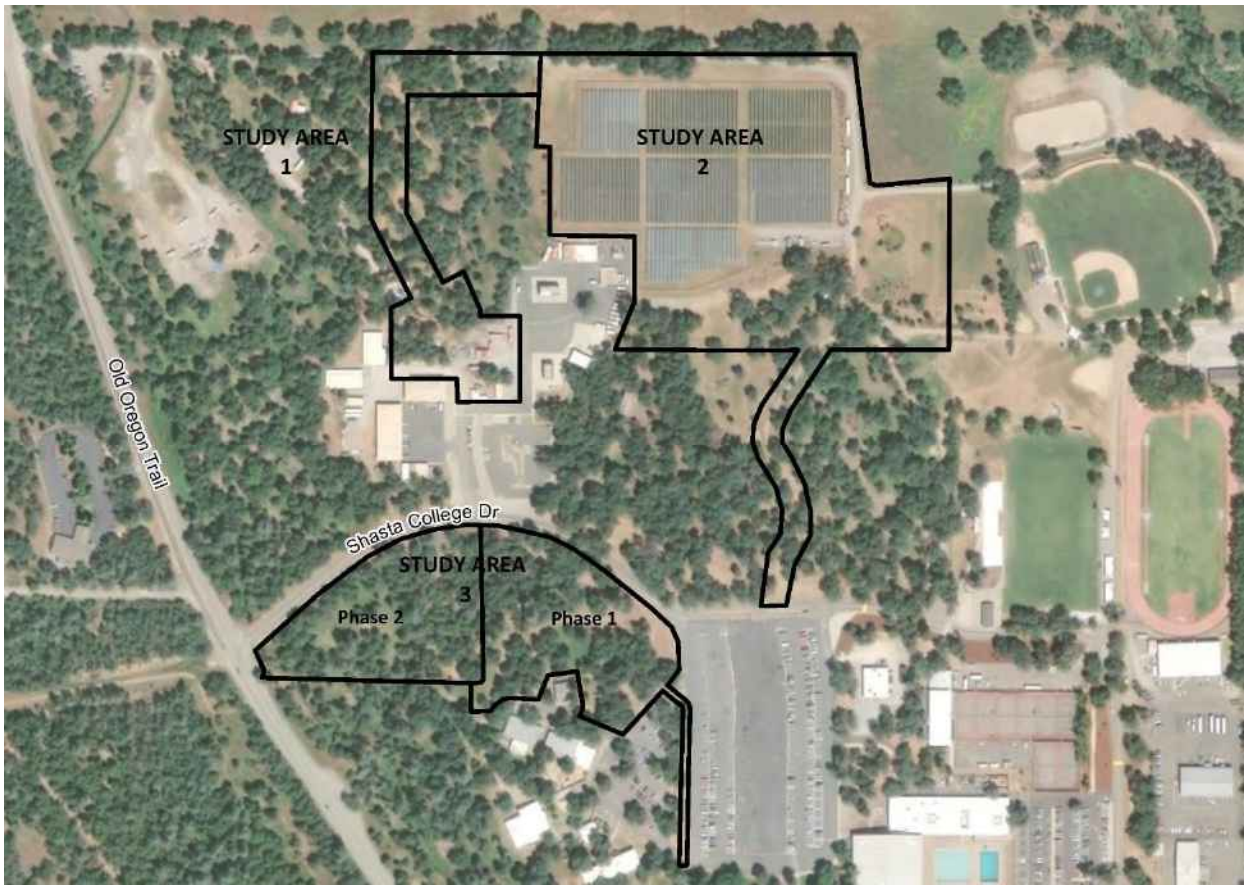
SHASTA COLLEGE

FACILITIES MASTER PLAN AMENDMENT TWO

INITIAL STUDY & MITIGATED NEGATIVE DECLARATION

State Clearinghouse No.



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GUIDELINES FOR COMMENTING ON THE DRAFT IS/MND

An environmental document should be prepared with a sufficient degree of analysis to provide decision-makers with information that enables them to make decisions that intelligently account for environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency is to be reviewed in light of what is reasonably feasible.

Section 15204(a) of the *State CEQA Guidelines* provides guidance to assist members of the public and public agencies in preparing comments on draft environmental documents. *Section 15204.5(a)* states:

> In reviewing draft environmental documents, persons and public agencies should focus on the sufficiency of the documents in identifying and analyzing potential environmental impacts and the ways to avoid or mitigate the project's significant effects.
>
> Comments are most helpful when they suggest specific alternatives or mitigation measures that would provide better ways to avoid or mitigate the significant environmental effects. At the same time, reviewers should be aware that the adequacy of an EIR or MND is determined by what is reasonably feasible, taking into account factors such as the magnitude of the project at issue, the severity of its likely environmental impacts, and the geographic scope of the project. CEQA does not require a Lead Agency, in this case, the Shasta-Tehama-Trinity Joint Community College District, to conduct every test or perform all research, study, and experimentation recommended or demanded by commenters. When responding to comments, lead agencies need only respond to significant environmental issues and do not need to provide all information requested by reviewers, as long as a good-faith effort at full disclosure is made.

Pursuant to the *CEQA Guidelines*, an effect is not considered significant in the absence of substantial evidence; therefore, comments should be accompanied by factual support. *Section 15204(c)* of the *CEQA Guidelines* states:

> Reviewers should explain the basis for their comments, and should submit data or references offering facts, reasonable assumptions based on facts, or expert opinion supported by facts in support of the comments. Pursuant to *Section 15064* of the *CEQA Guidelines*, an effect shall not be considered significant in the absence of substantial evidence.

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ENVIRONMENTAL CHECKLIST FORM

1. **Project Title:** Shasta College Facilities Master Plan Amendment Two

2. **Lead Agency & Project Applicant Name and Addresses**:

   Shasta-Tehama-Trinity Joint Community College District
   Becky McCall, Assistant Superintendent/Vice President of Administrative Services
   P.O. Box 496006
   Redding, CA 96049-6006

   Street Address:
   Shasta College
   Administrative Services Office
   11555 Old Oregon Trail
   Redding, CA 96003

3. **Contact Person, Phone Number, E-mail:**
   Theresa Markword, AVP of Facilities and Capital Construction
   (530) 242-7699
   E-Mail – tmarkword@ShastaCollege.edu

4. **General Project Location:** The proposed *Shasta College Facilities Master Plan Amendment Two* (*FMPA2*), also referred to as the Project, is located within the approximately 337-acre Shasta College Campus, situated in unincorporated Shasta County, California, approximately 200 miles northeast of San Francisco and 90 miles south of the Oregon border. The Campus is approximately five (5.0) miles east of the City of Redding's Downtown area and abuts the City's eastern boundary. Refer to **Figure 1, Project Location & USGS Map**.[1]

   The Shasta College Campus is bound by Old Oregon Trail to the west, McConnell Foundation-owned land to the north, West Stillwater Creek to the east, and State Route 299 (SR-299) to the south. The Campus is located within Assessor's Parcel Number APN 076-030-008. Refer to **Figure 2, Shasta College Campus Aerial**.

5. **General Plan Classification:** Public Facilities.

6. **Zoning District Designation:** PF – Public Facilities

7. **Project Description:** The Shasta College Campus of the Shasta-Tehama-Trinity Joint Community College District (College) initially proposed to amend the current *Shasta College Facilities Master Plan Amendment One* (*FMPA1*) and related projects by advancing four *CEQA Study Area Projects* to be evaluated at the CEQA Project and Programmatic environmental review levels. These Projects are located in *FMPA1*, which is being amended by *FMPA2* in four separate areas of the Campus and

[1] Refer to **Appendix A – Figures**.

originally referred to as the *CEQA Initial Study Areas*. Refer to **Figure 3, CEQA Initial Study Areas 1–4**. The *FMPA2* proposes amending *FMPA1* to address several Projects. However, the four original *CEQA Initial Study Areas* have been revised: one was removed, two were renamed and relocated, and one was renamed but remained in its original location. The *CEQA Initial Study Areas* were renamed to *Study Area(s)* and are located in three separate areas within the proposed *FMPA2*. **Figure 4, Study Areas 1–3**, shows the locations of the revised *Study Areas*.

The following provides an overview of the previous *CEQA Initial Study Areas*, their new locations, and their new referenced names. The discussion also provides the sequence of events that led to the proposed *Study Area Projects 1, 2*, and *3* in *FMPA2*. **CHAPTER 2.0 – PROJECT DESCRIPTION** provides more detailed information regarding the *Study Areas* and associated improvements.

In September 2023, the College initially proposed four *CEQA Initial Study Area Projects*. *Initial Study Area 1***,** of approximately 12.4 acres, located in the northwestern corner of the Campus, was considered the preferred location for an Emergency Vehicle Operator Course (EVOC).[2]

CEQA Initial Study Area 2, immediately west of the solar photovoltaic array and accessed from the south through the *Fire Training Center*, was proposed as an alternative location for an approximate 3.99-acre *EVOC Facility* area.

CEQA Initial Study Area 3, of approximately 13.42 acres, was proposed to be located south of the solar fields and west of the football fields, immediately north of Shasta College Drive. Proposed was an approximate 16,000 square foot *Apparatus Building* with ten bays for fire engines, a 20,000-gallon diesel tank, a 10,000-gallon gasoline tank, and a 1,000 DEF tank. These improvements were proposed in the southeast corner of the *Initial Study Area 3*, encompassing approximately 3.4 acres.

CEQA Initial Study Area 4, of about 9.0 acres, is bordered by the Old Oregon Trail to the west and Shasta College Drive (Campus Loop Road) to the north. A *Student Housing Project* was envisioned with two dormitory buildings, each being 45,000 square feet.

The *CEQA Initial Study Area Projects 1* through *3* would undergo a CEQA Project-Level environmental evaluation, whereas *Initial Study Area Project 4* would be assessed at a CEQA Programmatic- Level.

Biological and wetland evaluations for the *Initial Study Area 1* began in October 2023, since wetlands were of concern. A total of 0.842 acres of waters were mapped within this *CEQA Initial Study Area 1* boundary, consisting of one intermittent stream (0.180 acres), four wet swale wetlands (0.524 acres), and one seasonal wetland (0.138 acres). The on-site stream and the three southern-most wet swales appear to be subject to federal jurisdiction and U.S. Army Corps of Engineers oversight and permitting because the stream is a relatively permanent water body that is ultimately connected to a traditionally navigable waterway, and the southern-most wet swales are directly connected to the intermittent stream. The northern wet swale and the seasonal wetland do not

[2] EVOC stands for Emergency Vehicle Operator Course. It is a standardized training program that covers both the classroom principles of emergency driving and the hands-on skills needed to safely maneuver vehicles like ambulances, fire engines, and police cruisers. https://trainevoc.com/what-is-evoc/. Website accessed December 24, 2025.

have a continuous surface connection with the on-site stream, and, therefore, do not appear to be subject to federal jurisdiction. However, the wetlands would be considered Waters of the State of California and subject to permitting requirements by the California State Water Resources Control Board (SWRCB).[3]

After evaluation and consideration by the College and consultation with CAL FIRE, it was determined that the development of the *EVOC Facilities* at this *CEQA Initial Study Area 1* site would significantly impact existing wetlands and associated biological features and was therefore unacceptable from an environmental perspective. Furthermore, the permitting time, requirements, and associated costs render this *CEQA Initial Study Area* infeasible for use as an *EVOC* facility. In late January, *Study Area 1* was withdrawn from further consideration. However, the area will continue its current operations, which include limited training and vehicle storage. This area will not be modified by any new *FMPA2* infrastructure or additional structures.

CEQA Initial Study Area 2 of about 3.99 acres, located in the northern part of the campus, is west of the solar fields and east of *CEQA Initial Study Area 1*. This *Study Area* was initially considered as an alternative site for the EVOC proposed in *Initial Study Area 1.* **Figure 5, CEQA Initial Study Area 2** identifies the location of the EVOC Facility that is accessed from the south through an extension of West Avenue, which would be a component of this *Study Area*.

Because *CEQA Initial Study Area 2* was proposed for EVOC activities, concerns about noise impacts on existing residences on the west side of Old Oregon Trail had to be assessed. Noise studies began in earnest in May 2024, when existing ambient noise measurements in the area of three residences were taken. The nearest residences to the west are approximately 700 feet from the nearest operational point within the proposed EVOC site, and approximately 1,000 feet from the effective noise center of the proposed EVOC site. Refer to **Figure N-1, Ambient Noise Level Locations & CEQA Initial Study Area 2 Existing & Proposed EVOC Training Areas**.

Fire engines maneuvering within the EVOC areas are the primary noise-generating components. Short-term noise level measurements of EVOC training activities at the current training area, which is the large Pine Parking, were taken in May 2024. Refer to **Figure N-2, Existing EVOC Short-Term Noise Survey Locations**.

Based on the sound measurements, the predicted noise levels at the nearest residences resulting from proposed *EVOC* operations are below both the Shasta County noise standards shown and the existing ambient noise conditions at those residences. As a result, the existing residences to the west were not expected to be exposed to noise levels from *CEQA Initial Study Area 2*, thereby avoiding significant adverse noise impacts. Therefore, the noise impacts were predicted to be ***less than significant***, and ***no noise mitigation measures*** were warranted.

