{2.5}$ and $PM_{10}$)** | Particulate matter is a major air pollutant consisting of tiny solid or liquid particles of soot, dust, smoke, fumes, and aerosols that are small enough to remain suspended in the air for a long period of time.<br>Particulate matter with a diameter of 10 microns or less ($PM_{10}$) are inhalable into the lungs and can induce adverse health effects.<br>Fine particulate matter is defined as particles that are 2.5 microns or less in diameter ($PM_{2.5}$). Therefore, $PM_{2.5}$ comprises a portion of $PM_{10}$. | • Premature death.<br>• Hospitalization for worsening of cardiovascular disease.<br>• Hospitalization for respiratory disease<br>• Asthma-related emergency room visits.<br>• Increased symptoms, increased inhaler usage | Dust- and fume-producing construction activities, power plants, steel mills, chemical plants, unpaved roads and parking lots, woodburning stoves and fireplaces, wildfires, motor vehicles, and other combustion sources. Also a result of photochemical processes. |
| **Lead** | A heavy metal that occurs both naturally in the environment and in manufactured products. | • Impaired mental functioning in children<br>• Learning disabilities in children<br>• Brain and kidney damage.<br>• Reproductive disorders.<br>• Osteoporosis. | Lead-based industrial production (e.g., battery production and smelters), recycling facilities, combustion of leaded aviation gasoline by piston-driven aircraft, and crustal weathering of soils followed by fugitive dust emissions. |

## STATE

### State Ambient Air Quality Standards

The California CAA establishes maximum concentrations for the seven federal CAPs, as well as the four additional air pollutants identified below. The four additional standards are intended to address regional air quality conditions, not project-specific emissions. These maximum concentrations are known as the California Ambient Air Quality Standards (CAAQSs). The California Air Resources Board (CARB) has jurisdiction over local air districts and has established its own standards and violation criteria for each CAP under the CAAQS. For areas within the State that have not attained air quality standards, the CARB works with local air districts to develop and implement attainment plans to obtain compliance with both federal and State air quality standards.

**Visibility-Reducing Particles.** Visibility-reducing particles vary greatly in shape, size, and chemical composition, and come from a variety of natural and manmade sources. Major sources include wildfires, residential fireplaces and woodstoves, windblown dust, ocean sprays, biogenic emissions, dust and fume-producing construction, industrial and agricultural operations, and fuel combustion. Primary effects include visibility impairment, respiratory symptoms, and worsening of cardiovascular disease.

**Sulfate ($SO_4$).** Sulfate is oxidized to sulfur dioxide ($SO_2$) during the combustion process and is subsequently converted to sulfate compounds in the atmosphere. Major sources include industrial processes and the combustion of petroleum-derived fuels (e.g., gasoline and diesel fuel) that contain sulfur. Primary effects include respiratory symptoms, worsening of cardiovascular disease, damage to a variety of materials, including marble, iron, and steel, damage to crops and natural vegetation, and visibility impairment.

**Hydrogen Sulfide ($H_2S$).** Hydrogen sulfide is a colorless gas with the odor of rotten eggs. Major sources include geothermal power plants, petroleum refineries, and wastewater treatment plants. Primary effects include eye irritation, headache, nausea, and nuisance odors.

**Vinyl Chloride (chloroethene).** Vinyl chloride, a chlorinated hydrocarbon, is a colorless gas with a mild, sweet odor. It is also listed as a toxic air contaminant because of its carcinogenicity. Most vinyl chloride is used to make PVC plastic and vinyl products. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites due to microbial breakdown of chlorinated solvents. Primary effects include dizziness, drowsiness, headaches, and liver damage.

**Table 4.3-2** provides the federal and State ambient air quality standards:

**TABLE 4.3-2**
**Federal and State Ambient Air Quality Standards**

| Pollutant | Averaging Time | California Standards | National Standards |
|---|---|---|---|
| Ozone ($O_3$) | 8 Hour | 0.070 ppm (137µg/$m^3$) | 0.070 ppm (137µg/$m^3$) |
| | 1 Hour | 0.09 ppm (180 µg/$m^3$) | – |
| Carbon Monoxide (CO) | 8 Hour | 9 ppm (10 mg/$m^3$) | 9 ppm (10 mg/$m^3$) |
| | 1 Hour | 20 ppm (23 mg/$m^3$) | 35 ppm (40 mg/$m^3$) |
| Nitrogen Dioxide ($NO_2$) | 1 Hour | 0.18 ppm (339 µg/$m^3$) | 100 ppb (188 µg/$m^3$) |
| | Annual Arithmetic Mean | 0.030 ppm (57 µg/$m^3$) | 0.053 ppm (100 µg/$m^3$) |
| Sulfur Dioxide ($SO_2$) | 24 Hour | 0.04 ppm (105 µg/$m^3$) | 0.14 |
| | 3 Hour | – | – |

| Pollutant | Averaging Time | California Standards | National Standards |
|---|---|---|---|
| | 1 Hour | 0.25 ppm (665 µg/$m^3$) | 75 ppb (196 µg/$m^3$) |
| | Annual Arithmetic Mean | – | 0.030 ppm |
| Particulate Matter ($PM_{10}$) | Annual Arithmetic Mean | 20 µg/$m^3$ | – |
| | 24 Hour | 50 µg/$m^3$ | 150 µg/$m^3$ |
| Particulate Matter – Fine ($PM_{2.5}$) | Annual Arithmetic Mean | 12 µg/$m^3$ | 12 µg/$m^3$ |
| | 24 Hour | – | 35 µg/$m^3$ |
| Sulfates | 24 Hour | 25 µg/$m^3$ | – |
| Lead | Calendar Quarter | – | 1.5 µg/$m^3$ |
| | 30 Day Average | 1.5 µg/$m^3$ | – |
| | Rolling 3-Month Average | None | 0.15 µg/$m^3$ |
| Hydrogen Sulfide | 1 Hour | 0.03 ppm (42 µg/$m^3$) | – |
| Vinyl Chloride (chloroethene) | 24 Hour | 0.01 ppm (26 µg/$m^3$) | – |
| Visibility-Reducing Particles | 8 Hour | – | – |

*Source: CARB 2016. Notes: mg/$m^3$=milligrams per cubic meter; ppm=parts per million; ppb=parts per billion; µg/$m^3$=micrograms per cubic meter*

### Toxic Air Contaminants

In addition to the California CAPs, Toxic Air Contaminants (TACs) are another group of pollutants regulated under the California CAA. There are presently over 200 chemicals listed by the State as TACs with varying degrees of toxicity. Sources of TACs include industrial processes, commercial operations (e.g., gasoline stations and dry cleaners), grading and demolition of structures (asbestos), and diesel-motor vehicle exhaust. TACs are less pervasive in the urban atmosphere than the CAPs, but are linked to short-term (acute) and long-term (chronic or carcinogenic) adverse human health effects. Health effects of TACs include cancer, birth defects, neurological damage, and death. Ambient air quality standards have not been set for TACs. Instead, these pollutants are typically regulated through a technology-based approach for reducing TACs. This approach requires facilities to install Maximum Achievable Control Technology on emission sources.

Assembly Bill 2588, the Air Toxics "Hot Spots" Information and Assessment Act of 1987, was adopted in response to public concern regarding potential adverse health effects associated with emissions of TACs. Facilities found to release high volumes of toxic air pollution are required to conduct a detailed health risk assessment that estimates emission impacts to the neighboring community.

### Mobile Source Strategy

CARB's Mobile Source Strategy, adopted in 2016, describes the State's strategy for containing air pollutant emissions from vehicles, and demonstrates how the State can simultaneously meet air quality standards, achieve GHG emission reduction targets, decrease health risks from transportation emissions, and reduce petroleum consumption over the next fifteen years.

### Senate Bill 210 (2019), Heavy-Duty Vehicle Inspection and Maintenance Program

SB 210, signed by the Governor on September 20, 2019, recognizes that communities near highways and roads with high levels of truck traffic bear the burden of heavy-duty trucks that are not maintained. According to CARB, as of 2016, heavy-duty trucks operating in the State emitted nearly 60 percent of all $NO_X$ emissions from on-road mobile sources. Heavy-duty diesel trucks are also the largest source of diesel particulate matter emissions in the State.

Under the Heavy-Duty Vehicle Inspection and Maintenance Program heavy-duty diesel trucks will have to pass a smog check to ensure vehicle emission controls are maintained in order to register or operate in California. Upon implementation of the Program, CARB must provide mechanisms for out-of-state owners of heavy-duty vehicles to establish and verify compliance with State regulations for heavy-duty diesel trucks prior to entering the State.

#### Senate Bill 44 (2019), Medium- and Heavy-Duty Vehicles: Comprehensive Strategy

SB 44 requires CARB to update the State's Mobile Source Strategy no later than January 1, 2021, to include a comprehensive strategy to reduce emissions from medium- and heavy-duty vehicles in order to meet federal ambient air quality standards and reduce GHG emissions from this sector. The Bill also requires CARB to establish emission reduction goals for 2030 and 2050 for medium- and heavy-duty vehicles.

#### California Energy Code

The California Energy Code (Part 6 of the CBSC), also known as the State's Energy Efficiency Standards, was established by the California Building Standards Commission in 1978 with a goal of reducing California's energy consumption for residential and nonresidential buildings.

The Standards include mandatory measures related to building envelopes, mechanical systems, indoor and outdoor lighting, and electrical power distribution. Section 120.1 of the State Energy Code includes requirements for ventilation and indoor air quality. Section 120.1(c) requires all occupiable spaces in nonresidential buildings to implement air filtration systems to clean the outside and return air prior to its introduction into occupied spaces. For all newly constructed nonresidential buildings over 10,000 square feet, building commissioning must be included in the design and construction process to verify that the building's energy systems and components meet State Energy Code requirements for energy efficiency.

### LOCAL

#### Siskiyou County Air Pollution Control District

The SCAPCD has the responsibility of enforcing federal and state air quality regulations in Siskiyou County. It also issues rules and regulations setting specific standards of operation, defining permit requirements, and setting emission limits. For new or modified stationary sources, the SCAPCD has defined 250 pounds (lbs)/day as the threshold of significance for $NO_X$, $PM_{2.5}$, $PM_{10}$, and $SO_2$ emissions, and 2,500 lbs/day as the threshold of significance for CO emissions (Rule 6.1). Siskiyou County is currently designated in attainment or unclassified status for all federal and state criteria pollutants; therefore, the County is not required to have a local air quality attainment plan.

#### City of Mt. Shasta

The City's General Plan includes the following Goal and Policy that apply to the proposed project:

| Open Space and Conservation Element | | |
|---|---|---|
| **Goal** | OC-11 | Strive to maintain clean air in the planning area. |
| **Policy** | OC-11.1 | Work with the County to maintain attainment status in the planning area. |

## DISCUSSION OF IMPACTS

#### Questions A and B

As discussed under Regulatory Context, for areas within the State that have not attained air quality standards, the CARB works with local air districts to develop and implement attainment plans to obtain compliance with both federal and State air quality standards. Because Siskiyou County is

currently designated in attainment or unclassified status for all federal and state criteria pollutants, the County is not required to have a local air quality attainment plan; therefore, the proposed project would not conflict with an air quality plan or result in a cumulatively considerable net increase of a criteria pollutant for which the area is in non-attainment; there would be no impact.

**Question C**

See discussion under Regulatory Context above and Section 4.8 (Greenhouse Gas Emissions). project emissions were estimated using Version 2016.3.2 of the California Emissions Estimator Model (CalEEMod). CalEEMod provides default values when site-specific inputs are not available. CalEEMod does not directly calculate ozone emissions. Instead, the emissions associated with ozone precursors (ROG and $NO_X$) are calculated. For the proposed project, site-specific inputs and assumptions include, but are not limited to, the following:

- Emissions from construction are based on all construction-related activities associated with proposed and future uses, including but not limited to grading, use of construction equipment, material hauling, trenching, and site preparation.

- Emissions from operation of the proposed project are based on all proposed and future operational activities, including vehicle traffic, electricity usage in the buildings and for lighting in parking lots, water use, wastewater treatment, solid waste disposal, use of architectural coatings, etc.

- Construction would commence in 2021 and be completed in approximately eight months.

Output files, including all site-specific inputs and assumptions, are provided in **Appendix B**.

**Construction Emissions**

The proposed project would result in the temporary generation of ROG, NOx, $PM_{10}$, and other regulated pollutants during construction. ROG and NOx emissions are associated with employee vehicle trips, delivery of materials, and construction equipment exhaust. $PM_{10}$ is generated during site preparation, excavation, paving, and from exhaust associated with construction equipment. Although neither the City nor the SCAPCD have adopted specific thresholds for construction-related emissions, the City typically references current SCAPCD rules, including Rule 6.1-New Source Siting, which includes thresholds for new stationary sources. As stated under Regulatory Context above, the SCAPCD has defined 250 pounds (lbs)/day as the threshold of significance for $NO_X$, $PM_{2.5}$, $PM_{10}$, and $SO_2$ emissions, and 2,500 lbs/day as the threshold of significance for CO emissions. As shown in **Table 4.3-3**, construction of the proposed project would not exceed Siskiyou County's thresholds for any of the pollutants.

**TABLE 4.3-3**
**Projected Construction Emissions**

| Pollutants of Concern (Maximum Pounds per Day) | | | | | |
|---|---|---|---|---|---|
| **ROG** | **NOx** | **$PM_{10}$** | **$PM_{2.5}$** | **CO** | **$SO_2$** |
| 82.77 | 20.28 | 3.99 | 2.39 | 15.53 | 0.03 |

Nonetheless, sensitive receptors adjacent to the construction area would be exposed to elevated dust levels and other pollutants. Sensitive receptors are individuals or groups of people that are more affected by air pollution than others, including young children, elderly people, and people weakened by disease or illness. Locations that may contain high concentrations of sensitive receptors include residential areas, schools, playgrounds, childcare centers, hospitals, convalescent homes, and retirement homes. Sensitive receptors in the project area include

Mercy Medical Center on Pine Street, ±175 feet east of the project's driveway; Eskaton Washington Manor, a senior housing facility on Kingston Road, ±600 feet north of the project site; multi-family residences on Pine Street, ±360 feet south of the project's proposed driveway; and single-family residences on W. Field Street, Spring Street, and Cedar Street, ±275 feet south of the proposed school.

Compliance with federal, state, and local regulations, and implementation of **MM 4.3.1** would reduce temporary air quality impacts during construction to a less-than-significant level.

**Operational Emissions**

Operation of the project would generate criteria pollutants from area sources (e.g., cleaning supplies, maintenance activities such as painting, landscape equipment etc.) and mobile sources (e.g., vehicle trips for employees, visitors, vendors, deliveries, etc.), as well as indirect emissions associated with energy use, solid waste disposal, water treatment and distribution, and wastewater treatment. Sensitive receptors that could be affected by operational emissions include the single-family residences on Pine Street and W. Field Street; the hospital on Pine Street; and students attending the GECS.

As indicated in **Table 4.3-4**, operational emissions would not exceed the SCAPCD's thresholds for any of the pollutants.

**TABLE 4.3-4**
**Projected Operational Emissions**

| Pollutants of Concern (Average Pounds per Day) | | | | | | |
|---|---|---|---|---|---|---|
| **Source** | **ROG** | **NOx** | **$PM_{10}$** | **$PM_{2.5}$** | **CO** | **$SO_2$** |
| Area | 0.91 | Trace | Trace | Trace | 0.01 | 0 |
| Energy | 0.01 | 0.13 | Trace | Trace | 0.11 | Trace |
| Mobile | 1.21 | 10.26 | 1.78 | 0.5 | 9.54 | 0.04 |
| **Total** | **2.14** | **10.39** | **1.79** | **0.51** | **9.66** | **0.04** |

***Potential Impacts on Off-Site Sensitive Receptors***

Although operational emissions would not exceed the SCAPCD's thresholds, because idling vehicles will queue in the project's driveway when exiting the site, the potential to create a CO hotspot was evaluated. Because the school does not provide transportation, and no school buses would be coming to the site, the analysis focused on privately owned vehicles transporting students to and from the site.

A CO hotspot is a localized concentration of CO that is above the State or federal ambient air quality standards. High-volume streets, highways, and intersections have been found to be pollution hotspots, mainly due to frequent deceleration and acceleration, and the increased frequency and duration of idling at intersections (CARB, 2017). Intersections that tend to exhibit a significant CO concentration typically operate at LOS D or worse.

As discussed in Section 4.17 (Transportation), a Traffic Impact Study (TIS) for the proposed project was prepared by Traffic Works in May 2018 and evaluated potential operational traffic impacts associated with the proposed project. The TIS concluded that study intersections in the project area, including Pine Street and the proposed project's driveway, would operate at LOS A or B during the A.M. and P.M. peak hours under existing plus project conditions; therefore, it is not anticipated that the project would result in a CO hotspot and would not result in localized concentrations of CO that would exceed adopted air quality standards. The proposed project does not include any other components (e.g., stationary sources) that could expose off-site

sensitive receptors to substantial pollutant concentrations during operation. Therefore, impacts to off-site receptors would be less than significant.

***Potential Impacts on On-Site Sensitive Receptors***

As shown in **Figure 2**, the school building would be located approximately 150 feet east of the edge of the nearest traffic lane of northbound I-5. CEQA §21151.8 includes specific requirements for the acquisition of school sites and the construction of schools by a school district. The siting of new schools is generally prohibited in or adjacent to hazardous waste sites, on a site that includes pipelines that carry hazardous substances or hazardous waste, or a site that is within 500 feet of the edge of the closest traffic lane of a freeway or other busy traffic corridor. CEQA §21151.8(b)(9) defines *"freeway or other busy traffic corridor"* as roadways that, on an average day, have traffic in excess of 50,000 vehicles in a rural area, and 100,000 vehicles in an urban area. Although CEQA §21151.8 does not apply to charter schools, an analysis of potential health risks associated with existing pollution sources in proximity to the project site is warranted.

In April 2005, CARB published the *Air Quality and Land Use Handbook: A Community Health Perspective* that addresses siting sensitive receptors in proximity to the specific sources of air pollution identified in **Table 4.3-5**. The table identifies the applicability of each pollution source to the proposed project. As indicated the only potential existing pollution source in proximity to the project site is I-5.

**Table 4.3-5**
**Existing Pollution Sources in Proximity to the Project Site**

| Source | Advisory Recommendation | Applicability to Project Site |
|---|---|---|
| High traffic volume freeways and roads | Avoid siting new sensitive land uses within 500 feet of a freeway/urban road with 100,000 vehicles/day; or a rural road with 50,000 vehicles/day. | I-5 parallels the western project boundary. The proposed school building would be located ±150 feet from the edge of the nearest traffic lane of northbound I-5. As documented below, traffic volumes in the project area are well below 50,000 vehicles per day. |
| Distribution centers | Avoid siting new sensitive land uses within 1,000 feet of a distribution center that has more than 100 truck trips per day, more than 40 trucks with operating transport refrigeration units (TRUs) per day, or where TRU unit operations exceed 300 hours per week); avoid locating residences and other new sensitive land uses near entry and exit points. | There are no applicable distribution centers or entry/exit points to/from such a distribution center within 1,000 feet of the project site. |
| Rail yards | Avoid siting new sensitive land uses within 1,000 feet of a major service and maintenance rail yard. Within one mile of a rail yard, consider possible siting limitations and mitigation approaches. | Although the Union Pacific Railroad is located ±650 feet east of the project site, there are no major service/maintenance rail yards within one mile of the project site. |
| Ports | Avoid siting of new sensitive land uses immediately downwind of ports in the most heavily impacted zones. Consult local air districts or the ARB on the status of pending analyses of health risks. | There are no ports in proximity to the project site. |
| Petroleum Refineries | Avoid siting new sensitive land uses immediately downwind of petroleum refineries. Consult with local air districts and other local agencies to determine an appropriate separation. | There are no petroleum refineries in proximity to the project site. |

| | | |
|---|---|---|
| Chrome plating facilities | Avoid siting new sensitive land uses within 1,000 feet of a chrome plater. | There are no chrome plating facilities within 1,000 feet of the project site. |
| Dry cleaners | Avoid siting new sensitive land uses within 300 feet of any dry-cleaning operation. For operations with two or more machines, provide 500 feet. For operations with three or more machines, consult with the local air district. | There are no dry cleaners within a one-mile radius of the project site. |
| Large gas dispensing facilities | Avoid siting new sensitive land uses within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater). A 50-foot separation is recommended for typical gas dispensing facilities. | There are no large gas stations or gas dispensing facilities within 300 feet of the project site. |

According to California Department of Transportation (Caltrans) 2018 traffic counts, average annual daily trips (AADT) on I-5 in the City of Mt. Shasta are as shown in **Table 4.3-6.** The table indicates trips for all vehicles and include traffic in both directions; it is estimated that between 24 to 33 percent of the total AADTs represent truck traffic. "Back AADT" represents traffic south of the count location. "Ahead AADT" represents traffic north of the count location.

**Table 4.3-6**
**Interstate 5 Traffic Counts (All Vehicles), City of Mt. Shasta**

| Milepost (Siskiyou County) | Location | Back AADT | Ahead AADT |
|---|---|---|---|
| 8.475 | Junction Route 89 | 22,500 | 21,100 |
| 10.485 | Lake Street | 21,100 | 22,100 |
| 12.062 | North Mt. Shasta | 22,900 | 25,500 |
| 13.184 | Abrams Lake Road, right alignment | 12,600 | 12,600 |
| 13.189 | Abrams Lake Road | 12,600 | 12,600 |

*Source: Caltrans Traffic Volumes (All Vehicles), 2018.*

According to the 2016 Regional Transportation Plan for Siskiyou County future I-5 traffic volumes in the year 2035 are anticipated to range between 21,700 and 25,685 AADTs.

As described in **Table 4.3-5**, the potential for health risks increases when traffic volumes exceed 50,000 vehicles per day in a rural setting. As shown in **Table 4.3-6**, current and projected traffic volumes on I-5 in the project area are substantially less than the threshold for potential health impacts of 50,000 AADTs.

Further, emissions from the transportation sector will continue to decrease through implementation of State regulations. As stated under Regulatory Context, under SB 210 (2019) heavy-duty diesel trucks will have to pass a smog check to ensure vehicle emission controls are maintained in order to register or operate in California. Upon implementation of the Program, CARB must provide mechanisms for out-of-state owners of heavy-duty vehicles to establish and verify compliance with State regulations for heavy-duty diesel trucks prior to entering the State. SB 44 requires CARB to update the State's Mobile Source Strategy to include a comprehensive strategy to reduce emissions from medium- and heavy-duty vehicles. The Bill also requires CARB to establish emission reduction goals for 2030 and 2050 for medium- and heavy-duty vehicles.

In addition, as discussed under Regulatory Context, the project must comply with State Energy Code requirements for air filtration that cleans the outside and return air prior to its introduction into occupied spaces in the building. Therefore, health risks associated with traffic on I-5 would be less than significant.

For both construction and operational emissions, the proposed project would not result in significant impacts associated with ozone ($O_3$), lead (Pb), hydrogen sulfide ($H_2S$), vinyl chloride, or visibility reducing particles as discussed below.

**Ozone.** CalEEMod does not directly calculate ozone emissions. Instead, the emissions associated with ozone precursors (ROG and $NO_X$) are calculated. Because project construction would generate relatively low amounts of both ROG and $NO_x$, the potential for ozone production/emissions is less than significant.

**Lead.** Elevated levels of airborne lead at the local level are usually found near industrial operations that process materials containing lead, such as smelters and battery manufacturing/ recycling facilities. As these conditions are not applicable to the proposed project, the potential for lead emissions is less than significant.

**Hydrogen sulfide.** Hydrogen sulfide is formed by geothermal power plants, petroleum refineries, and during the decomposition of organic material in anaerobic environments, including sewage treatment processes. Although the proposed project would generate wastewater, the amount of wastewater treated has a less than significant potential to significantly increase hydrogen sulfide emissions.

**Vinyl chloride.** Vinyl chloride is used to manufacture polyvinyl chloride (PVC) plastic and other vinyl products. Approximately 98 percent of vinyl chloride produced in the United States is used during the manufacture of PVC. Additionally, vinyl chloride is produced during the microbial breakdown of chlorinated solvents (e.g., engine cleaner, degreasing agent, adhesive solvents, paint removers, etc.). The potential for vinyl chloride exposure is primarily limited to areas in close proximity to PVC production facilities. Because PVC manufacturing facilities are absent from the project area, and project implementation would not result in an increase of chlorinated solvents, potential vinyl chloride emissions associated with the proposed project would be less than significant.

**Visibility-reducing pollutants.** Visibility-reducing pollutants generally consist of sulfates, nitrates, organics, soot, fine soil dust, and coarse particulates. These pollutants contribute to the regional haze that impairs visibility, in addition to affecting public health. According to the California Regional Haze Management Plan, natural wildfires and biogenic emissions are the primary contributors to visibility-reducing pollutants. Because relatively small amounts of particulates would be generated during construction and operations, potential impacts with respect to visibility-reducing pollutants are less than significant.

Therefore, impacts would be less than significant because **MM 4.3.1** would reduce temporary impacts during construction, and the project does not include any operational components that would expose sensitive receptors to substantial pollutant concentrations.

**Question D**

Construction activities that have the potential to emit odors and similar emissions include diesel equipment, paints, solvents, fugitive dust, and adhesives. Odors and similar emissions from construction are intermittent and temporary, and generally would not extend beyond the construction area. Due to the temporary and intermittent nature of construction odors, impacts during construction would be less than significant.

Odors and similar emissions associated with operation of the proposed project include emissions from vehicles, maintenance activities (painting, pavement maintenance, re-roofing, etc.), use of gas-

powered landscape equipment, and similar activities. Operational odors and similar emissions would be intermittent and are not expected to be significantly greater than existing conditions. Therefore, operational impacts would be less than significant.

## CUMULATIVE IMPACTS

Past, present, and future development projects contribute to a region's air quality conditions on a cumulative basis; therefore, by its very nature, air pollution is largely a cumulative impact. If a project's individual emissions contribute toward exceedance of the NAAQS or the CAAQS, then the project's cumulative impact on air quality would be considered significant. In developing attainment designations for criteria pollutants, the USEPA considers the region's past, present, and future emission levels. Siskiyou County is presently in attainment or unclassified status for all federal and state criteria pollutants.

Implementation of the proposed project combined with future development within the project area could lead to cumulative impacts to air quality. Although the cumulative projects identified in Section 3.3 would also generate emissions during construction, and there is a possibility that some of these projects could be constructed simultaneously, all projects in Siskiyou County are subject to applicable CARB and SCAPCD rules and regulations, including mitigation measures that address impacts during construction. Further, all development is subject to SCAPCD regulations for new or modified stationary sources and thresholds of significance for CO, $NO_X$, $PM_{2.5}$, $PM_{10}$, and $SO_2$ emissions (Rule 6.1). These thresholds were adopted to minimize cumulative impacts to air quality. Implementation of **MM 4.3.1** and compliance with CARB and SCAPCD regulations ensures that the proposed project would have a less-than-significant cumulative impact on local and regional air quality.

## MITIGATION

**MM 4.3.1** The following measures shall be implemented throughout construction:

a. All material excavated, stockpiled, or graded shall be covered or sufficiently watered to prevent fugitive dust from leaving property boundaries and causing a public nuisance or a violation of ambient air quality standards. Watering shall occur at least twice daily with complete site coverage, preferably in the mid-morning and after work is completed each day.

b. All material transported offsite shall be either sufficiently watered or securely covered to prevent a public nuisance.

c. All areas (other than paved roads) with vehicle traffic shall be watered periodically or have dust palliatives applied for stabilization of dust emissions.

d. All on-site vehicles shall be limited to a speed of 15 miles per hour on unpaved roads.

e. All land clearing, grading, earth moving, and excavation activities on the project site shall be suspended when winds are causing excessive dust generation.

f. All trucks hauling dirt, sand, soil, or other loose materials shall be covered or shall maintain at least two feet of free board in accordance with the requirements of Section 23114 of the California Vehicle Code. This provision is enforced by local law enforcement agencies.

g. Paved streets in and adjacent to the construction site shall be swept or washed at the end of the day to remove excessive accumulations of silt and/or mud resulting from activities on the development site.

h. When not in use, motorized construction equipment shall not be left idling for more than five minutes.

## DOCUMENTATION

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**U.S. Environmental Protection Agency.** n.d. Lead Emissions. cfpub.epa.gov/roe/indicator_pdf.cfm?i=13. Accessed December 2019.

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# 4.4 BIOLOGICAL RESOURCES

Would the project:

| Issues and Supporting Evidence | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. 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 U.S. Fish and Wildlife Service? | ☐ | ☒ | ☐ | ☐ |

| | | | | |
|---|---|---|---|---|
| c. Have a substantial adverse effect on state or federally protected wetlands, (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? | ☐ | ☐ | ☐ | ☒ |

## REGULATORY CONTEXT

### FEDERAL

#### Federal Clean Water Act

*Section 404*

Under Section 404 of the Clean Water Act (CWA), the U.S. Army Corps of Engineers (USACE) regulates the discharge of dredged or fill material into wetlands and waters of the U.S. The USACE requires that a permit be obtained prior to the placement of structures within, over, or under navigable waters and/or prior to discharging dredged or fill material into waters below the ordinary high-water mark (OHWM). There are several types of permits issued by the USACE that are based on the project's location and/or level of impact. Regional general permits are issued for recurring activities at a regional level. Nationwide permits (NWPs) authorize a wide variety of minor activities that have minimal effects. projects that are not covered under a regional general permit and do not qualify for a NWP are required to obtain a standard permit (e.g., individual permit or letter of permission).

*Section 401*

Under Section 401 of the CWA, a project requiring a USACE Section 404 permit is also required to obtain a State Water Quality Certification (or waiver) to ensure that the project will not violate established State water quality standards. The RWQCB regulates waters of the State and has a policy of no-net-loss of wetlands. The RWQCB typically requires mitigation for impacts to wetlands before it will issue a water quality certification.

#### Federal Endangered Species Act

The Federal Endangered Species Act (FESA) of 1973 requires that all federal agencies ensure that any action they authorize, fund, or carry out will not likely jeopardize the continued existence of federally listed species or result in the destruction or adverse modification of critical habitat. Projects that would result in "take" of any federally listed species are required to obtain authorization from National Marine Fisheries Service (NMFS) and/or U.S. Fish and Wildlife Service (USFWS) through either Section 7 (interagency consultation) or Section 10(a) (incidental take permit) of FESA, depending on whether the federal government is involved in permitting or funding the project.

### Federal Migratory Bird Treaty Act

Under the Migratory Bird Treaty Act (MBTA) of 1918, as amended, migratory bird species listed in CFR Title 50, §10.13, including their nests and eggs, are protected from injury or death, and any project-related disturbances. The MTBA applies to over 1,000 bird species, including geese, ducks, shorebirds, raptors, and songbirds, some of which were near extinction before MBTA protections were put in place in 1918. The MTBA provides protections for nearly all native bird species in the U.S., including non-migratory birds.

### Fish and Wildlife Conservation Act

Under the Fish and Wildlife Conservation Act of 1980, as amended, the USFWS maintains lists of migratory and non-migratory birds that, without additional conservation action, are likely to become candidates for listing under the FESA. These species are known as Birds of Conservation Concern and represent the highest conservation priorities.

### Bald and Golden Eagle Protection Act

This Act provides for the protection of the bald eagle and the golden eagle by prohibiting, except under certain specified conditions, the taking, possession, and commerce of such birds and their occupied and unoccupied nests.

### Magnuson-Stevens Fishery Conservation and Management Act

The Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA), also known as the Sustainable Fisheries Act, requires the identification of Essential Fish Habitat (EFH) for federally managed fishery species and implementation of appropriate measures to conserve and enhance EFH that could be affected by project implementation. All federal agencies must consult with NMFS on projects authorized, funded, or undertaken by that agency that may adversely affect EFH for species managed under the MSFCMA.

## STATE

### California Endangered Species Act

Under the California Endangered Species Act (CESA), the Fish and Game Commission is responsible for listing and delisting threatened and endangered species, including candidate species for threatened or endangered status. CDFW provides technical support to the Commission, and may submit listing petitions and assist with the evaluation process. CDFW maintains documentation on listed species, including occurrence records. In addition, CDFW maintains a list of fully protected species, most of which are also listed as threatened or endangered. CDFW also maintains a list of species of special concern (SSC). SSC are vulnerable to extinction but are not legally protected under CESA; however, impacts to SSC are generally considered significant under CEQA.

CESA prohibits the take of State-listed threatened and endangered species, but CDFW has the authority to issue incidental take permits under special conditions when it is demonstrated that impacts are minimized and mitigated. Fully protected species may not be taken or possessed at any time, and no licenses or permits may be issued for their take. One exception allows the collection of fully protected species for scientific research.

### California Fish and Game Code §1600-1616 (Streambed Alteration)

California Fish and Game Code §1600 *et seq.*, requires that a project proponent enter into a Streambed Alteration Agreement (SAA) with CDFW prior to any work that would divert or obstruct the natural flow of any river, stream, or lake; change the bed, channel, or bank of any river, stream, or lake; use material from any river, stream, or lake; and/or deposit or dispose of material into any river, stream, or lake. The SAA will include conditions that minimize/avoid potentially significant adverse impacts to riparian habitat and waters of the state.