CEQA Initial Study Area 3, of approximately 13.42 acres, was first proposed to be located south of the solar fields and west of the football fields, immediately north of Shasta College Drive. Proposed

[3] ENPLAN. July 16, 2024. *Shasta College Master Plan Update: Emergency Vehicle Operator Course Aquatic Resources Delineation Report*

was an approximately 16,000-square-foot *Apparatus Building* for fire engines and fuel tanks. These improvements were proposed in the southeast corner of the *CEQA Initial Study Area 3*, encompassing approximately 3.4 acres. Cursory biological and aquatic resource evaluations, and a tree survey were undertaken for this area.[4] A *Cultural Resources Inventory Report* was also prepared for this area.[5]

CEQA Initial Study Area 4, of about 9.0 acres, is bordered by the Old Oregon Trail to the west and Shasta College Drive (Campus Loop Road) to the north. Proposed was a two-phase *Student Housing Project* comprising two 45,000-square-foot dormitories with appurtenant improvements within each phase. This *CEQA Study Area 3* was to be reviewed at the CEQA Programmatic Level.

In December 2024, the College and CAL FIRE redefined the *CEQA Initial Study Areas*. *CEQA Initial Study Area 1* was formally dropped from further consideration. The four *CEQA Initial Study Areas* now become three *Study Areas*, with the names "CEQA" and "Initial" dropped. Projects within the now three *Study Areas* were identified. In May 2025, Site Plans were provided for the new *Study Area Projects*, which were finalized in September 2025.

The EVOC proposed within the *Initial CEQA Study Area 2* was moved to a relocated *Study Area 2*. *Study Area 1*, approximately 3.50 acres, will now include a series of improvements and facilities, including, but not limited to, the future construction of West Avenue from Shasta Street to a connection to the 40-foot-wide Future Gravel Base Road, a distance of about 510 feet. This future road will eventually connect to the existing gravel-surfaced road along the northern boundary that currently provides access to the Old Oregon Trail. Proposed future structures will include a Drive-Thru Apparatus Bay, a Survival Phase I System, and a 6-Story Fire Tower. *Study Area 1* will be evaluated at the CEQA Project Level.

To provide comprehensive training opportunities, CAL FIRE and the College determined that it would be more appropriate to collocate the *EVOC Facilities* with the *Apparatus Building Facilities*, along with their respective ancillary *Training Facilities*, including structures and equipment, to the area where the 8.0-acre solar photovoltaic array field is located, which will be removed. A major portion of the area that encompassed *CEQA Initial Study Area 3,* where the Apparatus Building was located, was dropped from further consideration. This results in the majority of the 140 trees identified in the *Tree Survey Report for the Shasta College Apparatus Building Site*, within the original 3.4-acre *CEQA Study Area 3 Apparatus Building* site, from being removed.

This area, now identified as *Study Area 2*, is approximately 14.32 acres, within which the *Apparatus Building* will be located within an approximate 2.06-acre area. The *EVOC* and related infrastructure, improvements, buildings, and structures will be located on about 3.72 acres, and the *Training Facilities* will encompass about 3.46 acres. An approximately 1.22-acre area south of the Apparatus

[4] ENPLAN, August 22, 2024. *Tree Survey Report for Shasta College Apparatus Building Site*. This report is available for review at the Shasta College Administrative Services Office, Building 700.

[5] ENPLAN, November 2024. *Cultural Resources Inventory Report. Shasta College Master Plan Amendment Two: Fire Apparatus Building*. Only professionally qualified individuals, as determined by the California Office of Historic Preservation, may view the Report. Contact the Shasta College Administrative Services Office, Building 700, to inquire about its availability.

Building is proposed for *Future Training Facilities*. Also located to the east of the *Apparatus Facilities* is an approximate 2.21-acre area with an existing 1.36-acre Stormwater Retention Pond and associated existing roads serving the solar array field and pond.

A proposed approximately 940-foot-long asphalt-paved, 20-foot-wide road with 10-foot shoulders, for a total right-of-way of 40 feet, extending into the *Apparatus Facilities* area, is a part of *Study Area 2,* providing a driveway connection to Shasta College Drive to the south. This will result in grading approximately 1.23 acres, requiring the removal of the existing mature trees and vegetative cover. *Study Area 2* will be reviewed at the CEQA Project Level.

Initial Study Area 4, which initially was 9.0 acres, is now *Study Area 3*. Based on the *Student Housing Project Concept Designs* for the *Student Housing* component of *Study Area 3*, the overall area has been reduced to 7.3 acres, comprising 3.9 acres for Phase 1 and 3.4 acres for Phase 2. Proposed is the construction of two 45,000-square-foot dormitories with appurtenant improvements within each phase. As previously noted, *Study Area 3* will be reviewed at the CEQA Programmatic Level.

8. Surrounding Land Uses and Setting:

The College is located within the United States Geological Survey (USGS) Project City, 7.5-minute quadrangle map, Sections 15, 16, and 17, and Enterprise, 7.5-minute quadrangle map, Sections 15, 16, and 21. Township 32 North, Range 4 West, Mount Diablo Meridian. **Figure 1, Project Location & USGS** Map, identifies the overall 337-acre campus and the original *FMPA1* of approximately 250 acres, whose area is the same as the *FMPA2*. *FMPA2* comprises three distinct geographic areas, referred to as *Study Areas 1, 2,* and *3*.

Land uses adjacent to the College campus and in particular, the *Study Areas* include the following: to the west are residences, with the closest being approximately 400 feet away across Old Oregon Trail from the existing Storage Area, which at one time was considered *Study Area 1*; however, due to a significant amount of wetland features, this area was no longer considered. The nearest *Study Area 1* is approximately 1,100 feet east of the nearest residence. To the north of the Campus boundary and portions of *Study Areas 1* and *2* are an approximate 29.4-acre parcel and a portion of an approximate 124.16-acre parcel, both of which are undeveloped and owned by The McConnell Foundation. *Study Area 3* is located west of Old Oregon Trail and immediately south of Shasta College Drive. An intermittent stream is present near the western boundary of the *Study Area 3*, generally paralleling Old Oregon Trail, originating on McConnell lands to the north, then running from the northern boundary of the campus to the southern boundary, where it crosses under SR-299. To the east of the *Study Areas* lies West Stillwater Creek and surrounding rural residential parcels. SR-299 abuts the southern boundary of the College. None of the *Study Areas* are near West Stillwater Creek or SR-299. Refer to **Figure 2, Shasta College Campus Aerial**, for more details regarding the surrounding uses.

Visual and aesthetically pleasing features of the Campus and, in particular, the *Study Areas*, except for most of *Study Area 2*, which is the location of the existing solar photovoltaic array field, which is to be removed, include mature trees and associated vegetation, with the interior live oak the

dominant tree species in the Oak Woodland Community. This species forms a nearly continuous canopy cover over portions of *Study Areas 1* and *3* and the southern portion of *Study Area 2*. Blue oaks and gray pines are also present. Non-native trees and shrubs, both maintained and unmaintained, are present throughout the Campus. Approximately 127 acres of the eastern half of the campus, outside of the *Study Areas*, are used for agricultural purposes, along with an additional approximately 12.1 acres of wastewater treatment ponds.

Field observations revealed that the principal natural communities in the 25.12-acre *Study Areas 1, 2,* and *3* are undeveloped Oak Woodlands of approximately 13.38 acres and an Urban Habitat of approximately 11.74 acres, neither of which supports an intact Oak Woodland Community.

There are approximately 0.023 acres of seasonal wetlands mapped for *Study Area 1,* located along the proposed access road from Shasta College Drive to the future Apparatus Facilities, EVOC, and Retention Pond. The wetlands are characterized by a shallow feature surrounded by an oak canopy. Another seasonal wetland of about 0.5 acres is located immediately southeast of the parking area, abutting Shasta College Drive to the east. However, the development proposed within the *Study Areas* does not impact these wetlands. Seasonal streams are present near the western boundary and within the midpoint of Phase 2 of the *Study Area 3*, generally paralleling Old Oregon Trail, originating on McConnell lands to the north and then running from the northern boundary of the campus to the southern boundary, where it crosses under SR-299.

10. Other Public Agencies Whose Approval Is Required (e.g., permits, financing approval, or participation agreement):

- California Department of Fish and Wildlife (CDFW) – 1602 Streambed Alteration Agreement of Water of the State
- California Department of Forestry and Fire Protection (CAL FIRE) – Review and approval of the EVOC and Apparatus Building Facilities
- Central Valley Regional Water Quality Control Board (CVRWQCB) – Clean Water Act Section 401 Water Quality Certification
- Shasta County Air Pollution Control District (SCAPCD) – Adherence to District Rules, including an Authority to Construct and Permit to Operate
- Shasta County Sheriff's Department (Sheriff) – Mutual Aid Agreement
- State of California Division of the State Architect (DSA) – Review of all students' occupiable buildings

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

Consultation and correspondence with various culturally affiliated Tribal groups and agencies is normally to be conducted in accordance with *Public Resources Code* (*PRC*) *Section 21080.3.1* (*AB 52*).

Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and Project proponents to discuss the level of environmental review, identify and address potential adverse impacts on tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process (see *PRC Section 21080.3.2*). Information may also be available from the California Native American Heritage Commission.

Two Cultural Resource Inventories (CRI) and accompanying Cultural Resource Study Reports were prepared for the proposed *Shasta College Facilities Master Plan Amendment Two Projects*. The first was the previously referenced *Cultural Resources Inventory Report*, which addressed the 3.4-acre area within *Study Area 3*, where the *Apparatus Building* was initially proposed. As previously noted, the *Apparatus Building*, to be located on this site, was relocated to *Study Area 2*. The second Report *Cultural Resources Inventory Report, Shasta College Master Plan Amendment Two,* addresses *Study Areas 1* and *2*, which were previously not evaluated at a Project Level as part of the *Fire Training Center* (FTC) *Project* and the *Shasta College Facilities Master Plan Amendment One Projects*.[6]

In 2018, ENPLAN archaeologist Jacques Kerkhove-Peltier conducted a cultural resources evaluation for proposed improvements to the College museum building and surrounding property. This work included a field survey, records search, and Native American coordination (ENPLAN 2018).

This study was followed by a cultural resource evaluation of the Shasta College campus, completed in conjunction with the *Shasta College Master Plan Amendment One Project* (ENPLAN 2019a). This study recommended that focused archaeological surveys be conducted for each ground-disturbing construction project undertaken by the College, with potential cumulative impacts taken into account.

Following the adoption of *FMPA1,* construction of the Shasta College Public Safety Training Center (RPSTF), was completed. A CRI for the RPSTF project was completed by ENPLAN archaeologist Jacques Kerkhove-Peltier in January 2019 (ENPLAN 2019b). The CRI included records searches, field surveys, and Native American consultation.

No updated records search was performed by the Northeast Information Center at Chico State University (NEIC/CHRIS) for the *Study Area Projects*. The campus property has been assessed by the NEIC/CHRIS six times since 2018, most recently in August 2024, with the results being redundant. In addition, no additional consultation was initiated with the Native American Heritage Commission and local Native Americans, as consultation has been conducted as part of the above-noted projects, three of which included the College campus and one which involved an adjacent parcel. The CEQA document for the *Shasta College Master Plan Amendment One Project* includes a mitigation measure that directs the College to notify appropriate Native American tribes prior to initial groundbreaking activities in natural undisturbed areas to allow the tribes to provide a Native American monitor (Diaz 2019).

[6] ENPLAN, February 2026. *Cultural Resources Inventory Report Shasta College Master Plan Amendment Two.* Contact the Shasta College Administrative Services Office, Building 700.

For previous efforts, ENPLAN, the College's Cultural Resources Consultant, sent certified Project notification letters to the Winnemem Wintu Tribe, Redding Rancheria, Wintu Tribe of Northern California, Greenville Rancheria of Maidu Indians, Quartz Valley Indian Community, Shasta Indian Nation, and Shasta Nation pursuant to *PRC Section 21080.3.1*. The letters notified the Tribes that the Project was under review and gave them 30 days from receipt to request consultation on the Project in writing.

It should be noted that *PRC Section 21082.3(c)* contains provisions specific to confidentiality. Information contained in the *Cultural Resources Study Reports*, related to the specific location of prehistoric and historic sites, is confidential and exempt from the *Freedom of Information Act* (*FOIA*) and the *California Public Records Act* (*CPRA*); therefore, site-specific cultural resource investigations are not attached to this *Initial Study*. Professionally qualified individuals, as determined by the California Office of Historic Preservation, may contact the College directly to inquire about its availability.[7]

12. List of Attachments on File at the Shasta College Administrative Services Office, Building 700

- *Shasta College Facilities Master Plan Amendment One*
- *Shasta College Facilities Master Plan Amendment One Initial Study Mitigated Negative Declaration*
- *CalEEMod – Shasta College Master Plan Amendment Two – Project-Level Improvements Detailed Report*
- *Shasta College Master Plan Update: Emergency Vehicle Operator Course Aquatic Resources Delineation Report*
- *Tree Survey Report for Shasta College Apparatus Building Site*
- *Cultural Resources Inventory Report, Shasta College Master Plan Amendment Two: Fire Apparatus Building*
- *Cultural Resources Inventory Report, Shasta College Master Plan Amendment Two.*

[7] Shasta College Administrative Services Office, located in Building 5000.

CHAPTER 1.0 – INTRODUCTION & PURPOSE

1.1 INTRODUCTION

The Shasta-Tehama-Trinity Joint Community College District (College), as the Lead Agency, has prepared this *Initial Study* to provide the general public, responsible and trustee public agencies, and decision-makers like the Shasta-Tehama-Trinity Joint Community College District Board of Trustees with information about the potential environmental impacts of the *Shasta College Facilities Master Plan Amendment Two Projects* (Project) which proposes projects located in *Study Areas 1* through *3*.

SECTION 2.0, PROJECT DESCRIPTION, provides details regarding the proposed Project. 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 Section 21000 et seq., and the State CEQA Guidelines (California Code of Regulations, Title 14, Division 6, Chapter 3). Pursuant to these regulations, this Initial Study identifies potentially significant impacts and, where applicable, includes proposed mitigation measures to avoid or minimize all identified environmental impacts to less than significant levels. This Initial Study supports a Mitigated Negative Declaration (MND) pursuant to CEQA Guidelines Section 15070.

1.2 LEAD AGENCY

The Lead Agency is "the public agency which has the principal responsibility for carrying out or approving a project," which may be subject to *CEQA* (*PRC Section 21067*). Accordingly, the Shasta-Tehama-Trinity Joint Community College District is the *CEQA* Lead Agency.

1.3 PURPOSE OF THE INITIAL STUDY

- *CEQA* requires that public agencies document and consider the potential environmental effects of the agency's actions that meet *CEQA*'s definition of a "project." Briefly summarized, a "project" is an action that has the potential to result in direct or indirect physical changes in the environment. A project encompasses the agency's direct activities, as well as those that require public agency approvals or funding. Guidelines for an agency's implementation of *CEQA* are found in the *CEQA Guidelines* (*Title 14, Chapter 3 of the California Code of Regulations*).

- Provided that a project is not exempt from *CEQA,* the first step in an agency's consideration of its potential environmental effects is the preparation of an *Initial Study*. The purpose of an *Initial Study* is to determine whether the project would involve "significant" environmental effects, as defined by *CEQA*, and to describe feasible mitigation measures that would avoid significant effects or reduce them to a level that is less than significant. If the *Initial Study* does not identify significant effects, then the agency will prepare a negative declaration. If the *Initial Study* notes significant effects but also identifies mitigation measures that would reduce these

significant effects to a level that is less than significant, then the agency will prepare a Mitigated Negative Declaration. If a project involves significant effects that cannot be readily mitigated to a level that is less than significant, then the agency must prepare an Environmental Impact Report (EIR). The agency may also decide to proceed directly with preparing an EIR without conducting an *Initial Study*.

- The proposed Project is a "project" as defined by *CEQA* and is not exempt from *CEQA* consideration. Shasta College has determined that the *FMPA2 Projects* may potentially have significant environmental effects and, therefore, requires the preparation of an *Initial Study*. This *Initial Study* describes the proposed *FMPA2 Projects* and their environmental setting, discusses the potential environmental impacts of the *FMPA2 Projects*, and identifies feasible mitigation measures that would eliminate or reduce any potentially significant environmental effects of the *FMPA2 Projects* to a level that is less than significant.

- This *Initial Study* is a public information document that describes the proposed Project, the existing environmental setting at the *FMPA2 Projects* site, and the potential environmental impacts of constructing and operating the proposed *FMPA2 Projects*. It is intended to inform the public and decision-makers of the proposed *FMPA2 Projects'* potential environmental impacts and to document Shasta College's (as the lead agency) compliance with *CEQA* and the *State CEQA Guidelines*.

- This *Initial Study* concludes that the proposed *FMPA2 Projects* would have potentially significant environmental effects, all of which would be avoided or reduced to a level that would be ***less than significant*** with the recommended ***Mitigation Measures***. The College has accepted all the recommended mitigation measures. As a result, the College has prepared a Mitigated Negative Declaration and issued a Notice of Intent to adopt it for the *FMPA2 Projects*. The time available for public comment on the Initial Study and Mitigated Negative Declaration (IS/MND) is shown on the Notice of Intent.

This IS/MND will consider both broad and, in some cases, specific environmental effects of the *Shasta College Facilities Master Plan Amendment Two Projects* consistent with Project and Programmatic-level environmental review under CEQA.

A Project-level CEQA evaluation assesses the environmental impacts of a specific development project implemented under the Master Plan, focusing primarily on the anticipated environmental changes resulting from the project itself. A Project-level document typically focuses on the environmental impacts of a development project, encompassing planning, construction, and operational phases. A Programmatic document, on the other hand, generally examines the broad policy of a planning document, such as the Master Plan, and may not address potential site-specific impacts of individual projects that fall within the Master Plan.

CEQA allows the preparation of a Programmatic environmental document when a project consists of a series of related actions that can be characterized as a single large project, such as a Master Plan. Programmatic analyses are often used for activities that are geographically linked or for evaluating rules or requirements that guide how a program must operate. The Programmatic approach works exceptionally well when the Program's individual activities have generally similar environmental effects that can be mitigated in similar ways. The benefits of such documents are that they allow a comprehensive examination of a project and promote "tiering" when later activities within the Program are undertaken. Tiering can expedite environmental review by eliminating repetitive analysis of issues and potential impacts adequately addressed in the programmatic environmental document.[8]

This Initial Study will specifically identify which of the various development projects proposed by the *Shasta College Facilities Master Plan Amendment Two Projects* are Project-level and which are Programmatic. Typically, Master Plan projects that lack sufficient detail or are not expected to be implemented within a reasonable timeframe will be addressed Programmatically, which is the case for the *Study Area 3* Projects.

Due to some components of the various *FMPA2 Projects* being proposed for construction in 2026 and afterward, efforts will be made, when possible, to defer certain studies if, after initial evaluations, it becomes necessary to do so. Projects or activities in the *FMPA2* will be evaluated to determine their environmental effects and associated levels of impact. However, in some instances, studies may be deferred to a later date to fully assess impacts and associated mitigation measures. Performance standards will be utilized to the maximum extent possible when certain studies for specific projects within the *FMPA2* do not need to be prepared initially.

Normally, mitigation measures are implemented at the onset and describe the actions to be taken to reduce or avoid an impact. It is usually inappropriate to defer the formulation of a mitigation measure to the future. Court cases have ruled that any mitigation measures based on future studies are legally inadequate if they do not describe the nature of the actions expected to be incorporated into the plan. However, mitigation measures may specify performance standards that would mitigate a significant impact that might be achieved in various ways.[9] 14 Cal Code Regs §15126.4(a)(1)(B) states:

> "Where several measures are available to mitigate an impact, each should be discussed and the basis for selecting a particular measure should be identified. Formulation of mitigation measures should not be deferred until some future time. However, measures may specify performance standards which would mitigate the significant effect of the project, and which may be accomplished in more than one specified way."

Courts have found it acceptable that mitigation measures identified to undertake an action (such as a future study or plan) sufficiently commit the project proponent to future mitigation by

[8] The majority of the Programmatic discussion is from www. http://pcz.com/program-level-documents-save time-and-money/

[9] Kostka, Stephen L. and Zischke, Michael H. *Practice Under the California Environmental Quality Act*. January 2010.

detailing specific performance standards. Although the specifics of how the performance standards would be met may be lacking, this mitigation aspect could be properly deferred as long as a specific performance standard was in place.

1.4 DOCUMENTATION & INCORPORATION BY REFERENCE

Per Section 15150 of the State CEQA Guidelines, to reduce the size of the report, the following documents are hereby incorporated by reference into this Initial Study and are available for public review at the College. A brief synopsis of the scope and content of each document is provided.

Shasta-Tehama-Trinity Joint Community College District Facilities Master Plan 2014-2030 and *Facilities Master Plan – Amendment One (May 2018)*

Shasta-Tehama-Trinity Joint Community College District Facilities Master Plan 2014-2030 (*FMP*) recommended projects as funding became available. The District amended the *FMP* and adopted the *Facilities Master Plan – Amendment One (May 2018)* (*FMPA1*), proposing projects within the main Shasta College Campus using Measure H bond funding for existing building and infrastructure demolition, building and infrastructure renovations, new building and infrastructure construction, and proposed future building sites with infrastructure. Project phasing comprises four phases: I (2019-2020), II (2021-2025), III (2026-2030), and IV (Post 2030).

Shasta College Facilities Master Plan Amendment One Project Initial Study & Mitigated Negative Declaration

On March 13, 2019, the Board of Trustees (the "Board") of the Shasta-Tehama-Trinity Joint Community College District (the "District") adopted *Resolution No. 2018-19-22* reaffirming approval of the Shasta-Tehama-Trinity Joint Community College District's May 2018 *Shasta College Facilities Master Plan – Amendment One (FMPA1)* for the Shasta College Main Campus. As part of the approval action, the Board representing the District, as the lead agency responsible for overseeing the Project and ensuring compliance with the California Environmental Quality Act (CEQA), certified that the *Initial Study and Mitigated Negative Declaration* ("IS&MND") dated February 8, 2019 – SCH# 2019029051 was completed in compliance with CEQA (Pub. Resources Code, §21000 *et seq*.)

The *Initial Study and Mitigated Negative Declaration* evaluated environmental impacts associated with implementing the various physical improvements for existing building and infrastructure demolition (approximately 170,400 square feet or sf), building and infrastructure renovations (approximately 309,300 sf), new building and infrastructure construction (approximately 55,200 sf), and proposed future building sites with infrastructure (approximately 143,300 sf). The document determined that aesthetics, biological resources including wetlands and other waters of the State or United States, cultural resources, hydrology and water quality, and tribal cultural resources could be potentially affected by the proposed improvements; however, mitigation measures were incorporated into the proposed improvement activities to reduce potentially significant environmental impacts to *less than significant level.* Making the

appropriate findings, the Board certified that the Board reviewed and considered the information and analysis contained in the IS&MND; and certified that the IS&MND reflects the independent judgment of the Board.

Shasta-Tehama-Trinity Joint Community College District Landscape Master Plan 2021

The *Landscape Master Plan* is intended to "direct and inform the future improvements on the Shasta College main campus located in Redding. The objective is to create a campus environment that reclaims and utilizes the exterior spaces and combines the functionality of a college campus with water conscious and thoughtful design."

"The document provides an overview of the existing conditions throughout the campus, which have been identified in conjunction with the *Facilities Master Plan – Amendment One (May 2018)*, for improvements and guidance on achieving the goals presented." Specific areas have been identified to guide implementation. Provided are planting schemes and legends, irrigation system modifications and upgrades to conserve water, identification of campus circulation between neighborhoods, and addressing safety and security concerns.

Shasta County General Plan Update

The *Shasta County General Plan Update* (General Plan) is a statement of public policy reflecting the aspirations and values of Shasta County residents, which is adopted by their elected representatives – the Board of Supervisors. The General Plan serves to "provide a direction for the future growth of the County in the next twenty years. The General Plan is a comprehensive document that provides policies and guidelines for the future expansion and development of the community. The General Plan helps express how the citizens of Shasta County envision development in their community, serving as a planning guidebook for decision-makers, staff, and citizens. The General Plan serves as the foundation for various planning documents that help support and implement the General Plan, including the Shasta County Zoning Ordinance; the Shasta County Land Development and Engineering Design Standards; and other planning-related documents." However, the College is considered an agency of the State of California for the local operation of a statewide school system, and therefore, is entitled to sovereign immunity against local regulations.

Shasta County and City of Anderson Multi-Jurisdictional Hazard Mitigation Plan

The purpose of the Shasta County and City of Anderson Multi-Jurisdictional Hazard Mitigation Plan (2017) is to implement and sustain actions that reduce vulnerability and risk from hazards or reduce the severity of the effects of hazards on people and property. Mitigation actions are both short-term and long-term activities, which reduce the cause or occurrence of hazards; and, reduce exposure to hazards or reduce effects of hazards through various means, including preparedness, response, and recovery measures.

2022 Shasta County Regional Transportation Plan & Sustainable Communities Strategy for the Shasta Region

Shasta Regional Transportation Agency (SRTA) is the federally designated metropolitan planning organization (MPO) and state-designated regional transportation planning agency (RTPA) for Shasta County. SRTA is required to prepare and adopt a comprehensive regional transportation plan (RTP) covering a minimum 20-year planning horizon. The RTP for Shasta County is updated every four years. The purpose of the RTP is to "encourage and promote the safe and efficient management, operations, and development of a regional intermodal transportation system that, when linked with appropriate land use planning, will serve the mobility needs of goods and people." The RTP is implemented through short-term transportation improvement and work programs. The 2020 Regional Transportation Plan & Sustainable Communities Strategy for the Shasta Region reflects the latest update.

Go Shasta County Regional Active Transportation Plan

The February 2018 *Go Shasta County Regional Active Transportation Plan* (Updated August 2019) (*GoShasta ATP*) presents a visionary, yet implementable plan that will strategically guide the development of programs and infrastructure for walking, bicycling, and connecting to transit in the Shasta Region. The *GoShasta ATP* presents projects and action lists for Shasta County and the incorporated cities of Anderson and Shasta Lake. The *GoShasta ATP* provides a regional vision and recommendations developed with local jurisdictions.

Improved connections also provide more opportunities for recreational riding and walking for exercise, and for building a healthier, more economically competitive community. In addition to infrastructure recommendations, the plan also provides recommendations for support programs and initiatives to encourage people to walk, bike, and ride transit.

1.5 PROJECT-RELATED TECHNICAL STUDIES

The following studies were prepared or used to develop baseline information and Project-related impact discussions for this *Initial Study*. Hard copies are available for inspection at the Shasta College Administrative Services Office, located in Building 700, during regular business hours (8:00 AM to 5:00 PM Monday through Friday.