### California Fish and Game Code §3503 and 3503.5 (Nesting Bird Protections)

These sections of the Code provide regulatory protection to resident and migratory birds and all birds of prey within the State and make it unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by the Code.

### California Fish and Game Code §1900-1913 (Native Plant Protection Act)

The Native Plant Protection Act (NPPA) includes measures to preserve, protect, and enhance native plants that are listed as rare and endangered under the CESA. The NPPA states that no person shall take, possess, sell, or import into the state, any rare or endangered native plant, except in compliance with provisions of the Act.

### Oak Woodlands Conservation Act

The State of California provides for oak protection through the Oak Woodlands Conservation Act (Act), last amended in 2005. The Act applies only when the lead agency is a county and the project is located in an unincorporated county area. The Act requires a determination of whether the project may result in the conversion of oak woodlands that will have a significant effect on the environment as well as implementation of oak woodland mitigation measures, if necessary.

## LOCAL

### City of Mt. Shasta

The City of Mt. Shasta's General Plan includes the following Goals, Policies, and Implementation Measures (IM) that apply to the proposed project:

| Open Space and Conservation Element | | |
|---|---|---|
| **Goals** | OC-1 | Conserve lands that support important fisheries, wildlife and botanical habitat, and wetlands. |
| | OC-2 | Protect riparian habitat along streams in the Planning Area. |
| | OC-3 | Conserve wetland areas |
| **Policies** | OC-1.1 | Limit development on lands that provide important fisheries, wildlife and botanical habitat, and wetlands to agriculture and rural density residential. |
| | OC-2.1 | Require erosion control protection as a part of grading and development plans. |
| | OC-3.1 | Work to satisfy state and national wetlands policy. |
| **IM** | OC-1.3(b) | Consider the Theiss 1990 wetland report and the documented identification of the California Department of Fish and Game's deer wintering and fawning grounds as initial steps in identifying important fishery, wildlife and botanical, and wetland habitats in the planning area. Recognize and reference new, credible information as it becomes available. |

## DISCUSSION OF IMPACTS

### Question A

The evaluation of potential impacts on candidate, sensitive, and/or special-status species entailed records searches and field evaluations completed by ENPLAN. The records searches included a review of California Natural Diversity Data Base (CNDDB) records for special-status plants and animals; USFWS records for federally listed, proposed, and candidate plant and animal species

under jurisdiction of the USFWS; and essential fish habitat (EFH) data maintained by the NMFS. Neither the USFWS nor CNDDB identified any critical habitats within the project site. NMFS does not maintain a species list for the project quadrangle because Shasta and Keswick Dams block upstream passage to spawning areas in the upper Sacramento River.

To determine the presence/absence of special-status plant and animal species, an ENPLAN biologist conducted botanical and wildlife surveys on May 6 and June 26, 2018. The special-status plant species potentially occurring in the study area would have been evident at the time the fieldwork was conducted. Most of the special-status wildlife species would not have been evident at the time the fieldwork was conducted; however, determination of their potential presence could readily be made based on observed habitat characteristics.

**Appendix C** includes the following:

- California Natural Diversity Database (CNDDB) Query Summary
- U.S. Fish and Wildlife Service List of Threatened and Endangered Species
- ENPLAN Summary Report: *Potential for Special-Status Species to Occur on the Project Site.*
- List of vascular plants observed: May 6 and June 26, 2018.

***Special-Status Plant Species***

Review of the USFWS species lists for the project area identified one federally listed plant species as potentially being affected by the proposed project: whitebark pine. The project area does not contain designated critical habitat for federally listed plant species.

Review of CNDDB records found that the following five special-status plant species have been broadly mapped in the project area: broad-nerved hump moss, marsh skullcap, northern adder's tongue, Siskiyou clover, and woodnymph. Nine other special-status plant species have been reported within a five-mile radius of the project site: Aleppo avens, Gasquet rose, Jepson's dodder, Oregon fireweed, pallid bird's-beak, rattlesnake fern, Shasta chaenactis, subalpine aster, and woolly balsamroot. Three non-status species, Baker's globe mallow, Pacific fuzzwort, and three-ranked hump moss, have also been reported within the search radius.

Botanical surveys of the project site were conducted on May 6 and June 26, 2018. A list of plant species observed during the field surveys is included in **Appendix C.** Also included in **Appendix C** is a summary report indicating the potential for state and federal special-status species to occur in the project area. As indicated, no special-status plant species were observed or are expected to occur. Therefore, the proposed project would have no impact on special-status plant species.

***Special-Status Wildlife Species***

Review of the USFWS species list for the project area identified 13 federally listed wildlife species as potentially being affected by the proposed project: fisher, gray wolf, North American wolverine, northern spotted owl, yellow-billed cuckoo, California red-legged frog, Oregon spotted frog, delta smelt, longfin smelt, valley elderberry longhorn beetle, conservancy fairy shrimp, vernal pool fairy shrimp, and vernal pool tadpole shrimp. The USFWS does not identify designated critical habitat in the study area for any federally listed wildlife species, and review of the USFWS critical habitat map confirmed this finding.

Review of CNDDB records showed that four special-status animals have been broadly mapped in the project area: Cascades frog, Suckley cuckoo bumble bee, western bumble bee, and western yellow-billed cuckoo. The following eleven special-status species have been reported within a five-mile radius of the project site: American peregrine falcon, bald eagle, bank swallow, fisher-west coast DPS, foothill yellow-legged frog, Franklin's bumblebee, northern goshawk, Sierra Nevada red fox, spotted bat, western mastiff bat, and yellow rail. The following seven non-status species have also

been reported in the search radius: great blue heron, long-eared myotis, North American porcupine, obscure bumble bee, osprey, Pacific marten, and silver-haired bat.

General wildlife surveys of the project site were conducted on May 6 and June 26, 2018. Wildlife species observed during the field surveys included Brewer's blackbirds, Canada geese, American crows, scrub jays, and seagulls; a wide variety of other species is expected to utilize the site at certain times of the year. **Appendix C** contains an evaluation of the potential for special-status wildlife species to occur on the project site. As indicated, no special-status animal species were observed during the field surveys, although bald eagles, bats, or other special-status species may occasionally fly over or forage in the project area.

As documented in **Appendix C**, the project site includes potentially suitable habitat for Franklin's bumble bee, Suckley cuckoo bumble bee, and western bumble bee, and there is a low likelihood that these species may be present. In June 2019, all three of these species were accepted as candidates for State listing as endangered. Under CESA, candidate species receive the same protection as threatened or endangered species. Below is an overview of bumble bees in general, and specific characteristics of all three of the bee species.

In general, all bumble bees have three basic habitat requirements: suitable nesting sites, availability of nectar and pollen from floral resources throughout the duration of the colony period (spring, summer, and fall), and suitable overwintering sites for the queens. Bumble bees are found in a wide variety of natural, agricultural, urban, and rural habitats (Goulson, 2010).

Bumble bees are generalist pollinators that play an important role in the reproduction of a wide variety of plants, including food crops and wildflowers; thus, they are critical components of our environment and essential to our food security. They have been reported visiting a wide variety of flowering plants. Potential threats to bumble bees include modification or destruction of habitat; competition with honey bees; disease; use of herbicides and pesticides; and global climate change (Xerces Society *et al.,* 2018).

Little is known about the overwintering habits of most bumble bee species. Some species are known to dig a few centimeters into soft, disturbed soil and form an oval-shaped chamber in which the queen will spend the duration of the winter. Other species may overwinter in small cavities just below or on the ground surface. Compost in gardens, leaf litter, or mole hills may provide suitable protection for queens to overwinter (Goulson, 2010).

***Western Bumble Bee (Bombus occidentalis occidentalis)***

Formerly found in much of California, the western bumble bee is now mostly restricted to high-elevation sites in the Sierra Nevada, with some observations on the northern California coast (Xerces Society *et al.,* 2018).

The species may be found in open grassy areas, urban parks and gardens, and mountain meadows with abundant floral resources. Residential gardens and urban parks may also provide valuable floral resources, and may serve as important habitat refuges for bumble bees.

The plants most commonly associated with western bumble bees in California include *Cirsium, Erigonum, Solidago, Aster, Ceanothus, Centaurea,* and *Penstemon* (Richardson, 2017). The species is also associated with *Chrysothamnus*, *Geranium*, *Grindellia*, *Lupinus*, *Melilotus*, *Monardella*, *Rubus*, and *Trifolium* (Williams *et al.*, 2014). Western bumble bees require plants that bloom and provide adequate nectar and pollen throughout the colony's flight period from as early as February to late November (CDFW, 2019).

Nests are primarily in underground cavities such as in old animal burrows on open west-southwest slopes bordered by trees. The species may also be able to nest aboveground, such as in log cavities.

According to CNDDB records, western bumble bees have been reported in the general project area; however, the most recent reported occurrence in the area was in 1960. The last reported occurrence in Siskiyou County was in 1984, ±13 miles northwest of the City. Review of the Xerces Society's Historic Records and Range Map for the Western Bumble Bee (2019) identified several occurrences of the species near the base of Mt. Shasta in 1958.

The project site includes potentially suitable habitat for western bumble bees. If present, direct effects could include destruction of nests by earthwork activities. Indirect effects could result from the removal of floral resources on which the bumble bee relies.

However, given that the species has not been reported in the project area in 60 years, and has not been reported in Siskiyou County in over 35 years, the likelihood that the species would be present is low. Further, because detection of nests in advance would be extremely difficult, a pre-construction survey for western bumble bee nests is not warranted.

***Suckley Cuckoo Bumble Bee (Bombus suckleyi)***

The Suckley cuckoo bumble bee's range, distribution, and abundance in California are not well known due to the rarity of observations of the species in the State; the species is known only from a few records in the Klamath Mountains region. Habitat includes meadows largely confined to mountainous regions.

Suckley cuckoo bumble bees are dependent on their host species, the western bumble bee, to collect pollen on which to rear their young. The decline of its host, the western bumble bee, may be the primary threat to continued survival of the species (CDFW, 2019).

Suckley cuckoo bumble bees are nest parasites and have been detected in the nests of several species of bumble bees; however, the species has only been observed reproducing in nests of western bumble bees (Williams *et al.,* 2014).

Records of known plant associations for this species are scarce. In California, the species is associated with the following genera: "aster", *Chrysothamnus, Cirsium, Solidago,* and *Centaurea*, as well as the plant species associated with western bumble bee (Williams *et al.*, 2014). The flight season for females of the species is from late May to late October.

According to CNDDB records, Suckley cuckoo bumble bee has been reported in three locations in Siskiyou County. In 1958, the species was reported in the general project area. The most recent reported occurrence was in 2009, approximately 22 miles west of the project site near the community of Callahan. The third reported occurrence was in 2008, approximately 75 miles northwest of the City.

As with the western bumble bee, it is possible that Suckley cuckoo bumble bee could be present in the area, but impacts are unlikely; no pre-construction nest survey is warranted.

***Franklin's Bumble Bee (Bombus franklini)***

Franklin's bumble bee has the most limited geographic distribution of any bumble bee in North America. The species is found only in southern Oregon and northern California, between the Coast and Sierra-Cascade Ranges and has been observed at elevations ranging from 54 feet to above 7,800 feet above sea level (Xerces Society *et al.*, 2018). Franklin's bumble bees may be found in open grassy coastal prairie and Coast Range meadows. Nesting habitat is unknown, but Franklin's bumble bees probably nest in abandoned rodent burrows.

Franklin's bumble bees have not been seen in California since 1998 and have not been seen in Oregon since 2006, and there are concerns that the species may be extinct (Williams et al., 2014).

Franklin's bumble bee is a generalist forager and has been reported visiting a wide variety of flowering plants. The species has been observed collecting pollen from lupine and California poppy, and collecting nectar from horsemint (*Agastache*), and mountain mondardella. The species may collect both pollen and nectar from vetch. The flight season is from mid-May to the end of September.

According to CNDDB records, Franklin's bumble bee has been reported in several locations in Siskiyou County. In 1993, the species was reported approximately 3.2 miles northeast of the project site. Surveys for Franklin's bumble bee were conducted in the Mt. Shasta area by Dr. Robin W. Thorp in 1998, 1999, 2000, 2002, and 2005 through 2017; the species was not observed during the surveys (Xerces Society *et al.*, 2018).

Given that surveys for Franklin's bumble bee conducted between 1998 and 2017 did not identify the presence of the species in the Mt. Shasta area, it is not expected that the species would be present, and no further evaluation or mitigation is warranted.

As indicated, no special-status plant or wildlife species were observed or are expected to occur. Therefore, the proposed project would have no impact on special-status species.

**Questions B and C**

According to CDFW, since the inception of the Natural Heritage Program in 1979, natural communities have been considered for their conservation significance (CDFW, 2017). Unique natural communities were recorded in the CNDDB until the mid-1990s; at that time, funding for the natural community portion of the program was eliminated. Although natural communities are no longer being added to the CNDDB, many of the natural community occurrences maintained in the CNDDB still have significance for conservation, and their existence should be considered in the environmental review process.

Review of CNDDB natural community records shows that a fen has been mapped approximately 500 feet southwest of the project site on the west side of I-5, north of Hatchery Lane. Because I-5 separates the project site from the fen, the proposed project would not affect the fen. CNDDB records do not identify any other sensitive natural communities within a five-mile radius of the project site. Other records reviewed for sensitive natural communities included those maintained by the USFWS and NMFS. The USFWS does not identify any designated critical habitats for federally listed species within the study area. NMFS does not identify Essential Fish Habitat in the study area.

A Delineation of Waters of the U.S. was prepared for the project site by North State Resources, Inc. (NSR), in August 2012 to identify potential USACE jurisdictional wetlands and other waters of the U.S. and State. The study area for the delineation encompassed approximately 13 acres. NSR followed the methods prescribed in the USACE 1987 *Wetland Delineation Manual* and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0), May 2010*.

The hydrology of suspect wetland areas was measured by installing and monitoring 19 shallow groundwater wells in accordance with the USACE 2005 *Technical Standard for Water-Table Monitoring of Potential Wetland Sites.* In addition to the monitoring wells, nine test pits were dug and monitored to observe any evidence of saturation. Monitoring occurred in the spring of 2011 and the spring of 2012. As a result of the delineation effort, approximately 2.310 acres of wetlands and waters subject to USACE and State jurisdiction were delineated in the 13-acre study area as shown in **Figure 4.4-1.** The delineation was reverified by the USACE in 2018. **Figure 4.4-1** shows a potential sound barrier and potential wetland creation area that were identified for a previous development project; these features are not related to the proposed project.

The principal natural communities in the study area are stream/riverine, fresh emergent wetland, riparian wetland, seasonal wet meadow, and perennial grassland. Four of these communities,

stream/riverine, fresh emergent wetland, riparian wetland, and wet meadow, are considered sensitive natural communities. Because no development is proposed on Parcel B, the following discussion focuses on communities within the development site.

**Principal Natural Communities**

***Stream/Riverine***

An unnamed perennial creek bisects the property north of the development site. The creek originates at a diversion of Spring Creek near the Mt. Shasta City Park, approximately 0.75 miles north of the study area. The perennial creek enters the property from a 24-inch culvert located under Pine Street, and drains southwest across the project site toward I-5. A vegetated ditch on the project site is also subject to perennial flow. The ditch segments traverse the southern boundary of the site before draining to a channelized stream south of the study area boundary. The source of flow for the ditch is unknown, but it emerges from a 16-inch culvert under Pine Street.

***Seasonal Wet Meadow***

The majority of the wet meadow occurs north of the development site in an area not proposed for development. Approximately 0.068 acres of wet meadow is located in the southwestern area of the site, immediately west of the proposed school. Vegetation in the wet meadow includes Santa Barbara sedge, Baltic rush, Kentucky bluegrass, meadow foxtail, creeping bentgrass, velvetgrass, teasel, Nebraska sedge, reed canary grass, cinquefoil, dense-flowered willowherb, and western buttercup.

***Fresh Emergent Wetland***

Fresh emergent wetland occurs in a depression on the upslope side of Cedar Street. This feature appears to receive water from the vegetated ditch when it overflows the shallow bed and bank near the culvert under Cedar Street.

***Montane Riparian Habitat***

The montane riparian habitat includes the montane riparian wetland shown in **Figure 4.4-1** as well as surrounding upland dominated by woody riparian vegetation. Montane riparian habitat occurs in areas adjacent to the perennial creek and also immediately northwest of the fresh emergent wetland on the upslope side of Cedar Street. Trees and shrubs dominate this habitat, including hawthorn, Drummond's willow, black cottonwood, wild rose, and apple trees. Understory plant composition is similar to that found in the wet meadow. The community has been fragmented by the construction of Cedar Street through the project site.

***Perennial Grassland***

The perennial grassland community occupies the majority of the project site. This upland habitat is dominated by grasses and forbs, including Kentucky bluegrass, slender wheatgrass, meadow foxtail, soft chess, creeping bentgrass, Idaho fescue, velvetgrass, meadow fescue, peavine, willowherb, and sow thistle.

**Potential Impacts**

***Impacts to Wetlands and other Waters of the U.S. and State***

The development site contains 0.107 acres of wetlands and 0.063 acres of streams and ditches, for a total of 0.170 acres of Waters of the U.S. and State. The project as currently proposed would avoid direct impacts to all wetlands and other waters. Therefore, a Clean Water Act (CWA) Section 404 permit from the U.S. Army Corps of Engineers (USACE) and State Water Quality Certification (or waiver) are not required.

Study Area (13.00 acres)
Culvert Opening
Culvert
3-Parameter Data Point
Extra Holes
Ground water well with hydrology met.
Ground water well with hydrology not met.

**Other Waters**

Perennial Creek (0.024 acre)
Vegetated Ditch (0.063 acre)

**Waters of the United States**

**Wetlands**

Fresh Emergent Wetland (0.012 acre)
Riparian Wetland (0.488 acre)
Seasonal Wet Meadow (1.723 acres)

N

0 100 200
Feet

**Summary of Waters of the United States**

*Wetlands*

| Label | Type | Length (f) | Width (f) | Acreage |
|---|---|---|---|---|
| FEW 1 | Fresh Emergent Wetland | | | 0.004 |
| FEW 2 | Fresh Emergent Wetland | | | 0.008 |
| RW 1 | Riparian Wetland | | | 0.197 |
| RW 2 | Riparian Wetland | | | 0.027 |
| RW 3 | Riparian Wetland | | | 0.163 |
| RW 4 | Riparian Wetland | | | 0.101 |
| SWM 1 | Seasonal Wet Meadow | | | 0.068 |
| SWM 2 | Seasonal Wet Meadow | | | 0.497 |
| SWM 3 | Seasonal Wet Meadow | | | 0.072 |
| SWM 4 | Seasonal Wet Meadow | | | 0.016 |
| SWM 5 | Seasonal Wet Meadow | | | 0.946 |
| SWM 6 | Seasonal Wet Meadow | | | 0.106 |
| SWM 7 | Seasonal Wet Meadow | | | 0.018 |
| | **Wetlands Total** | | | 2.223 |

*Other Waters*

| Label | Type | Length (f) | Width (f) | Acreage |
|---|---|---|---|---|
| PC 1 | Perennial Creek | 513 | 2 | 0.024 |
| VD 1 | Vegetated Ditch | 207 | 4 | 0.019 |
| VD 2 | Vegetated Ditch | 288 | 4 | 0.026 |
| VD 3 | Vegetated Ditch | 105 | 2 | 0.005 |
| VD 4 | Vegetated Ditch | 140 | 4 | 0.013 |
| | **Other Waters Total** | 1253 | 16 | 0.087 |
| | **Total Waters of the United States** | **1253** | **16** | **2.310** |

This delineation of waters of the United States is subject to verification by the U.S. Army Corps of Engineers (ACOE).
NSR advises all parties to treat the information contained herein as preliminary until the ACOE provides written verification of the boundaries of their jurisdiction.

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North State Resources, Inc.

*Pasner Lake Street Property*

Figure 4.4-1

## Wetlands and Other Waters of the U.S. and State

Indirect effects of construction, such as erosion/sedimentation and pollutant-loaded stormwater runoff in the watershed that enter surface waters, can be harmful to water quality and fish habitat. If the eroded soils are washed into downstream waters, they could directly and indirectly affect aquatic species and habitats. As discussed in Section 1.6 (Regulatory Requirements), the Developer is required to develop a SWPPP that includes BMPs to control erosion and sedimentation and prevent damage to streams, watercourses, and aquatic habitat. BMPs may include, but are not limited to, limiting construction to the dry season; use of straw wattles, silt fences, and/or gravel berms to prevent sediment from discharging to surface waters and sensitive habitats; and revegetating temporarily disturbed sites upon completion of construction. Given the existing requirement for erosion control BMPs during project construction, no further mitigation is needed to protect downstream aquatic habitats.

To minimize the potential for inadvertent damage to wetlands and other waters, **MM 4.4.1** requires that exclusionary fencing be installed at the outer edge of the construction area where it abuts or approaches wetlands and other waters of the U.S. and State. The fencing shall be installed under the direction of a qualified biologist and shall be maintained throughout the construction period.

With implementation of BMPs for erosion and sediment control and **MM 4.4.1,** impacts to wetlands and other waters would be less than significant.

***Impacts to Montane Riparian Habitat***

On May 10, 2019, CDFW provided written comments regarding the proposed project and stated that specific mitigation measures for the loss of montane riparian habitat should be identified in the IS/MND.

As noted above, montane riparian habitat is located in areas adjacent to the perennial creek and in the drainage on the east side of Cedar Street. The project has since been redesigned to avoid filling this area (see **Figure 2**).

Depending on final project design, construction activities adjacent to Cedar Street could result in temporary and/or permanent impacts to montane riparian habitat. **MM 4.4.1** requires that exclusionary fencing be installed around montane riparian habitat. **MM 4.4.2** states that removal of plant root systems shall be limited to the extent necessary for construction/installation of project components. Outside of the development footprint, removal of native plants shall be achieved by pruning them at ground level, or crushing them with heavy equipment; the root systems shall be left in place. In the event that montane riparian habitat is disturbed during construction, **MM 4.4.3** requires a planting plan to be implemented to offset the temporary and permanent loss of riparian habitat. With implementation of **MM 4.4.1, MM 4.4.2,** and **MM 4.4.3,** impacts to montane riparian habitat would be less than significant.

***Loss of Perennial Grassland***

The proposed project would result in the permanent removal of grassland habitat to accommodate the proposed improvements. This community is not considered sensitive, and no mitigation for the loss of perennial grassland is required.

***Loss of Wildlife Habitat***

Plant communities in the project site provide potential shelter, breeding habitat, and foraging habitat for various animals including birds, squirrels, skunks, rodents, snakes, and lizards. Project construction would result in the conversion of the 6.8-acre development site to urban habitat. In addition to direct impacts, project implementation would result in temporary impacts to wildlife throughout the construction period due to increased human activity, increased noise levels, and temporary loss of vegetation that may provide food and shelter for wildlife.

Habitats on the project site are already severely fragmented and subject to on-going human activity. Given the location and scale of the proposed project as well as the mitigation measures noted above, impacts on wildlife habitat would be less than significant.

***Potential Impacts from Invasive Weeds***

The introduction and spread of noxious weeds during construction activities has the potential to adversely affect critical habitat and natural communities. Each noxious weed identified by the California Department of Agriculture receives a rating which reflects the importance of the pest, the likelihood that eradication or control efforts would be successful and the present distribution of the pest within the state. Below is a description of ratings categories that apply to the project area:

**Category A.** A pest of known economic or environmental detriment that is either not known to be established in California or is present in a limited distribution that allows for the possibility of eradication or successful containment. A-rated pests are prohibited from entering the state because they have been determined to be detrimental to agriculture.

**Category B.** A pest of known economic or environmental detriment and, if present in California, it is of limited distribution. B-rated pests are eligible to enter the state if the receiving county has agreed to accept them.

**Category C.** A pest of known economic or environmental detriment and, if present in California, it is usually widespread. C-rated organisms are eligible to enter the state as long as the commodities with which they are associated conform to pest cleanliness standards when found in nursery stock shipments.

Six noxious weed species were observed in the project area during the botanical field surveys:

| | |
|---|---|
| B-Rated Weeds: | Canadian thistle, Dyer's-woad, quack grass |
| C-Rated Weeds: | Yellow star-thistle, Scotch broom, Klamath weed |

Noxious weeds observed in the project area are of widespread distribution in the County, and further spread of these weeds is not anticipated. However, other noxious weeds could be introduced into the project area during construction if unwashed construction vehicles are not properly washed before entering the project site.

Soil import/export and use of certain erosion-control materials such as straw can also result in the spread of noxious weeds. As required by **MM 4.4.4,** the potential for introduction and spread of noxious weeds can be avoided/minimized by using only certified weed-free erosion control materials, mulch, and seed; limiting any import or export of fill material to material that is known to be weed free; and requiring the construction contractor to thoroughly wash all construction vehicles and equipment at a commercial wash facility before entering the job site. Implementation of **MM 4.4.4** reduces potential impacts related to the introduction and spread of noxious weeds to a less-than-significant level.

Compliance with the conditions of resource-agency permits, use of BMPs for spill prevention and erosion control, and implementation of **MM 4.4.1** through **MM 4.4.4** would reduce the project's potential impacts on natural communities to a less-than-significant level.

**Question D**

Wildlife nursery sites in the project vicinity may include deer fawning grounds, fish spawning habitats, bird nesting habitats. According to the City's Open Space/Conservation Element of the General Plan, the southernmost extent of the Planning Area near the Sacramento River is recognized as a critical winter range for black-tail deer. This area is on the west side of I-5, approximately one mile south of

the project site. The closest fawning grounds to the project site are approximately one mile east of the project site and would not be impacted. The Open Space and Conservation Element also states that streams and other surface water resources in the planning area that support resident fisheries include the Sacramento River, Lake Siskiyou, Wagon Creek, Big Springs Creek, and their tributaries.

Due to existing barriers in the project area (i.e., I-5 immediately west of the project site, and urban development south and east of the project site), the project site has a low potential to serve as an important nursery site or wildlife corridor. Fish are not known or expected to use the perennial stream in proposed Parcel B, north of the development site; in any case, project development would not affect access to the stream by fish or other aquatic species. Although security fencing would be installed around the proposed school, wildlife passage would remain along the perennial stream and elsewhere on proposed Parcel B.

The project area is located within the Pacific Flyway, and it is possible that migratory birds could nest in or adjacent to the project area. As required by **MM 4.4.5**, the potential for adversely affecting nesting birds can be greatly minimized by removing vegetation and conducting construction activities either before February 1 or after August 31. If construction occurs during the bird nesting season, a nesting survey would be conducted within one week prior to removal of vegetation and/or the start of construction.

If active nests are found in the project area, the City would consult with the CDFW and USFWS to determine what actions are required to comply with the Migratory Bird Treaty Act and California Fish and Game Code §3503. Compliance measures may include, but are not limited to, exclusion buffers, sound-attenuation measures, seasonal work closures based on the known biology and life history of the species identified in the survey, as well as ongoing monitoring by biologists.

Therefore, because construction activities that may impede wildlife movement would cease upon completion of project; Parcel B would be retained as open space and continue to provide wildlife passage post-construction; and **MM 4.4.5** would reduce the potential for adversely affecting nesting birds, the proposed project would have a less-than-significant impact on the movement of any migratory fish or wildlife species and would not significantly impact migratory wildlife corridors or native wildlife nursery sites.

**Question E**

Chapter 5 (Open Space and Conservation Element) of the City's General Plan includes objectives and programs related to the conservation of natural resources. **MM 4.4.1** through **MM 4.4.5** are included to ensure consistency with the General Plan. Chapter 12.10 (City Tree Ordinance) of the City's Municipal Code includes provisions for the control, management, conservation, planting, and enhancement of trees. The Tree Ordinance applies only within commercial and industrial General Plan designations. The City's Director of Public Works has the responsibility to approve plans for public utilities that have the potential to damage street trees. Because the proposed project would not require the removal of any street trees, there would be no conflict with existing City policies or ordinances.

**Question F**

A Habitat Conservation Plan (HCP) is a federal planning document that is prepared pursuant to Section 10 of the Federal Endangered Species Act (FESA) when a project results in the "take" of threatened or endangered wildlife. Regional HCPs address the "take" of listed species at a broader scale to avoid the need for project-by-project permitting. A Natural Community Conservation Plan (NCCP) is a state planning document administered by CDFW. There are no HCPs, NCCPs or other habitat conservation plans that apply to the proposed project. Therefore, there would be no impact.

## CUMULATIVE IMPACTS

Cumulative projects in the vicinity of the project area, including growth resulting from build-out of the City's and County's General Plans, are anticipated to permanently remove plant and wildlife resources. Continued conversion of existing open space to urban development may result in the loss of sensitive plant and wildlife species native to the region, habitats for such species, wetlands, wildlife migration corridors, and nursery sites. The conversion of plant and wildlife habitat on a regional level as a result of cumulative development would potentially result in a regionally significant cumulative impact on special-status species and their habitats.

Implementation of BMPs for erosion and sediment control, and implementation of **MM 4.4.1** through **MM 4.4.5** would avoid, reduce, or mitigate potential impacts to special-status species and sensitive habitats. With these measures, the proposed project's contribution to cumulative regional impacts to biological resources would be less than significant.

## MITIGATION

**MM 4.4.1** Prior to commencement of any earth disturbance (e.g., clearing, grading, trenching, etc.), exclusionary fencing shall be installed around wetlands, other waters of the U.S. and State, and montane riparian habitats. Fencing locations shall be determined by a qualified biologist in consultation with City staff. No construction activities (e.g., clearing, grading, trenching, etc.), including vehicle parking and materials stockpiling, shall occur within the fenced areas. The exclusionary fencing shall be periodically inspected by a qualified biologist throughout project construction to ensure the fencing is properly maintained. The fencing shall be removed upon project completion.

**MM 4.4.2** To promote regeneration of plants from their root systems, removal of plant root systems shall be limited to the extent necessary for construction/installation of project components. Outside of the development footprint, removal of native plants shall be achieved by pruning them at ground level, or crushing them with heavy equipment; the root systems shall be left in place.

**MM 4.4.3** If the final project design would result in permanent impacts to riparian habitat, the applicant shall develop a planting plan describing how impacts would be offset. The planting plan shall be submitted to the City and California Department of Fish and Wildlife for review and approval prior to any earth disturbance that could impact riparian habitat.

Riparian habitat permanently disturbed shall be replaced onsite at a 3:1 ratio. Replacement vegetation shall be native riparian species known to occur in the project area. The planting plan shall include the following information:

a. Required qualifications and experience of individuals performing the revegetation work.

b. Methods to be used to revegetate the impacted areas (e.g., soil preparation, seeding, planting, etc.).

c. An implementation schedule.

d. Criteria and measures to be used to determine success of revegetated areas.

e. Monitoring methods and reporting requirements.

f. Remedial measures to be used to ensure the success of revegetation.

g. Other pertinent data to ensure successful revegetation of riparian habitat.

**MM 4.4.4** The potential for introduction and spread of noxious weeds shall be avoided/minimized by:

a. Using only certified weed-free erosion control materials, mulch, and seed.

b. Limiting any import or export of fill material to material that is known to be weed free.

c. Requiring the construction contractor to thoroughly wash all equipment at a commercial wash facility prior to entering the job site and upon leaving the job site.

**MM 4.4.5** In order to avoid impacts to nesting migratory birds and/or raptors protected under the federal Migratory Bird Treaty Act and California Fish and Game Code §3503 and §3503.5, including their nests and eggs, one of the following shall be implemented:

a. Vegetation removal and other ground-disturbance activities associated with construction shall occur between September 1 and January 31 when birds are not nesting; or

b. If vegetation removal or ground disturbance activities occur during the nesting season, a pre-construction nesting survey shall be conducted by a qualified biologist to identify active nests in and adjacent to the work area.

Surveys shall begin prior to sunrise and continue until vegetation and nests have been sufficiently observed. The survey shall take into account acoustic impacts and line-of-sight disturbances occurring as a result of the project in order to determine a sufficient survey radius to avoid nesting birds. At a minimum, the survey report shall include a description of the area surveyed, date and time of the survey, ambient conditions, bird species observed in the area, a description of any active nests observed, any evidence of breeding behaviors (e.g., courtship, carrying nest materials or food, etc.), and a description of any outstanding conditions that may have impacted the survey results (e.g., weather conditions, excess noise, the presence of predators, etc.).

The results of the survey shall be submitted to the CDFW upon completion. The survey shall be conducted no more than one week prior to the initiation of construction. If construction activities are delayed or suspended for more than one week after the pre-construction survey, the site shall be resurveyed.

If active nests are found, the applicant shall consult with CDFW and the USFWS regarding appropriate action to comply with the Migratory Bird Treaty Act and California Fish and Game Code §3503. Compliance measures may include, but are not limited to, exclusion buffers, sound-attenuation measures, seasonal work closures based on the known biology and life history of the species identified in the survey, as well as ongoing monitoring by biologists.

## DOCUMENTATION


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**Williams, P. H., R. W. Thorp, L. L. Richardson, and S. R. Colla**. 2014. Bumble bees of North America: An identification guide. Princeton University Press, Princeton.