- *Shasta College Master Plan Update: Emergency Vehicle Operator Course Aquatic Resources Delineation Report*, ENPLAN. July 16, 2024
- *Tree Survey Report for Shasta College Apparatus Building Site*, ENPLAN, August 22, 2024.
- *Cultural Resources Inventory Report Shasta College Master Plan Amendment Two Fire Apparatus Building, Shasta County,* California. ENPLAN, November 2024 (on file with the Shasta College Office of Administrative Services, Building 700)
- *Environmental Noise & Vibration Analysis Shasta College EVOC Project – Shasta County, California*, Bollard Acoustical Consultants. January 10, 2025

The information in the *Cultural Resources Inventory Report* related to the specific location of prehistoric and historic sites is confidential and exempt from the *Freedom of Information Act* (*FOIA*) and the *California Public Records Act* (*CPRA*); therefore, it is not an attachment to this *Initial Study*. Qualified professionals, as determined by the California Office of Historic Preservation, may contact the College directly to inquire about its availability.

1.6 PROJECT PLANS & DESIGNS

Nichols, Melburg & Rossetto Architects (NMR) and PACE Engineering prepared the following plans and architectural elevations to address the proposed Project.

- CEQA Study Area Map, June 2023
- Facilities Master Plan Figure J, Land Uses – Existing
- Facilities Master Plan Figure K, Land Uses – Proposed
- Shasta College RPSTC North Expansion Enlarged Site Plan, Sheet A020, 07/20/2023
- Shasta College RPSTC North Expansion Site Plan, Schematic Design Documents, Sheet A020, 05/06/2024
- Apparatus Building Enlarged Apparatus Bldg. Site Plan at EVOC, Coordination Meeting Drawings, Sheet C100. 08/13/2025
- Apparatus Building Site Grading Plan, Construction Documents Sheet C100, 09/30/2025
- Apparatus Building Section & Details, Construction Documents Sheet C101, 09/30/2025
- Shasta College RPSTC North Expansion Sheets (15), Progress Set, 09/19/2025
    - Overall Site Plan, Sheet C100
    - Grading Plan, Sheet C101
    - Access Road, Sheet C102
    - Section & Details, Sheet C201
    - Overall Site Utility Plan, Sheet C200
    - Utility Plan – EVOC & North Expansion, Sheet C201
    - Water & Sewer Main – STA 0+00 to STA 7+00, Sheet C202
    - Water & Sewer Main – STA 7+00 to STA 13+00, Sheet C203
    - Water & Sewer Main – STA 13+00 to STA 18+40, Sheet C204
    - Water & Sewer Main – STA 18+40 to STA 25+00, Sheet C205
    - Water & Sewer Main – STA 25+00 to STA 31+20, Sheet C206 (Shown as C204)
    - Details, Sheet C400
    - Details, Sheet C401
    - Details, Sheet C402
    - Details, Sheet C403
- CAL FIRE Apparatus Building Exterior Elevations, 08/28/2025
- CAL FIRE Apparatus Building, October 2024
    - First Floor Plan, Sheet A201
    - Mechanical Platform Floor Plan, Sheet A202

    - Standing Seam Metal Roof Plan, Sheet A220
- Fire Facilities Steel Fire Training Tower WESCO Model WT-4, March 24, 2025
    - Floor Plans, Sheets 1-4
    - Elevations Plans, Sheets 5-8

The firms of Image, Design, Build., JK Architecture Engineering, and Hanbury collaborated to prepare the *Student Housing Project Concept Designs* for the *Student Housing* component of the *Study Area 3* Project dated March 31, 2023. The following plans and elevations provide an overview of the Student Housing concepts. Unless otherwise noted, there is one sheet for each plan and elevation.

- Concept Design rendering, 1 Sheet
- Site Plan – Overall, 1 Sheet
- Site Plan - Enlarged, 1 Sheet
- Site Plan – Proposed Student Housing Utility Plan, 1 Sheet
- Program Diagram, 1 Sheet
- Elevations, 4 Sheets
- Exterior Perspectives, 1 Sheet

The plans, diagrams, and elevation sheets, which are subject to modification or replacement, were used to prepare various Project-related technical studies and to develop baseline information and discussions on Project-related impacts as part of preparing this *Initial Study*. Electronic copies of these sheets are available on request.

1.7 ENVIRONMENTAL REVIEW PROCESS

This *Initial Study* is being circulated for public and agency review as required by *CEQA*. Because State agencies will act as responsible or trustee agencies, the County will circulate the *Initial Study* to the State Clearinghouse of the Governor's Office of Planning and Research for distribution and a 20-day review period. During the review period, written comments may be submitted to:

Shasta College
Theresa Markword, AVP of Facilities and Capital Construction
P.O. Box 496006
Redding, CA 96049-6006
E-Mail – tmarkword@ShastaCollege.edu

Upon completion of the 20-day public review period, written responses to all substantive environmental issues raised will be prepared and available for review prior to the public hearing before the District Board of Trustees. At the public hearing, the CEQA Mitigated Negative Declaration will be adopted, and the proposed Project will be considered for approval.

CHAPTER 2.0 – PROJECT DESCRIPTION

2.1 PROJECT LOCATION & SETTING

Regional Setting

The proposed Project is located in Shasta County in northern California, approximately 200 miles northeast of San Francisco and about 90 miles south of the Oregon border. The Project site is approximately five (5.0) miles east of the City of Redding's Downtown area and abuts the City's eastern boundary. Refer to **Figure 1, Project Location & USGS Map**.

Shasta County is located in the northern reaches of the Sacramento Valley, with portions extending into the southern reaches of the Cascade Mountains. Topography within the County ranges from the flat valley area in and around the City of Redding, approximately 300 to 500 feet above mean sea level (MSL), to steep mountainous areas, including Mount Lassen, which is 10,455 feet above MSL. Topographic elevations within the College range from 580 to 630 MSL. Mount Shasta is approximately 60 miles north in Siskiyou County, which borders Shasta County. The Sacramento River is the principal watercourse within the County. It flows out of the Cascade mountains to the north and through the center of the County and the City of Redding and south into the Sacramento Valley.

State Highway 299, along the southern boundary of the College, intersects with Interstate 5 (I-5) to the west of the Project site approximately one-half mile. I-5 runs in a general north-south direction, bisecting the County. Refer to **Figure 1, Project Location & USGS Map.**

Local Setting

The College is located within the United States Geological Survey (USGS) Project City, 7.5-minute quadrangle map, Sections 15, 16, 17, and Enterprise, 7.5-minute quadrangle map, Sections 15, 16, 21. Township 32 North, Range 4 West, Mount Diablo Meridian. **Figure 1, Project Location & USGS Map**, identifies the overall 337-acre campus and the original *FMPA1* of approximately 250 acres superimposed on the USGS Map. *FMPA2* encompasses the same area as *FMPA1* but now proposes improvements and structures in three distinct geographic areas within the overall *FMPA2*, which are referenced as *Study Areas 1, 2,* and *3,* as shown in **Figure 4, Study Areas 1-3**.

Land uses adjacent to the College campus and in particular the *Study Areas* include the following: to the west are residences, with the closest being approximately 400 feet away across Old Oregon Trail from the existing Storage Area which at one time was considered a Study Area; however, due to a significant amount of wetland features this area was no longer considered as a Study Area. The distance to the nearest Study Area, which is *Study Area 1*, is approximately 1,000 feet from the nearest residence. To the north of the Campus boundary and portions of *Study Areas 1* and *2* are an approximate 29.4-acre parcel and a portion of an approximate 124.16-acre parcel, both of which are undeveloped and owned by The McConnell Foundation. *Study Area 3* is located west of Old Oregon Trail and immediately south of Shasta College Drive. An intermittent stream

is present near the western boundary of the *Study Area 3*, generally paralleling Old Oregon Trail, originating on McConnell lands to the north, then running to the southern boundary of the campus, where it crosses under SR-299. To the east of the three Study Areas lies West Stillwater Creek and surrounding rural residential parcels. SR-299 abuts the southern boundary of the College. None of the Study Areas are near West Stillwater Creek or SR-299. Refer to **Figure 2, Shasta College Campus Aerial**, for more details regarding the surrounding uses.

Existing Conditions

Founded in 1948, the District's 337-acre main campus in Redding was constructed primarily between 1966 and 1972 and includes the majority of the facilities still in use today. The District's facilities house a wide range of instructional programs and support services including but not limited to: operational agricultural lands; fire training, law enforcement and medical emergency training facilities including props; open access computer laboratories; counseling, tutoring, veteran's and financial aid services; performing arts and athletic events; student activities; lecture series and workshops; and art exhibits.

Four natural communities or habitat types were identified within the Master Plan area. These communities include California annual grassland, mixed oak woodland, freshwater pond, and developed/disturbed habitats. Refer to **Figure BR-3, Habitat Community Types**.

Interior Live Oak is the dominant tree species in the Oak Woodland community and forms a nearly continuous canopy cover over the northern portion of *Study Area 1*, the southern portion of *Study Area 2*, and most of *Study Area 3*. Blue oaks and gray pines are also present. The overall acreage encompasses about 13.38 acres, with a principal canopy layer of valley oak, with lesser amounts of blue oak and gray pine. The understory species are generally low-growing annual grasses and forbs, similar to what is found in the annual grassland. Oak Woodland is a sensitive natural community, and impacts on oak woodlands should be mitigated.

Existing General Plan

The *Shasta County General Plan* is divided into 10 Planning Areas. Shasta College is located within the South-Central Region Planning Area. The *General Plan* identifies three distinct types of communities: Urban Center, Town Center, and Rural Community Center. Shasta County is within an Urban Center. The *General Plan* designates the proposed project site as *PF – Public Facilities*.

Existing Zoning

California Government Code Section 6586021 requires zoning to be consistent with the general plan. General plan consistency is possible only if the local government, in this case, Shasta County, has officially adopted it. The current *County General Plan Update* was adopted in September 2004, and the Housing Element has been updated regularly, with the last update in 2028. The land uses authorized in the *Shasta County Zoning Code* must then be compatible with the objectives, policies, general land uses, and programs specified in the *Shasta County General Plan*.

2.2 PROPOSED PROJECT

Background

In 2015, Shasta College, CAL FIRE, Redding Fire Department, Shasta County Fire Department, Tehama County Fire Department, Trinity County Fire Chiefs Association, Fire Chiefs Association of Shasta County, and the Shasta County Training Bureau formed a regional collaborative effort named the SHIELD Consortium. In January 2016, the Consortium began offering intensive weekend training sessions to better prepare firefighters in the area. There are multiple benefits to this working relationship, including reduced costs as well as local access to necessary training. In addition to SHIELD Consortium agencies, other agencies that utilize existing programs and facilities, and the future Project currently include: the U.S. Forest Service, California National Guard, State Highway Patrol, Redding Police, and the Shasta County Sheriff's Department. Once the Project is completed, it is expected that other north state fire and law enforcement agencies and emergency medical responders will utilize the College's programs and facilities.

Through the passage of the 2016 Bond Measure H, the Shasta College Campus of the Shasta-Tehama-Trinity Joint Community College District began constructing the *Regional Public Safety Training Facility* (RPSTF) *Project*. The purpose of the Project was to provide expanded educational programs for fire, law enforcement, and emergency medical services, often referred to as Fire Technology (FIRE), Emergency Medical Training (EMT), and Administration of Justice (AOJ) Programs, respectively.

In April 2023, the College and CAL FIRE signed a three-year lease to host the CAL FIRE Redding Training Center to meet the growing need to add employees to the department and to expand training centers further north.[10] In September 2025, a new ten-year lease was executed by the College and CAL FIRE. CAL FIRE expanded its statewide training system and chose Shasta College as the home for its new Redding Training Center for the following key reasons.

- A long-standing partnership grew into a formal training center. Shasta College had operated its own fire academy for years, and CAL FIRE has consistently trained there and collaborated with the college. According to KRCR, CAL FIRE "launched its North Training Center right on campus," building on this existing relationship. There was an existing partnership whereby CAL FIRE had already been using Shasta College facilities and working with instructors, and CAL FIRE decided to establish its third official training center in the state at this location.
- The facility already had the infrastructure CAL FIRE needed since Shasta College's RPSTF already included specialized training towers, props, and space designed for fire, rescue, and law-enforcement training. Furthermore, the RPSTF was designed to serve regional agencies, making it a natural fit for CAL FIRE's expansion.

[10] *CAL FIRE Training Center Year-round training in fire protection and prevention.* https://www.fire.ca.gov/what-we-do/fire-protection/training-center. Website accessed December 30, 2025.

- CAL FIRE operates multiple training centers statewide, but before this expansion, its primary facilities were in Ione and Riverside. Establishing a northern center at Shasta College allowed CAL FIRE to train personnel closer to the northern counties, reduce travel and housing costs, and increase statewide training capacity. These reasons are aligned with CAL FIRE's broader strategy of expanding readiness and workforce development.
- There were clear benefits for Shasta College and the region. The partnership strengthens Shasta College's fire academy and brings more training opportunities to the North State by providing more training opportunities for students, establishing a stronger pipeline into CAL FIRE careers, all of which are regional economic and workforce benefits.

As previously noted, the Shasta College Campus initially proposed to amend the current *Shasta College Facilities Master Plan Amendment One* and its related projects by identifying four areas for the development of facilities and improvements (Projects) for evaluation at the CEQA Project and Programmatic environmental review levels. These areas were then referred to as the Initial Study Areas for CEQA purposes (**Figure 3, CEQA Initial Study Areas 1 – 4**). Subsequently, these Initial Study Areas were revised: one was removed, one was renamed and relocated, and one was renamed but remained in its original location. Refer to **Figure 4, Study Areas 1 – 3,** for the location of the three Study Areas within which specific Projects are proposed.