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**Xerces Society for Invertebrate Conservation, Defenders of Wildlife, and Center for Food Safety (Xerces Society).** 2018. A Petition to the State of California Fish and Game Commission to List the Crotch bumble bee (Bombus crotchii), Franklin's bumble bee (Bombus franklini), Suckley cuckoo bumble bee (Bombus suckleyi), and western bumble bee (Bombus occidentalis occidentalis) as Endangered under the California Endangered Species Act. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=161902&inline. Accessed July 2020.

## 4.5 CULTURAL RESOURCES

Would the project:

| Issues and Supporting Evidence | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| 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. Disturb any human remains, including those interred outside of dedicated cemeteries? | ☐ | ☒ | ☐ | ☐ |

### REGULATORY CONTEXT

#### FEDERAL

**Section 106 of the National Historic Preservation Act (NHPA)**

Section 106 of the NHPA and its implementing regulations require federal agencies to take into account the effects of their activities and programs on historic properties. A historic property is any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in the National Register of Historic Places (NRHP), including artifacts, records, and material remains related to such a property (NHPA Sec. 301[5]). A resource is considered eligible for listing in the NRHP if it meets criteria defined in CFR Title 36, §60.4. Section 106 applies to projects undertaken by federal agencies or funded by a federal agency.

## STATE

### California Environmental Quality Act (CEQA)

CEQA requires that projects financed by or requiring the discretionary approval of public agencies in California be evaluated to determine potential adverse effects on historical and archaeological resources (California Code of Regulations [CCR], §15064.5). Historical resources are defined as buildings, sites, structures, or objects, each of which may have historical, architectural, archaeological, cultural, or scientific importance. Pursuant to §15064.5 of the CCR a property may qualify as a historical resource if it meets any of the following criteria:

a. The resource is listed in or determined eligible for listing in the California Register of Historical Resources (CRHR).

b. The resource is included in a local register of historic resources, as defined in §5020.1(k) of the Public Resources Code (PRC), or is identified as significant in a historical resources survey that meets the requirements of §5024.1(g) of the PRC (unless the preponderance of evidence demonstrates that the resource is not historically or culturally significant).

c. The lead agency determines that the resource may be a historical resource as defined in PRC §5020.1(j), or §5024.1, or may be significant as supported by substantial evidence in light of the whole record. Pursuant to PRC §5024.1, a resource may be eligible for inclusion in the CRHR if it:

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- Is associated with the lives of persons important in our past;
- Embodies the distinctive characteristics of a type, period, region, or method of construction, represents the work of an important creative individual, or possesses high artistic values; or
- Has yielded, or may be likely to yield, information important in prehistory or history.

Resources must retain integrity to be eligible for listing on the CRHR. Resources that are listed in or formally determined eligible for listing in the NRHP are included in the CRHR, and thus are significant historical resources for the purposes of CEQA (PRC §5024.1(d)(1)). A unique archaeological resource means an artifact, object, or site that meets any of the following criteria:

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

## LOCAL

### City of Mt. Shasta

The City's General Plan includes the following Goals, Policies, and Implementation Measures (IMs) that apply to the proposed project:

| **Open Space and Conservation Element** | | |
|---|---|---|
| **Goals** | OC-8 | Preserve areas of significant cultural resources. |
| **Policies** | OC-8.1 | Ensure that appropriate measures are taken concerning protection or study of significant cultural resources. |

| | | |
|---|---|---|
| **IMs** | OC-8.1(a) | When projects are proposed on lands identified as having High Cultural Resource Sensitivity, the application shall be accompanied by a Cultural Resources Reconnaissance and Archival Report conducted and compiled by a qualified archaeologist. If there is the likelihood that cultural resources are present on the site, the City may require field study to determine the location, potential for disturbance, and scope of mitigation. |
| | OC-8.1(c) | The scope of mitigation shall conform to the requirements of the California Environmental Quality Act with an emphasis on avoiding, if feasible, disturbance of the cultural resource. Avoidance may be accomplished by capping the site, if appropriate. |
| | OC-8.1(d) | When approving construction projects, the City shall incorporate the following mitigation measure, or a similar measure that would fulfill the intent: Should any cultural resources, such as structural features, unusual amounts of bone or shell, artifacts, or architectural remains be encountered during development activities, work shall be suspended and the City Planning Department shall be immediately notified. At that time, the City will coordinate any necessary investigation of the discovery with an appropriate specialist (e.g., archaeologist or architectural historian). The project proponent shall be required to implement mitigation necessary for the protection of cultural resources.<br><br>The City and the project applicant shall consider mitigation recommendations presented by a qualified archeologist for any unanticipated discoveries. The City and the project applicant shall consult and agree upon implementation of a measure or measures that the City and project applicant deem feasible and appropriate. Such measures may include avoidance, preservation in place, excavation, documentation, curation, data recovery, or other appropriate measures. |
| | OC-8.1(e) | When approving construction projects, the City shall incorporate the following mitigation measure, or a similar measure that would fulfill the intent: If human remains are discovered, all work must stop in the immediate vicinity of the find, and the County Coroner must be notified, according to Section 5097.98 of the State Public Resources Code and Section 7050.5 of California's Health and Safety Code. If the remains are determined to be Native American, the coroner will notify the Native American Heritage Commission, and the procedures outlined in CEQA Section 15064.5(d) and (e) shall be followed. |

## DISCUSSION OF IMPACTS

### Questions A and B

***Also see discussion in Section 4.18 (Tribal Cultural Resources)***

An Archaeological/Historical Survey Report for the proposed project was prepared by John Furry, Cultural Resource Specialties, in November 2018. The study included a records search, Native American consultation, and field evaluation. The records search included review of records at the Northeast Information Center of the California Historical Resources Information System (NEIC); the National Register of Historic Places (NRHP), California Register of Historical Resources, California Historical Landmarks, California Inventory of Historic Resources, California Points of Historic Interest, and Directory of Properties in the Historic Property Data Files for Siskiyou County.

***Area of Potential Effects (APE)***

The APE includes all areas in which improvements would occur, and areas for staging and temporary construction access, as well as sufficient area for construction. The horizontal APE includes the

entirety of the project site. The vertical APE (i.e., associated with the potential for buried cultural resources) is based upon the existing topography, geological history, site development history, and the engineering design of the project. The vertical APE of a project is related to the proposed excavations associated with the project. It is anticipated that the maximum depth of excavation will not exceed six feet.

***Records Search***

In response to a request by the applicant, the NEIC conducted a records search by examining official maps and records for archaeological sites and surveys in Siskiyou County. NEIC also reviewed the National Register of Historic Places, California Register of Historical Resources, California Points of Historical Interest, California Inventory of Historic Resources, California Historical Landmarks, Gold Districts of California-Bulletin 193, Directory of Properties in the Historic Property Data File for Siskiyou County, Handbook of North American Indians, Vol. 8, California, and Historic Spots in California.

The NEIC stated that the project site has not been previously surveyed for cultural resources, and no historic or prehistoric resources have been recorded in or adjacent to the project site. Four prehistoric sites and 11 historic resources have been recorded within a one-mile radius of the project area.

***Field Survey***

Archaeological fieldwork was completed by John Furry on July 8, 2018, during which the entire APE was surveyed to identify cultural or historical resources that would be potentially affected by the proposed project. One historical-age structure, an old barn, was identified in the southern area of the site; however, the Cultural Resource Specialties report states that the barn does not meet the criteria for inclusion on the NRHP. No other archaeological or historical resources were identified during the field survey.

***Native American Consultation***

In response to ENPLAN's request for information, on January 28, 2019, the Native American Heritage Commission (NAHC) conducted a search of its Sacred Lands File; the search did not reveal any known Native American sacred sites or cultural resources in the project area. The NAHC also provided contact information for several Native American representatives and organizations, who were contacted by the City on February 4, 2019, with a request to provide comments on the proposed project. No comments were submitted by any of the Tribes in response to the City's February 4, 2019, letter.

On April 30, 2019, the City received an email from Mark Miyoshi, Tribal Historic Preservation Officer of the Winnemem Wintu Tribe, and provided additional information about the project to Mr. Miyoshi.

Mr. Miyoshi provided written comments to the City on June 11, 2019, and stated that the Winnemem Wintu Tribe does not have known tribal cultural resources on the project site, but there are known tribal resources in the vicinity, and it is likely that undiscovered tribal artifacts are present in the area. Mr. Miyoshi requested that a Winnemem Wintu monitor be on-site during ground-disturbing activities and that the monitor be paid by the project proponent or contractor. No other comments or concerns were reported by any Native American representative or organization.

***Conclusions***

The Cultural Resource Specialties report concludes that the proposed project would not adversely affect historical or archeological resources.

As stated in Section 4.7 (Geology and Soils), there is one soil type in the project site: Deetz gravelly loamy sand, 5 to 15 percent slopes. This soil type dates to the late Holocene (4,000-2,000 BP). Late

Holocene-age soils are considered to have a moderate to high potential for buried cultural resources (Meyer 2013). **MM 4.5.1** addresses the inadvertent discovery of cultural resources.

To address Native American concerns, **MM 4.5.2** is included to require that a minimum of one week in advance of any ground-disturbing activities, the Tribal Historic Preservation Officer of the Winnemem Wintu Tribe shall be notified and offered the opportunity for a Native American representative to voluntarily monitor ground-disturbing activities.

In accordance with **MM 4.5.3**, in the event that cultural resources or human remains of Native American descent are identified during earth disturbance, the Winnemem Wintu Tribe shall be requested to provide a Native American monitor to observe subsequent earth-disturbing construction activities on potentially sensitive lands. Costs associated with such Native American monitoring shall be the responsibility of the Developer. Implementation of **MM 4.5.1** through **MM 4.5.3** ensures that the project's impacts on historical and archaeological resources would be less than significant.

**Question C**

The project area does not include any known cemeteries, burial sites, or human remains. However, it is possible human remains may be unearthed during construction activities. **Mitigation Measure 4.5.4** ensures if human remains are discovered, there shall be no further excavation or disturbance of the site until the County coroner has been contacted and has made the necessary findings as to origin and disposition in accordance with Section 15064.5(e) of the CEQA Guidelines. Therefore, impacts are less than significant.

## CUMULATIVE IMPACTS

Cumulative projects in the vicinity of the project area have the potential to impact cultural resources. Archaeological and historic resources are afforded special legal protections designed to reduce the cumulative effects of development. Cumulative projects and the proposed project are subject to the protection of cultural resources afforded by the CEQA Guidelines Section 15064.5 and related provisions of the PRC. In addition, projects with federal involvement would be subject to Section 106 of the NHPA. Given the non-renewable nature of cultural resources, any impact to protected sites could be considered cumulatively considerable. As discussed above, no archaeological or historic resources would be impacted by the proposed project with implementation of **MM 4.5.1 through MM 4.5.4**, and the proposed project's cumulative impact to cultural resources is less than significant.

## MITIGATION

**MM 4.5.1** In the event of any inadvertent discovery of cultural resources (i.e., burnt animal bone, midden soils, projectile points or other humanly-modified lithics, historic artifacts, etc.), all work within 50 feet of the find shall be halted until a professional archaeologist can evaluate the significance of the find in accordance with PRC §21083.2(g) and §21084.1, and CEQA Guidelines §15064.5(a). If any find is determined to be significant by the archaeologist, the City shall meet with the archaeologist to determine the appropriate course of action. If necessary, a Treatment Plan prepared by an archeologist outlining recovery of the resource, analysis, and reporting of the find shall be prepared. The Treatment Plan shall be reviewed and approved by the City prior to resuming construction.

**MM 4.5.2** A minimum of one week in advance of any ground-disturbing activities (e.g., tree removal, clearing, grading, trenching, etc.), the Tribal Historic Preservation Officer of the Winnemem Wintu Tribe shall be notified and offered the opportunity for a Native American representative to voluntarily monitor ground-disturbing activities.

**MM 4.5.3** In the event that cultural resources or human remains of Native American descent are identified during earth disturbance, the Winnemem Wintu Tribe shall be requested to provide a Native American monitor to observe subsequent earth-disturbing construction activities on potentially sensitive lands. Costs associated with such Native American monitoring shall be the responsibility of the Developer.

**MM 4.5.4** In the event that human remains are encountered during construction activities, the City shall comply with §15064.5 (e) (1) of the CEQA Guidelines and PRC §7050.5. All project-related ground disturbance within 100 feet of the find shall be halted until the County coroner has been notified. If the coroner determines that the remains are Native American, the coroner will notify the NAHC to identify the most likely descendants of the deceased Native Americans. Project-related ground disturbance in the vicinity of the find shall not resume until the process detailed in §15064.5 (e) has been completed.

### DOCUMENTATION

**City of Mt. Shasta.** 2007. Mt. Shasta General Plan. https://mtshastaca.gov/?s=general+plan. Accessed December 2019.

**Furry, John. Cultural Resource Specialties**. 2018. Archaeological/Historical Survey of the Golden Eagle Charter School Property in the City of Mt. Shasta, Siskiyou County, California. On file at NEIC.

**Meyer, J.** 2013. A Geoarchaeological Overview and Assessment of Northeast California: Cultural Resources Inventory of Caltrans District 2 Rural Conventional Highways: Lassen, Modoc, Plumas, Shasta, Siskiyou, Tehama, and Trinity Counties, Vols. 1-2. Far Western Anthropological Research Group, Inc. Report on file at Caltrans District 2 Office, Redding.

## 4.6 ENERGY

Would the Project:

| Issues and Supporting Evidence | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation? | ☐ | ☒ | ☐ | ☐ |
| b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency? | ☐ | ☐ | ☐ | ☒ |

### REGULATORY CONTEXT

#### FEDERAL

There are no federal regulations pertaining to energy that apply to the proposed project.

#### STATE

**Renewables Portfolio Standard**

In 2002, SB 1078 was passed to establish the State's Renewables Portfolio Standard (RPS) Program, with the goal of increasing the amount of electricity generated and sold to retail customers from eligible

renewable energy resources. The initial goal was to increase the percentage of renewable energy in the state's electricity mix to 20 percent of retail sales by 2017. The Renewables Portfolio Standard has been subsequently amended by the following actions:

| Date | Legislation/Plan | Action |
|---|---|---|
| May 3, 2003 | Energy Action Plan I | Accelerated the 20 percent renewable energy target to 2010. |
| September 21, 2005 | Energy Action Plan II | Recommended a goal of 33 percent renewable energy by 2020. |
| September 26, 2006 | SB 107 | Codified the 20 percent renewable energy by 2010 target set forth in the Energy Action Plan I. |
| November 17, 2008 | EO S-14-08 (Schwarzenegger) | Required 33 percent renewable energy by 2020 as recommended in the Energy Action Plan II. |
| September 15, 2009 | EO S-21-09 (Schwarzenegger) | Directed the CARB to adopt regulations by July 31, 2010, consistent with the 33 percent renewable energy by 2020 target set forth in EO S-14-08. |
| April 12, 2011 | Senate Bill X1-2 | Codified the 33 percent renewable energy by 2020 target set forth in EO S-14-08; this new target applied to all electricity retailers in the state, including publicly owned utilities, investor-owned utilities, electricity service providers, and community choice aggregators. |
| October 7, 2015 | SB 350 | Codified a target of 50 percent renewable energy by 2030. Also requires California utilities to develop integrated resource plans that incorporate a GHG emission reduction planning component beginning January 1, 2019. |
| September 10, 2018 | SB 100 | Codified targets of 60 percent renewable energy by 2030 and 100 percent renewable energy by 2045. |

**California Building Standards Code**

Title 24 of the CCR, also known as the California Building Standards Code (CBSC), is based on the International Building Code (IBC) used widely throughout the country. The CBSC has been modified for California conditions to include more detailed and/or more stringent regulations. The CBSC consists of 13 parts, including the California Building Code, Energy Code, and Green Building Standards Code.

***California Energy Code***

The California Energy Code (Part 6 of the CBSC), also known as the State's Energy Efficiency Standards, was established by the California Building Standards Commission in 1978 with a goal of reducing California's energy consumption for residential and nonresidential buildings. The Standards include mandatory measures related to building envelopes, mechanical systems, indoor and outdoor lighting, and electrical power distribution. For all newly constructed nonresidential buildings over 10,000 square feet, building commissioning must be included in the design and construction process to verify that the building's energy systems and components meet State requirements for energy efficiency. The Standards are periodically updated by the California Energy Commission (CEC).

The 2019 update to the Energy Efficiency Standards became effective on January 1, 2020. The Initial Study prepared for the updated Standards estimates that implementation of the 2019 Standards will reduce the energy use of typical new residential buildings by about 7 percent and nonresidential buildings by about 31 percent compared to buildings constructed under the current standards. In addition, the 2019 Standards are projected to decrease water consumption by approximately 246 million gallons per year (GPY), reduce statewide annual electricity consumption by about 650 gigawatt-hours per year, and reduce statewide natural gas consumption by 9.8 million therms per year. Further, there could potentially be a net reduction in

the emissions of nitrous oxide by roughly 100 metric tons per year, sulfur oxides by 0.27 metric tons per year, carbon monoxide by 28 metric tons per year, and ($PM_{2.5}$) by 3.36 metric tons per year. The 2019 Standards are also anticipated to reduce growth in statewide GHG emissions by 230,000 metric tons of carbon dioxide (CO2e) per year.

***California Green Building Standards Code***

In 2007, the California Building Standards Commission (CBSC) developed green building standards in an effort to meet the goals established by the Global Warming Solutions Act of 2006. These standards are referred to as the CALGreen Code and are included as Part 11 of the CBSC. The CALGreen Code, requires new residential and commercial buildings to comply with mandatory measures related to planning and design, energy efficiency, water efficiency/ conservation, material conservation, resource efficiency, and environmental quality. The most recent update to the CALGreen Code became effective January 1, 2020. Although it was adopted as part of the State's efforts to reduce GHG emissions, the CALGreen Code has the added benefit of reducing energy consumption from residential and nonresidential buildings that are subject to the Code.

**California Environmental Quality Act (CEQA)**

Section 15126.2(b) of the CEQA Guidelines states that if analysis of a project's energy use reveals that the project may result in significant environmental effects due to wasteful, inefficient, or unnecessary use of energy, or wasteful use of energy resources, the effects must be mitigated. The Guidelines provide suggestions of topics that may be included in the energy analysis, including identification of energy supplies that would serve the project and energy use for all project phases and components. In addition to building code compliance, other relevant considerations may include the project's size, location, orientation, equipment use and any renewable energy features that could be incorporated into the project. The energy use analysis may be included in related analyses of air quality, GHG emissions, transportation, or utilities at the discretion of the lead agency.

## LOCAL

**City of Mt. Shasta**

The City's General Plan includes the following Goals, Policies, and Implementation Measures (IMs) that apply to the proposed project:

| **Open Space and Conservation Element** | | |
|---|---|---|
| **Goals** | OC-12 | Strive to conserve energy resources. |
| | OC-13 | Encourage the development of sustainable energy sources. |
| **Policies** | OC-13.1 | Work with individuals and companies to correctly site, connect and operate alternative energy systems such as wind, solar, hydro, and other sustainable sources. |
| **IMs** | OC-12.1(a) | Where feasible, require all new buildings and subdivisions to be designed and oriented in such a way as to take maximum advantage of the sun and winds for natural heating and cooling. |
| | OC-12.1(b) | In addition to enforcing the energy efficiency requirements of state law and the Uniform Building Code, encourage the incorporation of additional energy conservation techniques, such as innovation building construction, high-efficiency HVAC systems, etc. in new construction. |
| | OC-13.1(a) | Support the development of alternative sources of energy such as roof-mounted solar panels, fuel cells or new technology. |

## DISCUSSION OF IMPACTS

### Question A

Also see discussion in Section 4.8 (Greenhouse Gas Emissions).

***Construction-Related Energy Use***

Energy consumption during construction would occur from diesel and gasoline used for construction equipment, haul trucks, and construction workers travelling to and from the work site. In addition, electrical power would be used during certain phases of development. The use of electricity during construction would be minimal and would not be considered wasteful, inefficient, or unnecessary. Construction equipment would comply with regulations that restrict idling when not in use (see **MM 4.13.3**). Construction equipment must also comply with State regulations that require the use of fuel-efficient equipment. With implementation of **MM 4.13.3,** and compliance with existing State regulations that require the use of fuel-efficient equipment, impacts during construction would be less than significant.

***Operational Energy Use***

As stated in Section 4.3 under Questions A and B, project emissions were estimated using CalEEMod. CalEEMod reports a project's operational emissions based on all operational activities, including vehicle traffic, electricity usage in the buildings and for lighting in parking lots, water use, wastewater treatment, solid waste disposal, use of architectural coatings, etc. CalEEMod estimates electricity use for the proposed project at 207,687 kilowatt hours per year (kWh/yr) for the school and 17,383 kWh/yr for parking lot lighting (225,070 kWh/yr total). For comparison, according to a report published by the CPUC in 2015, *Comparative Analysis of Utility Services and Rates in California*, electric use for a single-family residence in California averages 557 kWh per month (6,684 kWh per year). The proposed project's energy use would be equivalent to ±34 single-family dwelling units.

As discussed under Regulatory Context above, the proposed project must comply with the CALGreen Code that was established to reduce the State's energy consumption and provide energy efficiency for residential and nonresidential buildings. The Code includes mandatory measures for planning and design, energy efficiency, water efficiency/conservation, material conservation, resource efficiency, and environmental quality.

In accordance with CALGreen Code §5.410 (Building Maintenance and Operation), building commissioning is required to verify that the building systems and components satisfy the project's requirements. Among other things, the commissioning process includes functional performance testing for heating, ventilation, air conditioning systems, and lighting controls in compliance with the State Energy Code. A final commissioning report is required to document compliance with the Code.

The project's operational energy-related impacts would be less than significant because the proposed project does not include any energy-intensive stationary sources or operational activities that would result in wasteful, inefficient, or unnecessary consumption of energy resources; construction documents would be reviewed by the City's Building Official to ensure that all State mandatory energy efficiency measures are implemented; and building commissioning would be required to verify compliance with applicable State codes.

### Question B

As stated under Regulatory Context above, the City's General Plan includes goals, policies, and implementation measures that conserve energy resources and encourage the development of sustainable energy sources. The State's Energy Efficiency standards require that newly constructed nonresidential buildings have an allocated solar zone that is free of obstructions and is not shaded. The solar zone identifies a suitable location for installation of photovoltaic (PV) solar panels or solar

water-heating (SWH) systems. In addition, the Energy Standards require that the construction documents depict a plan for connecting a PV and SWH system to the electrical or plumbing system of a building. For areas of the roof designated as a solar zone, the plans must also clearly indicate the structural design loads for roof dead load and roof live load.

GECS indicates that the school plans to install rooftop solar panels in the future when funding becomes available. In addition, as stated under Question A, the City's Building Official will review all construction documents to ensure that the proposed project implements the State's mandatory energy efficiency measures. Compliance with these measures will ensure that the proposed project does not conflict with or obstruct a State or local plan for renewable energy or energy efficiency; there would be no impact.

## CUMULATIVE IMPACTS

Completion of the proposed project and other potential cumulative projects in the region, including growth resulting from build-out of the City's General Plan, could result in potentially significant impacts due to the wasteful, inefficient, or unnecessary consumption of energy resources. However, as stated under Regulatory Context, all new development projects in the State are required to comply with the State's Energy Efficiency Standards (CALGreen Code). These regulations are intended to reduce the potential for cumulative impacts related to energy use and GHG emissions. The Initial Study prepared for the 2019 Energy Efficiency Standards estimates that implementation of the 2019 Standards will reduce statewide annual electricity consumption by about 653 gigawatt-hours per year, and natural gas consumption by 9.8 million therms per year.

In addition, on February 11, 2019, the Mt. Shasta City Council approved a contract with Johnson Controls to complete a City PV solar energy project that would provide the City with ±600 kW of solar PV capacity. The solar improvements will include a combination of ground-mounted and rooftop solar arrays at three locations in the City. The City's solar project will reduce the City's use of energy generated from fossil fuels.

Because all new development projects in the City will comply with the State's energy efficiency standards, the proposed project's cumulative impacts on energy resources would be less than significant.

## MITIGATION

Implementation of **MM 4.13.3.**

## DOCUMENTATION

**California Energy Commission.** 2019. 2019 Nonresidential Compliance Manual for the 2019 Building Energy Efficiency Standards. https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2019-building-energy-efficiency. Accessed June 2020.

_____. 2018. Initial Study/Proposed Negative Declaration for the 2019 Building Energy Efficiency Standards for Residential and Nonresidential Buildings. https://www.energy.ca.gov/title24/2019standards/rulemaking/documents/. Accessed February 2019.

_____. 2018. Resolution Adopting Negative Declaration and Proposed Regulations (2019 Building Energy Efficiency Standards). https://www.energy.ca.gov/business_meetings/2018_packets/2018-05-09/Item_02.pdf. Accessed February 2019.

**City of Mt. Shasta.** 2007. Mt. Shasta General Plan. https://mtshastaca.gov/?s=general+plan. Accessed December 2019.

**Commissioning Collaborative.** 2006. California Commissioning Guide: New Buildings. https://www.cacx.org/resources/documents/CA_Commissioning_Guide_New.pdf. Accessed December 2019.

# 4.7 GEOLOGY AND SOILS

Would the project:

| Issues and Supporting Evidence | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death, involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. | ☐ | ☐ | ☐ | ☒ |
| 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 Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect 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? | ☐ | ☐ | ☐ | ☒ |
| f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | ☐ | ☒ | ☐ | ☐ |

## REGULATORY CONTEXT

### FEDERAL

#### National Earthquake Hazards Reduction Act

The National Earthquake Hazards Reduction (NEHR) Act was passed in 1977 to reduce the risks to life and property from future earthquakes in the United States. The Act established the National Earthquake Hazards Reduction Program, which was most recently amended in 2004. The Federal Emergency Management Agency (FEMA) is designated as the lead agency of the program. Other NEHR Act agencies include the National Institute of Standards and Technology, National Science Foundation, and the U.S. Geological Survey (USGS).

## STATE

### California Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act (PRC §2621 *et seq.*) was passed in 1972 to reduce the risk to life and property from surface faulting in California. The Act prohibits the siting of most structures intended for human occupancy on the surface trace of active faults. Before a project can be permitted in a designated Alquist-Priolo Fault Study Zone, a geologic investigation must be prepared to demonstrate that proposed buildings would not be constructed across active faults.

### California Seismic Hazards Mapping Act

The California Seismic Hazards Mapping Act (SHMA) of 1990 (PRC §2690–2699.6) addresses non-surface fault rupture earthquake hazards, including strong ground shaking, liquefaction, and seismically induced landslides. The SHMA also addresses expansive soils, settlement, and slope stability. Under the SHMA, cities and counties may withhold development permits for sites within seismic hazard areas until geologic/geotechnical investigations have been completed and measures to reduce potential damage have been incorporated into development plans.

### California Building Standards Code

As discussed in Section 4.6, the CBSC consists of 13 parts, including the California Building Code, Energy Code, Fire Code, and Green Building Standards Code. Part 2 of the CBSC is the California Building Code (CBC) that includes standards for structural design, excavation, grading, seismic design, drainage, and erosion control.

## LOCAL

### City of Mt. Shasta

The City's General Plan includes the following Goals, Policies, and Implementation Measures (IMs) that apply to the proposed project:

| | | |
|---|---|---|
| **Safety Element** | | |
| **Goal** | SF-2 | Assure life and property are adequately protected from seismic hazards in the area. |
| **Policy** | SF-2.1 | Avoid development in areas of steep slope and high erosion potential. |
| **IM** | SF-2.1(c) | Ensure that site development on steep slopes is designed to avoid creating areas that may be subject to slippage or movement from storm events. |
| **Open Space and Conservation Element** | | |
| **IM** | OC-8.1(f) | When approving construction projects, the City shall incorporate the following mitigation measures, or similar measures that would fulfill the intent: Should any potentially unique paleontological resources (fossils) be encountered during development activities, work shall be suspended and the City Planning Department shall be immediately notified. At that time, the City will coordinate any necessary investigation of the discovery with a qualified paleontologist. The project proponent shall be required to implement mitigation necessary for the protection of paleontological resources. The City and the project applicant shall consider the mitigation recommendations of the qualified paleontologist for unanticipated discoveries. The City and the project applicant shall consult and agree upon implementation of a measure or measures that the City and project applicant deem feasible and appropriate. Such measures may include avoidance, preservation in place, excavation, documentation, curation, data recovery, or other appropriate measures. |

## DISCUSSION OF IMPACTS

**Question A**

**i and ii)**

According to the Alquist-Priolo Earthquake Fault Zoning Map, there are no Alquist-Priolo Special Study Zones in the project area. The nearest Alquist-Priolo Special Study Zone is the Cedar Mountain Fault Zone, approximately 24 miles to the east. According to the California Department of Conservation (DOC), two potentially active unnamed faults are located northeast of the project area. One is a north-south trending fault running through the top of Mount Shasta; the other is an east-west trending fault that runs from the top of Mount Shasta to a point north of Black Butte.

Although the proposed project does not include any components that would result in rupture of an earthquake fault, according to the City's General Plan, the project area is potentially subject to ground shaking from faults located in eastern Siskiyou county and volcanic activity at Mount Shasta.

As stated under Regulatory Context above, the CBC provides minimum standards for building design and construction, including seismic design. It is the responsibility of the City's Building Official to ensure that buildings are designed in accordance with State regulations for seismic safety. Compliance with existing building code standards ensures that impacts are less than significant.

**iii)**

Liquefaction results from an applied stress on the soil, such as earthquake shaking or other sudden change in stress condition, and is primarily associated with saturated, cohesionless soil layers located close to the ground surface.

During liquefaction, soils lose strength, and ground failure may occur. Building foundations can sink, break apart or tilt, and gravity-fed pipelines can back up. This is most likely to occur in alluvial deposits (geologically recent, unconsolidated sediments), stream channel deposits, and glacial outwash deposits, especially when the groundwater table is high. As shown in **Table 4.7-1**, the soil type in the project site is prone to liquefaction.

In accordance with CBC Chapter 18 (Soils and Foundations), a geotechnical report must be submitted with a building permit application for new construction. The geotechnical report must evaluate potential geologic and seismic hazards, including slope instability, liquefaction, total and differential settlement, and surface displacement due to faulting or seismically induced lateral spreading or lateral flow. The geotechnical report will include recommendations for foundation type and depths, structural systems, ground stabilization, and/or other measures applicable to soils and geological conditions in the project site.

It is the responsibility of the City's Building Official to ensure that recommendations included in the geotechnical report are incorporated into the building design. Implementation of recommendations in the geotechnical report will reduce potential impacts of seismic-related ground failure, including liquefaction, to a less-than-significant level.

**TABLE 4.7-1**
**Soil Type and Characteristics**

| Soil Name | Landform and Parent Material | Erosion Potential | Drainage | Surface Runoff | Permeability | Shrink-Swell Potential |
|---|---|---|---|---|---|---|
| Deetz gravelly loamy sand, 5 to 15 percent slopes (126) | Outwash fans; Glaciofluvial deposits derived from igneous rock | Moderate | Somewhat excessively drained | Very low | Rapid | Low |

*Source: U.S. Department of Agriculture, Natural Resources Conservation Service, 2019.*

**iv)**

According to the City's General Plan, there are a few steep, denuded slopes in various locations around the City where small landslides have occurred during heavy rainfall events. Earthwork that alters the shape of a slope or imposes new loads on an existing slope could increase the potential for landslides. However, the project site is relatively flat with little risk of landslides; therefore, impacts would be less than significant.

**Question B**

Construction of the proposed project would involve excavation, grading activities, and installation of project components, which would result in the temporary disturbance of soil and would expose disturbed areas to potential storm events. This could generate accelerated runoff, localized erosion, and sedimentation. In addition, construction activities could expose soil to wind erosion that could adversely affect on-site soils and the re-vegetation potential of the area.

As shown in **Table 4.7-1**, soils on the project site have a moderate potential for erosion. However, as discussed in Section 4.4 under Questions B and C, the Developer is required to develop and implement an effective SWPPP that includes BMPs to minimize erosion. Because BMPs for erosion and sediment control would be implemented in accordance with existing requirements, the potential for soil erosion and loss of top soil would be less than significant.

**Question C**

See discussion under Questions A and Question B above. Unstable soils consist of loose or soft deposits of sands, silts, and clays. Although soils in the project site have the potential to become unstable, a geotechnical report must be completed in accordance with CBC requirements to evaluate potential geologic and seismic hazards on the project site. The geotechnical report will include recommendations for building foundations, structural systems, ground stabilization, and/or other measures applicable to soils and geological conditions in the project site. Because the City's Building Official will ensure that recommendations included in the geotechnical report are incorporated into the building design, impacts would be less than significant.

**Question D**

Some soils have a potential to swell when they absorb water and shrink when they dry out. These expansive soils generally contain clays that expand when moisture is absorbed into the crystal structure. When these soils swell, the change in volume can exert significant pressure on loads that are upon them, such as buildings or underground utilities. As shown in **Table 4.7-1**, the soil in the project site has a low shrink-swell potential. The required geotechnical study will include site-specific engineering design measures and construction methods to ensure that impacts associated with expansive soils (if present) are less than significant.

**Question E**

The project does not propose the installation or use of alternative wastewater disposal systems. Therefore, there would be no impact.

**Question F**

As stated above, the project site includes one soil type: Deetz gravelly loamy sand, 5 to 15 percent slopes. According to Meyer's (2013) soil reference, this soil dates to the Late Holocene (4,000-2,000 BP). Late Holocene-age landforms are typically not old enough to contain paleontological resources; however, they may overlie older Pleistocene landforms that have a high potential to contain paleontological resources. Although there is no record of paleontological resources in the project area, and there are no unique geological features in the project site, there is always some potential for previously unknown paleontological resources to be encountered during site excavation. Implementation of **MM 4.7.1** would ensure that potential impacts to inadvertent discoveries of paleontological resources would be less than significant.

## CUMULATIVE IMPACTS

Completion of the proposed project and other potential cumulative projects in the region, including growth resulting from build-out of the City's General Plan, could result in increased erosion and soil hazards and could expose additional structures and people to seismic hazards. However, these impacts can be fully mitigated with implementation of construction-related erosion control programs and with the incorporation of standard seismic safety and engineering design measures; therefore, cumulative impacts are less than significant.

## MITIGATION

**MM 4.7.1** If paleontological resources (fossils) are discovered during construction, all work within 50 feet of the find shall be halted until a professional paleontologist can evaluate the significance of the find. If any find is determined to be significant by the paleontologist, the City shall meet with the paleontologist to determine the appropriate course of action. If necessary, a Treatment Plan prepared by a paleontologist outlining recovery of the resource, analysis, and reporting of the find shall be prepared. The Treatment Plan shall be reviewed and approved by the City prior to resuming construction.

## DOCUMENTATION


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# 4.8 GREENHOUSE GAS EMISSIONS

Would the project:

| Issues and Supporting Evidence | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| 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 gases? | ☐ | ☐ | ☐ | ☒ |

## REGULATORY CONTEXT

### FEDERAL

#### U.S. Environmental Protection Agency

On April 2, 2007, in *Massachusetts v. EPA,* 549 U.S. 497 (2007), the Supreme Court found that greenhouse gas emissions (GHGs) are air pollutants covered by the federal Clean Air Act (CAA). In reaching its decision, the Court also acknowledged that climate change is caused, in part, by human activities. The Supreme Court's ruling paved the way for the regulation of GHG emissions by the USEPA under the CAA. The USEPA has enacted regulations that address GHG emissions, including, but not limited to, mandatory GHG reporting requirements, carbon pollution standards for power plants, and air pollution standards for oil and natural gas.

### STATE

#### California Executive Order (EO) S-3-05

EO S-03-05 was signed by the Governor on June 1, 2005, and established the goal of reducing statewide GHG emissions to 2000 levels by 2010, to 1990 levels by 2020, and to 80 percent below 1990 levels by 2050.

#### Assembly Bill 32 (Global Warming Solutions Act of 2006)

The California Global Warming Solutions Act of 2006 (AB 32) established a statewide GHG emissions cap for 2020 based on 1990 emissions levels as set forth in EO S-3-05. As required by AB 32, CARB adopted the initial Climate Change Scoping Plan in 2008 that identified the State's strategy to achieve the 2020 GHG emissions limit via regulations, market-based mechanisms, and other actions. AB 32 requires that the Scoping Plan be updated every five years. CARB's first update to the Climate Change Scoping Plan (2014) addressed post-2020 goals and identified the need for a 2030 mid-term target to establish a continuum of actions to maintain and continue reductions, rather than only focusing on targets for 2020 or 2050. In December 2017, CARB adopted the second update to the Scoping Plan that includes strategies to achieve the 2030 mid-term target established by EO B-30-15 (discussed below).

#### Senate Bill 375 (Sustainable Communities and Climate Protection Act of 2008)

Under SB 375, the CARB sets regional targets for the reduction of GHG emissions from passenger vehicles and light duty trucks. Each Metropolitan Planning Organization (MPO) in the State, or Regional

Transportation Planning Agency for regions without a MPO, must include a Sustainable Communities Strategy in the applicable Regional Transportation Plan that demonstrates how the region will meet the GHG emissions reduction targets.

**Senate Bill 391**

SB 391, enacted in 2009, requires the California Transportation Plan to support an 80 percent reduction in GHG emissions below 1990 levels by 2050.

**Executive Order B-16-12**

EO B-16-12 calls for a GHG emissions reduction target of 80 percent below 1990 levels by 2050, specifically for transportation.

**California Executive Order B-30-15**

EO B-30-15 was signed by the Governor on April 29, 2015. It sets interim GHG targets of 40 percent below 1990 levels by 2030, to ensure California will meet its 2050 target set by EO S-3-05. It also calls for state agencies to continue to develop and implement GHG emission reduction programs in support of the reduction targets.

**Senate Bill 32/Assembly Bill 197**

These two bills were signed into legislation on September 8, 2016. As set forth in EO B-30-15, SB 32 requires CARB to reduce GHG emissions to 40 percent below the 1990 levels by 2030. AB 197 requires that GHG emissions reductions be achieved in a manner that benefits the State's most disadvantaged communities. AB 197 requires CARB to prioritize direct GHG emission reductions in a manner that benefits the state's most disadvantaged communities and to consider social costs when adopting regulations to reduce GHG emissions. AB 197 also provides more legislative oversight of CARB by adding two new legislatively appointed non-voting members to the CARB Board and limiting the term length of Board members to six years.

**Mobile Source Strategy**

CARB's Mobile Source Strategy, adopted in 2016, describes the State's strategy for containing air pollutant emissions from vehicles, and demonstrates how the State can simultaneously meet air quality standards, achieve GHG emission reduction targets, decrease health risks from transportation emissions, and reduce petroleum consumption over the next fifteen years.

**Senate Bill 210 (2019), Heavy-Duty Vehicle Inspection and Maintenance Program**

SB 210, signed by the Governor on September 20, 2019, recognizes that communities near highways and roads with high levels of truck traffic bear the burden of heavy-duty trucks that are not maintained. According to CARB, as of 2016, heavy-duty trucks operating in the State emitted nearly 60 percent of all $NO_X$ emissions from on-road mobile sources. Heavy-duty diesel trucks are also the largest source of diesel particulate matter emissions in the State.

Under the Heavy-Duty Vehicle Inspection and Maintenance Program, heavy-duty diesel trucks will have to pass a smog check to ensure vehicle emission controls are maintained in order to register or operate in California. Upon implementation of the Program, CARB must provide mechanisms for out-of-state owners of heavy-duty vehicles to establish and verify compliance with State regulations for heavy-duty diesel trucks prior to entering the State.

**Senate Bill 44 (2019), Medium- and Heavy-Duty Vehicles: Comprehensive Strategy**

SB 44 requires CARB to update the State's Mobile Source Strategy no later than January 1, 2021, to include a comprehensive strategy to reduce emissions from medium- and heavy-duty vehicles in order to meet federal ambient air quality standards and reduce GHG emissions from this sector. The Bill also requires CARB to establish emission reduction goals for 2030 and 2050 for medium- and heavy-duty vehicles.

**California Executive Order B-48-18**

EO B-48-18 was issued by the Governor in January 2018, calling for 5 million zero-emission vehicles (ZEVs) by 2030 and the installation of 250,000 electric vehicle chargers and 200 hydrogen fueling stations by 2025. The State's 2016 ZEV Action Plan outlines 200 specific actions that state agencies will take to continue advancing the ZEV market in California. The 2018 ZEV Action Plan refines the top priority actions.

**Renewables Portfolio Standard**

As discussed in Section 4.6 (Energy), the State's Renewables Portfolio Standard (RPS) Program was enacted to increase the amount of electricity generated and sold to retail customers from eligible renewable energy resources. The initial goal was to increase the percentage of renewable energy in the state's electricity mix to 20 percent of retail sales by 2017. The Renewables Portfolio Standard has been subsequently amended, most recently in September 2018 by SB10 to establish a target of 60 percent renewable energy by 2030 and 100 percent renewable energy by 2045.

**California Executive Order B-55-18**

EO B-55-18 was issued by the Governor on September 10, 2018. It sets a statewide goal to achieve carbon neutrality as soon as possible, and no later than 2045, and to achieve and maintain net negative emissions thereafter. This goal is in addition to the existing statewide GHG reduction targets.

**California Green Building Standards Code**

In 2007, the California Building Standards Commission (CBSC) developed green building standards in an effort to meet the goals established by the Global Warming Solutions Act of 2006 to reduce GHG emissions. These standards are referred to as the CALGreen Code and are included as Part 11 of the CBSC.

New residential and nonresidential buildings must comply with mandatory measures related to planning and design (e.g., install secure bicycle parking facilities, designated parking for clean air vehicles, improvements to facilitate the future installation of electric vehicle supply equipment, light pollution reduction, etc.), energy efficiency, water efficiency/conservation (e.g., water efficient landscaping, low-flow plumbing fixtures, etc.), material conservation/resource efficiency (weather protection, construction waste reduction/recycling, recycling facilities for building occupants, building commissioning, systems testing, etc.). The local Building Official is responsible for ensuring compliance with the CALGreen Code.

**CEQA Guidelines**

§15064.4 of the CEQA Guidelines states that the lead agency should focus its GHG emissions analysis on the reasonably foreseeable incremental contribution of the project's emissions to the effects of climate change. A lead agency has the discretion to determine whether to use a model or methodology to quantify GHG emissions or to rely on a qualitative or performance-based standard.

The GHG analysis should consider 1) the extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting; 2) whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project and 3) the extent to which the project complies with any regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

**Greenhouse Gases Defined**

**Table 4.8-1** provides descriptions of the GHGs identified in California Health and Safety Code §38505(g).

**TABLE 4.8-1**
**Greenhouse Gases**

| Greenhouse Gas | Description |
|---|---|
| Carbon dioxide ($CO_2$) | Carbon dioxide ($CO_2$) is the primary greenhouse gas emitted through human activities. In 2014, $CO_2$ accounted for about 80.9 percent of all U.S. greenhouse gas emissions from human activities. The main human activity that emits $CO_2$ is the combustion of fossil fuels (coal, natural gas, and oil) for energy and transportation, although certain industrial processes and land-use changes also emit $CO_2$. |
| Methane ($CH_4$) | Methane ($CH_4$) is the second most prevalent greenhouse gas emitted in the United States from human activities. Methane is emitted by natural sources such as wetlands, as well as human activities such as the raising of livestock; the production, refinement, transportation and storage of natural gas; methane in landfills as waste decomposes; and in the treatment of wastewater. |
| Nitrous oxide ($N_2O$) | In 2014, nitrous oxide ($N_2O$) accounted for about 6 percent of all U.S. greenhouse gas emissions from human activities. Nitrous oxide is naturally present in the atmosphere as part of the Earth's nitrogen cycle.<br>Human activities such as agricultural soil management (adding nitrogen to soil through use of synthetic fertilizers), fossil fuel combustion, wastewater management, and industrial processes are also increasing the amount of $N_2O$ in the atmosphere. |
| Hydrofluorocarbons (HFCs) | Hydrofluorocarbons (HFCs) are man-made chemicals, many of which have been developed as alternatives to ozone-depleting substances for industrial, commercial, and consumer products such as refrigerants, aerosol propellants, solvents, and fire retardants. They are released into the atmosphere through leaks, servicing, and disposal of equipment in which they are used. |
| Perfluorocarbons (PFCs) | Perfluorocarbons (PFCs) are colorless, highly dense, chemically inert, and nontoxic. There are seven PFC gases: perfluoromethane ($CF_4$), perfluoroethane ($C_2F_6$), perfluoropropane ($C_3F_8$), perfluorobutane ($C_4F_{10}$), perfluorocyclobutane ($C_4F_8$), perfluoropentane ($C_5F_{12}$), and perfluorohexane ($C_6F_4$).<br>Perfluorocarbons are produced as a byproduct of various industrial processes associated with aluminum production and the manufacturing of semiconductors. |
| Sulfur hexafluoride ($SF_6$) | Sulfur hexafluoride ($SF_6$) is an inorganic compound that is colorless, odorless, nontoxic, and generally nonflammable. $SF_6$ is primarily used in magnesium processing and as an electrical insulator in high voltage equipment. The electric power industry uses roughly 80 percent of all $SF_6$ produced worldwide. |
| Nitrogen trifluoride ($NF_3$) | Nitrogen trifluoride is a colorless, odorless, nonflammable gas that is highly toxic by inhalation. It is one of several gases used in the manufacture of liquid crystal flat-panel displays, thin-film photovoltaic cells and microcircuits. |

## LOCAL

There are no local regulations pertaining to GHGs that apply to the proposed project.

## DISCUSSION OF IMPACTS

### Question A

Gases that trap heat in the atmosphere create a greenhouse effect that results in global warming and climate change. These gases are referred to as greenhouse gases (GHGs). As described in **Table 4.8-1**, some GHGs occur both naturally and as a result of human activities, and some GHGs are exclusively the result of human activities.

The atmospheric lifetime of each GHG indicates how long the gas stays in the atmosphere before natural processes (e.g., chemical reactions) remove it. A gas with a long lifetime can exert more warming influence than a gas with a short lifetime. In addition, different GHGs have different effects on the atmosphere. For this reason, each GHG is assigned a global warming potential (GWP) which is a measure of the heat-trapping potential of each gas over a specified period of time.

Gases with a higher GWP absorb more heat than gases with a lower GWP, and thus have a greater effect on global warming and climate change. The GWP metric is used to convert all GHGs into $CO_2$ equivalent ($CO_2e$) units, which allows policy makers to compare impacts of GHG emissions on an equal basis. The GWPs and atmospheric lifetimes for each GHG are shown in **Table 4.8-2**.

**TABLE 4.8-2**
**Greenhouse Gases: Global Warming Potential and Atmospheric Lifetime**

| GHG | GWP (100-year time horizon) | Atmospheric Lifetime (years) |
|---|---|---|
| $CO_2$ | 1 | 50 -200 |
| $CH_4$ | 25 | 12 |
| $N_2O$ | 298 | 114 |
| HFCs | Up to 14,800 | Up to 270 |
| PFCs: | 7,390-12,200 | 2,600 – 50,000 |
| $SF_6$ | 22,800 | 3,200 |
| $NF_3$ | 17,200 | 740 |

Source: *U.S. Environmental Protection Agency, 2018.*

Neither Siskiyou County nor the City have adopted thresholds of significance for GHG emissions. Because there are no local quantitative GHG thresholds, predicted project-related GHG emissions were compared to thresholds established by the Bay Area Air Quality Management District and Sacramento Metropolitan Air Quality Management District, which are widely adopted GHG emissions thresholds, as shown in **Table 4.8-3.** These thresholds are tied directly to AB 32 and state-wide emissions reduction goals.

**TABLE 4.8-3**
**Greenhouse Gas Emissions Thresholds**

| Category | Bay Area AQMD | Sacramento Metropolitan AQMD |
|---|---|---|
| **Construction** | None Recommended | 1,100 tons/year $CO_2e$ |
| **Stationary Sources** [1] | 10,000 metric tons/year $CO_2e$ | 10,000 metric tons/year $CO_2e$ |
| **Land Development Projects (Operational)** | 1,100 metric tons/year $CO_2e$ or 4.6 tons $CO_2e$/service population/year | 1,100 metric tons/year $CO_2e$ |

The City has determined the commonly adopted numeric thresholds for land development projects of 1,100 metric tons of $CO_2e$ per year for construction emissions, and 1,100 metric tons of $CO_2e$ per year for operational emissions are appropriate for the proposed project. If construction or operational emissions exceed 1,100 metric tons of $CO_2e$, then the impact is considered significant.

**Project GHG Emissions**

GHG emissions for the proposed project were estimated using the CalEEMod.2016.3.1 software. CalEEMod is a statewide model designed to quantify GHG emissions from land use projects. The model quantifies direct GHG emissions from construction and operation (including vehicle use), as well as indirect GHG emissions, such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use.

CalEEMod also includes the intensity factors for $CO_2$, $CH_4$, and $N_2O$ for the utility company that will serve the proposed project. Therefore, CalEEMod uses PacifiCorp's mix of renewable and non-renewable energy sources to estimate indirect GHG emissions associated with electricity use.

Site-specific inputs and assumptions include, but are not limited to, the following:

- Emissions from construction are based on all construction-related activities associated with proposed and future uses, including but not limited to grading, use of construction equipment, material hauling, trenching, and site preparation.
- Emissions from operation of the proposed project are based on all proposed and future operational activities, including vehicle traffic, electricity usage in the buildings and for lighting in parking lots, water use, wastewater treatment, solid waste disposal, use of architectural coatings, etc.
- Construction would commence in 2021 and be completed in approximately eight months.

Output files, including all site-specific inputs and assumptions, are provided in **Appendix B**.

***Construction Emissions***

Construction of the proposed project would emit GHG emissions as shown in **Table 4.8-4**, primarily from the combustion of diesel fuel in heavy equipment. $CO_2e$ associated with construction of the proposed project is well below the referenced threshold of 1,100 metric tons/year. Because the proposed project would not exceed the numerical threshold, construction-related impacts would be less than significant.

[1] *Stationary sources are typically associated with industrial processes (e.g., boilers, heaters, flares, cement plants, combustion equipment, etc.).*

**TABLE 4.8-4**
**Construction-Related Greenhouse Gas Emissions**

| Total Construction Emissions (Metric Tons) | | | |
|---|---|---|---|
| **Carbon Dioxide ($CO_2$)** | **Methane ($CH_4$)** | **Nitrous Oxide ($N_2O$)** | **Carbon Dioxide Equivalent ($CO_2e$)** |
| 227.09 | 0.04 | 0 | 228.06 |

***Operational Emissions***

The proposed project would result in the generation of operational GHG emissions as shown in **Table 4.8-5.** The majority of operational emissions are attributed to mobile sources (e.g., vehicle trips for employees, students, vendors, deliveries, etc.), and energy use due to the generation of electricity for the proposed project through the combustion of fossil fuels.

**TABLE 4.8-5**
**Operational Greenhouse Gas Emissions**

| Total Annual Operational Emissions (Metric Tons) | | | | |
|---|---|---|---|---|
| **Source** | **Carbon Dioxide ($CO_2$)** | **Methane ($CH_4$)** | **Nitrous Oxide ($N_2O$)** | **Carbon Dioxide Equivalent ($CO_2e$)** |
| Area | Trace | Trace | 0 | 0.002 |
| Energy | 194.77 | Trace | Trace | 195.18 |
| Mobile | 437.42 | 0.04 | 0 | 438.40 |
| Waste | 8.84 | 0.52 | 0 | 21.90 |
| Water | 9.57 | 0.03 | Trace | 10.40 |
| **Total** | 650.61 | 0.59 | Trace | 665.88 |

As discussed under Regulatory Context, the State has adopted numerous policies that call for the development of additional State regulations to reduce GHG emissions to achieve the 2030 target of 40 percent emissions reductions below 1990 levels.

It is estimated that the State's 2016 Mobile Source Strategy will result in a state-wide reduction in GHG emissions of 45 percent, and a 50 percent reduction in the consumption of petroleum-based fuels in the transportation sector. As discussed in Section 4.3 under Question C, under SB 210 (2019) heavy-duty diesel trucks will have to pass a smog check to ensure vehicle emission controls are maintained in order to register or operate in California. SB 44 (2019) requires CARB to update the State's Mobile Source Strategy to include a comprehensive strategy to reduce emissions from medium- and heavy-duty vehicles.

In addition, the State's RPS Program was enacted to increase the amount of electricity generated and sold to retail customers from eligible renewable energy resources. The RPS, as amended, establishes a target of 60 percent renewable energy by 2030 and 100 percent renewable energy by 2045.

Electricity for the proposed project would be provided by PacifiCorp, a company based in Portland, Oregon, that provides electric service to certain areas in California, Oregon, Washington, Utah, Wyoming, and Idaho. According to PacifiCorp's 2019 Integrated Resource Plan (IRP), the 2019 IRP includes programs to facilitate the addition of over 6,400 MW of new renewable resources by the end of 2023, with nearly 11,000 MW of new renewable resources over the 20-year planning period through 2038. As detailed in the 2019 IRP, PacifiCorp must comply with State RPS requirements for California, Oregon, Washington, and Utah. PacifiCorp's 2019 IRP demonstrates that by 2030,

PacifiCorp will have reduced GHG emissions by nearly 60 percent from 2005 levels. Emissions reductions would be achieved by adding renewable energy sources, leveraging new technology, and continuing to phase out coal-fueled generation plants.

Indirect GHG emissions from the production of electricity will continue to decrease through implementation of State regulations that require electricity to be generated from renewable energy sources. GHG emissions in the transportation sector will also continue to decrease with implementation of State regulations.

Therefore, because the proposed project would not exceed the numerical threshold of 1,100 metric tons/year of $CO_2e$ during construction or operation, and GHG emissions would continue to decrease with implementation of State regulations, impacts would be less than significant.

**Question B**

See discussion under Regulatory Context above. The City's Building Official is responsible for reviewing construction documents to ensure mandatory measures included in the CALGreen Code are implemented into the project design. The Building Official verifies implementation of the mandatory measures during final inspection of the building. The plan review and inspection process ensures that the proposed project does not conflict with any local or State regulations or plans adopted for the purpose of reducing GHG emissions; there would be no impact.

## CUMULATIVE IMPACTS

GHG emissions and global climate change are, by nature, cumulative impacts. Unlike criteria pollutants, which are pollutants of regional and local concern, GHGs are global pollutants and are not limited to the area in which they are generated. As discussed under Regulatory Context above, the State legislature has adopted numerous programs and regulations to reduce statewide GHG emissions, including indirect emissions that are produced when electricity is generated from fossil fuels. All new residential and nonresidential developments are required to implement applicable CALGreen Code mandatory measures that were enacted to reduce statewide GHG emissions.

In addition, it is estimated that the State's 2016 Mobile Source Strategy will result in a state-wide reduction in GHG emissions of 45 percent, and a 50 percent reduction in the consumption of petroleum-based fuels in the transportation sector. Under SB 210 (2019) heavy-duty diesel trucks will have to pass a smog check in order to register or operate in California. SB 44 (2019) requires CARB to update the State's Mobile Source Strategy to include a comprehensive strategy to reduce emissions from medium- and heavy-duty vehicles.

As documented above, construction-related and operational GHG emissions would not exceed the numerical threshold of 1,100 metric tons/year $CO_2e$. As the use of renewable energy sources for electricity generation increases in accordance with existing State regulations, GHG emissions associated with the use of electricity will continue to decrease. Further, GHG emissions in the transportation sector will continue to decrease with implementation of State regulations. Therefore, the project's contribution to cumulative GHG emissions is less than significant.

## MITIGATION

None necessary

## DOCUMENTATION

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## 4.9 HAZARDS AND HAZARDOUS MATERIALS

Would the project:

| Issues and Supporting Evidence | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a. Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials? | ☐ | ☐ | ☒ | ☐ |
| 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 §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 two miles of a public airport or a public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area? | ☐ | ☐ | ☐ | ☒ |
| f. Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan? | ☐ | ☐ | ☒ | ☐ |
| g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires? | ☐ | ☒ | ☐ | ☐ |

## REGULATORY CONTEXT

### FEDERAL

#### Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) is the primary federal law for the regulation of solid waste and hazardous waste in the United States and provides for the "cradle-to-grave" regulation that requires businesses, institutions, and other entities that generate hazardous waste to track such waste from the point of generation until it is recycled, reused, or properly disposed of. The USEPA has primary responsibility for implementing the RCRA.

#### USEPA's Risk Management Plan

Section 112(r) of the federal CAA (referred to as the USEPA's Risk Management Plan) specifically covers "extremely hazardous materials" which include acutely toxic, extremely flammable, and highly explosive substances. Facilities involved in the use or storage of extremely hazardous materials must implement a Risk Management Plan (RMP), which requires a detailed analysis of potential accident factors and implementation of applicable mitigation measures.

#### Federal Occupational Safety and Health Administration (OSHA)

The Occupational Safety and Health Act (OSHA) prepares and enforces occupational health and safety regulations with the goal of providing employees a safe working environment. OSHA regulations apply to the work place and cover activities ranging from confined space entry to toxic chemical exposure.

#### U.S. Department of Transportation

The United States Department of Transportation regulates the interstate transport of hazardous materials and wastes through implementation of the Hazardous Materials Transportation Act. This act specifies driver-training requirements, load labeling procedures, and container design and safety specifications. Transporters of hazardous wastes must also meet the requirements of additional statutes such as the RCRA.

### STATE

#### California Code of Regulations (CCR), Title 22, Definition of Hazardous Material

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 in Title 22, §66260.10, of the CCR as: *"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."*

**Department of Toxic Substances Control**

The California Department of Toxic Substances Control (DTSC) regulates the generation, transportation, treatment, storage, and disposal of hazardous waste under the RCRA and the State Hazardous Waste Control Law. Both laws impose "cradle-to-grave" regulatory systems for handling hazardous waste in a manner that protects human health and the environment.

**California Occupational Safety and Health Administration (Cal/OSHA)**

The California Occupational Safety and Health Administration (Cal/OSHA) has primary responsibility for developing and enforcing state workplace safety regulations, including requirements for safety training, availability of safety equipment, accident and illness prevention programs, hazardous substance exposure warnings, and emergency action and fire prevention plan preparation.

**Regional Water Quality Control Board**

The SWRCB and RWQCBs regulate hazardous substances, materials, and wastes that may affect surface water or groundwater through a variety of state statutes, including the Porter-Cologne Water Quality Control Act and underground storage tank cleanup laws. Any person proposing to discharge waste within the State must file a Report of Waste Discharge with the appropriate regional board. The proposed project is located within the jurisdiction of the CVRWQCB.

**Hazardous Materials Emergency Response/Contingency Plan**

Chapter 6.95, §25503, of the California Health and Safety Code requires businesses that handle/store a hazardous material or a mixture containing a hazardous material to establish and implement a Business Plan for Emergency Response (Business Plan). A Business Plan is required when the amount of hazardous materials exceeds 55 gallons for liquids, 500 pounds for solids, or 200 cubic feet for compressed gases. A Business Plan is also required if federal thresholds for extremely hazardous substances are exceeded. The Business Plan includes procedures to deal with emergencies following a fire, explosion, or release of hazardous materials that could threaten human health and/or the environment.

**California Accidental Release Prevention Program**

The goal of the California Accidental Release Prevention Program (CalARP) is to prevent accidental releases of substances that pose the greatest risk of immediate harm to the public and the environment. Facilities are required to prepare a Risk Management Plan in compliance with CCR Title 19, Division 2, Chapter 4.5, if they handle, manufacture, use, or store a federally regulated substance in amounts above established federal thresholds; or if they handle a state regulated substance in amounts greater than state thresholds and have been determined to have a high potential for accident risk.

## LOCAL

The City of Mt. Shasta's General Plan includes the following Goals, Policies, and Implementation Measures (IM) that apply to the proposed project:

| **Safety Element** | | |
|---|---|---|
| **Goals** | SF-4 | Protect property and life from fire hazards. |
| | SF-5 | Protect people and the environment from hazardous materials exposure. |
| **Policies** | SF-4.2 | Adopt and enforce development standards that provide adequate fire protection. |

| | | |
|---|---|---|
| | SF-5.1 | Assure that the use, storage and transportation of hazardous materials complies with federal and state regulations. |
| **IM** | SF-5.1(a) | Working with the State Department of Health and the County Health Department, enforce the applicable provisions of State law related to hazardous material storage. |

## DISCUSSION OF IMPACTS

**Questions A and B**

The project would not result in any long-term impacts related to the transport of hazardous materials. During construction activities, it is anticipated that limited quantities of hazardous substances, such as gasoline, diesel fuel, hydraulic fluid, solvents, oils, paints, etc. would temporarily be brought into areas where improvements are proposed. There is a possibility of accidental release of hazardous substances into the environment, such as spilling petroleum-based fuels used for construction equipment. However, construction contractors would be required to comply with applicable federal and state environmental and workplace safety laws and implement BMPs for the storage, use, and transportation of hazardous materials. Therefore, impacts would be less than significant.

**Question C**

According to the Siskiyou County Office of Education, Mt. Shasta Elementary School on Cedar Street is approximately 0.25 miles southeast of the project site. As described under Questions A and B, the project would not result in any long-term impacts related to the transport of hazardous materials. Although project construction would involve the use of relatively small quantities of hazardous substances work would be conducted in accordance with these existing requirements, and potential impacts could occur only during construction activities, impacts would be less than significant.

**Question D**

The following databases were reviewed to locate hazardous waste facilities, land designated as hazardous waste property, and hazardous waste disposal sites in accordance with California Government Code §65962.5:

- List of Hazardous Waste and Substances sites from the Department of Toxic Substances Control (DTSC) EnviroStor database.
- SWRCB GeoTracker Database
- List of solid waste disposal sites identified by SWRCB with waste constituents above hazardous waste levels outside the waste management unit.
- List of “active” Cease and Desist Orders and Clean-Up and Abatement Orders from the SWRCB.

A Phase I Environmental Site Assessment (ESA) was prepared by Lawrence & Associates in April 2018 to identify the presence or the likely presence of hazardous substances or petroleum products in the project site based on historical and current land uses. The potential for naturally occurring hazardous materials (e.g., asbestos, oil, and gas) was also assessed. According to the ESA, aerial photographs indicate that the property has remained undeveloped since at least 1951, with the exception of a small barn and the construction of I-5 along the western boundary of the project site.

The ESA concluded that there is no evidence of any hazardous substances or petroleum products in the project site. No current or former landfill areas, chemical plants, oil fields, refineries, fuel storage facilities, abandoned farms or dairies, or agricultural areas where pesticides and fertilizers have been heavily used were identified in proximity to the project site. Further, no naturally occurring asbestos, oil, gas, or other naturally occurring hazardous materials were identified.

DTSC does not identify any active clean-up sites within a 0.5-mile radius of the project site. The SWRCB GeoTracker Database identifies the following clean-up sites within a 0.5-mile radius of the project site as of July 27, 2020:

***Red-Dye Fuel Release of Unknown Origin***

This clean-up site is located ±0.28 miles east of the project site, generally east of N. Mt. Shasta Boulevard, west of Chestnut Street, and south of E. Ivy Street. On September 25, 2018, City crews that were replacing a water meter on private property encountered red-dye diesel in the excavation. The SWRCB is in the process of working with the City and property owner to conduct preliminary site investigations to assess the soil and groundwater in the vicinity of the encountered release. Due to the distance from the project site, this cleanup site would have no impact on the project site.

***Private Residence on Cedar Street***

This clean-up site is located ±0.18 miles southeast of the project site. This case was opened after an above-ground storage tank leaked an unknown amount of heating oil in May 2018. A site assessment work plan was prepared by Broadbent & Associates, Inc. and approved by the CVRWQCB on November 27, 2018. Broadbent is in the process of conducting site investigations to determine the severity and extent of contamination and to identify necessary remedial actions. Due to the distance from the project site, this cleanup site would have no impact on the project site.

***Federal National Mortgage Association***

This LUST clean-up site is located ±0.31 miles southeast of the project site. This case was opened May 9, 2019, after a 550-gallon residential heating oil underground storage tank (UST) and associated piping was removed from the site. An unauthorized release of petroleum hydrocarbons was detected in confirmation soil samples collected beneath the UST. In May 2020, Broadbent & Associates, Inc., prepared a Soil Excavation and Confirmation Sampling Report that presented result of soil excavation, sampling, and laboratory results associated with the clean-up site. The Broadbent report concluded that the majority of contaminated soil had been removed and the remaining residual impacts were limited to the assumed up-gradient direction from the former tank. No further remedial action was recommended. Therefore, due to the distance from the project site, this cleanup site would have no impact on the project site.

Therefore, there would be no impact with respect to hazardous-materials releases because the ESA concluded that there is no evidence of any hazardous substances, petroleum products, or naturally occurring hazardous materials in the project site; the ESA did not identify past or present hazardous uses in proximity to the project site; and the proposed project would not affect or be affected by active SWRCB clean-up sites identified following completion of the ESA.

**Question E**

The Dunsmuir Municipal-Mott Airport is located approximately four miles southeast of the southerly boundary of the project site. According to the Siskiyou County Airport Land Use Compatibility Plan, no portion of the project site is located within an airport influence area. According to the Federal Aviation Administration, the project site is not located in the vicinity of a private airstrip. Therefore, there would be no impact.

**Question F**

Although a temporary increase in traffic could occur during construction and could interfere with emergency response times, construction-related traffic would be minor due to the overall scale of the construction activities. Further, construction-related traffic would be spread over the duration of the construction schedule and would be minimal on a daily basis. In addition, pursuant to Cal/OSHA requirements, temporary traffic control during completion of activities that require work in the public

ROW is required and must adhere to the procedures, methods and guidance given in the current edition of the California Manual on Uniform Traffic Control Devices (MUTCD).

In addition, pursuant to the City's conditions for issuance of an encroachment permit, which would be obtained by the applicant's contractor, safety measures must be employed to safeguard travel by the general public. At the discretion of the City, the contractor may be required to submit a temporary traffic control plan for review and approval prior to issuance of an encroachment permit. The plan would illustrate the location of the work, affected roads and types and locations of temporary traffic control measures (i.e., signs, cones, flaggers, etc.) that would be implemented during the work. Implementation of these measures ensures that construction activities do not hinder emergency response or evacuations.

In terms of operational impacts, according to the Traffic Impact Study prepared for the proposed project by Traffic Works, LLC, the project is anticipated to generate 496 average daily trips (ADTs), with 162 trips during the A.M. peak hour (7:00 A.M. to 9:00 A.M.) and 116 P.M. peak hour trips (2:00 P.M. to 4:00 P.M. - when school is dismissed). The traffic study concludes that the proposed project would not significantly impact traffic flows in the area (see discussion in Section 4.17). Vehicle access to the site would be via a driveway off of Pine Street. In addition, an emergency-only access route to Cedar Street would be provided at the southern area of the project site.