Each of the three *Study Areas* is described in detail with accompanying Tables and Figures. It should be noted that the final square footage or volumes, as applicable, for buildings, structures, or other improvements may vary slightly depending on final design; however, for CEQA purposes, they will be located within overall disturbed areas where potential significant environmental impacts and applicable mitigation measures are addressed, as necessary.

Study Area 1

Within the 3.26-acre *Study Area 1,* the planned facilities and improvements include the construction of West Avenue from Shasta Street to a connection to the 40-foot-wide Future Gravel Base Road, a distance of approximately 510 feet. This future road will connect *Study Area 2* to Old Oregon Trail to the West. The southern portion of West Avenue will initially be constructed to provide access to a proposed 6-Story Fire Tower, which is currently under review by the California Division of the State Architect (DSA) for approval. Construction could begin in the summer of 2026. The Drive-Thru Apparatus Bay and associated facilities (Storage, SCBA Fill Station, and Extractor) cannot be constructed until another General Obligation Bond is placed on the ballot for approval by the public. The balance of West Avenue beyond the Fire Tower is also dependent on future funding. The bond measure could be placed on the November 2026 ballot.

These facilities and improvements will be addressed at the CEQA Project Level within *Study Area 1*. **Table 2-1, Study Area 1, Facilities & Improvements**, identifies the facilities and improvements proposed, the number, and square footage, acres, volumes, and lengths, as applicable. **Figure 2-**

1, Study Areas 1 & 2 Site Plans, and the ensuing **Figures** provide a Site Plan and related components, such as details and architectural elevations, where appropriate. A discussion of the key project-related components within *Study Area 1* follows **Table 2-1**.

Table 2-1
STUDY AREA 1, FACILITIES & IMPROVEMENTS

Facilities & Improvements	Schedule	Sq. Ft. / Acres / Volume
West Street Asphalt Surface Road – 40' Wide by 280' Long past the 6-Story Fire Tower	2026	11,200 Sq. Ft.
West Street Asphalt Surface Road – 40' Wide by 510' long to the Northern East-West Gravel Surface Road [1]	Future	20,400 Sq. Ft.
Northern East-West Gravel Surface Road – 40' Wide by 820' Long to Old Oregon Trail	Future	32,800 Sq. Ft.
1 Drive-Thru Apparatus Bay – 80' x 100'	Future	8,000 Sq. Ft.
1 Storage – 40' x 15'	Future	600 Sq. Ft.
1 SCBA Fill Station [11] – 20' x 15'	Future	300 Sq. Ft.
1 Extractor – 20' x 15'	Future	300 Sq. Ft.
6-Story Fire Tower – 70' x 80' Pad	2026	5,600 Sq. Ft.
Dräger Survival System Phase I – 80' x 80' Pad	Future	6,400 Sq. Ft.
Stormwater, Water, Wastewater, Electrical, Propane Gas, as Necessary	2026	

Note 1: Road to be constructed within a 60' graded right-of-way – total of 30,600 Sq. Ft.

Study Area 1 Access and Roadways

Primary access to *Study Area 1* will be through the RPSTF via West Avenue, which intersects with Shasta College Drive to the south. West Avenue will initially be extended by approximately 270 feet from the intersection with Shasta Street to the northern end of the 6-Story Fire Tower. The roadway will be asphalt-paved with a 40-foot width. In the future, at an undetermined date, West Street will be extended northward by 510 feet, connecting to a currently proposed 40-foot-wide Gravel Base Road. This Future Road will primarily connect to the EVOC area in *Study Area 2*, where a proposed 36-foot-wide asphalt-paved road terminates at the western edge of *Study Area 2*. Although the Future Gravel Base Road is proposed to be 40 feet wide, it is recommended that the width be reduced to 36 feet to facilitate the connection from *Study Area 2*. Eventually, there will be a connection to the existing gravel-based road along the northern Campus boundary, which connects to the Old Oregon Trail to the west. The connection and the existing gravel-based road are not *Study Area 1* Projects.

Dräger Survival System Phase I

A Dräger Swede Survival System Phase 1 – Flashover Development Observation Burn Building is proposed in *Study Area 1*. The structure is to be located on a 6,400 square-foot gravel base pad.

Dräger manufactures medical and safety technology products. Equipment and training services protect and support fire departments and emergency services. The collection of Dräger fire

[11] A SCBA Fill Station is specialized equipment used for filling SCBA (Self-Contained Breathing Apparatus) cylinders. https://www.bing.com/search?q=what+is+a+SCBA+Fill+station. Accessed December 24, 2025.

training systems is extensive, with options to meet the needs of CAL FIRE and the Shasta College Fire Academy. Dräger Swede Systems (Burn Buildings) and Dräger certified instructional training programs have been designed and delivered in accordance with training methods developed by the Swedish Rescue Services Agency through the Swedish Rescue Training Center. Every Dräger Burn Building fire training simulator provides real-world fire conditions and scenarios. The container-based Class A[12] Burn Structures is a comprehensive train-the-trainer course with qualified, experienced instructors. The Swede system enables Firefighters to incrementally develop knowledge of fire behavior and skills for fire control and suppression while advancing through six available skill centers, or phases. Firefighters will be "trained to recognize conditions that lead up to a deadly flashover event and learn techniques to delay this phenomenon—in a controlled, repeatable setting."

The wood-fueled Phase 1 system is essentially a laboratory where firefighters can closely observe fire behavior and learn to recognize the warning signs of a flashover. The upper compartment is the burn chamber. The observation level, which is 3 feet below the fire floor, gives firefighters a safe vantage point for observing the stages of fire as it progresses to flashover.

The walls and ceiling of the burn chamber and walls of the observation chamber are lined with high temperature insulation material that is protected behind a seal-welded layer of 11-gauge steel. This protects the structural integrity of the container from the grueling temperature swings the container will undergo. The burn chamber includes a baffle system to control the heat and gases and is designed for sheets of Oriented Strand Board (OSB) to be placed along the walls, ceiling, and doors.

This system is also designed to reinforce the proper use of personal protective equipment (PPE) and teach methods for testing and cooling the environment to delay the onset of a flashover. Refer to **Figure 2-2, Dräger Survival System Phases I & 5**.

6-Story Fire Tower

"High-rise training towers are designed to provide comprehensive training for fire service personnel. Currently proposed is a custom variation of the Fire Facilities Steel Fire Training Tower WESCO Model WT-4.[13] The proposed exterior colors will be light beige and warm gray. The WT-4 Model is similar to the Commissioner, which is the largest standard Fire Facilities training structure model. The tower spans 73' long and stands 40' high. The Commissioner offers three sections, a four-story fire training tower, a two-story residential section, and a one-story burn room annex. The residential section features interior and exterior stairs, two roof chop-out

[12] Class A training systems use wood or wood products to generate a realistic live fire. Class A systems are designed to generate predictable, reproducible fires with accurate flames and smoke behavior. This is especially true when wanting to highlight a flashover experience, where the smoke itself ignites. As with any fire that produces smoke, toxic gases are introduced and require gas monitoring to ensure support personnel are not in proximity without proper breathing protection. https://www.draeger.com/en-us_us/Safety/Firefighting/Training. Website accessed December 30, 2025.

[13] Fire Facilities Steel Fire Training Towers. *Tower Models – The Commissioner*. https://www.firefacilities.com/fire-training-towers/tower-models/the-commissioner/ Website accessed February 26, 2026.

curbs, hallways, a burn room, and a burn area in the attic. The tower section offers interior decks and stairs, ship's ladder, parapet roof guard with chained opening, and a roof chop-out curb. For the ultimate in fire training, the Commissioner also features a cantilevered balcony, inset balcony, and fire escape." **Figure 2-3, Fire Training Tower WESCO Model WT-4** provides an example of a general elevation of the tower.[14]

Study Area 2

Study Area 2 is about 14.32 acres and includes an 8.0-acre solar photovoltaic array, comprising a 6.5-acre array area and an additional 1.5 acres cleared to prevent tree shading of the array. A seven-foot-high chain-link security fence was erected around the perimeter of the array.

Proposed in the northern portion of this *Study Area* is an approximate 3.72-acre EVOC area and an approximate 2.06-acre Apparatus Facility with a 16,000-square-foot Apparatus Building. East of the Apparatus Facility is an approximate 2.21-acre area with an existing 1.36-acre Stormwater Retention Pond and associated existing roads serving the solar array field and pond. An approximate 1.22-acre area south of the Apparatus Building is proposed for Future Facility improvements to provide additional supportive Training facilities.

Approximately 940 feet of a new paved 20-foot-wide roadway within a 40-foot-wide right-of-way will connect the principal Study 2 area, which includes the Training, EVOC, Apparatus Building, Stormwater, and Future Facilities Area, to Shasta College Drive to the south. *Study Area 2* will be reviewed at the CEQA Project Level.

Table 2-2, Study Area 1, Facilities & Improvements, identifies the facilities and improvements proposed, the number, and square footage, acres, volumes, and lengths, as applicable. **Figure 2-1, Study Areas 1 & 2 Site Plans** provides the accompanying Site Plan(s) and related components, such as details and architectural elevations, where appropriate. A discussion of the key project-related components within *Study Area 2* follows **Table 2-2**.

Table 2-2
STUDY AREA 2, FACILITIES & IMPROVEMENTS

Facilities & Improvements	Schedule	Sq. Ft. / Acres / Volume
1 Concrete EVOC Area – 680' x 200'	2027	136,000 Sq. Ft. – 3.13 Ac.
1 Concrete Skid Pan Area – 200' x 150'	2027	30,000 Sq. Ft. – 0.69 Ac.
3 Banks, each w/4 Portable Restrooms	2027	
1 East-West Gravel Driveway – 24' by 700' Long	2027	16,800 Sq. Ft.
1 North-South Gravel Driveway – 20' Wide by 225' Long	2027	4,560 Sq. Ft.
1 Apparatus Building Area – 174' x 270'	2027	46,980 Sq. Ft. – 1.08 Ac.
1 Apparatus Building with 16 Bays – 84' x 200'	2027	16,800 Sq. Ft.
1 Classroom Building – 100' x 80'	2027	8,000 Sq. Ft.
1 Shade Structure – 30' x 80'	2027	2.400 Sq. Ft.
1 North-South Gravel Driveway – 15' by 240' Long	2027	3,600 Sq. Ft.

[14] Plans and elevations can be viewed at the Shasta College Administrative Services Office, Building 700. Electronic copies are available on request.

Facilities & Improvements	Schedule	Sq. Ft. / Acres / Volume
1 East-West Asphalt Access Road to Concrete Pads & EVOC Area – 36' Wide by 720' Long	2027	25,920 Sq. Ft.
6 Concrete Pads with Gravel Base & Asphalt Driveways & Ancillary Structures	2027	
1 Conc Pad (Auto Exec) – 80' x 100'	2027	8,000 Sq. Ft.
1 Conc Pad (Two-Story) – 100' x 100'	2027	10,000 Sq. Ft.
1 Conc Pad FC Pad Propane with Class "B" Conexes – 100' x 100'	2027	10,000 Sq. Ft.
1 Conc Pad (Phase 5 Survival System) – 100' x 100'	2027	10,000 Sq. Ft.
1 Conc Pad (T-Hall) – 60' x 100'	2027	6,000 Sq. Ft
1 Conc Pad (Phase 1 Survival System) – 60' x 100'	2027	6,000 Sq. Ft.
6 Gravel Driveways Between Concrete Pads – 20' by 100' Long	2027	12,000 Sq. Ft.
1 Asphalt Driveway – 20' Wide by 124 Ft. Long	2027	2,280 Sq. Ft.
1 East-West Gravel Driveway – 24' by 700' Long (Same driveway serving the EVOC)	2027	16,800 Sq. Ft.
1 Shade Structure – 30' x 80'	2027	2,400 Sq. Ft.
1 SCBA Fill Station – 20' x 60'	2027	1,200 Sq. Ft.
1Cold Cubes	2027	
1 Propane Tank on Conc. Slab w/4 Bollards	2027	
1 Stormwater Retention Basin – Existing to be Expanded	2027	60,000 Sq. Ft. – 1.38 Ac.
1 North-South Asphalt Access Road to Apparatus Building & EVOC Areas from Shasta College Drive – Existing Dirt/Gravel Road to be Improved – 20' by 940' Long [1]	2027	18,800 Sq. Ft.
Stormwater, Water, Wastewater, Electrical, Propane Gas, as Necessary	2027	

Note 1: Road to be constructed within a 40' wide graded right-of-way – total of 37,600 Sq. Ft.

Roadways and Access to Study Area 2

There will be two roadways providing access to and from the Apparatus Building and EVOC Areas. Primary access to the Apparatus Building Area will be via a proposed 20-foot-wide asphalt-paved road, within which a sanitary sewer line will be located to provide wastewater collection from various locations in the EVOC area and the bathroom in the Apparatus Building. Currently, there is a partially gravel and native surface road, averaging 12 feet in width, that primarily serves agricultural purposes and provides limited access to the existing stormwater retention pond to the east of the solar array field and to the field itself. Whereas the proposed road will be 20 feet wide, it will be centered within an approximately 40-foot-wide area, herein referred to as the road right-of-way (ROW). The ROW will be cleared of existing trees and associated vegetation and graded to accommodate the proposed road. Proposed plans identify a fence following along the edges of the 20-foot roadway; however, for initial road construction, future road maintenance, and fire protection, it is recommended that the fence be located along the edges of the 40-foot ROW.