Therefore, because operational traffic levels would not significantly impact traffic flows in the area, and a secondary emergency access route from Cedar Street would be provided in the southern project area, the proposed project would not interfere with emergency response or emergency evacuation plans; potential impacts would be less than significant.

**Question G**

As documented in Section 4.20 (Wildfires), the proposed project does not include any development or improvements that would increase the long-term risk of wildland fires or expose people or structures to wildland fires. However, equipment used during construction activities may create sparks that could ignite dry grass. Also, the use of power tools and/or acetylene torches may increase the risk of wildland fire hazard. **MM 4.9.1** will ensure impacts are less than significant.

## CUMULATIVE IMPACTS

The potential for hazard-related impacts during construction are site specific and have the potential to affect only a limited area on a temporary basis during completion of the improvements. The transport of hazardous chemicals would be regulated in a similar fashion to other cumulative projects that require the transport of hazardous chemicals for site-specific activities. Completion of the proposed improvements requires implementation of measures to reduce the potential for adverse impacts associated with hazards and hazardous materials.

In terms of operational impacts, the proposed project does not include the routine transport, use, or disposal of hazardous materials, would not emit hazardous emissions, and would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires (refer to Section 4.20, Wildfire). Therefore, the proposed project's potential for cumulative impacts would be less than significant with implementation of **MM 4.9.1.**

## MITIGATION

**MM 4.9.1** During construction, all areas in which work will be completed using spark-producing equipment shall be cleared of dried vegetation or other materials that could serve as fire fuel. To the extent feasible, the contractor shall keep these areas clear of combustible materials in order to maintain a fire break.

## DOCUMENTATION


**California Environmental Protection Agency.** 2020. Cortese List Data Resources. https://calepa.ca.gov/sitecleanup/corteselist/. Accessed May 2020.

**California Department of Forestry and Fire Protection.** 2020. Fire Hazard Severity Zone Viewer. https://egis.fire.ca.gov/FHSZ/. Accessed May 2020.

**City of Mt. Shasta.** 2007. Mt. Shasta General Plan. https://mtshastaca.gov/?s=general+plan. Accessed December 2019.

**Federal Aviation Administration.** 2019. Airport Facilities Data. https://www.faa.gov/airports/. Accessed October 2019.

**Lawrence & Associates.** 2018. Phase I Environmental Site Assessment, Proposed Golden Eagle Charter School Site, Pine Street Campus, Assessor's Parcel Numbers (APNs) 057-031-030 and -060, 057-044-020, 057-010 and -020, 057-064-010 and -030, and 057-071-010 and -040, Mt. Shasta, Siskiyou County, California.

**Siskiyou County Office of Education.** 2019. Siskiyou County Schools. https://www.siskiyoucoe.net/schools. Accessed December 2019.

**Traffic Works, LLC.** 2018. Traffic Impact Study for Golden Eagle Charter School, Mount Shasta, CA.


# 4.10 HYDROLOGY AND WATER QUALITY

Would the project:

| Issues and Supporting Evidence | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality? | ☐ | ☐ | ☒ | ☐ |
| b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin? | ☐ | ☐ | ☒ | ☐ |
| c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces in a manner that would: | | | | |
| (i) result in substantial erosion or siltation on- or off-site; | ☐ | ☐ | ☒ | ☐ |
| (ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; | ☐ | ☒ | ☐ | ☐ |
| (ii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or | ☐ | ☒ | ☐ | ☐ |
| (iv) impede or redirect flood flows? | ☐ | ☐ | ☒ | ☐ |

| | | | | |
|---|---|---|---|---|
| d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? | ☐ | ☐ | ☐ | ☒ |
| e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? | ☐ | ☐ | ☒ | ☐ |

## REGULATORY CONTEXT

### FEDERAL

#### Clean Water Act (CWA)

The CWA (33 USC §1251-1376), as amended by the Water Quality Act of 1987, is the major federal legislation governing water quality and was established to *"restore and maintain the chemical, physical, and biological integrity of the Nation's waters."* Pertinent sections of the Act are as follows:

1. Sections 303 and 304 provide for water quality standards, criteria, and guidelines.
2. Section 401 (Water Quality Certification) requires an applicant for any federal permit that would authorize a discharge to waters of the United States to obtain certification from the state that the discharge will comply with other provisions of the Act.
3. Section 402 establishes the NPDES, a permitting system for the discharge of any pollutant (except for dredged or fill material) into waters of the United States. This permit program is administered by the SWRCB and is discussed in detail below.
4. Section 404, jointly administered by the USACE and USEPA, establishes a permit program for the discharge of dredged or fill material into waters of the United States.

#### Federal Anti-Degradation Policy

The federal Anti-Degradation Policy is part of the CWA (Section 303(d)) and is designed to protect water quality and water resources. The policy directs states to adopt a statewide policy that protects designated uses of water bodies (e.g., fish and wildlife, recreation, water supply, etc.). The water quality necessary to support the designated use(s) must be maintained and protected.

#### Safe Drinking Water Act

Under the 1974 Safe Drinking Water Act, most recently amended in 1996, USEPA regulates contaminants of concern to domestic water supply, which are those that pose a public health threat or that alter the aesthetic acceptability of the water. These types of contaminants are classified as either primary or secondary Maximum Contaminant Levels (MCLs). MCLs and the process for setting these standards are reviewed triennially.

#### Federal Emergency Management Agency (FEMA)

FEMA is responsible for mapping flood-prone areas under the National Flood Insurance Program (NFIP). Communities that participate in the NFIP are required to adopt and enforce a floodplain management ordinance to reduce future flood risks related to new construction in a flood hazard area. In return, property owners have access to affordable federally-funded flood insurance policies.

#### National Pollution Discharge Elimination System (NPDES)

Under Section 402(p) of the CWA, the USEPA established the NPDES to enforce discharge standards for both point-source and non-point-source pollution. Dischargers can apply for individual discharge permits, or apply for coverage under the General Permits that cover certain qualified dischargers. Point-source discharges include municipal and industrial wastewater, stormwater runoff, combined sewer overflows, sanitary sewer overflows, and municipal separate storm sewer systems. NPDES permits impose limits on

discharges based on minimum performance standards or the quality of the receiving water, whichever type is more stringent in a given situation.

## STATE

### Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (California Water Code §13000 *et seq.*) is the principal law governing water quality regulation in California. It establishes a comprehensive program to protect water quality and the beneficial uses of waters of the State. The Porter-Cologne Act applies to surface waters, wetlands, and groundwater, and to both point and non-point sources of pollution. The Act requires a Report of Waste Discharge for any discharge of waste (liquid, solid, or otherwise) to land or surface waters that may impair a beneficial use of surface or groundwater of the state. The RWQCBs enforce waste discharge requirements identified in the Report.

### State Anti-Degradation Policy

In 1968, as required under the Federal Anti-Degradation Policy, the SWRCB adopted an Anti-Degradation Policy, formally known as the *Statement of Policy with Respect to Maintaining High Quality Waters in California* (State Water Board Resolution No. 68-16). Under the Anti-Degradation Policy, any actions that can adversely affect water quality in surface or ground waters must be consistent with the maximum benefit to the people of the State, not unreasonably affect present and anticipated beneficial use of the water, and not result in water quality less than that prescribed in water quality plans and policies.

### National Pollution Discharge Elimination System

Pursuant to the federal CWA, the responsibility for issuing NPDES permits and enforcing the NPDES program was delegated to the State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCB). NPDES permits are also referred to as waste discharge requirements (WDRs) that regulate discharges to waters of the United States. Below is a description of relevant NPDES general permits.

#### *Construction Activity and Post-Construction Requirements*

Discharges from construction sites that disturb one acre or more of total land area are subject to the NPDES permit for *Discharges of Storm Water Runoff associated with Construction Activity* (currently Order No. 2009-009-DWQ), also known as the Construction General Permit. The permitting process requires the development and implementation of an effective Storm Water Pollution Prevention Plan (SWPPP). Coverage under the Construction General Permit is obtained by submitting a Notice of Intent (NOI) to the SWRCB and preparing the SWPPP prior to the beginning of construction. The SWPPP must include BMPs to reduce pollutants and any more stringent controls necessary to meet water quality standards. Dischargers must also comply with water quality objectives as defined in the applicable Basin Plan. If Basin Plan objectives are exceeded, corrective measures are required.

The Construction General Permit includes post-construction requirements for areas in the State not covered by a Standard Urban Storm Water Management Plan (SUSWMP) or a Phase I or Phase II MS4 Permit. These requirements are intended to ensure that the post-construction conditions at the project site do not cause or contribute to direct or indirect water quality impacts (i.e., pollution and/or hydromodification) upstream or downstream.

Where applicable, the SWPPP submitted to the SWRCB with the NOI must include a description of all post-construction stormwater management measures. The SWRCB SMARTS post-construction calculator or similar method would be used to quantify the runoff reduction resulting from implementation of the measures. The applicant must also submit a plan for long-term maintenance with the NOI. The maintenance plan must be designed for a minimum of five years and must describe the procedures to ensure that the post-construction stormwater management measures are adequately maintained.

***Dewatering Activities (Discharges to Surface Waters and Storm Drains)***

Construction dewatering activities that involve the direct discharge of relatively pollutant-free wastewater that poses little or no threat to the water quality of waters of the U.S., are subject to the provisions of CVRWQCB Order R5-2016-0076-01 (NPDES No. CAG995002), *Waste Discharge Requirements, Limited Threat Discharges to Surface Water*, as amended. WDRs for this order include discharge prohibitions, receiving water limitations, monitoring, and reporting, etc. Coverage is obtained by submitting a NOI to the applicable RWQCB.

***Dewatering Activities (Discharges to Land)***

Construction dewatering activities that are contained on land and do not enter waters of the U.S. are authorized under SWRCB Water Quality Order No. 2003-003-DWQ, provided that the dewatering discharge is of a quality as good as or better than the underlying groundwater, and there is a low risk of nuisance.

**Water Quality Control Plans (Basin Plans)**

Each of the State's RWQCBs is responsible for developing and adopting a basin plan for all areas within its region. The Plans identify beneficial uses to be protected for both surface water and groundwater. Water quality objectives for all waters addressed through the plans are included, along with implementation programs and policies to achieve those objectives. Waste discharge requirements (WDRs) were adopted in order to attain the beneficial uses listed for the Basin Plan areas.

**Sustainable Groundwater Management Act**

The Sustainable Groundwater Management Act (SGMA), enacted in September 2014, established a framework for groundwater resources to be managed by local agencies in areas designated by the Department of Water Resources as "medium" or "high" priority basins. Basins were prioritized based, in part, on groundwater elevation monitoring conducted under the California Statewide Groundwater Elevation Monitoring (CASGEM) program. Of the 517 groundwater basins in the State, 109 are identified as medium- and high-priority basins. Critical conditions of overdraft have been identified in 21 groundwater basins (Department of Water Resources, 2019).

The SGMA requires local agencies in medium- and high-priority basins to form Groundwater Sustainability Agencies by July 1, 2017, and be managed in accordance with locally-developed Groundwater Sustainability Plans (GSPs). Basins identified as critically overdrafted are required to be managed under a GSP by January 31, 2020. All other medium- and high-priority basins must be managed under a GSP by January 31, 2022. Under SGMA, these basins should reach sustainability within 20 years of implementing their sustainability plans.

## LOCAL

**City of Mt. Shasta**

The City's General Plan includes the following Goals, Policies, and Implementation Measures (IMs) that apply to the proposed project:

| **Open Space and Conservation Elements** | | |
|---|---|---|
| **Goal** | OC-10 | Protect the drinking water of Mt. Shasta residents. |
| **Policies** | OC-10.1 | Maintain a safe drinking water supply. |
| | OC-10.2 | Protect the City's drinking water sources from contamination. |
| **IMs** | OC-10.1(a) | Comply with drinking water standards. |

| | | |
|---|---|---|
| | OC-10.2(a) | When reviewing development proposals for projects with the potential to contaminate drinking water supplies, ensure that the environmental and project review process incorporates appropriate measures to avoid drinking water contamination. |
| **Safety Element** | | |
| **Goal** | SF-1 | Protect people and property from flooding. |
| **Policy** | SF-1.1 | Identify areas subject to inundation. |
| **IM** | SF-1.1(a) | Require that the limits of flooding resulting from a one hundred-year storm event be shown on all permit site plans where lands may be subject to inundation. |

The City of Mt. Shasta has adopted the City of Redding's (COR) Construction Standards. COR Standard 200.00 (Drainage Criteria) and COR Standard 200.10 (Hydraulic Criteria) outline requirements for the drainage/hydrology study and design of the storm drain system. All new development projects are required to be designed to ensure that runoff from the project will not increase the 10-, 25-, or 100-year flows downstream.

## DISCUSSION OF IMPACTS

**Questions A and E**

The proposed project has the potential to temporarily degrade water quality due to increased erosion during project construction; however, as discussed under Regulatory Context above, and in Section 4.6 under Question B, the SWRCB Construction General Permit requires implementation of an effective SWPPP that includes BMPs to control construction-related erosion and sedimentation and prevent damage to streams, watercourses, and aquatic habitat.

Because the City is not subject to a SUSWMP or a Phase I or Phase II MS4 Permit, the proposed project is subject to post-construction requirements included in the SWRCB Construction General Permit to ensure that the post-construction conditions at the project site do not cause or contribute to direct or indirect impacts from stormwater runoff (i.e., pollution and/or hydromodification) upstream or downstream.

Post-construction measures are defined as structural and non-structural controls that detain, retain, or filter the release of pollutants to receiving waters after final stabilization is attained. Non-structural controls are required unless the discharger demonstrates that non-structural controls are infeasible or that structural controls will produce greater reduction in water quality impacts. Nonstructural controls may include vegetated swales, soil quality enhancement, setbacks, buffers and/or rooftop and impervious surface disconnection. Nonstructural controls can be included as a landscape amenity.

The SWPPP submitted to the SWRCB with the NOI for the proposed project must include a description of all post-construction stormwater management measures and a plan for long-term maintenance. The maintenance plan must be designed for a minimum of five years and must describe the procedures to ensure that the post-construction stormwater management measures are adequately maintained.

In addition, if dewatering is required during construction, the project is subject to a CVRWQCB General Order that includes specific requirements for monitoring, reporting, and implementing BMPs for construction dewatering activities. The Developer must also obtain a State Water Quality Certification (or waiver) from the CVRWQCB to ensure that the project will not violate established State water quality standards. The Developer also must file a Report of Waste Discharge for any discharge of waste to land or surface waters that may impair a beneficial use of surface or

groundwater of the state. As discussed under Regulatory Context above, the SGMA established a framework for groundwater resources to be managed by local agencies in areas designated by the Department of Water Resources as medium or high priority basins. The project site is not located in a medium or high priority basin, and there is not a sustainable groundwater management plan that applies to the proposed project.

Compliance with CVRWQCB permit conditions ensures that the project would not violate any water quality standards or waste discharge requirements or conflict with or obstruct implementation of a water quality control plan. Impacts would be less than significant.

**Question B**

The proposed project would not require groundwater supplies for construction or operation. The proposed project includes the addition of approximately 2.4 acres of impervious surfaces (e.g., buildings, driveways, and parking lots). The addition of impervious surfaces would decrease the area available for water penetration, thereby reducing local groundwater recharge potential. The increase in impervious surfaces represents a very small percentage of the entire surface area of the hydrologic region. In addition, as discussed under Question C below, runoff from impervious surfaces would be directed to on-site detention facilities.

Because runoff would eventually be directed to areas with pervious surfaces, and the open space area north of the school site would continue to provide for groundwater recharge, the proposed project would not substantially interfere with groundwater recharge. Therefore, impacts on groundwater supplies or recharge are less than significant.

**Question C**

Storm drainage within the City of Mt. Shasta and adjacent areas consists of both surface and subsurface drainage features. Surface storm drainage features consist of natural waterways, man-made ditches, and/or remnants of natural watercourses. Subsurface storm drainage features consist of historical drainages that have been enclosed with some type of pipe (e.g., iron, corrugated metal, clay, or concrete).

Storm drain features in the study area include a perennial creek that bisects the property north of the development site. The perennial creek originates at a diversion of Spring Creek near the Mt. Shasta City Park, approximately 0.75 miles north of the study area. The perennial creek enters the property from a 24-inch culvert located under Pine Street and drains southwest across the project site, then runs into the Caltrans ROW, collects in culverts, and is transferred to the west side of I-5. In addition, vegetated ditches on the project site receive drainage from a 16-inch culvert under Pine Street. The ditch segments traverse the southern boundary of the site before draining to a channelized stream south of the study area boundary.

The proposed project would result in an increase in impervious surface (building roofs, parking areas, and driveways) that would generate stormwater runoff. If drainage is not adequately handled, the proposed project would increase the amount of runoff in a manner that could increase flooding on- or off-site or generate additional sources of polluted runoff.

A Preliminary Site Hydrology and Tributary Drainage Analysis was prepared for the proposed project by Robertson Erickson Civil Engineers & Surveyors on April 22, 2020 **(Appendix D)** to determine pre- and post-development runoff associated with the proposed project.

According to the Hydrology/Drainage report, there are two distinct drainage shed areas located on the project site. The north shed area includes the proposed driveway and a portion of the parking lot. The south shed area includes the school building, parking areas, the drop-off/pick-up area, and play area.

The Robertson Erickson study estimates current runoff for both drainage shed areas and provides drainage calculations that demonstrate that runoff from the project will not increase the 2-, 10-, or 100-year flows downstream. A network of drainage inlets and pipes would direct site runoff from impervious surfaces into the respective detention basins before leaving the site. Unlike retention basins that have a permanent pool of water, the detention basins would hold water for only a short period of time following a storm event (typically less than 24 hours) and would slowly release the water in order to reduce peak stormwater runoff. Each basin would be landscaped to provide runoff filtration prior to discharge from the site.

**MM 4.10.1** requires that a final drainage study be completed in accordance with the City's Construction Standards and CVRWQCB requirements to ensure that post-construction runoff does not result in flooding on- or off-site.

Therefore, because implementation of **MM 4.10.1** will ensure that the project would not result in flooding on- or -off site, or exceed the capacity of the City's storm drain system, and implementation of post-construction measures in accordance with CVRWQCB requirements will ensure that the project does not result in an increase in polluted runoff, impacts would be less than significant.

**Question D**

A tsunami is a wave generated in a large body of water (typically the ocean) by fault displacement or major ground movement. The project site is located over 90 miles east of the Pacific Ocean and is not in a tsunami zone. A seiche is a large wave generated in an enclosed body of water in response to ground shaking. The closest large body of water to the project site is Lake Siskiyou, approximately two miles to the southwest. Seiches could potentially be generated in Lake Siskiyou due to very strong ground-shaking; however, due to the distance from the project site, the project site has no potential for inundation by seiche. According to the FEMA Flood Map Service Center (Panel 06093C3025D, effective January 19, 2011), the project site is not located within a designated flood hazard zone. Therefore, there is no potential for release of pollutants due to inundation by seiche, tsunami, or flood.

## CUMULATIVE IMPACTS

The proposed project and other potential cumulative projects in the region, including growth resulting from build-out of the City's General Plan, could result in degradation of water quality, adverse impacts to groundwater supplies and groundwater recharge, and an increased risk of flooding due to additional surface runoff generated by the projects. All projects in the State that result in land disturbance of one acre or more are required to comply with the State Water Board General Construction NPDES permit which requires implementation of post-construction measures to ensure that new development does not cause or contribute to impacts from stormwater runoff upstream or downstream.

In addition, the City's Construction Standards require that the proposed project be designed to ensure that runoff from the project will not increase the 10-, 25-, or 100-year flows downstream. These regulations are intended to reduce the potential for cumulative impacts, both during and post-construction. Implementation of **MM 4.10.1**, in combination with compliance with State regulations, would ensure that the project's cumulative contribution to hydrology and water quality impacts is less than significant.

## MITIGATION

**MM 4.10.1** Prior to issuance of a building permit or any earth disturbance for any phase of development, a final drainage/hydrology study, based on final project design, shall be submitted to the City Engineer for review and approval. The drainage/hydrology study shall be prepared by a registered professional engineer and shall include drainage calculations and a storm drain plan that demonstrates that post-construction runoff from

the project will not increase the 10-, 25-, or 100-year flows downstream in accordance with the City's adopted Construction Standards. The storm drain plan shall be consistent with the post-construction measures outlined in the State Water Resources Control Board's NPDES permit for *Discharges of Storm Water Runoff associated with Construction Activity.*

### DOCUMENTATION


**City of Mt. Shasta.** 2007. Mt. Shasta General Plan. https://mtshastaca.gov/?s=general+plan. Accessed December 2019.

**Federal Emergency Management Agency.** National Flood Hazard Map (Panel 06093C3025D), effective January 19, 2011. https://msc.fema.gov/portal/search?AddressQuery=Mt%20Shasta%2C%20CA#searchresultsanchor. Accessed August 2018.

**Robertson Erickson Civil Engineers & Surveyors.** 2020. Golden Eagle Charter School Preliminary Drainage Report.

**State of California, Department of Water Resources.** 2019. Sustainable Groundwater Management Act, 2018 Basin Prioritization. https://gis.water.ca.gov/app/bp-dashboard/final/. Accessed June 2020.


## 4.11 LAND USE AND PLANNING

Would the project:

| Issues and Supporting Evidence | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a. Physically divide an established community? | ☐ | ☐ | ☐ | ☒ |
| b. Cause a significant environmental impact due to a conflict with any applicable land use plan, policy or regulation adopted for the purpose of avoiding or mitigating an environmental effect? | ☐ | ☒ | ☐ | ☐ |

### REGULATORY CONTEXT

#### FEDERAL

There are no federal regulations pertaining to land use and planning that apply to the proposed project.

#### STATE

##### California Government Code

California Government Code (CGC) §65300 *et seq.* contains many of the State laws pertaining to the regulation of land uses by cities and counties. These regulations include requirements for general plans, specific plans, subdivisions, and zoning. State law requires that all cities and counties adopt General Plans that include seven mandatory elements: land use, circulation, conservation, housing, noise, open space, and safety. A General Plan is defined as a comprehensive long-term plan for the physical development of the county or city, and any land outside its boundaries that is determined to bear relation to its planning. A development project must be found to be consistent with the General Plan prior to project approval.

## LOCAL

### City of Mt. Shasta

The City's General Plan includes goals, policies, and implementation measures designed for the purpose of avoiding or minimizing environmental effects. The Mt. Shasta Municipal Code implements the City's General Plan. The purpose of the land use and planning provisions of the Code (Title 18, Zoning) is to provide for the orderly and efficient application of regulations and to implement and supplement related laws of the state of California, including but not limited to CEQA.

## DISCUSSION OF IMPACTS

### Question A

Land use impacts are considered significant if a proposed project would physically divide an existing community (a physical change that interrupts the cohesiveness of the neighborhood). The proposed project would not create a barrier for existing or planned development; therefore, there would be no impact.

### Question B

As discussed in each resource section of this Initial Study, the proposed project is consistent with applicable Goals, Policies, and Implementation Measures of the Mt. Shasta General Plan and regulations of the regulatory agencies identified in Section 1.6 of this Initial Study. Where necessary, mitigation measures are included to reduce impacts to less-than-significant levels. Therefore, with implementation of the Mitigation Measures identified in Section 1.9, the proposed project would not conflict with any plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. No additional mitigation measures are necessary.

## CUMULATIVE IMPACTS

Cumulative projects in the vicinity of the project area, including population growth resulting from build-out of the City's and County's General Plan, would be developed in accordance with local and regional planning documents. Thus, cumulative impacts associated with land use compatibility are expected to be less than significant. In addition, with implementation of the recommended mitigation measures, the proposed project is consistent with goals, policies, and implementation measures included in the General Plan, and would not contribute to the potential for adverse cumulative land use effects.

## MITIGATION

None necessary.

## DOCUMENTATION

**City of Mt. Shasta.** 2007. Mt. Shasta General Plan. https://mtshastaca.gov/planning/. Accessed December 2018.

_____. 2018. Mt. Shasta Municipal Code. Title 18, Zoning. http://www.codepublishing.com/CA/MtShasta/. Accessed December 2018.

# 4.12 MINERAL RESOURCES

Would the project:

| Issues and Supporting Evidence | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| 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? | ☐ | ☐ | ☐ | ☒ |

## REGULATORY CONTEXT

### FEDERAL

There are no federal regulations pertaining to mineral resources that apply to the proposed project.

### STATE

#### Surface Mining and Reclamation Act of 1975

The Surface Mining and Reclamation Act (SMARA), Chapter 9, Division 2 of the Public Resources Code (PRC), provides a comprehensive surface mining and reclamation policy to ensure that adverse environmental impacts are minimized and mined lands are reclaimed to a usable condition.

Mineral Resource Zones (MRZs) are applied to sites determined by the California Geological Survey (CGS) as being a resource of regional significance, and are intended to help maintain mining operations and protect them from encroachment of incompatible uses. The Zones indicate the potential for an area to contain significant mineral resources.

### LOCAL

There are no local regulations pertaining to mineral resources that apply to the proposed project.

## DISCUSSION OF IMPACTS

#### Questions A and B

The CGS identifies two active mines within a two-mile radius of the project site. The Spring Hill Mine is a ±66-acre sand and gravel quarry located within the City limits approximately two miles northwest of the project site. The Mt. Shasta Pit is a ±6.8-acre rock quarry located outside the City limits ±1.75 miles northwest of the project site. Due to the distance from the project site, the project would have no impact on existing mining operations. According to the CGS, there are no designated Mineral Resource Zones in Siskiyou County.

In addition, the City's Zoning Code allows mineral resource extraction and production as a conditional use in the Resource Lands (R-L) zone district. According to the City's Zoning Map, there are presently no lands in the City limits that are zoned R-L. Further, the project site is in an urbanized area that is not conducive to mining operations. Therefore, the proposed project would not result in the loss of availability of a locally important mineral resource.

## CUMULATIVE IMPACTS

As documented herein, the proposed project would not result in impacts to mineral resources; therefore, the project would not contribute to adverse impacts associated with cumulative impacts to mineral resources.

### MITIGATION

None necessary

## DOCUMENTATION


**City of Mt. Shasta.** 2007. Mt. Shasta General Plan. https://mtshastaca.gov/?s=general+plan. Accessed December 2019.

_____. 2016. Mt. Shasta Municipal Code Title 18, Zoning, Chapter 18.80 (Surface Mining and Reclamation. http://www.codepublishing.com/CA/MtShasta/. Accessed December 2018.

**State of California, Department of Conservation**, California Geological Survey. SMARA Mineral Lands Classification Data Portal. http://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=mlc. Accessed December 2018.

_____. 2019. SMARA Mines Interactive Map. http://maps.conservation.ca.gov/mol/index.html. Accessed December 2018.


# 4.13 NOISE

Would the project result in:

| Issues and Supporting Evidence | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance or of applicable standards of other agencies? | ☐ | ☒ | ☐ | ☐ |
| b. Generation of excessive groundborne vibration or groundborne noise levels? | ☐ | ☐ | ☒ | ☐ |
| c. For a project located within the vicinity of a private airstrip or an airport land use plan area or, where such a plan has not been adopted, within two 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? | ☐ | ☐ | ☐ | ☒ |

## NOISE FUNDAMENTALS

Commonly used technical acoustical terms are defined as follows:

**Acoustics** The science of sound.

**Ambient Noise** The distinctive pre-project acoustical characteristics of a given area consisting of all noise sources audible at that location.

| | |
|---|---|
| **Attenuation** | The reduction of noise. |
| **A-Weighting** | The sound level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the response of the human ear and gives good correlation with subjective reactions to noise. |
| **Decibel, or dB** | The fundamental unit of measurement that indicates the intensity of a sound, defined as ten times the logarithm of the ratio of the sound pressure squared over the reference pressure squared. |
| **CNEL** | Community Noise Equivalent Level. The average sound level over a 24-hour period, with a penalty of 5 dB added during evening hours (between 7:00 PM and 10:00 PM) and a penalty of 10 dB added during nighttime hours (between 10:00 PM and 7:00 AM). |
| **Frequency** | The measure of the rapidity of alterations of a periodic acoustic signal, expressed in cycles per second or Hertz. |
| **$L_{50}$** | The A-weighted sound level that is exceeded 50 percent of the sample time. |
| **$L_{dn}$** | Day-Night Average Sound Level. The average equivalent A-weighted sound level during a 24-hour day, obtained after the addition of 10 decibels to sound levels in the night after 10 p.m. and before 7 a.m. (Note: CNEL and Ldn represent daily levels of noise exposure averaged on an annual or daily basis). |
| **$L_{eq}$** | The sound level in decibels, equivalent to the total sound energy measured over a stated period of time. $L_{eq}$ includes both steady background sounds and transient short-term sounds. |
| **$L_{max}$** | The maximum A-weighted noise level during the measurement period. |

## REGULATORY CONTEXT

### FEDERAL

There are no federal regulations pertaining to noise that apply to the proposed project.

### STATE

#### California Government Code §65302(f)

California Government Code §65302(f) requires a Noise Element to be included in all city and county General Plans. The Noise Element must identify and appraise major noise sources in the community (e.g., highways and freeways, airports, railroad operations, local industrial plants, etc.). A noise contour diagram depicting major noise sources must be prepared and used as a guide for establishing land use patterns to minimize the exposure of residents to excessive noise. The Noise Element must include implementation measures and possible solutions that address existing and foreseeable noise levels.

#### California Building Code

The CBC (CCR Title 24, Part 2) includes noise insulation standards that apply to all new construction. The CBC requires that interior noise levels attributable to exterior sources not exceed 45 dB in any habitable room. The noise metric (i.e., day-night average sound level [Ldn] or the community noise equivalent level [CNEL]) must be consistent with the Noise Element of the jurisdiction's General Plan. Additional requirements are included for multi-family residential buildings. Compliance with the noise insulation standards is verified through the building permit process.

## LOCAL

### City of Mt. Shasta

The City's General Plan includes the following Goal, Policies, and Implementation Measures (IMs) that apply to the proposed project:

| Noise Element | | |
|---|---|---|
| **Goal** | NZ-1 | Protect City residents from the harmful and annoying effects of exposure to excessive noise. |
| **Policies** | NZ-1.1 | Enforce standards for noise exposure from proposed and existing non-transportation noise sources. The General Plan Noise Standards for the City of Mt. Shasta for new uses affected by non-transportation noise sources are shown on Table 7-5 [of the General Plan Noise Element]. The standards of Table 7-5 shall be applied to both new noise-sensitive land uses and new noise-generating uses, with the responsibility for noise attenuation placed on the new use. For example, if a developer proposes construction of a new apartment complex near an existing industry, the developer would be responsible for including appropriate noise attenuation in the project design to achieve compliance with the standards of Table 7-5 at the new apartments. Conversely, if a new industry was proposed near an existing apartment complex, the industry would be responsible for including appropriate noise attenuation in the project design to achieve compliance with the Table 7-5 standards at the existing apartment building. |
| | NZ-1.2 | Review impacts more closely when a project is potentially a high noise generator. |
| | NZ-1.4 | Enforce General Plan noise standards for noise exposure from proposed and existing transportation noise sources. The General Plan Noise Standards for the City of Mt. Shasta for new uses affected by transportation noise sources are shown on Table 7-6 [of the Noise Element]. Where the noise level standards of Table 7-6 are expected to be exceeded at proposed new uses that would be affected by traffic or railroad noise, appropriate noise mitigation measures shall be included in the project design to reduce projected noise levels to comply with the standards of Table 7-6. |
| | NZ-1.7 | Noise attenuation measures required to achieve acceptable noise standards shall emphasize site planning and project design. |
| | NZ-1.8 | Monitor compliance with noise standards. |
| **IMs** | NZ-1.1(b) | When noise levels due to non-transportation noise sources exceed acceptable noise level standards as indicated in Table 7-5, noise mitigation measures shall be required to comply with the standards. |
| | NZ-1.1(c) | Noise created by new proposed non-transportation noise sources shall not exceed the noise level standards indicated in Table 7-5 at the property line. |
| | NZ-1.2(a) | Proposed non-residential land uses that are likely to produce noise levels exceeding the acceptable noise standards at existing or planned noise sensitive uses shall require an acoustical analysis as part of the application review process to ensure that methods of achieving noise standards are included in project design. |
| | NZ-1.4(a) | Evaluate transportation noise sources of proposed projects according to the noise level standards shown in Table 7-6. |

| | |
|---|---|
| NZ-1.4(b) | Using acceptable acoustical engineering and construction standards, incorporate design features to reduce traffic noise to achieve the noise standards shown in Table 7-6. |
| NZ-1.4(c) | Noise created by new transportation noise sources, including roadway improvements, shall be mitigated to comply with the noise level standards shown in Table 7-6. |
| NZ-1.6(a) | Proposed noise-sensitive land uses in areas exposed to existing or projected exterior noise levels, which exceed acceptable noise standards, shall require an acoustical analysis as part of the environmental review process so that noise mitigation may be included in the project design. When an acoustical analysis is required by the City to assess compliance with the City's Noise Element standards, the analysis shall follow the guidelines of Table 7-7 [of the General Plan Noise Element]. |
| NZ-1.7(a) | Use creative concepts and accepted acoustical engineering standards to achieve acceptable noise standards. |
| NZ-1.7(b) | The use of noise barriers, such as soundwalls, shall be considered a supplemental means of achieving the noise standards after all practical design related noise mitigation measures have been integrated into the project. When soundwalls and noise barriers are proposed, the City will consider the visual impacts in addition to their effectiveness in attenuating noise. |
| NZ-1.8(a) | Develop and employ procedures to monitor compliance with the standards of the Noise Element after completion of projects where noise mitigation measures were required. |
| NZ-1.8(b) | Building design shall be reviewed to enforce the State Noise Insulation Standards (California Code of Regulations, Title 24) and Chapter 35 of the Uniform Building Code (UBC). |
| NZ-1.8(c) | Noise associated with construction activity between the hours of 7 a.m. and 5 p.m. shall be exempt from the standards cited in Table 7-5 [Noise Standards for New Uses Affected by Non-Transportation Noise]. Construction activity outside of this period may exceed the cited standards if an exemption is granted by the City to cover special circumstances. |

***See Tables 7-5, 7-6, and 7-7 of the General Plan Noise Element in Appendix D (Environmental Noise Analysis).***

**Tables 4.13-1 and 4.13-2** include noise standards that are applicable to the proposed project based on proposed uses and existing sensitive receptors in the project area. **Table 4.13-1** shows the standards that apply to new uses affected by non-transportation noise (e.g., stationary sources, playgrounds, parks, other outdoor activities, etc.).