Primary access to the Apparatus Building Area may initially also provide access to the EVOC area, along with access through the existing RPSTF to the south of the existing solar array field and to the west of a southern part of the array field.

Emergency Vehicle Operator Course (EVOC)

The EVOC is a crucial training program for first responders, particularly firefighters, as it equips them with the skills to operate their vehicles safely in challenging conditions. The program's focus on defensive driving principles for both emergency and non-emergency situations, as well as its coverage of topics such as emergency driving, intersection hazards, and backing apparatus and vehicles, is designed to enhance vehicle safety operations for firefighters. Currently, the EVOC training takes place in the large Pine Parking Lot, located west of the CDF CAL FIRE building and northwest of the gymnasium, accessible from the north entrance to the College. The following information provides an overview of the EVOC operations.

- Instruction occurs over 11 “core” weeks, four times per year, for a total of 44 weeks per year.
- Four weeks comprise firefighting training, and seven weeks are “company officer training,” which involves command and administrative functions and driving training.
- During the seven-week training period, approximately 100 days are used for EVOC training. Training occurs four to five hours per day; however, there are times when it may extend to eight to ten hours.
- Ten fire engines are used for EVOC training. While all ten may be present, an absolute maximum of eight will be in use at any given time. It is almost exclusively seven or fewer practicing concurrently.
- An average of 48 students attend the core weeks, with a teaching staff of 22, which varies.
- Instruction is between 8:00 AM and 5:00 PM; however, there are “voluntary” practice hours that stop at 9:00 PM.

Apparatus Facilities

The major component of the Apparatus Facilities is the Apparatus Building, a specialized structure designed for the storage, maintenance, and operation of emergency response vehicles, such as fire trucks and ambulances. This building is crucial for the efficient and safe management of emergency services, ensuring that personnel can respond quickly and effectively to incidents. The design of the apparatus building must consider factors such as vehicle size and weight, building codes, and the need for durability and fire resistance. Additionally, the building must incorporate systems for capturing and ventilating vehicle exhaust, maintaining temperature and air quality, and providing power management for onboard equipment. Security measures and emergency operations centers are also essential components of the apparatus building's design to protect personnel and ensure the facility's operational readiness. The Apparatus Building will be metal, approximately 16,800 square feet in size, measuring about 84’ x 200’. The building is divided into several sections. At the east and west ends of the bays, there are nominally 20-foot-wide 76-foot-deep areas that can be used for a service center, laundry, single-occupant restroom, extractor storage, shop, and shop storage. Each area contains a stairway leading to a mechanical

platform measuring 20'-4" by 70'-8" with a floor-to-ceiling height of 9'–11". The platform can be used for a combination of future mechanical equipment and storage.

The Apparatus Building has 16 bays for fire engines, water tenders, and other vehicles. Bays are 20 feet wide and nominally 42 feet deep. Roll-up door bays are 14 feet wide, except for four, which are 12 feet wide. If desired, a bay can become 84 feet deep to accommodate longer vehicles or more than two vehicles. Eight bays can be accessed from the north side and another eight from the south. There are six bays, three on either side, each nominally 42 feet deep, for a total depth of 84 feet. These six bays can accommodate taller vehicles since the roll-up doors are 20 feet high. The interior bay height is about 24 feet. There are ten bays, five on each side, nominally 38 feet deep, for a total depth of 76 feet. The interior of these bays is about 18 feet high. At the east and west ends of the bays, there are nominally 20-foot-wide and 76-foot-deep areas that can be used for a service center, laundry, single-occupant restroom, extractor storage, shop, and shop storage. Refer to **Figure 2-4, Apparatus Building Exterior Elevations,** for views of the building. The proposed exterior and roof colors are Desert Sand with Evergreen for the trim.

Dräger Survival System Phase I

A Dräger Swede Survival System Phase 1 – Flashover Development Observation Burn Building is also proposed in *Study Area 2*. However, unlike the Phase 1 proposed in Study Area 1, this structure will be located on a 6,000-square-foot concrete pad. Refer to **Figure 2-2, Dräger Survival System Phases I & 5**.

Dräger Survival System Phase 5

A Dräger Swede Survival System Phase 5 – Multi-Story is proposed in *Study Area 2*. The structure is to be located on a 10,000 square-foot concrete pad. "Fighting fires in multi-story, multi-fire environments is one of the biggest challenges a firefighter can face. Part of the Dräger Swede Survival System, the Phase 5 trainer lets you replicate this environment to teach the complexities inherent in multi-story structures with multiple fires occurring simultaneously."

The standard Phase 5 configuration is a fully-insulated, Class A 5-container design, with fire compartments on the first and second floors and three cold chambers for staging, approach, and search-and-rescue operations. The structure has interior and exterior stairs, first and second floor entry points, and access windows. Refer to **Figure 2-2, Dräger Survival System Phases I & 5**.

Study Area 3

Old Oregon Trail to the west and Shasta College Drive to the north, abut *Study Area 3*, of about 7.3 acres. **Figure 2-5, Study Area 3 Site Plan,** shows the location of the two phases and the various housing-related components. Phases 1 and 2 are 3.9 acres and 3.4 acres, respectively.

Future improvements include the construction of student housing comprising two three-story 45,000-square-foot "dormitories" with appurtenant improvements within each phase. Currently

proposed are 90-bedroom units for 178 students, with the following number of beds per unit. There are 6 resident assistant units, 12 traditional single units, and 80 traditional double units. Other facilities proposed for each “dormitory” include, but are not limited to, community bathrooms, gender neutral bathroom, lounge/kitchen, food pantry, a general office, director/manager's office, student services and counseling offices, laundry facilities, data and study rooms, custodial room, mechanical and electrical facilities, and stairways.

Outside facilities include pedestrian walkways, an entrance court, dining patio, destination patios, and a parking area. Electrical, wastewater, water, storm drain, and fire hydrants will be provided where necessary. Emergency generators are proposed, as necessary.

Figure 2-5, Study Area 3 Site Plan, provides the concept site design and related components identified above for the proposed Student Housing. **Figure 2-6, Student Housing Building Elevations**, illustrates the conceptual design of the dormitory.

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CHAPTER 3.0 – ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this Project, involving at least one impact that is a ***Potentially Significant Impact*** or ***Potentially Significant Unless Mitigation Incorporated,*** as indicated by the checklist on the following pages.

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

3.1 DETERMINATION

On the basis of the initial evaluation:

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

__X__: I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

___: I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

___: I find that the proposed project MAY have a "potentially significant" impact or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

___: I find that although the proposed project could have a significant effect on the environment because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR of NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Copies of the *Initial Study* and related materials and documentation may be obtained at Shasta College, 11555 Old Oregon Trail, Building 5000, Room 5012, Redding, CA 96003. Contact Ms. Theresa Markword, AVP of Facilities and Capital Construction at (530) 242-7699 or email – tmarkword@ShastaCollege.edu.

Becky McCall, Assistant Superintendent/
Vice President of Administrative Services

Date

CHAPTER 4.0 – EVALUATION OF ENVIRONMENTAL IMPACTS

This Chapter evaluates the potential environmental impacts of the proposed *Shasta College Facilities Master Plan Amendment Two Projects* (proposed Project) located in unincorporated Shasta County, as well as the *CEQA Mandatory Findings of Significance* presented in **SECTION XXI. MANDATORY FINDINGS OF SIGNIFICANCE**. The issue areas evaluated in this *Initial Study* are all the checked and unchecked *Environmental Factors* previously identified in **CHAPTER 3.0 – ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED**.

The environmental analysis in this section is patterned after the *Initial Study Checklist* recommended by the *State CEQA Guidelines* and used by the County in its environmental review process. This checklist has been updated to reflect the revisions to the January 1, 2019, State *CEQA* Guidelines. For the preliminary environmental assessment undertaken as part of this *Initial Study*'s preparation, a determination that there is potential for significant effects indicates the need to analyze the proposed Project's impacts and identify mitigation more fully.

For the evaluation of potential impacts, the questions in the *Initial Study Checklist* are stated, and answers are provided based on the analysis undertaken as part of the *Initial Study*. The analysis considers the long-term, direct, indirect, and cumulative impacts of the proposed Project development. To each question, there are four possible responses:

- *No Impact.* The development will not have any measurable impact on the environment.
- *Less Than Significant Impact.* The project will have the potential to impact the environment, although this impact will be below established thresholds that are considered to be significant.
- *Potentially Significant Impact Unless Mitigation Incorporated.* The project will have the potential to generate impacts that may be considered as a significant effect on the environment, although mitigation measures or changes to the development's physical or operational characteristics can reduce these impacts to levels that are less than significant.
- *Potentially Significant Impact.* The project will have impacts that are considered significant, and additional analysis is required to identify mitigation measures that could reduce these impacts to less than significant levels.

All answers must take into account the whole action involved, including potential off and onsite, indirect, direct, construction, and operation, except as provided for under State *CEQA* Guidelines Section 15183 and State *CEQA* Statute Section 21083. The setting discussion under each resource section in this chapter is followed by a discussion of impacts and applicable mitigation measures.

- This *Initial Study* identifies several potentially significant environmental effects related to the proposed Project. Some effects are mitigated by the implementation of existing provisions of law and standards of practice related to environmental protection. Such provisions are considered in the environmental impact analysis, and the degree to which they would reduce potential environmental effects is discussed. Additional

mitigation measures are identified when necessary to avoid potential environmental effects or reduce them to a level that is less than significant

4.1 FORMAT OF THE ENVIRONMENTAL ANALYSIS

Each topical section of this *Initial Study* is organized into the following subsections:

- *Environmental Setting.* The environmental settings present the existing environmental conditions in accordance with *CEQA Guidelines Section 15125*. The subsection describes the baseline conditions against which the environmental impacts associated with the proposed Project are assessed.
- *Regulatory Setting.* The regulatory settings describe the laws, regulations, and policies that affect the resource or the assessment of impacts on the specific resource. The regulatory setting subsection establishes the regulatory framework for the analysis of each resource.
- *Impact Analysis.* The impact analysis presents thresholds of significance used and discusses potential effects of the proposed Project on the existing environmental conditions (in accordance with *CEQA Guidelines Sections 15126.2(a) and 15143)*.
- *Mitigation Measures.* Mitigation measures provide measures to reduce potentially significant effects associated with the proposed Project to the extent feasible (in accordance with *CEQA Guidelines sections 15002(a)(3), 15021(a)(2),* and *15091(a)(l))*.
- *Findings.* This subsection is presented in accordance with *CEQA Guidelines Section 15091(a)(1), 15092(b)(2)A),* and *15126.2(b)*, which require identification of impacts capable of avoidance or mitigation, as well as those that cannot be avoided.
- *Documentation and References*. As part of the preparation of an *Initial Study*, documents, including studies, reports, websites, etc., that were prepared or utilized to develop baseline information and Project-related impact discussions are referenced. The documents and references are considered as part of the record of the decision for the Mitigated Negative Declaration.

A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parenthesis following each question. A "No Impact" answer is adequately supported if all the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

All answers must take into account the whole action involved, including offsite as well as onsite, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is *potentially significant*, *less than significant with mitigation*, or *less than significant*. "*Potentially Significant Impact*" is appropriate if there is substantial evidence that an effect may be significant. When the determination is made, an environmental impact report (EIR) is required if there are one or more "*Potentially Significant Impact*" entries.

A Negative Declaration may be made where a "*Less-than-significant With Mitigation Incorporated*" determination is made and applies where the incorporation of mitigation measures has reduced an effect from "*Potentially Significant Impact*" to a "*Less-than-significant Impact*." The lead agency must describe the mitigation measures and briefly explain how they reduce the environmental effect to a *less than significant level*.

Earlier analyses may be used where, pursuant to the tiering, program EIR, or other *CEQA* processes, an effect has been adequately analyzed in an earlier EIR or Negative Declaration. *Section 15063(c)(3)(D)*. In this case, a brief discussion should identify the following:

1. Earlier Analysis Used. Identify and state where they are available for review.
2. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
3. Mitigation Measures: For effects that are "Less than significant with Mitigation Measures Incorporated," describe the mitigation measures that were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., General Plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify the following:

   a) The significance criteria or threshold, if any, used to evaluate each question; and

   b) The mitigation measure identified, if any, to reduce the impact to less than significant.

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SECTION I – AESTHETICS

This section addresses the aesthetic and visual environment, as well as the proposed Project's impacts on the surrounding area. Aesthetic impacts are those issues and impacts that can be objectively analyzed and quantified. These include light pollution, glare production, reflectivity, changes in visual character, and impacts on scenic vistas. The analysis does address subjective measures of aesthetics, such as the design's attractiveness, the buildings' colors, and other matters of opinion or preference. The analysis assesses the potential for aesthetic impacts using accepted methods of evaluating visual quality and identifies the type and degree of change the proposed Project would likely have on the character of the surrounding area.

ENVIRONMENTAL SETTING

The existing Environmental Setting for portions of the overall campus, as related to the various Study Areas, is initially discussed in this section, followed by discussions for each specific Study Area. The overall campus discussion is primarily derived from the Aesthetic Section of the *Shasta College Facilities Master Plan Amendment One* Initial Study.

The most visible and unifying element of the 337-acre campus aesthetic, or visual character, is the 180 acres that constitute the campus core. Distinctive mature oak woodlands tree canopy, and associated habitat comprise approximately 70 acres of buffer areas along Old Oregon Trail, along a northern portion of the acreage abutting Shasta College Drive, and to a limited degree along the southwestern and southeastern boundaries along SR-299 (to the west along Old Oregon Trail and the east along West Stillwater Creek). These 250 acres comprise the area addressed in *FMPA1* and also *FMPA2*, where the three *Study Areas* are located. The remaining 87 acres of the 337-acre campus are located in the southeastern part of the campus, bordering Stillwater Creek to the east.

The existing campus architecture does not reflect a specific architectural style. Nonetheless, with a few exceptions, the campus has a cohesive feel due to a combination of strong architectural elements that tie its fabric together. Reinforcing the architectural elements that tie the campus fabric together is the existing circulation system. Shasta College students and employees utilize roads, service roads, walkways, and bicycle paths along the existing roadway and pathway system. Five large parking lots are generally located around the periphery of the campus core, facilitating access to the various educational and administrative buildings, as well as athletic, security, and service facilities.

The existing mature trees and agricultural fields provide visual and aesthetic features, many of which will be retained, as stated in the FMPA1. Interior Live oak and Blue oak are the dominant tree species in the Oak woodland community, forming a nearly continuous canopy cover over much of the Oak woodland habitat. Valley oaks, Gray pines, Ponderosa pines, and Non-native ornamental trees are interspersed throughout. These stands of trees will be retained to the maximum extent feasible by the District as visual screens for receptors on all sides of the campus facilities. The College reduced watering of the underlying lawn ground cover, located throughout the campus, for conservation purposes during drought conditions in past years. While this may not have been considered aesthetically pleasing by many, the drought conditions, combined with the State of California's

Division of the State Architect (DSA) CAL Green standards, required a reduction in outdoor water use for landscape irrigation at community colleges. Although drought conditions have not been experienced in Shasta County in recent years, the College has continued its efforts to reduce water use in landscaping. The College has eliminated many non-native (ornamental) trees, grass turf areas, and shrub beds that use more than 2 acre-feet of water per year. These uses have been converted to hardscape landscape features or reverted to native vegetation.

New construction and building renovations at the main campus have contributed to the beautification of the College's main campus. In some instances, a minimal amount of turf has been added back into the landscape. Overall, however, the College has reduced the amount of turf irrigation over recent years by 2.575 acres. In addition, an upgraded Master Control system controls losses of water via flow meters. Cycle and soak settings are used to prevent water runoff. A new booster pump and two-wire system allow for more irrigation stations to run simultaneously at night to help control evaporation. Finally, all non-turf areas have been converted to drip irrigation systems.

Shasta College is committed to improving campus aesthetics with regard not only to building design but also to maintaining and replacing mature trees, either individually throughout the campus or by planting in groves. When necessary, healthy and mature trees will be replaced. In addition to being aesthetically pleasing, "the roots of trees, shrubs, grasses, and groundcovers trap and filter dust and other pollutants found in rainwater. This is important not only for plants to absorb nutrients but also to prevent these pollutants from becoming a source of water pollution. According to one study, one tree can remove up to 26 pounds of carbon dioxide from the atmosphere annually. This amounts to 11,000 miles of car emissions. The same roots that filter pollutants are also responsible for stabilizing the soil and serving as a great source of erosion control. Large shade trees help control temperature extremes, keeping the property cooler in the summer and warmer in the winter, which in turn decreases energy usage. Vegetation provides a natural refuge for wildlife. Deer, birds, insects, squirrels, rabbits, and other wildlife use trees and shrubs as protection from predators and a source of shelter and food year-round."

Most of the Project site, except for the southern portions along SR 299, will not be seen. The majority of the western areas abutting Old Oregon Trail will not be easily viewed due to topography and mature tree growth

Due to the natural setting of the Project site and surrounding area, views from the Project site and vicinity are expansive, except for the eastern areas of the campus, where football and baseball fields and agricultural fields provide a view to the east.

Federal, state, and county governments designate scenic vistas; however, no state or county-designated scenic vistas are located in the vicinity of the Project area. The *General Plan* does not designate the Project area as scenic or as an area with highly valued scenic resources.

Scenic Resources

Scenic vistas are expansive views of highly valued landscapes from publicly accessible viewpoints. They include views of natural features such as topography, water courses, outcrops, natural

vegetation, and man-made scenic structures. The County has not designated specific scenic vistas in the immediate Project area as part of the *General Plan*.

According to Caltrans' *California Scenic Highway Program* and the *National Scenic Byways Program*, the proposed Project is not located near a highway that has been listed as a state or federal Scenic Highway (Caltrans, 2022; FHWA, 2018).

Visual resources are classified into two categories: scenic vistas and scenic resources. Scenic vistas are elements of the broader viewshed, such as mountain ranges, valleys, and ridgelines. They are typically middle-ground or background elements of a viewshed that can be seen from various viewpoints, often along a roadway or other corridor. Scenic resources are described in the *CEQA Environmental Checklist* as specific features of a viewing area (or viewshed), such as trees, rock outcroppings, and historic buildings. They are specific features that act as the focal point of a viewshed and are usually foreground elements.

Impacts can occur if a project alters the view to the middle ground or background elements of the broad viewshed, or if it removes visually important trees, rocks, or historic buildings in the foreground. Because aesthetic considerations are often subjective and difficult to judge, two generally objective criteria are used in this evaluation to determine the level of significance of changes.

The first addresses the visibility of the altered landscape and whether it will appear in the foreground, middle ground, or background of most viewers. Changes in the foreground are most significant, with distance and topography or vegetative screening reducing impact. The second criterion concerns visual contrast, which measures the degree of perceptible change. This is often characterized as being a strong, moderate, or weak change. Using this approach, a "strong" change would be immediately apparent and would dominate the landscape, whereas a "weak" change would be barely noticeable.

The principal viewshed of the 337-acre campus aesthetic, or visual character, is the 180 acres that constitute the campus core. The area is characterized by an array of existing campus-related buildings and facilities, including parking areas, sports fields, and wastewater/sewage treatment facilities. The viewshed to and from the campus core is, however, softened by the distinctive mature oak woodlands tree canopy, and associated habitat comprising approximately 70 acres of buffer areas along Old Oregon Trail, along a northern portion of the acreage abutting Shasta College Drive, and to a limited degree along the southwestern and southeastern boundaries along SR-299 (to the west along Old Oregon Trail and the east along West Stillwater Creek). The three *Study Areas* are located within the Campus core. However, the 7.3-acre *Study Area 3* is located within a portion of the Oakland woodlands south of Shasta College Drive, and the 1.23-acre access road serving the remaining 12.67 acres of *Study Area 2* is also located within the Oakland woodlands.

Aesthetic effects are influenced by factors such as the viewer's location, exposure duration, and their "status" in relation to the viewable areas. "Status of the viewer" refers to when an adjacent property resident with a direct view of the Project area is likely to feel different regarding the new

development compared to a traveler who catches a brief glimpse of the Campus from Old Oregon Trail or SR 299.

With respect to aesthetics, light and glare effects from the three *Study Areas* are more likely to disturb permanent residents than roadway and highway travelers. Light and glare effects must be evaluated from two viewpoints: 1) the viewpoint from the Project area toward surrounding uses and 2) the viewpoint from surrounding uses toward the Project area. The degree of impact is proportional to the perceived negative effect on surrounding land uses. If continuous light or glare is visible and results in a nuisance to residents, travelers along Old Oregon Trail, and to campus users, the impact can be significant. Viewers' sensitivity to changes in the viewshed can be measured by the extent and nature of visual resources. Five residential parcels exist west of Old Oregon Trail, of which four have residences.

Significant light sources in the area are currently generated by SR 299 to the south, Old Oregon Trail to the west, and the residences west of the Project site. Overall, light levels range from high to low intensity from SR 299 to the south, from Old Oregon Trail and the semi-rural residential land uses to the west, and from the north and east due to the mix of agricultural lands and open space, commercial/industrial development, and semi-rural residential land uses.

REGULATORY SETTING

National Scenic Byways Program

The *National Scenic Byways Program* is part of the U.S. Department of Transportation, Federal Highway Administration (FHWA). Established in *Title 23, Section 162 of the United States Code*, the program is a grass-roots collaborative effort established to help recognize, preserve, and enhance selected roads throughout the United States. FHWA's May 18, 1995, interim policy sets forth the procedures for the designation by the U.S. Secretary of Transportation of certain roads as National Scenic Byways or All-American Roads based on their archaeological, cultural, historical, natural, recreational, and scenic qualities. There are 150 designated byways in 46 states. None of the roads in the vicinity of the proposed Project are affected by this program.

California Scenic Highway Program

California's Scenic Highway Program was created by the legislature in 1963. Its purpose is to protect and enhance the natural scenic beauty of California highways and adjacent corridors through special conservation treatment. The State laws governing the *Scenic Highway Program* are found in the *Streets and Highways Code, Sections 260* through *263*. Caltrans has compiled a list of State highways designated as scenic and county highways eligible for designation as scenic. None of the roads in the vicinity of the proposed Project are affected by this program.

Shasta County General Plan

The *Scenic Highways Element* is an optional *General Plan Element* authorized by *Government Code Section 65303.* The Scenic Highways *Element* of the Shasta County General Plan aims to establish and protect highways with scenic value, whether they are State or County roads. The following General Plan objectives related to scenic highways apply to the proposed Project:

- *SH-1. Protection of the natural scenery along the official scenic highways of Shasta County from new development which would diminish the aesthetic value of the scenic corridor.*
- *SH-2. New development along scenic corridors of the official scenic highway should be designed to relate to the dominant character of the corridor (natural or natural and man-made contrast) or of a particular segment of the corridor. Relationships shall be achieved in part through regulations concerning building form, site location, and density of new development.*
- *SH-3. Recognition that the management practices of agriculture, timber, and other resource-based industries which may cause some degradation of the visual quality of the scenic corridor are inevitable, but their impacts are temporary.*

Shasta College Facilities Master Plan Amendment 1 Campus Fabric Design Guidelines

The *FMPA1* advances *Design Guidelines* addressing the existing and proposed architectural character of campus exterior and interior finishes. Associated interior spaces, including capacities and sizes, are also discussed with regard to classrooms, student gathering areas, offices, staff work areas, and lecture halls. However, these special prototypes are not subject to CEQA evaluation.

Existing Character: Existing campus architecture cannot be coupled to a specific style. Nonetheless, with a few exceptions, the campus does have a cohesive feel due to a combination of strong key architectural elements that tie the fabric of the campus together which are:

- Deep overhangs
- Tapered columns
- V-shaped eaves
- Broad low-sloping roofs
- Exposed aggregate & cement plaster wall finishes
- Wood soffits
- Rain water scuppers

The original campus was constructed using buildings designed for a 100-year lifespan. These buildings are approximately 59 years into their lifespan and are structurally in above-average condition. However, although structurally sound, some exterior and interior finishes are in need of repair or replacement, and the mechanical systems are failing and require regular repairs. Most significantly, the physical layout of the building interiors may no longer be compatible with or efficiently used by the current educational programs.

Proposed Character: The campus architecture is proposed to be a transition from the existing elements into a fresh, updated interpretation. As most of the changes will occur

in existing buildings, the materials, forms, and techniques used in those buildings will lay the groundwork for the proposed new buildings. The approach for the existing buildings will be to take advantage of the need to solve maintenance issues found in the existing buildings as opportunities to introduce additional forms and materials that provide the updated aesthetics.

New buildings will use the material elements found in the updated existing buildings, but will be free to explore more unique forms that may be more appropriate for their location and/or intended use. In both the renovation of the existing buildings and in the new buildings, material selection should be based on easy repair by District staff rather than strictly on durability, as per the following examples.

- The failing plaster and plywood V-shaped fascia offers an opportunity to introduce metal into the building's material vocabulary. Use of metal will provide resistance to the intrusion of birds and bats while refreshing a prominent architectural element in look and color.
- The failing exposed aggregate may be covered with stone veneer or smooth plaster. This will enable the strong form of these areas of the building to remain while addressing the maintenance issues associated with the aggregates becoming loose and falling out.
- Board on board wood siding has been used in limited areas throughout the campus. Further study on its longevity is warranted. Since its use is limited to a few buildings, if it is proving to be a durable and easy to maintain choice, its use could be expanded to other existing and new buildings.
- Cement plaster has been used throughout the campus. It is likely still the best choice for durability and ease of maintenance and its use is anticipated to continue. As existing buildings are renovated, the cement plaster system can receive a new top coat to add protection and longevity to the surface.

The *FMPA1* has an appendix that discusses building-related components dealing with HVAC (heating, ventilation, and air conditioning), plumbing, electrical, lighting, fire alarm, door hardware, technology, paint, and landscaping. These building-related components are not direct environmental issues, except for HVAC systems, which may have potential aesthetic or noise-related impacts, and landscaping. The landscaping appendix identifies the type (tree, shrub, vine) and whether the landscape is native. Paint is subject to state regulations that address potential associated environmental issues, such as using paint with zero or very low volatile organic compounds (VOC).

Shasta College Facilities Master Plan Amendment 1 Campus Fabric Landscaping

The existing campus landscaping has been significantly reduced to comply with current water-use regulations due to recent drought conditions. Additionally, trees and shrubs have been trimmed and thinned to address safety concerns. Much of the campus core has been

transitioned to a native state. While this is effective for reducing water usage and promoting a more secure campus, it is a missed opportunity to create more aesthetically pleasing outdoor meeting and learning environments.

The proposed landscaping uses strategically places landscaping in three primary components to welcome and direct users as they traverse the campus.