Pursuant to General Plan Implementation Measure NZ-1.8(c), noise associated with construction activity between the hours of 7 a.m. and 5 p.m. is exempt from the standards shown in **Table 4.13-1;** construction activity outside of this period may exceed the cited standards if an exemption is granted by the City to cover special circumstances. **Table 4.13-2** shows the standards that apply to new uses affected by traffic and railroad noise.

**Table 4.13-1**
**Noise Standards for New Uses Affected by Non-Transportation Noise**

| New Land Use | Outdoor Activity Area Leq | | Interior Area Leq | Notes |
|---|---|---|---|---|
| | Daytime | Nighttime | Daytime and Nighttime | |
| All Residential | 50 | 45 | 35 | 1, 2, 3 |
| Hospital | 50 | 45 | 35 | 4 |
| Schools | 55 | N/A | 40 | 5 |
| Playgrounds | 65 | 65 | N/A | - |

1. Outdoor activity areas for single-family residential uses are defined as back yards. For large parcels or residences with no clearly defined outdoor activity area, the standard shall be applicable within a 100-foot radius of the residence.
2. For multi-family residential uses, the exterior noise level standard shall be applied at the common outdoor recreation area, such as at pools, play areas or tennis courts.
3. It may not be possible to achieve compliance with this standard at residential uses located immediately adjacent to loading dock areas of commercial uses while trucks are unloading. The daytime and nighttime noise level standards applicable to loading docks shall be 55 and 50 dBA Leq, respectively.
4. Hospitals are often noise-generating uses. The exterior noise level standards for hospitals are applicable only at clearly identified areas designated for outdoor relaxation by either hospital staff or patients.
5. The outdoor activity areas of schools are not typically utilized during nighttime hours.

General: The standards shall be reduced by 5 dB for sounds consisting primarily of speech or music, and for recurring impulsive sounds. If the existing ambient noise level exceeds the General Plan noise level standards, then the noise level standards shall be increased at 5 dB increments to encompass the ambient noise level.

*Source: City of Mt. Shasta General Plan Noise Element, 2007.*

**Table 4.13-2**
**Noise Standards for New Uses Affected by Traffic and Railroad Noise**

| New Land Use | Outdoor Activity Area Ldn | Interior Area Ldn/Peak Hour Leq [1] | Notes |
|---|---|---|---|
| All Residential | 60 - 65 | 45 | 2, 3, 4 |
| Hospital | 60 | 45 | 5 |
| Schools | 60 | 40 | - |
| Playgrounds | 70 | - | - |

1. For traffic noise within the City, Ldn and peak-hour Leq values are estimated to be approximately similar. Interior noise level standards are applied within noise-sensitive areas with windows and doors in the closed positions.
2. Outdoor activity areas for single-family residential uses are defined as back yards. For large parcels or residences with no clearly defined outdoor activity area, the standard shall be applicable within a 100-foot radius of the residence.
3. For multi-family residential uses, the exterior noise level standard shall be applied at the common outdoor recreation area, such as at pools, play areas or tennis courts.
4. Where it is not possible to reduce noise in outdoor activity areas to 60 dBA Ldn or less using a practical application of the best-available noise reduction measures, an exterior noise level of up to 65 dBA Ldn may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.
5. Hospitals are often noise-generating uses. The exterior noise level standards for hospitals are applicable only at clearly identified areas designated for outdoor relaxation by either hospital staff or patients.

*Source: City of Mt. Shasta General Plan Noise Element, 2007.*

## DISCUSSION OF IMPACTS

**Question A**

Some individuals and groups of people are considered more sensitive to noise than others and are more likely to be affected by the existence of noise. Locations that may contain high concentrations of noise-sensitive receptors include residential areas, schools, parks, churches, hospitals, and long-term care facilities. As shown in **Figure 4.13-1**, sensitive receptors in the project area include Mercy Medical Center on Pine Street, ±175 feet east of the project's driveway; Eskaton Washington Manor, a senior housing facility on Kingston Road, ±600 feet north of the project site; multi-family residences on Pine Street, ±360 feet south of the project's proposed driveway; and single-family residences on W. Field Street, Spring Street, and Cedar Street, ±275 feet south of the proposed school.

An Environmental Noise Analysis was prepared for the proposed project by j.c. brennan & associates, Inc., in April 2020 and is included as **Appendix E**. The purpose of the study was to identify potential noise impacts associated with traffic on I-5 and railroad operations and determine how those noise sources may affect sensitive receptors (students) on the project site. In addition, the analysis evaluated the proposed project's potential noise impacts on sensitive receptors in the project area.

The effects of noise on people can include annoyance, nuisance, and dissatisfaction; interference with activities such as speech, sleep, and learning; and physiological effects such as hearing loss or sudden startling. A common method to predict human reaction to a new noise source is to compare a project's predicted noise level to the existing environment (ambient noise level). A change of 1 dBA generally cannot be perceived by humans; a 3 dBA change is considered to be a barely noticeable difference; a 5 dBA change is typically noticeable; and a 10 dBA increase is considered to be a doubling in loudness and can cause an adverse response. As stated in the Environmental Noise Analysis, interior noise levels are about 25 decibels lower than exterior noise levels with the windows closed.

To obtain an estimate of existing ambient noise levels in the project area, j.c. brennan & associates, Inc., conducted continuous 24-hour noise measurements on the project site on July 13, 2019. According to the Mt. Shasta Weather Station, temperatures ranged from 57° Fahrenheit to 93.9° Fahrenheit. Precipitation over the 24-hour period totaled 0 inches. The mean wind speed was 8.17 miles per hour (MPH). The maximum sustained wind speed was 16.11 MPH, and the maximum wind gust was 19.68 MPH. Sound measurement equipment consisted of Larson Davis Laboratories (LDL) Model 820 and 824 precision integrating sound level meters. The meter was calibrated with an LDL Model CAL200 acoustical calibrator to ensure the accuracy of the measurements. The equipment used meets all pertinent specifications of the American National Standards Institute for Type 1 sound level meters (ANSI S1.4).

The sound level meter was placed 150 feet from the centerline of I-5 (shown as Site A in Figure 2 of **Appendix E.** Monitoring results for ambient noise levels at the monitoring site are shown in **Table 4.13-3.**

**Table 4.13-3**
**Noise Monitoring Results (Ambient Noise Levels)**

| Site | Measured Ldn | Average Hourly Daytime (7:00 A.M. – 10:00 P.M.) | | | Average Hourly Nighttime (10:00 P.M. to 7:00 A.M.) | | |
|---|---|---|---|---|---|---|---|
| | | Leq | L50 | Lmax | Leq | L50 | Lmax |
| **A** | **67.5 dBA** | 64.1 dB | 62.5 dB | 74.6 dB | 60.3 dB | 55.0 dB | 74.0 dB |

*Source: j.c. brennan & associates, 2020.*


Figure 4.13-1

**Location of Noise-Sensitive Receptors**

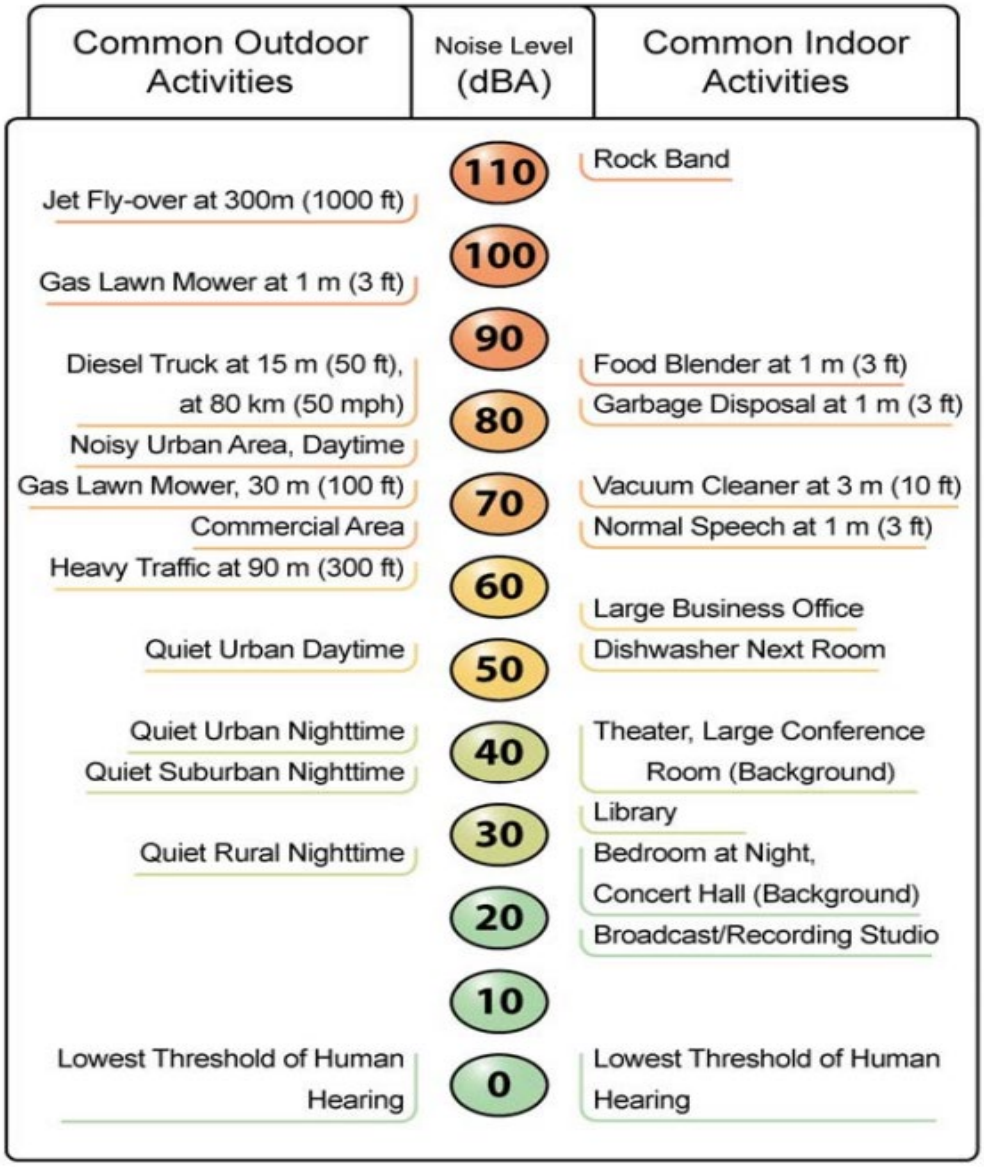
ENPLAN

***Construction Noise***

Temporary noise impacts would occur due to an increase in traffic from construction workers commuting to the site; however, it is not anticipated that worker commutes would significantly increase daily traffic volumes. Noise would be generated during delivery of construction equipment and materials to the project site; however, heavy equipment would remain on-site for the duration of construction. Noise impacts resulting from construction activities would primarily depend on: 1) the noise generated by various pieces of construction equipment; 2) the timing and duration of noise-generating activities; 3) the distance between construction noise sources and noise-sensitive receptors; and 4) existing ambient noise levels.

**Figure 4.13-2** shows noise levels of common activities to enable the reader to compare construction-noise with common activities.

**Figure 4.13-2**
Noise Levels of Common Activities




*Source: Caltrans, 2016*

Noise levels from construction-related activities would fluctuate, depending on the number and type of construction equipment operating at any given time. As shown in **Table 4.13-4**, construction equipment anticipated to be used for project construction typically generates maximum noise levels ranging from 74 to 89 dBA at a distance of 50 feet.

**TABLE 4.13-4**
**Examples of Construction Equipment**
**Noise Emission Levels**

| Equipment | Typical Noise Level (dBA) 50 feet from Source |
|---|---|
| Roller | 74 |
| Concrete Vibrator | 76 |
| Pump | 76 |
| Saw | 76 |
| Backhoe | 80 |
| Air Compressor | 81 |
| Generator | 81 |
| Compactor | 82 |
| Concrete Pump | 82 |
| Compactor (ground) | 83 |
| Crane, Mobile | 83 |
| Concrete Mixer | 85 |
| Dozer | 85 |
| Excavator | 85 |
| Grader | 85 |
| Loader | 85 |
| Jack Hammer | 88 |
| Truck | 88 |
| Paver | 89 |
| Scraper | 89 |

*Sources: U.S. Department of Transportation, Federal Transit Administration, 2018. Federal Highway Administration, 2017.*

Noise Attenuation

Noise from construction activities generally attenuates at a rate of 6 dBA (on hard and flat surfaces) to 7.5 dBA (on soft surfaces, such as uneven and/or vegetated terrain) per doubling of distance. If the receptor is far from the noise source, other factors come into play. For example, barriers such as fences or buildings that break the line of sight between the source and the receiver typically reduce sound levels by at least 5 dBA. Likewise, wind can reduce noise levels by 20 to 30 dBA over long distances.

The analysis of potential impacts from construction noise conservatively assumes that noise would attenuate at a rate of 6 dBA per doubling of distance; however, because the project site consists of vegetated terrain, construction noise is anticipated to be less that estimated below.

Cumulative Noise – Identical Sources

Because it is a logarithmic unit of measurement, a decibel cannot be added or subtracted arithmetically. The combination of two or more identical sound pressure levels at a single location involves the addition of logarithmic quantities as shown in **Table 4.13-5.** A doubling of identical sound sources results in a sound level increase of approximately 3 dB. Three identical sound sources would result in a sound level increase of approximately 4.8 dB. For example, if the sound from one scraper resulted in a sound pressure level of 89 dB, the sound level from two scrapers would be 92 dB, and the sound level from three scrapers would be ±93.8 dB.

**TABLE 4.13-5**
**Cumulative Noise: Identical Sources**

| Number of Sources | Increase in Sound Pressure Level (dB) |
|---|---|
| 2 | 3 |
| 3 | 4.8 |
| 4 | 6 |
| 5 | 7 |
| 10 | 10 |
| 15 | 11.8 |
| 20 | 13 |
| 50 | 17 |

*Sources: U.S. Department of Transportation, Federal Transit Administration, 2018. The Engineering Toolbox, 2019.*

Cumulative Noise – Different Sources

As shown in **Table 4.13-6**, the sum of two sounds of a different level is only slightly higher than the louder level. For example, if the sound level from one source is 80, and the sound level from the second source is 89 dB, the level from both sources together would be 89.5.

**TABLE 4.13-6**
**Cumulative Noise: Different Sources**

| Sound Level Difference between two sources (dB) | Decibels to Add to the Highest Sound Pressure Level |
|---|---|
| 0 | 3 |
| 1 | 2.5 |
| 2 | 2 |
| 3 | 2 |
| 4 | 1.5 |
| 5 | 1 |
| 6 | 1 |
| 7 | 1 |
| 8 | 0.5 |
| 9 | 0.5 |
| 10 | 0.5 |
| Over 10 | 0 |

*Sources: U.S. Department of Transportation, Federal Transit Administration, 2018. The Engineering Toolbox, 2018.*

Potential Construction Noise

With two pieces of equipment with a noise level of 89 dBA operating simultaneously, noise levels could sporadically reach approximately 79 dBA at the exteriors of the residences on Pine Street and W. Field Street and could reach 81 dBA at the exterior of the hospital during construction of the driveway and up to 77 dBA during other construction activities.

As noted above, interior noise levels within residential units are approximately 25 decibels lower than exterior noise levels with the windows closed. Interior noise levels at the residences could sporadically reach 54 dBA, provided that the windows were closed.

Interior noise levels at the hospital also would be at least 25 decibels lower than exterior noise levels, and interior noise levels could sporadically reach 56 dBA during construction of the driveway, and could reach up to 52 dBA during other construction activities, provided that the windows were closed.

In addition to noise from construction equipment, OSHA regulations (Title 29 CFR, §1926.601(b)(4)(i) and (ii) and §1926.602(a)(9)(ii)) state that no employer shall use any motor vehicle, earthmoving, or compacting equipment that has an obstructed view to the rear unless the vehicle has a reverse signal alarm audible above the surrounding noise level or the vehicle is backed up only when an observer signals that it is safe to do so.

Although these regulations require an alarm to be only at a level that is distinguishable from the surrounding noise level (±5 dB), some construction vehicles are pre-equipped with non-adjustable alarms that range from 97 to 112 dBA at the source. Noise levels associated with reverse signal alarms could temporarily reach between 84 dBA and 99 dBA at the exteriors of the nearest residences; interior noise levels could sporadically reach 59 to 74 dBA, provided that the windows were closed.

Noise levels at the hospital during use of reverse-signal alarms could sporadically reach between 86 dBA and 101 dBA at the exterior of the hospital during construction of the driveway, and could temporarily reach between 82 dBA and 97 dBA during other construction activities, provided that the windows were closed.

As discussed above, the average hourly ambient noise level in the project area is estimated at 64.1 dB Leq during daytime hours (7:00 A.M. to 10:00 P.M.) when construction activities would occur. In comparison to ambient noise levels, construction noise would be substantially greater during use of reverse signal alarms.

Thresholds of Significance

As stated under Regulatory Context, the City's General Plan states that noise associated with construction activity between 7:00 AM and 5:00 PM shall be exempt from the City's noise standards shown in **Table 4.13-1**. Construction activity outside of this time period may exceed the cited standards if an exemption is granted by the City to cover special circumstances.

In addition, the California Division of Safety and Health and OSHA have established thresholds for exposure to noise in order to prevent hearing damage (Caltrans, 2013). **Table 4.13-7** identifies the maximum allowable daily noise exposure for hearing damage.

**TABLE 4.13-7**
**Thresholds for Exposure to Noise to Prevent Hearing Damage**

| Sound Level | Maximum Exposure Per Day to Prevent Hearing Damage |
|---|---|
| 90 dBA | 8 hours |
| 95 dBA | 4 hours |
| 100 dBA | 2 hours |
| 105 dBA | 1 hour |
| 110 dBA | 30 minutes |
| 115 dBA | 15 minutes |

*Source: Caltrans, 2020*

The longer the exposure, the greater the risk for hearing loss, especially when there is not enough time for the ears to rest between exposures. Hearing loss can also result from a single extremely loud sound at very close range, such as sirens and firecrackers (Centers for Disease Control, 2019). Even when noise is not at a level that could result in hearing loss, excessive noise can affect quality of life, especially during nighttime hours.

In the worst-case scenario, exterior noise levels from construction equipment operation could sporadically reach approximately 79 dBA at the nearest residences on Pine Street and W. Field Street, and could sporadically reach up to 99 dBA if reverse signal alarms are used. Interior noise levels at the residences due to construction equipment operation could sporadically reach approximately 54 dBA, and could reach up to approximately 74 dBA if reverse signal alarms are used.

Exterior noise levels from construction equipment operation could sporadically reach approximately 81 dBA at the hospital during construction of the driveway, up to 77 dBA during other construction activities, and up to 101 dBA if reverse signal alarms are used. Interior noise levels at the hospital could reach 56 dBA during construction of the driveway, 52 dBA during other construction activities, and could reach between 84 dBA and 99 dBA if reverse signal alarms are used, provided that the windows were closed.

However, reverse signal alarms are needed only intermittently, and each occurrence involves only seconds of elevated noise levels. In addition, construction equipment does not operate continuously throughout the entire work day. Therefore, while construction noise may reach considerable levels for short instances, average construction noise levels at the nearest residences and the hospital would be moderate and would not exceed the standards for noise exposure to prevent hearing damage identified in **Table 4.13-7.**

In order to minimize impacts from construction noise, **MM 4.13.1** limits construction activities to between the hours of 7:00 A.M. and 5:00 P.M. Any construction outside of this timeframe may occur only if the City issues an exemption for activities that require interruption of utility services to allow work during low demand periods, or to alleviate traffic congestion and safety hazards.

**MM 4.13.2** requires that construction equipment be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, and **MM 4.3.1** prohibits motorized construction equipment to be left idling for more than five minutes when not in use.

Therefore, impacts during construction would be less than significant with implementation of **MM 4.3.1 and 4.13.1 through MM 4.13.3**, and the proposed project would be in compliance with the City's General Plan.

***Operational Noise***

As discussed under Regulatory Context, the City's noise level standard for a new school affected by traffic and railroad noise is 40 dBA Ldn for interior noise (with windows and doors closed) and 60 dBA Ldn at the exterior of the school. The noise standard for a new school affected by non-transportation noise is 40 dBA Leq for interior noise (with windows and doors closed) and 55 dBA Leq at the exterior of the school.

As noted in **Table 4.13-1** above, if the existing ambient noise level exceeds the General Plan noise level standards, then the noise level standards shall be increased at 5 dB increments to encompass the ambient noise level. If a new project adversely impacts an occupant or tenant of a new use or an existing sensitive receptor in the project area, the new project is responsible for including appropriate noise attenuation in the project design (see General Plan Policy NZ-1.1).

**Potential Impacts to On-Site Sensitive Receptors (Students)**

Railroad Noise

According to the City's General Plan, railroad activity in the City includes freight rail services provided by the Union Pacific Railroad UPRR. In addition, Amtrak provides daily passenger service through the City. Major noise sources associated with train operations in the City are the train engines and warning horns. The UPRR track is located approximately 675 feet east of the nearest edge of the project site. According to the General Plan, the distance to the 60 dBA Ldn noise contour associated with UPRR operations is 631 feet. This does not take into consideration shielding provided by intervening structures or topography. Therefore, it is not anticipated that noise from UPRR operations would adversely affect the proposed project.

I-5 Traffic Noise

In addition to the 24-hour noise monitoring that was conducted to determine ambient noise levels in the project area, j.c. brennan & associates used the Federal Highway Administration's Highway Traffic Noise Prediction Model (FHWA RD-77-108) to estimate current and future traffic noise levels from I-5. This model is based on the Calveno reference noise factors for automobiles, medium trucks, and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the project site. The FHWA model was developed to predict hourly Leq values for free-flowing traffic conditions.

Short-term noise level measurements and concurrent counts of traffic on I-5 were conducted to determine the accuracy of the FHWA model in describing the existing noise environment on the project site. Site conditions such as intervening structures, actual travel speeds, and roadway grades were taken into consideration. Sound measurement equipment consisted of a LDL Model 824 precision integrating sound level meter that was calibrated in the field before use with an LDL Model CAL200 acoustical calibrator to ensure the accuracy of the measurements. The noise measurement site is identified as Site 3 in Figure 2 of **Appendix E.** Monitoring results are shown in **Table 4.13-8.**

**Table 4.13-8**
**Comparison of FHWA Model to Measured Existing Traffic Noise Levels**

| Vehicles/Measurement Period | | | | | Speed (MPH) | Distance (Feet) | Measured Leq | Modeled Leq* | Difference |
|---|---|---|---|---|---|---|---|---|---|
| Site | Roadway | Autos | Medium Trucks | Heavy Trucks | | | | | |
| 3 | I-5 | 408 | 28 | 77 | 60 | 150 | 65.0 dB | 70.0 dB | 5 dB |

* *Acoustically "soft" site assumed"*
*Source: j.c. brennan & associates, 2020.*

As indicated in **Table 4.13-8**, the FHWA model was found to over-predict I-5 traffic noise at the project site by +5 dBA due to shielding by the overpass to the north, and some excess ground attenuation. For this analysis, a conservative -3 dBA correction was added to the calculated future traffic noise at the project site.

Future traffic volumes for year 2035 and truck mix percentages for I-5 were obtained from Caltrans and the County's 2016 Regional Transportation Plan. **Table 4.13-9** shows predicted I-5 noise levels on the project site.

**Table 4.13-9**
**Traffic Noise Levels and Distances to Contours**

| Roadway | Location | Ldn | Distance to Contours | | |
|---|---|---|---|---|---|
| | | | 70 dBA | 65 dBA | 60 dBA |
| I-5 | 150-feet from Roadway Centerline | 71 dBA | 168 Feet | 361 Feet | 778 Feet |

*Source: j.c. brennan & associates, 2020.*

As stated in the Environmental Noise Analysis, the proposed school building would be exposed to I-5 traffic noise levels of approximately 70 dBA Ldn, which exceeds the City's exterior noise level standard of 60 dB Ldn. The proposed play area south of the school would also be exposed to traffic noise levels of about 65 dB Ldn.

As document in the Environmental Noise Analysis, j.c. brennan & associates, Inc., conducted a barrier analysis for the play area and determined that a six-foot tall barrier would reduce I-5 traffic noise levels in the play area to 60 dB Ldn. The location of the proposed sound wall is shown in Figure 2 of the Environmental Noise Analysis (**Appendix E**), and in **Figure 2** of this Initial Study. The wall is also depicted in Figure 4.1-1a (Building Design Option 1) as a solid block masonry wall. **MM 4.13.3** requires that the wall be installed prior to issuance of a Certificate of Occupancy for the building.

The Environmental Noise Analysis also identifies the need for mitigation to reduce interior noise levels within the portion of the school building adjacent to I-5. According to the noise analysis, the building will include an 8-inch stud wall assembly with 6-1/2-inch solid foam insulation in the study cavities. The exterior wall would include 24-gauge metal wall panels. The interior wall assembly would include 5/8-inch gypsum board screwed to channels with a 1-1/2-inch gap between the studs. If the final building plans are consistent with these wall assemblies, compliance with the City's interior noise standard for schools would be achieved by installing windows with a Sound Transmission Class (STC) rating of 33 or higher.

**MM 4.4.4** requires that prior to issuance of a building permit, the City's Building Official must review building construction plans and verify that appropriate sound-rated assemblies (e.g., walls, windows, exterior doors) are implemented into the project design to ensure compliance with the City's interior noise standards for schools.

**Potential Impacts of the Proposed Project on Sensitive Receptors in the Project Area**

Off-Site Project-Related Traffic Noise
The FHWA model was used to determine future off-site traffic noise levels associated with the proposed project. **Table 4.13-10** indicates both existing estimated traffic noise levels and anticipated noise levels with the addition of the project.

**Table 4.13-10**
**Traffic Noise Levels for the Local Street System**

| Location | Scenario | Traffic Noise Level at 75 feet | Change |
|---|---|---|---|
| Pine Street, North of Ivy Street | Existing | 57 dBA Ldn | ±1 dBA |
| | Existing Plus Project | 58 dBA Ldn | |
| Pine Street, South of Ivy Street | Existing | 57 dBA Ldn | ±1 dBA |
| | Existing Plus Project | 58 dBA Ldn | |

*Source: j.c. brennan & associates, 2020.*

As stated above, a change of 1 dBA generally cannot be perceived by humans; therefore, the project's incremental increase in off-site traffic noise on the local street system is less than significant.

On-Site Parking Lot Activities

As shown in **Figure 2**, all parking areas are located east of the school building. On-site traffic and parking lot activities, including car doors slamming, music, and people conversing, are expected to generate noise levels of ±71 dB at a distance of 50 feet during the A.M. and P.M. peak hours when students and employees enter and exit the site. As stated in the Environmental Noise Analysis, the peak-hour Leq noise level from parking lot activities is anticipated to be ±47 dB at the nearest sensitive receptor, which is the residence on Pine Street. This does not exceed the City's exterior daytime noise standard of 50 dB Leq.

On-Site Traffic/Pick-Up/Drop-Off Areas

The Environmental Noise Analysis states that the pick-up/drop-off aisle and adjacent parking area is 157-feet from the nearest residence and estimates that associated peak-hour noise levels at the nearest residence would not exceed 35 dB Leq.

The edge of the pick-up/drop-off drive aisle is actually ±220 feet southeast of the nearest residence on Pine Street and ±325 feet south of the nearest residence on W. Field Street; therefore, projected noise levels at the nearest residences are expected to be less than 35 dB. This does not exceed the City's exterior daytime noise standard of 60 to 65 dBA Ldn for traffic noise.

On-Site Outdoor Activities

The proposed project would result in an increase in ambient noise levels in the Project area due to increased outdoor play during school recesses. Noise associated with the play area could include occasional shouting, laughing, and similar noise associated with typical play areas. It is estimated that the number of students per recess would be about 100.

The Environmental Noise Analysis estimates that noise levels would be about 60 dB Leq at a distance of 75 feet from the focal point or effective noise center of the play area, assuming that children are on the play area for an entire hour; maximum noise levels in the play area could sporadically reach about 75 dB.

The nearest sensitive receptors to the play area are residences ±220 feet to the south on W. Field Street and ±300 feet to the east on Pine Street. Noise levels associated with the play area are projected to be an average of 50 dB Leq on W. Field Street and could occasionally reach 54 dB; with installation of the sound wall on the south side of the play area, noise levels at the W. Field Street residences are expected to be at least 5 dB less than projected. Noise levels associated with the play area are projected to be an average of 48 dB Leq at the residences on Pine Street and could occasionally reach 63 dB.These noise levels would not exceed the City's daytime noise standard of 50 dB Leq.

Outdoor Mechanical Equipment

Mechanical equipment (e.g., heating, ventilation, and air conditioning systems, etc.) has the potential to generate noise during operations. The City's Building Official is responsible for reviewing mechanical plans for all new construction projects in the City to determine compliance with the City's standards, including the City's General Plan noise standards for stationary sources. If required, the building design would incorporate noise attenuation measures (e.g., shielding) to ensure compliance with the City's noise standards. In accordance with the MSMC, screening for roof-mounted mechanical equipment must conform architecturally with the design of the building.

Trash Collection and Snow Removal

Trash collection services in the City occur one time per week. In accordance with MSMC Section 18.70.130(B)(2)(b), trash collection areas may not be located adjacent to residential property. Trash collection areas must include a solid acoustic buffer as necessary. The City will review the final site plan in conjunction with construction plan review to ensure that outdoor trash storage areas comply with the City's standards.

Snow removal occurs intermittently throughout the City during the snow season, which is generally November through March of each year. Although the proposed project would require snow removal services, these are services that are presently provided in this area of the City, and the proposed project would not significantly increase noise levels above those that presently occur during snow removal operations.

Therefore, because the Building Official would review construction documents to ensure compliance with the City's noise level standards; and the proposed project would not significantly increase the ambient noise levels in a manner that would adversely affect existing sensitive receptors in the project vicinity, operational impacts would be less than significant.

**Question B**

Typical sources of ground-borne vibration include construction equipment, steel-wheeled trains, and vehicles on rough roads. The proposed project does not include any components that would result in long-term impacts associated with vibration. Vibration during construction would occur only when high vibration equipment (e.g., compactors, large dozers, etc.) are operated. The proposed project may require limited use of equipment with high vibration levels during construction. Potential effects of ground-borne vibration include perceptible movement of building floors, rattling windows, shaking of items on shelves or hangings on walls, and rumbling sounds. In extreme cases, vibration can cause damage to buildings. Both human and structural response to ground-borne vibration are influenced by various factors, including ground surface, distance between the source and the receptor, and duration.

The most common measure used to quantify vibration amplitude is the peak particle velocity (PPV). PPV is a measurement of ground vibration defined as the maximum speed (measured in inches per second) at which a particle in the ground is moving relative to its inactive state. Although there are no federal, state, or local regulations for ground-borne vibration, Caltrans has developed criteria for evaluating vibration impacts, both for potential structural damage and for human annoyance. The Caltrans Transportation and Construction Vibration Guidance Manual (2013), was referenced in the analysis of construction-related vibration impacts. **Table 4.13-11** includes the potential for damage to various building types as a result of ground-borne vibration. Transient sources include activities that create a single isolated vibration event, such as blasting. Continuous, frequent, or intermittent sources include jack hammers, bulldozers, and vibratory rollers.

**TABLE 4.13-11**
**Structural Damage Thresholds from Ground-Borne Vibration**

| Structure Type | Vibration Level (Inches per Second PPV) | |
|---|---|---|
| | Transient Sources | Continuous/Frequent/ Intermittent Sources |
| Older residential structures | 0.5 | 0.3 |
| Newer residential structures | 1.0 | 0.5 |
| Historic and some old buildings | 0.5 | 0.25 |
| Newer industrial/commercial buildings | 2.0 | 0.5 |

*Source: Caltrans, 2020*

**Table 4.13-12** indicates the potential for annoyance to humans as a result of ground-borne vibration.

**TABLE 4.13-12**
**Human Response to Ground-Borne Vibration**

| Human Response | Vibration Level (Inches per Second PPV) | |
|---|---|---|
| | Transient Sources | Continuous/ Frequent/ Intermittent Sources |
| Barely Perceptible | 0.04 | 0.01 |
| Distinctly Perceptible | 0.25 | 0.04 |
| Strongly Perceptible | 0.9 | 0.10 |
| Disturbing | 2.0 | 0.4 |

*Source: Caltrans, 2020*

**Table 4.13-13** indicates vibration levels for various types of construction equipment that may be used for the proposed project.

**TABLE 4.13-13**
**Examples of Construction Equipment Ground-Borne Vibration**

| Equipment Type | Inches per Second PPV at 25 feet |
|---|---|
| Bulldozer (small) | 0.003 |
| Bulldozer (large) | 0.089 |
| Jackhammer | 0.035 |
| Loaded trucks | 0.076 |
| Vibratory roller | 0.210 |

*Source: Caltrans Transportation and Construction Vibration Guidance Manual, 2020.*

Vibration levels from construction equipment use at varying distances from the source can be calculated using the following formula:

$$PPV_{Equipment} = PPV_{Ref} (25/D)^n$$

Where:

*$PPV_{Ref}$ = reference PPV at 25 ft.*
*D = distance from equipment to the receiver in ft.*
*n = 1.1 (the value related to the attenuation rate through ground)*

Based on this equation, during use of a vibratory roller, vibration levels at the nearest sensitive receptors would be ±0.02 at the residences on W. Field Street and Pine Street, and ±0.025 at the exterior of the hospital.

These vibration levels would not be at a level that would cause structural damage (see **Table 4.13-11**). In addition, vibration levels would be barely perceptible to distinctly perceptible but would not rise to a level that would be considered disturbing (see **Table 4.13-12**).

Because increased ground-borne vibration is temporary and would cease at completion of the project, and **MM 4.13.1** would reduce the potential for human annoyance by limiting construction hours, impacts would be less than significant.

**Question C**

The Dunsmuir Municipal-Mott Airport is located approximately four miles southeast of the southerly boundary of the proposed Golden Eagle Charter School. According to the Siskiyou County Airport Land Use Compatibility Plan, no portion of the project site is located within an airport influence area. According to the Federal Aviation Administration, the project site is not located in the vicinity of a private airstrip. Therefore, the project would not expose people residing or working in the project area to excessive noise levels associated with an airport or private airstrip; there would be no impact.

## CUMULATIVE IMPACTS

As noted in Section 3.3, the City's Water Distribution System Improvements project includes work on Pine Street adjacent to the project site, and contractors for the Water Distribution System, PacifiCorp Lassen Substation and Sewer Interceptor projects may travel on the same streets as contractors for the GECS improvements.

There is a possibility that construction periods for these projects may overlap and contribute to temporary cumulative construction noise and vibration impacts and traffic noise impacts if any of the projects are constructed simultaneously with the GECS improvements. Given the linear nature of the City's and PacifiCorp's infrastructure improvements, project noise and vibration would be intermittent and occur for short periods of time until the equipment proceeds to the next work area.

Construction-related traffic would also be minor due to the overall scale of the construction activities. Further, construction-related traffic for the cumulative projects would be spread over the duration of the construction schedule and would be minimal on a daily basis. In addition, all projects in the City of Mt. Shasta are subject to General Plan implementation measure NZ-1.8(c) that minimizes potential impacts associated with construction noise between the hours of 5:00 p.m. and 7:00 a.m. With implementation of **MM 4.3.1, MM 4.13.1** and **MM 4.13.2**, the proposed project's contribution to cumulative noise and vibration impacts during construction would be less than significant.

In terms of cumulative operational impacts, all new development projects in the City are required to comply with adopted interior and exterior noise standards. Noise attenuation is required as necessary to ensure compliance with the noise standards. Implementation of noise attenuation measures is verified by the City's Building Official during construction plan review and inspection. With implementation of **MM 4.13.3 and MM 4.13.4**, and compliance with existing building codes, the proposed project's cumulative operational noise and vibration impacts would be less than significant.

## MITIGATION

Implementation of **MM 4.3.1.**

**MM 4.13.1** Construction activities shall be limited to between the hours of 7:00 a.m. and 5:00 p.m. Exceptions to these limitations may be approved by the City's Public Works Director or his/her designee for activities that require interruption of utility services to allow work during low demand periods, or to alleviate traffic congestion and safety hazards.

**MM 4.13.2** Construction equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers' recommendations. Equipment engine shrouds shall be closed during equipment operation.

**MM 4.13.3** Prior to issuance of a Certificate of Occupancy by the City, a 6-foot tall sound wall shall be installed around the play area in the location shown in the *Golden Eagle Charter School Environmental Noise Analysis* prepared by j.c. brennan & associates, Inc. (April 16, 2020).

**MM 4.13.4** In order to ensure compliance with the City's interior noise standards for schools, prior to issuance of a building permit, the City's Building Official shall verify that appropriate sound-rated assemblies (e.g., walls, windows, exterior doors) are implemented into the building design, as recommended in the *Golden Eagle Charter School Environmental Noise Analysis* prepared by j.c. brennan & associates, Inc. (April 16, 2020).

## DOCUMENTATION


**California Department of Transportation.** 2020. Transportation and Construction Vibration Guidance Manual. https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf. Accessed July 2020.

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# 4.14 POPULATION AND HOUSING

Would the project:

| Issues and Supporting Evidence | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a. Induce substantial unplanned 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 people or housing, necessitating the construction of replacement housing elsewhere? | ☐ | ☐ | ☐ | ☒ |

## REGULATORY CONTEXT

### FEDERAL

There are no federal regulations pertaining to population or housing that apply to the proposed project.

### STATE

#### California Government Code §65581

California Government Code §65581 *et seq.* requires a Housing Element to be included in all city and county General Plans. State Housing Element law mandates that jurisdictions provide sufficient land to accommodate a variety of housing opportunities for all economic segments of the community. Compliance with this requirement is measured by the jurisdiction's ability to provide adequate land to accommodate a share of the region's projected housing needs for the applicable planning period. This share is known as the Regional Housing Needs Allocation (RHNA).

### LOCAL

#### City of Mt. Shasta

The City's General Plan includes the following Goals, Policies, and Implementation Measures (IMs) that apply to the proposed project:

| **Housing Element** | | |
|---|---|---|
| **Goals** | HO-1 | Provide an adequate supply of sound, affordable housing for existing and future residents of Mt. Shasta. |
| **Policies** | HO-1.5 | With all due consideration to financial constraints, and consistent with other General Plan policies, the City shall encourage, participate, and cooperate in extension of City services to currently unserved and underserved areas, including direct financial participation when deemed appropriate by the City Council. |
| **IMs** | HO-1.5.2 | The City shall continue to develop and implement plans to expand domestic water and sewage collection and treatment systems such that planned development over the General Plan 20-year timeframe can be accommodated. |

## DISCUSSION OF IMPACTS

#### Question A

As discussed in Section 3.0 (Project Description), Golden Eagle Charter School presently operates at 2405 South Mount Shasta Boulevard in the City of Mount Shasta. The purpose of the proposed project is to provide a larger school to accommodate a growing number of students. The project does not involve construction of residences or businesses; therefore, the project would not directly induce population growth. The project would connect to existing City utility infrastructure, and no new roadways or other infrastructure would be constructed. Therefore, the project would not induce substantial unplanned population growth, either directly or indirectly, and there would be no impact.

**Question B**

No structures would be demolished to accommodate the proposed improvements; therefore, the proposed project would not directly impact any housing units. Indirect impacts could occur if the project removes land identified in the General Plan Housing Element as land that is required to accommodate the City's housing needs.

As discussed under Regulatory Context, State Housing Element law mandates that jurisdictions provide sufficient land to accommodate a variety of housing opportunities for all economic segments of the community. This share is known as the Regional Housing Needs Allocation (RHNA).

Pursuant to California Government Code (GC) Section 65863(b), "*No city…shall, by administrative, quasi-judicial, legislative, or other action, reduce, or require or permit the reduction of, the residential density for any parcel, or allow development of any parcel at a lower residential density…unless the City…makes written findings supported by substantial evidence of both of the following:*

1. *The reduction is consistent with the adopted general plan, including the housing element.*
2. *The remaining sites identified in the housing element are adequate to accommodate the jurisdiction's share of the regional housing need.*

As stated in GC Section 65863(g)(2)(A)(ii), "lower residential density," for sites on which residential and nonresidential uses are permitted, means "*a use that would result in the development of fewer than 80 percent of the number of residential units that would be allowed under the maximum residential density for the site."*

The City's share of the 2014-2019 RHNA is 45 units (6 extremely-low income; 5 very-low-income; 7 low-income; 8 moderate income; and 19 above-moderate income). To accommodate lower-income housing, the State considers lands zoned for a density of at least 15 units per acre as being able to accommodate affordable housing for lower-income households.

The City's Housing Element identifies the majority of the proposed project site as undeveloped land that is appropriate to meet its share of the regional housing needs. It is estimated that the "realistic potential units" that could be accommodated on the property is approximately 114 housing units.

According to the Housing Element, the remaining undeveloped land in the City that is zoned R-3 could accommodate 690 lower-income housing units; because the City's RHNA for lower-income housing units for the current planning period is 18, this is more than sufficient to meet the current RHNA. Therefore, the City would be able to adopt a finding that the reduction is consistent with the adopted general plan, including the Housing Element, and the remaining sites identified in the housing element are adequate to accommodate the City's share of the regional housing need. Therefore, the proposed project would not indirectly impact housing.

## CUMULATIVE IMPACTS

The proposed project would not induce substantial unplanned population growth in the area and would not directly or indirectly displace housing or people; therefore, it would not contribute to cumulative impacts related to population and housing.

## MITIGATION

None necessary.

## DOCUMENTATION

**City of Mt. Shasta.** 2007. Mt. Shasta General Plan. https://mtshastaca.gov/?s=general+plan. Accessed December 2019.

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_____. 2007. Final Environmental Impact Report, City of Mt. Shasta General Plan Update Project (SCH No. 2005082099). https://mtshastaca.gov/wp-content/uploads/2015/11/Draft-MASTER-EIR.pdf. Accessed December 2019.

# 4.15 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:

| Issues and Supporting Evidence | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a. Fire protection? | ☐ | ☐ | ☐ | ☒ |
| b. Police protection? | ☐ | ☐ | ☐ | ☒ |
| c. Schools? | ☐ | ☐ | ☐ | ☒ |
| d. Parks? | ☐ | ☐ | ☐ | ☒ |
| e. Other public facilities? | ☐ | ☐ | ☐ | ☒ |

## REGULATORY CONTEXT

There are no federal or State regulations pertaining to public services that apply to the proposed project.

### LOCAL

#### City of Mt. Shasta

The City's General Plan includes the following Goals, Policies, and Implementation Measures (IMs) that apply to the proposed project:

| Land Use and Open Space and Conservation Elements | | |
|---|---|---|
| **Goals** | LU-11 | Provide adequate fire protection services. |
| | LU-12 | Provide adequate facilities for the police department. |
| | LU-13 | Support efforts to provide adequate education to all age levels. |
| | OC-9 | Provide park and recreation facilities to meet the growing population of Mt. Shasta. |
| **Policies** | LU-11.1 | Provide fire management services which meet area needs. |

| | | |
|---|---|---|
| | LU-11.4 | Provide adequate fire fighting facilities. |
| | LU-12.1 | Develop programs to ensure adequate police services capabilities. |
| | LU-12.2 | Provide adequate facilities for the police department. |
| | LU-13.1 | Ensure that the school districts participate in the review of residential development proposals. |
| | OC-9.1 | Strive to provide neighborhood parks to meet the needs of developing areas. |
| | OC9.2 | Continue to meet community park and recreation needs. |
| **IMs** | LU-11.1(a) | Incorporate fire prevention measures in the land development code for the design and construction of new buildings and facilities, such as sprinklers, fire resistant construction, use of fire resistant vegetation, and other fire protection and defensible space. |
| | LU 11.1(b) | Utilize planning and design standards to reduce risk of structural damage from fire. This includes the use of loop roads adequate for all-weather fire apparatus access and evacuation, limitations on the lengths of cul-de-sacs, and elimination of extended driveways for "flag" lots. |
| | LU-11.4(a) | When population growth requires, the City will construct a new fire department branch facility. |
| | LU-12.1(a) | Determine and maintain a desirable ratio of sworn police personnel to population as the community continues to grow. |
| | LU-12.2(a) | Consider creating a capital facility fund paid for from funds generated by new development as a means of acquiring monies to construct a new police department facility. |
| | OC-9.2(b) | Maintain a ratio of not less than five acres of neighborhood parks per one thousand City population. |
| | OC-9.2(c) | Maintain a ratio of not less than five acres of community park land per one thousand City population. |

## DISCUSSION OF IMPACTS

**Questions A, B, D, and E**

Fire protection services within the City are provided by the City of Mt. Shasta Fire Department. The Department has a mutual aid agreement with the Mt. Shasta Fire Protection District, which provides fire protection services to the unincorporated area of the County surrounding the City. The Department is also a partner with all other fire protection agencies in Siskiyou County through a countywide mutual aid agreement. Police protection services and emergency response within the City are provided by the Mt. Shasta Police Department. Other public services provided by the City include street maintenance and snow removal. The main public works facility is the City's Corporation Yard, located in the southern area of the City on Mt. Shasta Boulevard. City parks are operated by the Mt. Shasta Recreation and Parks District, a special district that was organized in 1948 to provide recreational programs and maintain recreational facilities in the City.

Although the proposed project would be provided fire protection, police protection, emergency services, and other public services as necessary, the project demand would not result in a substantial impact on current level of service ratios or response times, and no new or physically altered governmental facilities are required. Because no new governmental facilities would need to be constructed and no existing facilities would need to be expanded, the project would have no impact.

**Question C**

The proposed project would not result, either directly or indirectly, in an increase in population requiring additional schools, or the expansion of existing schools; rather, the project would accommodate existing demand for school services in the area. Therefore, there would be no impact.

### CUMULATIVE IMPACTS

As documented above, the proposed project would not require the construction or expansion of government facilities; therefore, no cumulatively considerable impacts would occur.

### MITIGATION

None necessary

### DOCUMENTATION

**City of Mt. Shasta.** 2007. Mt. Shasta General Plan. https://mtshastaca.gov/?s=general+plan. Accessed December 2019.

## 4.16 RECREATION

| Issues and Supporting Evidence | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | ☐ | ☐ | ☐ | ☒ |
| 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? | ☐ | ☐ | ☒ | ☐ |

### REGULATORY CONTEXT

There are no federal or State regulations pertaining to public services that apply to the proposed project.

### LOCAL

**City of Mt. Shasta**

The City's General Plan includes the following Goals, Policies, and Implementation Measures (IMs) that apply to the proposed project:

| Open Space and Conservation Element | | |
|---|---|---|
| **Goals** | OC-9 | Provide park and recreation facilities to meet the growing population of Mt. Shasta. |
| **Policies** | OC-9.1 | Strive to provide neighborhood parks to meet the needs of developing areas. |

| | | |
|---|---|---|
| | OC9.2 | Continue to meet community park and recreation needs. |
| **IMs** | OC-9.2(b) | Maintain a ratio of not less than five acres of neighborhood parks per one thousand City population. |
| | OC-9.2(c) | Maintain a ratio of not less than five acres of community park land per one thousand City population. |

## DISCUSSION OF IMPACTS

**Questions A and B**

The proposed project does not include the construction of houses or businesses that would increase the population in the area and result in an increased demand for recreational facilities. As stated in Section 3.0, the project includes a small play area for use by students attending the school. Potential impacts related to construction of the play area are discussed in the applicable resource sections of this Initial Study. Implementation of applicable mitigation measures identified in Section 1.9 and compliance with existing local and State regulations ensures that impacts associated with construction of the play area would be less than significant.

## CUMULATIVE IMPACTS

The proposed project would not impact any existing recreational facilities or require the construction or expansion of recreational facilities, other than the on-site play area. Potential environmental effects associated with the play area are addressed in the applicable resource sections of this Initial Study. As documented in this Initial Study, the project's contribution toward cumulative impacts to recreational facilities is less than significant.

## MITIGATION

None necessary

## DOCUMENTATION

**City of Mt. Shasta.** 2007. Mt. Shasta General Plan. https://mtshastaca.gov/?s=general+plan. Accessed December 2019.

# 4.17 TRANSPORTATION

Would the project:

| Issues and Supporting Evidence | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities? | ☐ | ☐ | ☒ | ☐ |
| b. Conflict or be inconsistent with CEQA Guidelines Section 15064.3(b)? (criteria for analyzing transportation impacts – vehicle miles traveled). | ☐ | ☐ | ☐ | ☒ |

| | | | | |
|---|---|---|---|---|
| c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | ☐ | ☐ | ☒ | ☐ |
| d. Result in inadequate emergency access? | ☐ | ☐ | ☐ | ☒ |

## REGULATORY CONTEXT

### FEDERAL

There are no federal regulations pertaining to transportation/traffic that apply to the proposed project.

### STATE

#### California Streets and Highways Code

California Streets and Highways Code §660 *et seq.* requires that an encroachment permit be obtained from Caltrans prior to the placement of structures or fixtures within, under, or over State highway ROW. This includes, but is not limited to, utility poles, pipes, ditches, drains, sewers, or other above-ground or underground structures.

#### California Environmental Quality Act

SB 743 of 2013 (CEQA Guidelines §15064.3 *et seq.*) was enacted as a means to balance the needs of congestion management with statewide goals related to infill development, promotion of public health through active transportation, and reduction of GHGs. Pursuant to SB 743, traffic congestion is no longer considered a significant impact on the environment under CEQA. The new metric bases the traffic impact analysis on vehicle-miles travelled (VMT).

VMT refers to the amount and distance of automobile travel attributable to a project. Other relevant considerations may include the effects of a project on transit and non-motorized travel. A lead agency has discretion to choose the most appropriate methodology to evaluate a project's VMT, including whether to express the change in absolute terms, per capita, per household, or in any other measure. The requirement to use the VMT metric became effective statewide on July 1, 2020.

### LOCAL

#### City of Mt. Shasta

The City's General Plan includes the following Goals, Policies, and Implementation Measures (IMs) that apply to the proposed project:

| **Circulation Element** | | |
|---|---|---|
| **Goals** | CI-1 | Ensure that land development does not exceed road capacities. |
| | CI-4 | Ensure that new roads are sited to meet demands of growth. |
| | CI-5 | Abandon streets that serve no public purpose. |
| | CI-8 | Promote safe and efficient pedestrian and bicycle transportation and other modes of non-motorized transportation. |
| **Policies** | CI-1.1 | Level of service shall be the standard for judging whether a road has adequate remaining capacity for average daily traffic generated by a proposed project. |

| | | |
|---|---|---|
| | CI-1.2 | Level of service “C” shall be the minimum acceptable service level during normal conditions. Peak-hour reduction to level of service “D” may be permitted provided there are plans in place to make improvements required to improve the level of service. |
| | CI-1.2.1 | The City shall recognize the Circulation Map of [the] Circulation Element as designating arterial and collector streets and proposed streets in the General Plan planning area. |
| | CI-4.1 | Construct, or require construction of, identified new roads as development or redevelopment occurs. |
| | CI-5.1 | When an application is submitted to vacate a street or easement, ensure that the City has no need for the route. |
| | CI-8.1 | Promote the development of bikeways, sidewalks, pedestrian pathways and multi-use paths that connect residential neighborhoods with other neighborhoods, schools, employment centers, commercial centers and public open space, and that separate bicyclists, skateboarders and pedestrians from vehicular traffic whenever possible. Ensure that pedestrian facilities follow logical routes designed to serve pedestrian needs and are not constructed as “sidewalks to nowhere”. |
| **IMs** | CI-1.2(d) | The City shall require traffic analysis to be conducted for all projects that will generate sufficient traffic to use ten (10) percent or more of the capacity of the roadway at LOS C. When a project will potentially impact a state highway, consideration will be given to the Caltrans Guide for the Preparation of Traffic Impact Studies to determine when and how a related traffic study should be completed. |
| | CI-1.2(e) | Projects that will impact streets and/or intersections that currently, or are projected to operate, at below LOS C, shall prepare a traffic analysis to determine the extent to which they impact the streets and/or intersections. For facilities that are (short-term conditions), or will be (cumulative condition), operating at unacceptable Levels of Service without the project, an impact is considered significant if the project: 1) increases the average delay at intersections by more than five seconds, or 2) increases the volume-to-capacity ratio by 0.05 or more on a roadway segment. |
| | CI-1.2(f) | If a street and/or intersection is impacted by a project for short-term conditions, and the project's pro-rata share is equal to or above twenty-five (25) percent, then the project shall be required to construct the necessary improvements to maintain an acceptable level of service. |
| | CI-1.2(g) | If a street and/or intersection is impacted by a project for cumulative conditions, and the project's pro-rata share is below twenty-five (25) percent, then the project shall be required to pay their pro-rata share of the cost of constructing these improvements. |
| | CI-3.1(a) | Where a development is required to perform new roadway construction or road widening, the entire roadway shall be completed by the developer to its ultimate planned and designated width from curb-to-curb prior to operation of the project for which the improvements were constructed, unless otherwise approved by the City Engineer. All such roadway construction shall also provide facilities adequate to ensure pedestrian safety as determined by the City Engineer. |
| | CI-3.1(c) | Typically, all streets should have sufficient pavement width to provide for parking on both sides of the street and enough remaining pavement width to provide for fire and emergency access. However, the City may consider |

| | |
|---|---|
| | alternative street designs including narrower streets, one-way streets, restricted parking and other similar methods intended to reduce the amount of area that must be paved and maintained. |
| CI-4.1(a) | Construct, or require construction of, identified new roads as development or redevelopment occurs. |
| CI-4.1(b) | If the design of the project requires that portions of the new road be constructed offsite to form a connection, the proponent shall be required to pay a proportion of the offsite costs attributable to the proposed project. |
| CI-4.1(c) | If the cost of the improvements funded by the project proponent are greater than the project's proportional share, the City and proponent may enter into an agreement to collect future impact fees from other projects benefiting from the improvements to be reimbursed to the proponent. |
| CI-4.1(d) | Require connectivity between adjacent projects as appropriate to ensure adequate and safe circulation. |
| CI-4.1(a) | Construct, or require construction of, identified new roads as development or redevelopment occurs. |
| CI-4.1(d) | Require connectivity between adjacent projects as appropriate to ensure adequate and safe circulation. |
| CI-5.1(a) | Utilize the provisions of California law to consider the abandonment of a street or easement for which the City has no use. |
| CI-8.1(a) | Amend the development code to require that new sidewalks, pedestrian pathways, multi-use paths and/or bikeways be constructed for new development based upon current and foreseeable future needs in the area of proposed projects. |
| CI-8.1(b) | When siting sidewalks, pedestrian pathways, bikeways and/or multi-use paths, the City shall examine where existing facilities are located and determine if there are other more logical travel patterns that should also be served. |

In addition to the General Plan, the City developed a Bicycle, Pedestrian, and Trails Master Plan in 2009 to identify potential bicycle and pedestrian paths, as well as supporting facilities, in the City. The plan identifies goals and policies for the development of sidewalks, pedestrian pathways, bicycle routes, and shared-use paths to improve safety for pedestrians and bicyclists.

## DISCUSSION OF IMPACTS

**Questions A and B**

As discussed under Regulatory Context above, the City's General Plan states that level of service (LOS) shall be the standard for determining whether a road has adequate remaining capacity for traffic generated by a proposed project. LOS "C" shall be the minimum acceptable service level during normal conditions. Peak-hour reduction to LOS "D" may be permitted provided there are plans in place to make improvements required to improve the LOS.

As stated under Regulatory Context, SB 743 of 2013 established that traffic congestion is not considered a significant impact under CEQA, and the new metric bases traffic impacts on VMT; however, the City has not yet adopted thresholds of significance based on VMT.

CEQA Guidelines §15064.3(b)(3) states that if existing models or methods are not available to estimate VMT for a particular project, a lead agency may analyze the project's VMT qualitatively. Such a qualitative analysis would evaluate factors such as the availability of transit, proximity to other destinations, etc. The following discussion addresses both LOS and VMT.

### *Level of Service*

A Traffic Impact Study (TIS) for the proposed project was prepared by Traffic Works in May 2018 and is included as **Appendix F**. The TIS evaluated potential operational traffic impacts associated with the proposed project based on the City's LOS metric.

Trip generation for the proposed project was based on the Institute of Transportation Engineer's (ITE) Trip Generation Manual (10th Edition). The ITE land use category for a private school (K-12) was used. The TIS identified existing conditions and existing plus project conditions. Average daily trips, A.M. peak-hour trips and P.M. peak -our trips were also identified. The TIS included an analysis of the following intersections:

- Cedar Street and W. Ivy Street
- Pine Street and W. Ivy Street
- Pine Street and W. Lake Street
- Pine Street and the proposed project's southern driveway
- Pine Street and the proposed project's northern driveway (entrance for the drop-off/pick-up area)

According to the TIS, the project is anticipated to generate 496 average daily trips (ADTs), with 162 trips during the A.M. peak hour (7:00 A.M. to 9:00 A.M.) and 116 trips during the P.M. peak hour (2:00 P.M to 4:00 P.M. – when school is dismissed). The TIS concludes that all study intersections would continue to operate at acceptable LOS A or B.

### *Vehicle Miles Traveled*

Pursuant to CEQA §21099, the criteria for determining the significance of transportation impacts must "promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses."

As stated in the Governor's Office of Planning and Research (OPR) *Technical Advisory on Evaluating Transportation Impacts in CEQA* (April 2018), in rural areas, fewer options may be available for reducing VMT, and significance thresholds may be best determined on a case-by-case basis. Further, where a project replaces existing VMT-generating land uses and does not result in a net overall increase in VMT, it could be determined that the project would have a less-than-significant transportation impact.

As stated in Section 3.0, GECS presently leases three facilities in the City. The School's main office and library are located at 2405 S. Mt. Shasta Boulevard; the grade K-5 learning center is located at 2411 S. Mt. Shasta Boulevard; and the grade 6-12 learning center is located at 2226 S. Mt. Shasta Boulevard. GECS is outgrowing its current facilities and would consolidate operations at the new school site. Therefore, although trip distribution and travel routes may change, it is not anticipated that overall VMT would increase over existing conditions.

The Technical Advisory states that other factors that should be taken into consideration when assessing potential transportation impacts include whether the project would impact transit systems and bicycle and pedestrian networks. A discussion of potential impacts associated with alternative transportation is below.

### *Alternative Transportation*

The City's Bicycle, Pedestrian, and Trails Master Plan identifies proposed bicycle and pedestrian improvements in the City, including the following facilities:

- Class I shared-use paths that provide an off-street path for bikes and pedestrians. Class I paths are intended to allow pedestrians and bicyclists easy access to all parts of the City.

- Class II bike lanes provide an on-street lane for bikes designated by pavement markings on the roadway. Class II bicycle lanes are intended to create a primary network of on-street bicycle facilities.
- Class III bike routes identify on-street routes for bicycles with signage only. Class III facilities identify travel alternatives on lower traffic streets.

The Master Plan identifies the following future bicycle and pedestrian facilities in the project area.

- A portion of a Class I off-street shared-use path for bicyclists and pedestrians is proposed along the project's western boundary; the path is shown connecting to Pine Street north of the development site.
- A portion of a Class II bike lane is proposed on Pine Street along the project site's frontage.
- A Class III bike route is proposed along Cedar Street; the route is shown extending into the portion of Cedar Street in the project site.

The proposed project does not include any improvements that would hinder establishing the proposed Class II bike lane on Pine Street. The proposed project would abandon the portion of Cedar Street within the project site; however, bicycle and pedestrian access for students and employees would be maintained, both from Cedar Street south of the school and from Pine Street. The project includes sidewalks/walkways from Cedar Street and Pine Street to the school, as well as bicycle racks in front of the school. Further, the project would not preclude the City from establishing a trail system north of the development site in the future when funding becomes available.

Public transportation (bus service) in the City is provided by Siskiyou County STAGE. Services include scheduled pick-up times throughout the day and on-call services. The closest transit stop to the project site is on the opposite side of Pine Street in front of the hospital. The proposed project does not include any components that would conflict with the transit stop; rather, the project includes installation of a crosswalk across Pine Street to facilitate safe access to and from the bus stop.

As documented above, the proposed project would not conflict with goals, policies, and implementation measures included in the City's General Plan; would not significantly increase traffic in the area; is not expected to significantly increase VMT over existing operations; would not hinder public transit services in the City; and includes installation of a crosswalk across Pine Street as well as sidewalks/walkways and bicycle facilities to facilitate alternative transportation; therefore, impacts would be less than significant.

**Question C**

The proposed project would introduce a new driveway off of Pine Street. Presently, vehicles are allowed to park on the street along the property frontage. Because parked vehicles in this location would hinder sight distance for vehicles exiting the project site from the southern driveway, the project includes prohibiting on-street parking on Pine Street 55 feet north of the proposed driveway and 35 feet south of the proposed driveway; these no-parking areas will be designated with red curb. Further, a crosswalk would be installed across Pine Street as shown in **Figure 2** to ensure pedestrian safety. The proposed project would also implement improvements identified in Chapter 7 of the MUTCD (Traffic Control for School Areas), including establishing reduced school speed limits and installing school zone signs.

Establishing the no-parking zones, installing a crosswalk across Pine Street, and implementing traffic control for school areas in accordance with the MUTCD will ensure that impacts are less than significant.

**Question D**

As discussed in Section 4.9 under Question F, there would be short-term increases in traffic in the area associated with construction workers and equipment. In order to ensure adequate emergency access during construction, temporary traffic control during work in the public ROW would be provided in accordance with the current MUTCD. The City also has the discretion to require a temporary traffic control plan that would identify temporary traffic control measures that would be implemented during the work.

Emergency access to the site would be provided by a new driveway off of Pine Street. In addition, an emergency-only route would be provided to the project site from Cedar Street at the southern end of the project site. The project does not include any components that would hinder emergency access in other areas of the City. Therefore, because traffic control would be provided throughout construction, and adequate emergency access would be provided during operations, impacts would be less than significant.

## CUMULATIVE IMPACTS

As noted in Section 3.3, the City's Water Distribution System Improvements project includes work on Pine Street adjacent to the project site, and contractors for the Water Distribution System, PacifiCorp Lassen Substation and Sewer Interceptor projects may travel on the same streets as contractors for the GECS improvements. There is a possibility that construction periods for these projects may overlap and contribute to temporary cumulative traffic impacts if any of the projects are constructed simultaneously with the GECS improvements.

Construction-related traffic would be minor due to the overall scale of the construction activities. Further, construction-related traffic for the cumulative projects would be spread over the duration of the construction schedules and would be minimal on a daily basis. In addition, temporary traffic control is required for all projects that require work in the public ROW to protect the travelling public. These measures ensure that the project's cumulative traffic impacts during construction are less than significant.

In terms of cumulative operational impacts, all new development projects in the City are required to comply with the goals, policies, and implementation measures included in the City's General Plan. Implementation Measure CI-1.2(d) requires a traffic analysis to be completed for all projects that will generate sufficient traffic to use ten (10) percent or more of the capacity of the roadway at LOS C. The traffic impact analysis must also consider impacts associated with VMT in accordance with CEQA.

If a project's transportation impacts are significant, mitigation is required to minimize impacts. Mitigation could include construction of roadway improvements, payment of a proportional fair-share of the costs of the improvement in accordance with General Plan Implementation Measures CI-1.2(f) and CI-1.2(g), installation of traffic calming measures, and/or completion of improvements to bicycle and pedestrian facilities. Because the project complies with the City's regulations pertaining to the circulation system and includes installation of sidewalks, a crosswalk, and bicycle parking to facilitate alternative transportation, the project's cumulative transportation impacts would be less than significant.

## MITIGATION

None necessary.

## DOCUMENTATION

**City of Mt. Shasta.** 2007. Mt. Shasta General Plan. https://mtshastaca.gov/?s=general+plan. Accessed December 2019.

_____. 2009. City of Mt. Shasta Bicycle, Pedestrian, and Trails Master Plan. https://mtshastaca.gov/wp/wp-content/uploads/2017/03/Bicycle_Master_Plan_File2.pdf. Accessed December 2018.

**Office of Planning and Research.** 2018. Technical Advisory on Evaluating Transportation Impacts in CEQA. http://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf. Accessed January 2019.

**Traffic Works, LLC.** 2018. Traffic Impact Study for Golden Eagle Charter School, Mount Shasta, CA.

# 4.18 TRIBAL CULTURAL RESOURCES

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code (PRC) 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:

| Issues and Supporting Evidence | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a. A resource listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC 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 PRC section 5024.1(c)? In applying the criteria set forth in PRC Section 5024.1(c), the lead agency shall consider the significance of the resource to a California Native American tribe. | ☐ | ☒ | ☐ | ☐ |

## REGULATORY CONTEXT

### FEDERAL

There are no federal regulations pertaining to tribal cultural resources that apply to the proposed project.

### STATE

#### California Environmental Quality Act

Assembly Bill 52 of 2014 (Public Resources Code [PRC] §21084.2) establishes that *"a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment."* In order to determine whether a project may have such an effect, a lead agency is required to consult with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project if:

1. The tribe requested to the lead agency, in writing, to be informed through formal notification of proposed projects in the geographical area; and
2. The tribe responds, in writing, within 30 days of receipt of the formal notification and requests the consultation.

The consultation must take place prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report. Pursuant to PRC §21084.3, lead agencies must, when

feasible, avoid damaging effects to a tribal cultural resource and must consider measures to mitigate any identified impact.

PRC §21074 defines "tribal cultural resources" as either of the following:

1. Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either included or determined to be eligible for inclusion in the CRHR; or are included in a local register of historical resources as defined in PRC §5020.1(k).
2. A resource determined by the lead agency, taking into consideration the significance of the resource to a California Native American tribe, to be significant pursuant to criteria set forth in PRC §5024.1(c).

In addition, a cultural landscape that meets one of these criteria is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape. A historical resource described in §21084.1, a unique archaeological resource as defined in §21083.2(g), or a "nonunique archaeological resource" as defined in §21083.2(h) may also be a tribal cultural resource if it meets one of these criteria.

### LOCAL

There are no local regulations pertaining to tribal cultural resources that apply to the proposed project.

## DISCUSSION OF IMPACTS

**Questions A and B**

See discussion in Section 1.7 (Tribal Cultural Resources Consultation) and Section 4.5 (Cultural Resources). The City consulted with Native American tribes in accordance with PRC §21084.2 (AB 52, 2014). To address Native American concerns, **MM 4.5.2** is included to require that a minimum of one week in advance of any ground-disturbing activities, the Tribal Historic Preservation Officer of the Winnemem Wintu Tribe shall be notified and offered the opportunity for a Native American representative to voluntarily monitor ground-disturbing activities.

In accordance with **MM 4.5.3**, in the event that cultural resources or human remains of Native American descent are identified during earth disturbance, the Winnemem Wintu Tribe shall be requested to provide a Native American monitor to observe subsequent earth-disturbing construction activities on potentially sensitive lands. Costs associated with such Native American monitoring shall be the responsibility of the Developer.

Implementation of **MM 4.5.2** and **MM 4.5.3** ensures that no impacts to tribal cultural resources would occur.

## CUMULATIVE IMPACTS

Cumulative projects in the vicinity of the project area have the potential to impact tribal cultural resources. Tribal cultural resources are afforded special legal protections designed to reduce the cumulative effects of development. Potential cumulative projects and the proposed project would be subject to the protection of tribal cultural resources afforded by Public Resources Code §21084.3. Given the non-renewable nature of tribal cultural resources, any impact to tribal cultural sites, features, places, landscapes, or objects could be considered cumulatively considerable. As documented above, implementation of **MM 4.5.2** and **MM 4.5.3** ensures that no impacts to tribal cultural resources would occur.

## MITIGATION

Implementation of **Mitigation Measures MM 4.5.2 and 4.5.3.**

## DOCUMENTATION

**Furry, John. Cultural Resource Specialties**. 2018. Archaeological/Historical Survey of the Golden Eagle Charter School Property in the City of Mt. Shasta, Siskiyou County, California. On file at NEIC.

# 4.19 UTILITIES AND SERVICE SYSTEMS

Would the project:

| Issues and Supporting Evidence | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a. Require or result in the relocation or construction of new or expanded water, wastewater treatment, or stormwater drainage, electric power, natural gas, or telecommunications facilities the construction of which could cause significant environmental effects? | ☐ | ☐ | ☒ | ☐ |
| b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years? | ☐ | ☐ | ☒ | ☐ |
| c. 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? | ☐ | ☐ | ☒ | ☐ |
| d. Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals? | ☐ | ☐ | ☒ | ☐ |
| e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste? | ☐ | ☐ | ☐ | ☒ |

## REGULATORY CONTEXT

### FEDERAL

There are no federal regulations pertaining to utilities and service systems that apply to the proposed project.

### STATE

#### Senate Bill 610 (2001)

Under SB 610, enacted in 2001, water supply assessments must be included in any environmental documentation for certain projects that are subject to CEQA. As stated in Water Code §10912(b), *"[if] a public water system has fewer than 5,000 service connections, then "project" means any proposed residential, business, commercial, hotel or motel, or industrial development that would account for an*

*increase of 10 percent or more in the number of the public water system's existing service connections…"* Water Code §10910(c)(4) states that the water supply assessment for the project shall include a discussion with regard to whether the City's water supply during normal, single dry and multiple dry water years during a 20-year projection, will meet the projected water demand associated with the proposed project, in addition to existing and planned future uses.

**California Integrated Waste Management Act**

The California Integrated Waste Management Act (CIWMA) of 1989, as amended, was enacted to reduce, recycle, and reuse solid waste generated in the State. The CIWMA requires cities and counties to divert 50 percent of the total waste stream from landfill disposal. Under the CIWMA, cities and counties must prepare Solid Waste Management Plans and Source Reduction and Recycling Elements to implement CIWMA goals.

**Solid Waste Reuse and Recycling Access Act**

The Solid Waste Reuse and Recycling Act of 1991 (AB 1327) requires that cities and counties adopt regulations that require commercial, industrial, or institutional buildings, and multifamily residential dwellings of five units or more, to provide adequate storage areas for the collection of recyclable materials.

**Assembly Bill 341 (2011)**

AB 341, enacted in 2011, established a statewide goal that 75 percent of solid waste be reduced, recycled, or composted by 2020. AB 341 established a statewide mandatory commercial recycling program. A business or public entity that generates four cubic yards or more of commercial solid waste per week, or a multifamily residential dwelling of five units or more, must arrange for recycling services no later than July 1, 2012. Cities and Counties are required to implement a commercial solid waste recycling program to meet this requirement.

**Assembly Bill 1826 (2014)**

AB 1826, enacted in 2014, requires businesses to recycle their organic waste (food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste), depending on the amount of waste generated per week. Local jurisdictions are required to implement an organic waste recycling program to divert organic waste generated by businesses, including multi-family dwellings of five or more units (multi-family dwellings are not required to have a food waste diversion program). Exemptions are allowed for jurisdictions in rural areas. CalRecycle has exempted the City of Mt. Shasta from the organic waste recycling program.

**Senate Bill 1383 (2016)**

SB 1383, enacted in 2016 established targets to achieve a 50 percent reduction in the level of the statewide disposal of organic waste from 2014 levels by 2020 and a 75 percent reduction by 2025. The law grants CalRecycle the regulatory authority required to achieve the organic waste disposal reduction targets and establishes an additional target that not less than 20 percent of currently disposed edible food is recovered for human consumption by 2025.

**California Building Standards Code**

The CALGreen Code, included as Part 11 of the CBSC, includes requirements for construction waste reduction, disposal, and recycling. The intent of this requirement is to reduce the amount of waste from new construction and demolition that would be sent to landfills, and to encourage reuse and recycling of construction waste products (e.g., carpet, wood, aggregate, shingles, wallboard, and other materials that have recyclable value). A minimum of 65 percent of nonhazardous construction and demolition waste must be recycled and/or salvaged for reuse. The CALGreen Code requires that a Construction Waste Management Plan be submitted with the building permit application and approved by the Building Official prior to issuance of a building permit.

The CALGreen Code also includes mandatory water conservation measures for both indoor and outdoor water use. Indoor measures require the use of water conserving plumbing fixtures and fittings. Outdoor measures require that landscape areas in excess of 500 square feet comply with the California Department of Water Resources Model Water Efficiency Landscape Ordinance (MWELO), or a local water efficient landscape ordinance that is at least as effective as the State's MWELO. The MWELO is intended to reduce outdoor water use by requiring more efficient irrigation systems, graywater usage, and onsite stormwater capture, and by limiting the portion of landscapes that can be covered in turf.

## LOCAL

### City of Mt. Shasta

The City's General Plan includes the following Goals, Policies, and Implementation Measures (IMs) that apply to the proposed project:

| | | |
|---|---|---|
| **Land Use Element** | | |
| **Goals** | LU-18 | Maintain a water supply and distribution system that meets drinking water standards and that serves the domestic and fire protection needs of the community. |
| | LU-19 | Provide for the efficient collection, transport, and discharge of stormwater in a safe manner and protect people and property from flooding. |
| **Policies** | LU-18.1 | Ensure that the growth of the community does not outstrip the water supply and distribution system of the City. |
| | LU-19.1 | Utilize the Storm Drainage Master Plan to improve existing storm drainage conditions and ensure adequate storm drainage infrastructure design and construction for future developments. |
| **IMs** | LU-18.1(b) | Update the City Water Master Plan and utilize the updated Water Master Plan to prioritize water infrastructure improvements and expansion programs to serve the existing and planned development of the community. |
| | LU-18.2(a) | The City shall encourage the enforcement of all federal, state, regional and county regulations and shall enforce local regulations regarding the preservation and enhancement of water quality as it relates to the City's water sources. |
| **Circulation Element** | | |
| **Goal** | CI-9 | Ensure adequate utilities to meet community needs. |
| **Policy** | CI-9.1 | Encourage participation of public utilities in the project review process. |
| **IM** | CI-9.1(b) | Support efforts by utilities to upgrade and improve service to the Mt. Shasta area. |

## DISCUSSION OF IMPACTS

### Question A

The proposed project would connect to existing public utilities that are located in Pine Street along the property frontage, and in the segment of Cedar Street that bisects the project site. Potential impacts associated with site development, including installation of utilities, are discussed in applicable resource sections of this Initial Study. Where necessary, mitigation measures are included to ensure that impacts are less than significant.

Although the proposed project would increase water use and generate wastewater, the City's existing water and wastewater treatment facilities are adequate to serve the proposed project (see discussion under Question C below).

**Question B**

The City of Mt. Shasta (City) provides potable water service to a population of approximately 3,500. The City obtains water from a combination of spring and well sources that have a combined effective capacity of 3.7 million gallons per day (MGD). The primary source of water for the City is from Cold Springs, located approximately two miles east of the City limits at an elevation of about 4,300 feet. Water from the two natural springs is collected in covered and secured works and transported via pipeline to the three storage reservoirs located at Quail Hill. This primary source of water is supplemented by Well No. 1, located on Washington Drive, just south of the Lake Street intersection, and Well No. 2, located on Mt. Shasta High School property north of Rockfellow Drive. The City has four untreated water storage reservoirs totaling approximately 1.7 million gallons (MG) in capacity. The City is in the process of replacing a 203,000-gallon tank on Quail Hill with a 500,000-gallon tank.

The City's water distribution system consists of approximately 185,000 feet of water mains that include steel, cast iron, asbestos cement, and polyvinyl chloride (PVC) piping. With funding through the Department of Water Resources, the City is in the process of completing improvements to the water distribution system that will help the City conserve water and meet the City's water needs into the future.

Indoor and outdoor water demands for the proposed project were calculated based on CalEEMod default values. CalEEMod estimates the proposed project's water demand at 3.12 million gallons per year (MGY) (9.57 acre-feet per year). The majority of water use (2.35 MGY) is associated with outdoor water use. However, outdoor water use is anticipated to be less because the proposed project is required to comply with CALGreen non-residential mandatory measures related to outdoor water use. As discussed under Regulatory Context, the CALGreen Code mandates that the project comply with the State's MWELO, or local water efficient landscape regulations that are at least as effective as the State's MWELO.

During normal and dry years, the City has sufficient water supplies available to serve the proposed project and other developments in the City. During multiple dry years, Cold Springs may be particularly vulnerable to drought. In June 2015, the City Council adopted a Resolution that recognized that the City's primary water source, Cold Springs, was producing less water than any point in the past 20 years. Due to the unprecedented low spring production, the City adopted an Emergency Drought Condition Water Reduction Policy to ensure an adequate water supply for domestic use and fire suppression. The Policy required all major water users and residential customers to reduce water usage by 30 percent. The City is also subject to State-adopted emergency water use reductions during prolonged drought.

Therefore, because the City enacts water use restrictions during periods of drought that apply to all customers in the City's water service area, the City would have sufficient water supplies to serve the project and other reasonably foreseeable future development projects during normal, dry, and multiple dry years; impacts would be less than significant.

**Question C**

On May 9, 2016, the City adopted a Mitigated Negative Declaration (MND) for the State-Mandated Wastewater Treatment and Outfall Improvement project. The project entails replacement of the existing treatment lagoon system with a new treatment facility, installation of pipelines from the existing WWTP headworks to the replacement treatment facility, and installation of a new diffuser at the existing Sacramento River outfall. These improvements are necessary to comply with CVRWQCB requirements for wastewater discharge. With implementation of the WWTP improvements, the capacity of the WWTP would increase to accommodate an average dry weather flow (ADWF) of 0.9 million gallons per day (MGD). This increase in capacity accounts for existing

needs plus an allocation for anticipated future growth at a rate of one percent over the next 20 years. According to the City, the WWTP has adequate capacity to serve the proposed project; therefore, there is no impact.

**Questions D and E**

As discussed under Regulatory Context above, the City is subject to the CIWMA, which requires the diversion of 50 percent of the total waste stream from landfill disposal. The City coordinates with Siskiyou County to implement CIWMA requirements. To satisfy the annual reporting requirement, the City submits an annual report to the Siskiyou County Integrated Solid Waste Management Regional Authority (ISWMRA) that identifies the City's efforts, and this information is submitted to the State by the ISWMRA. The City provides for the collection and disposal of garbage, rubbish, and waste matter in the City. These services are covered by a fixed monthly charge paid by solid waste customers. The Siskiyou Opportunity Center provides commercial recycling pickup and sorting services as well as solid waste removal in the downtown area.

Solid waste is collected and disposed of at the Black Butte Transfer Station on Spring Hill Road in the City. The Black Butte Transfer Station is permitted through the California Integrated Waste Management Board (CIWMB). The maximum permitted throughput is 100 tons per day and the site capacity is a total of 150 tons. The Transfer Station is subject to periodic inspections by Siskiyou County to ensure compliance with the CIWMB permit. Although the transfer station occasionally reaches capacity and is unable to accept additional waste on certain days, waste and recycled materials can be disposed of at another transfer station in the County. The average volume at the transfer station is 60 to 65 tons per day.

Because there are no active landfills in Siskiyou County, all solid waste in the County is trucked to the Dry Creek Landfill in southern Oregon. The Dry Creek Landfill was expanded to a regional facility in 1999 and has a projected operational life exceeding 100 years.

***Construction***

As discussed under Regulatory Context, the CALGreen Code requires that a Construction Waste Management Plan be submitted with the building permit application and approved by the Building Official prior to issuance of a building permit. Because the City's Building Official would ensure compliance through the plan check and inspection processes, impacts during construction are less than significant.

***Operational***

Solid waste generation rates for schools vary throughout the State. Some jurisdictions have based the calculation on square footage of the building; others have estimated waste generation based on number of students and/or number of employees. CalRecycle has also posted estimates for solid waste generation for various land uses to provide a general level of information for planning purposes. According to the posted data, generation rates for schools/educational facilities ranges between 0.50 and 1 pound per day per student. Using this metric, solid waste generation for the proposed project would range from 100 to 200 pounds per day (19 to 37 tons per year). This represents about 0.15 percent of the current average volume at the transfer station of 60 to 65 tons per day, which is a less-than significant impact.

Compliance with City regulations pertaining to the disposal of solid waste ensures that the project's impacts are less than significant.

## CUMULATIVE IMPACTS

Cumulative projects, including growth resulting from build-out of the City's General Plan, would result in the need for new utility infrastructure. There would also be an increased demand for potable water and wastewater treatment, and increased generation of solid waste.

All new development projects in the City are reviewed on a case-by-case basis to determine the need for new or expanded infrastructure improvements. Required improvements are constructed in accordance with local and State requirements, and any required mitigation measures are identified during the environmental review process to ensure that impacts are less than significant. During drought years, the City will adopt an Emergency Drought Condition Water Reduction Policy and enact mandatory water use restrictions to ensure adequate water for domestic use and fire suppression. The Policy requires all major water users and residential customers to reduce water usage by 30 percent, or as may be required to ensure an adequate water supply. The City is also subject to State-adopted emergency water use restrictions during prolonged drought.

In addition, all development projects are required to comply with local and State regulations pertaining to solid waste disposal and recycling. The Black Butte Transfer Station is subject to periodic inspections by Siskiyou County to ensure compliance with the CIWMB permit.

Compliance with existing local and State regulations ensures that the proposed project's contribution to cumulative impacts to utility and service systems is less than significant.

### MITIGATION

None necessary.

### DOCUMENTATION


**CalRecycle.** 2019. Estimated Solid Waste Generation Rates. https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates. Accessed December 2019.

**City of Mt. Shasta.** 2007. Mt. Shasta General Plan. https://mtshastaca.gov/?s=general+plan. Accessed December 2019.

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**Rogue Disposal and Recycling, Inc.** 2019. Dry Creek Landfill Data. https://roguedisposal.com/about-us/our-landfill. Accessed December 2019.

**PACE Engineering, Inc.** 2011. City of Mt. Shasta 2010 Master Water Plan.

**Siskiyou County Local Agency Formation Commission**. 2011. Municipal Services Review Report for the City of Mt. Shasta.


## 4.20 WILDFIRE

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

| Issues and Supporting Evidence | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a. Substantially impair an adopted emergency response plan or emergency evacuation plan? | ☐ | ☐ | ☐ | ☒ |

| | | | | | |
|---|---|---|---|---|---|
| b. | Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire? | ☐ | ☐ | ☒ | ☐ |
| c. | Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment? | ☐ | ☒ | ☐ | ☐ |
| d. | Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes? | ☐ | ☐ | ☐ | ☒ |

## REGULATORY CONTEXT

### FEDERAL

There are no federal regulations pertaining to wildfire that apply to the proposed project.

### STATE

#### California Department of Forestry and Fire Protection (CAL FIRE)

The Bates Bill (AB 337), enacted in 1992, required CAL FIRE to work with local governments to identify high fire hazard severity zones throughout each county in the State. CAL FIRE adopted Fire Hazard Severity Zone (FHSZ) Maps for State Responsibility Areas (SRAs) in November 2007. Pursuant to California Government Code §51175-51189, CAL FIRE also recommended FHSZs for Local Responsibility Areas (LRAs). Over the years, CAL FIRE has updated the maps and provided new recommendations to local governments based on fire hazard modeling.

The fire hazard model considers wildland fuels (natural vegetation that burns during the wildfire); topography (fires burn faster as they burn up-slope); weather (fire burns faster and with more intensity when air temperature is high, relative humidity is low, and winds are strong); and ember production and movement (how far embers move and how receptive the landing site is to new fires). The model recognizes that some areas of California have more frequent and severe wildfires than other areas. The proposed project is not located in a SRA FHSZ.

#### California Fire and Building Codes

California Fire Code, Part 9, Chapter 49 (Wildland-Urban Interface Fire Areas), and California Building Code Chapter 7A (Materials and Construction Methods for Exterior Wildfire Exposure) include standards for new construction in Wildland-Urban Interface Fire Areas (fire hazard severity zones). A Wildland-Urban Interface Fire Area is defined as a geographic area identified by the State as a Fire Hazard Severity Zone in accordance with PRC §4291 through §4204, and Government Code §51175 through §51189, or other areas designated by the local enforcing agency to be at a significant risk from wildfires. The purpose of the standards is to prevent a building from being ignited by flying embers that can travel as much as a mile away from a wildfire and to contribute to a systematic reduction in fire-related losses through the use of performance and prescriptive requirements.

### LOCAL

#### City of Mt. Shasta

The City's General Plan includes the following Goals that apply to the proposed project:

| Safety Element | | |
|---|---|---|
| **Goals** | SF-4 | Protect property and life from fire hazards. |
| | SF-7 | Identify and maintain emergency evacuation routes. |

Chapter 7.60 of the Mt. Shasta Municipal Code establishes Very High FHSZs within the City, which includes the northern and eastern areas of the City. Although the project site is not located within the Very High FHSZ, MSMC Chapter 7.15 (Fire Prevention – Burn Permit Required) states the Mt. Shasta Fire Chief has included the entire City in the High FHSZ, and the fire prevention requirements set forth in California Government Code §51182 (defensible space requirements) apply to all properties in the City.

## DISCUSSION OF IMPACTS

### Question A

See Section 4.9, Question G, for a discussion of potential construction-related impacts. Emergency access to the site would be provided by a driveway off of Pine Street. In addition, an emergency-only route is provided at the southern end of the project site from Cedar Street. The project does not include any components that would hinder emergency access in other areas. Therefore, the project would not impair an emergency response plan or emergency evacuation plan, and there would be no impact.

### Question B

As discussed under Regulatory Context above, the project site is within a high FHSZ as designated by the City. As such, the project is subject to the provisions of Chapter 7A of the CBC (Material and Construction Methods for Exterior Wildfire Exposure). The purpose of Chapter 7A is to protect life and property by increasing the ability of a building to resist the intrusion of flames or burning embers projected by a vegetation fire. In addition to specific requirements related to ignition-resistant construction, roofing, vents, exterior coverings, exterior windows and doors, and decking, these provisions mandate that the proposed project comply with CGC §51182, which requires a minimum of 100 feet of defensible space be maintained around each side of an occupied structure.

The City's Building Official confirms that the required measures are implemented into the construction plans for the building. Compliance with defensible space requirements is confirmed by the Building Official prior to building permit final approval. In accordance with MSMC Section 6.05.080, it is the duty of the City's Fire Chief, or his/her designee, to make periodic inspections of all property in the City to identify areas with weeds, grass, or other material that is likely to become ignited, and to notify the property owner of corrective actions needed to reduce the risks of wildfires. Because the project will comply with existing local and State codes intended to reduce the risk of wildfire, including the requirement to maintain defensible space around buildings, and the City's Fire Chief would ensure on-going maintenance of the defensible space, the project would not exacerbate wildfire risks or expose project occupants to increased risks associated with wildfires; impacts would be less than significant.

### Question C

As discussed in Section 4.9 under Question G, equipment used during construction activities may create sparks that could ignite dry grass. Also, the use of power tools and/or acetylene torches may increase the risk of wildland fire hazard. **MM 4.8.1** ensures impacts during construction are less than significant. The proposed project would not require installation of infrastructure that could exacerbate fire hazards (e.g., power lines in vegetated areas); would not construct roads or otherwise intrude into natural spaces in a manner that would increase wildlife hazards in the long term; and would not require installation of emergency water sources, or other fire prevention/suppression infrastructure. Therefore, the increased risk of fire due to project infrastructure and the potential for ongoing impacts due to fire-related infrastructure are less than significant.

**Question D**

The proposed project would not expose people or structures to significant post-fire risks. The project site consists of gently sloping lands with little potential for post-fire erosion, landslides or other slope instability, or drainage changes or flooding; therefore, there would be no impact.

## CUMULATIVE IMPACTS

The proposed project would not impair an adopted emergency response plan or emergency evacuation plan; therefore, it would not contribute to cumulative impacts related to such plans. In addition, the proposed project would not contribute individually or cumulatively to increased risks associated with post-fire hazards. Because the City is located within a Fire Hazard Severity Zone, all new construction in the City is required to comply with State Building and Fire Codes that were adopted to protect life and property from wildfire risks. Because the proposed project will comply with adopted standards related to wildfire risks, the project's cumulative impact to increased risks of wildfire would be less than significant.

## MITIGATION

Implementation of **MM 4.8.1.**

## DOCUMENTATION


**California Department of Forestry and Fire Protection (CAL FIRE).** 2008. Siskiyou County, Very High Fire Hazard Severity Zones in SRA. http://frap.fire.ca.gov/webdata/maps/siskiyou/fhszs_map.47.pdf. Accessed August 2018.

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_____. Mt. Shasta Municipal Code. 2018. Chapter 7.15 (Fire Prevention – Burn Permit Required). http://www.codepublishing.com/CA/MtShasta/. Accessed August 2018.

_____. Mt. Shasta Municipal Code. 2018. Chapter 7.60 (Very High Fire Hazard Severity Zones). http://www.codepublishing.com/CA/MtShasta/. Accessed August 2018.

## 4.21 MANDATORY FINDINGS OF SIGNIFICANCE

| Issues and Supporting Evidence | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of 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

**Question A**

As discussed in the applicable environmental resource section above, the proposed project could result in visual impacts, loss of riparian habitat, indirect impacts to wetlands and other waters, disturbance of nesting migratory birds (if present), impacts to paleontological, cultural, and tribal cultural resources (if present), increased runoff due to the addition of impervious surfaces, the introduction and spread of noxious weeds during construction, temporarily increased risk of wildfires, temporarily increased air emissions, temporarily increased noise and vibration levels, and exposure of sensitive receptors to elevated noise levels. However, mitigation measures are included to reduce all potential impacts to a less-than-significant level.

**Question B**

The potential cumulative impacts of the proposed project have been analyzed within the discussion of each environmental resource area above. The mitigation measures identified in Section 1.9 reduce all potential impacts to a less-than-significant level.

**Question C**

As discussed in the applicable environmental resource sections above, the proposed project could result in adverse effects on human beings due to temporarily increased risk of wildfires, temporarily increased air emissions, temporary construction-related noise and vibration levels, and exposure of sensitive receptors to elevated noise levels. However, mitigation measures are included to reduce all potential impacts to a less-than-significant level.

# SECTION 5.0 LIST OF PREPARERS

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## City of Mt. Shasta

Juliana Lucchesi ..... City Planner

# SECTION 6.0 ABBREVIATIONS AND ACRONYMNS

| | |
|---|---|
| AB | Assembly Bill |
| ADTs | Average Daily Trips |
| ANSI | American National Standards Institute |
| AQMD | Air Quality Management District |
| APCD | Air Pollution Control District |
| APE | Area of Potential Effects |
| BMP | Best Management Practice |
| CAA | Clean Air Act |
| CAAQS | California Ambient Air Quality Standards |
| CalARP | California Accidental Release Prevention |
| CalEEMod | California Emissions Estimator Model |
| CalEPA | California Environmental Protection Agency |
| CAL FIRE | California Department of Forestry and Fire Protection |
| Cal/OSHA | California Occupational Safety and Health Administration |
| Caltrans | California Department of Transportation |
| CAP | Criteria Air Pollutants |
| CARB | California Air Resources Board |
| CASGEM | California Statewide Groundwater Elevation Monitoring |
| CBC | California Building Code |
| CBSC | California Building Standards Code |
| CCR | California Code of Regulations |
| CDFW | California Department of Fish and Wildlife |
| CEQA | California Environmental Quality Act |
| CERCLA | Comprehensive Environmental Response, Compensation, and Liability Act |
| CESA | California Endangered Species Act |
| CFR | Code of Federal Regulations |
| CGS | California Geological Survey |
| $CH_4$ | Methane |
| City | City of Mt. Shasta |
| CIWMA | California Integrated Waste Management Act |
| CIWMB | California Integrated Waste Management Board |
| CNDDB | California Natural Diversity Data Base |
| CO | Carbon Monoxide |
| COR | City of Redding |
| $CO_2$ | Carbon Dioxide |
| $CO_2e$ | Carbon Dioxide Equivalent |
| County | Siskiyou County |

| | |
|---|---|
| CRHR | California Register of Historical Resources |
| CRI | Cultural Resources Inventory |
| CVRWQCB | Central Valley Regional Water Quality Control Board |
| CWA | Clean Water Act |
| CY | Cubic Yards |
| dBA | Decibels |
| DOC | Department of Conservation |
| DTSC | California Department of Toxic Substances Control |
| DWSRF | Drinking Water State Revolving Fund |
| EHD | Environmental Health Department |
| EO | Executive Order |
| ESA | Environmental Site Assessment |
| FEMA | Federal Emergency Management Act |
| FESA | Federal Endangered Species Act |
| FHSZ | Fire Hazard Severity Zone |
| FMMP | Farmland Mapping and Monitoring Program |
| GC | Government Code |
| GHG | Greenhouse Gas Emissions |
| GSP | Groundwater Sustainability Plans |
| GWP | Global Warming Potential |
| $H_2S$ | Hydrogen Sulfide |
| HCP | Habitat Conservation Plan |
| HDD | Horizontal Directional Drill |
| HFC | Hydrofluorocarbons |
| HMP | Hazard Mitigation Plan |
| HSC | California Health and Safety Code |
| IBC | International Building Code |
| IM | Implementation Measure |
| ISWMRA | Integrated Solid Waste Management Regional Authority |
| IS | Initial Study |
| ITE | Institute of Transportation Engineers |
| I-5 | Interstate 5 |
| LRA | Local Responsibility Area |
| MACT | Maximum Achievable Control Technology |
| MCL | Maximum Contaminant Level |

| | |
|---|---|
| MG | Million Gallons |
| MGD | Million Gallons per Day |
| MGY | Million Gallons per Year |
| $mg/m^3$ | Milligrams per Cubic Meter |
| MND | Mitigated Negative Declaration |
| MPH | Miles per Hour |
| MPO | Metropolitan Planning Organization |
| MRZ | Mineral Resource Zone |
| MSMC | Mt. Shasta Municipal Code |
| MS4 | Municipal Separate Storm Sewer System |
| MTBA | Migratory Bird Treaty Act |
| MWELO | Model Water Efficiency Landscape Ordinance |
| NAAQS | National Ambient Air Quality Standards |
| NAHC | Native American Heritage Commission |
| NCCP | Natural Community Conservation Plan |
| NEIC/CHRIS | Northeast Information Center/California Historical Resources Information System |
| NEPA | National Environmental Policy Act |
| $NF_3$ | Nitrogen Trifluoride |
| NFIP | National Flood Insurance Program |
| NHPA | National Historic Preservation Act |
| NMFS | National Marine Fisheries Service |
| $N_2$ | Nitrogen |
| $N_2O$ | Nitrous Oxide |
| NO | Nitric Oxide |
| NOI | Notice of Intent |
| $NO_2$ | Nitrogen Dioxide |
| $NO_X$ | Oxides of Nitrogen |
| NPDES | National Pollutant Discharge Elimination System |
| NPPA | California Native Plant Protection Act |
| NRCS | Natural Resources Conservation Service |
| NRHP | National Register of Historic Places |
| NSVAB | Northern Sacramento Valley Air Basin |
| NWP | Nationwide Permit |
| $O_2$ | Oxygen |
| $O_3$ | Ozone |
| OHWM | Ordinary High Water Mark |
| OSHA | Occupational Safety and Health Act |
| Pb | Lead |
| PCB | Polychlorinated biphenyls |

| | |
|---|---|
| PCP | Pentachlorophenol |
| PFC | Perfluorocarbons |
| PHD | Peak Hour Demand |
| $PM_{2.5}$ | Particulate Matter, 2.5 microns in size |
| $PM_{10}$ | Particulate Matter, 10 microns in size |
| PPB | Parts per Billion |
| PPM | Parts per Million |
| PRC | Public Resources Code |
| PRV | Pressure Reducing Valve |
| Project/ Proposed Project | Golden Eagle Charter School |
| PV | Photovoltaic |
| PVC | Polyvinyl Chloride |
| RCRA | Resource Conservation and Recovery Act |
| RMP | Risk Management Plan |
| ROG | Reactive Organic Gases |
| ROW | Right-of-Way |
| RTP | Regional Transportation Plan |
| RTPA | Regional Transportation Planning Agency |
| RWQCB | Regional Water Quality Control Board |
| SB | Senate Bill |
| SCADA | Supervisory Control and Data Acquisition |
| SCAPCD | Siskiyou County Air Pollution Control District |
| SCEHD | Siskiyou County Environmental Health Department |
| SCS | Sustainable Communities Strategy |
| SDWA | Safe Drinking Water Act |
| $SF_6$ | Sulfur Hexafluoride |
| SGMA | Sustainable Groundwater Management Act |
| SHPO | State Historic Preservation Officer |
| SIP | State Implementation Plan |
| SMARA | The Surface Mining and Reclamation Act |
| $SO_2$ | Sulfur Dioxide |
| $SO_4$ | Sulfates |
| $SO_X$ | Sulfur Oxides |
| SRA | State Responsibility Area |
| SUSWMP | Standard Urban Storm Water Management Plan |
| SWPPP | Stormwater Pollution Prevention Plan |
| SWRCB | State Water Resources Control Board |
| TAC | Toxic Air Contaminants |

| | |
|---|---|
| TBA | Targeted Brownsfield Assessment |
| TPH | Total Petroleum Hydrocarbons |
| TPZ | Timberland Production Zone |
| U.S. | United States |
| USACE | United States Army Corps of Engineers |
| USDOT | United States Department of Transportation |
| USEPA | United States Environmental Protection Agency |
| USFWA | United States Fish and Wildlife Service |
| VMT | Vehicle Miles Travelled |
| VOC | Volatile Organic Compounds |
| WDRs | Waste Discharge Requirements |
| $\mu g/m^3$ | Micrograms per Cubic Meter |

# APPENDIX A

PRELIMINARY LIGHTING PLAN

# APPENDIX B

CalEEMod Air Quality/Greenhouse Gas Emissions
Output Files

# APPENDIX C

BIOLOGICAL REPORTS

# APPENDIX D

PRELIMINARY DRAINAGE REPORT

# APPENDIX E

NOISE STUDY

# APPENDIX F

TRAFFIC STUDY