1. Embellish entry points to welcome and direct.
2. Reinforce the edges by providing landscaping within 10 feet of arterial routes and roadways as well as within 5 feet within other routes.
3. Create outdoor "rooms" through creative placement of landscaping and by reclaiming drainage swales as landscaped areas provided applicable U.S. Army Corps of Engineers, California Fish and Wildlife, or California Regional Water Quality Control Board permits are obtained.

This approach aids in focusing the landscaping in areas with the most impact and provides effective clues to users about their surroundings. Furthermore, landscape elements can serve as landmarks aiding in wayfinding. Plant species with physical structures and non-plant elements can be combined to form outdoor rooms. The landscaping approach beautifies the campus, aids in wayfinding, and can be sensitive to water usage.

2019 Shasta College Facilities Master Plan Amendment One Project Initial Study & Mitigated Negative Declaration

On March 13, 2019, the Board of Trustees (the "Board") of the Shasta-Tehama-Trinity Joint Community College District (the "District") adopted *Resolution No. 2018-19-22* reaffirming approval of the Shasta-Tehama-Trinity Joint Community College District's May 2018 *Shasta College Facilities Master Plan – Amendment One (FMPA1)* for the Shasta College Main Campus. As noted in Section 2.0, PROJECT DESCRIPTION, the Mitigated Negative Declaration evaluated the potential environmental impacts of the proposed *Shasta College Facilities Master Plan Amendment 1 Projects*.

Based on the appropriate findings, the District determined that impacts to *Aesthetics* after the implementation of ***Mitigation Measures*** would be ***less than significant***.

IMPACT ANALYSIS

The degradation of a site's visual character is typically addressed through a qualitative evaluation of the changes to the aesthetic characteristics of the existing environment and the proposed project-related modifications that would alter the visual setting. For this analysis, visual impacts associated with the proposed Project, including impacts to the existing mature trees within the Oak woodland community, scenic vistas, degradation of visual character, and light and glare impacts, are addressed in this *Initial Study*.

The mature trees within the predominant Oak Woodland Community provide visual and aesthetic features, the majority of which will be retained by the *FMPA2*, except for up to 2.53

acres of Oak woodlands in *Study Area 1* and about 3.95 acres in *Study Area 2*. In that *Study Area, 3* is being evaluated at a Programmatic Level; possibly up to 6.9 acres may be removed; however, the final designs for these areas will carefully evaluate how to conserve as many mature trees as possible. Therefore, *FMPA2 Study Area Projects*, based on a worst-case scenario, could result in the removal of up to 13.38 acres of mature trees, requiring mitigation.

Interior Live oak and Blue oak are the dominant tree species in the Oak Woodland Community, forming a nearly continuous canopy over much of the Oak Woodland habitat. Valley oaks, Gray pines, Ponderosa pines, and Non-native ornamental trees are interspersed throughout. These stands of trees will be retained to the maximum extent feasible by the Campus as visual screens for receptors on all sides of the campus facilities. 2.575 acres of lawn groundcover throughout the Campus is no longer watered for conservation purposes. Irrigation for turf remaining or turf that has been newly installed as part of the College's construction improvements is managed by an upgraded Master Control system, which controls losses of water via flow meters. Cycle-and-soak settings are used to prevent water runoff. A new booster pump and two-wire system allow for more irrigation stations to run simultaneously at night to help control evaporation. Finally, all non-turf areas have been converted to drip irrigation systems.

To reduce landscaping water usage, the College has eliminated many non-native (ornamental) trees, grass turf areas, and shrub beds that use over two acre-feet of water per year. These uses have been converted to hardscape landscape features or reverted to native vegetation. Shasta College is committed to improving campus aesthetics, not only through building design but also by maintaining and replacing mature trees, either individually throughout the campus or in groves. When necessary, healthy and mature trees will be replaced.

Light spill is typically defined as the presence of unwanted light on properties adjacent to the property, causing illumination and/or illuminating the property. With respect to lighting, illumination levels may vary widely depending on the amount of light generated, the height of the light source, the presence of barriers or obstructions, the type of light source, and weather conditions.

Glare is primarily a daytime occurrence caused by the reflection of sunlight or artificial light from highly polished surfaces, such as window glass or reflective materials, and to a lesser degree, from broad expanses of light-colored surfaces. Daytime glare is common in urban areas and is typically associated with buildings with exterior facades largely or entirely composed of highly reflective glass. Glare can also be produced during evening and nighttime hours by the reflection of artificial light sources such as automobile headlights.

Study Area 1

Study Area 1 proposes continuing Project-level development of the *Fire Training Center* on both sides of West Avenue, as shown in **Figure 2-1 Study Area 1 &2 Site Plans**. Approximately 2.53 acres of mature trees will be removed within the 3.5 *Study Area*. Approximately 0.97 acres have already been disturbed by tree removal and grading associated with the development of the *RPSTF* facilities.

Study Area 2

Study Area 2, except for the approximately 1.23-acre access road and portions of the 1.22-acre *Future Facilities* area, has been significantly disturbed by the construction of the existing solar array facilities, access roads, the existing stormwater retention facilities, and other ground disturbance activities.

Study Area 3

The majority of the 7.3 acres in Study Area 3 will require the removal of mature trees and assorted vegetation. The Phase 1 area of 3.9 acres has experienced some ground clearance and associated off-road vehicle disturbances. About 0.4 acres is Urban Habitat, while the remaining 3.5 acres is Oak Woodland. The development of the 3.4-acre Phase 2 area will be constrained not only by the number of existing mature trees and vegetation, but also by approximately 350 feet of seasonal wetlands along the drainages paralleling Old Oregon Trail.

The following includes an analysis of environmental parameters related to *Aesthetics* based on *State CEQA Guidelines Appendix G*. The discussion not only includes the areas for which there is potential for environmental impacts but also provides justification for the conclusions that either no impacts, less than significant impacts, or less than significant impacts with mitigation could occur.

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

a) Have a substantial adverse effect on a scenic vista?

The County's General Plan identifies prominent natural or man-made features which immediately catch the eye, locations where the visual environment changes dramatically, and locations which mark the entrance to a community or geographic area as scenic assets. As previously mentioned, the County has not designated specific scenic vistas in the *FMPA1* or *FMPA2* as part of the Shasta County General Plan. There is ***no impact*** on scenic vistas.

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

The *FMPA2* and associated *Study Areas* are located in the Campus core area. Due to the location of the *Study Areas*, there are no scenic resources that will be impacted when viewed from SR-299 or Old Oregon Trail. The Projects proposed in *Study Areas 1, 2,* and *3* in *FMPA2* will result in the greatest aesthetic and visual impacts due to the removal of existing mature oaks and some ornamental trees. However, the implementation of ***Biological Resources Mitigation Measure BR-8*** will reduce aesthetic and visual impacts resulting from tree removal to a level that is ***less than significant***.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

The issue of aesthetics can be extremely subjective; however, there are accepted standards that most of the public can agree on, particularly in building design and construction. Standards address view obstructions, unnecessary tree removal, "scarring" from grading and landscaping, sign clutter, and street lighting. Another important criterion for visual impacts is visual consistency. Project design should be consistent with natural surroundings and adjacent land uses. For example, a residential development might contrast visually with an industrial facility. Such incompatibilities can be partially mitigated through implementing measures such as fences and landscaping to soften the harshness of the contrasts.

FMPA1 identified the demolition of existing buildings, athletic facilities, and parking lots, and the replacement of these areas with new buildings, street realignments, parking lots, pedestrian walkways, and landscaping.[15] The proposed *Study Area* 1 and *2* Projects in *FMPA2* were not identified. However, *FMPA1* identified that two dormitory building sites totaling 54,000 square feet would be located in the area where the North Parking Lot is located. *FMPA2* proposes two 45,000-square-foot *Student Housing Projects* (dormitories) for *Study Area 3*.

As discussed, the *Study Areas 1, 2,* and *3 Projects* in *FMPA2* will result in the greatest aesthetic and visual impacts due to the removal of existing mature oaks and some ornamental trees. Implementation of ***Biological Resources Mitigation Measure BR-8*** will reduce aesthetic and visual impacts resulting from tree removal to a ***less than significant*** level.

Overall, the actions proposed to implement *FMPA2* will reinforce the visual character and quality of the Campus by constructing new educational and support facilities. Whereas the greatest impact on aesthetics is the removal of mature trees, particularly Oak woodlands, which could degrade the existing visual character or quality of the site and its surroundings, the implementation of mitigation measures to replace removed trees will reduce impacts to a level that is ***less than significant***.

[15] Refer to *FMPA1, Table 5 – Buildings, Courtyards &Parking Lots Proposed for Demolition,* which lists the various buildings, parking lots, and sports facilities that will result in the uses identified in *Table A-1 – Existing & Future Uses Due to Demolition*. *Table 7 – Buildings Proposed for New Construction* shows the new buildings and landscaping identified in *Table A-2 – Existing & Future Uses Due to New Construction*. Lastly, *Table 8 –Proposed Future Building Sites* shows new uses that are proposed on proposed sites identified in *Table A-3 – Future Building Sites Proposed On Existing Uses*.

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

Impacts of light and glare are considered potentially significant if the following criteria are met:

- The light and/or glare is continuous, rather than temporary in nature (example: a continuous stream of cars or regular pattern of lighting vs. occasional passing headlights).
- The level of light and/or glare is noticeably higher than the surrounding ambient level of light.
- The light and/or glare have the potential to shine directly into the interior and/or outdoor activity areas of existing or future residences.
- The size of the affected parcels (larger parcels offer greater siting flexibility).

Construction of the proposed buildings and associated facilities would introduce new nighttime lighting sources. However, the closest proposed construction would be *Study Area 3*, where the Phase 2 *Student Housing Project* would be located approximately 1,100 feet from the nearest residence west of Old Oregon Trail. In addition to distance, the Jehovah's Witnesses Kingdom Hall, topography, and tree cover between the building site and the residence serve to buffer any visual impacts.

Since the new light sources for the majority of the proposed buildings and improvements are essentially replacement lighting, the greater overall level of light at night will not result in a reduction in night sky visibility. Stationary light sources have the potential to adversely affect adjacent properties through a "spillover" effect; however, as previously noted, residences in the vicinity of the Project site that may be impacted are at a significant distance from the proposed buildings and associated activities. There is ***less than significant impact*** associated with lighting and glare due to the existing lighting conditions in the area before and after Project development.

Temporary lighting may be used during the construction phase if necessary, but the level of lighting will be insignificant compared to the existing area lighting levels at night and due to the short-term construction period of the Project's components. This potential impact is ***less than significant***.

MITIGATION MEASURES

Implementation of ***Biological Resources Mitigation Measure BR-8*** will reduce *Aesthetic* impacts resulting from tree removal to a ***less than significant*** level.

FINDINGS

Based on the review of the information above, the nature and location of the proposed Projects within their respective *Study Areas*, the preservation of existing tree stands, and their

replacement through mitigation to be incorporated into the final building and facilities design, serve to reduce potential *Aesthetic* impacts to a ***less than significant*** level.

SECTION II – AGRICULTURAL & FORESTRY RESOURCES

The purpose of this section of the Initial Study is to determine the extent to which the Study Area Projects contribute to the physical deterioration of agricultural and forestry resources. This section describes the agricultural and forestry resources and the regulations that govern them.

ENVIRONMENTAL SETTING

Farming and Grazing Land Use, along with the associated *Agricultural Neighborhood*, are integral components of the Shasta College Campus Fabric and will remain so throughout the implementation of the *FMPA2*. However, none of the Study Areas are classified as either. *Farming and Grazing Land Use* encompasses approximately 127 acres, including approximately 10 acres of agricultural operation facilities, generally located in the eastern and northern portions of the Campus.

The California Department of Conservation (DOC) *Farmland Mapping and Monitoring Program* (FMMP) maps and classifies farmland. Classifications are based on a combination of physical and chemical characteristics of the soil and climate that determine the degree of suitability of the land for crop production. The eastern portions of Shasta College, the majority of which is outside the Campus Core does contain *Prime Farmland* as identified by the California Department of Conservation's Important Farmland Map for Shasta County.[16]

The DOC's Important Farmland Map identifies the Campus Core as *Urban and Built-Up Land*, which is land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. Common examples include residential, industrial, commercial, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, and water control structures, and institutional facilities like Shasta College. The majority of *Study Area 2* is identified as *Urban and Built-Up Land*.

Other Land is also shown within the boundaries of Shasta College, which is land not included in any other mapping category. Common examples include low-density rural developments, brush, timber, wetland, and riparian areas not suitable for livestock grazing, confined livestock, poultry, or aquaculture facilities, strip mines, borrow pits, and water bodies smaller than 40 acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as *Other Land*. *Study Areas 1* and *3* are shown to be *Other Land* as is the Access Road to *Study Area 2*.

The California Land Conservation Act of 1965, commonly known as the Williamson Act, allows local governments to form contracts with private landowners to restrict specific parcels of land to agricultural or open space use. Shasta College cannot be under an active Williamson Act contract since it is not private land.

[16] California Department of Conservation Division of Land Resource Protection Farmland Mapping and Monitoring Program. *Shasta County Important Farmland 2020.* https://conservation.ca.gov/dlrp/fmmp/Pages/Shasta.aspx. Website accessed February 10, 2026.

REGULATORY SETTING

This section summarizes current federal, State, and local regulations relevant to the review of Agricultural and Forestry Resources. Ordinances, regulations, or standards that are applicable to the environmental review of agricultural and forestry resource impacts include the following:

California Farmland Mapping and Monitoring Program

The California Farmland Mapping and Monitoring Program (FMMP), previously discussed monitors the conversion of the State's farmland to and from agricultural use, relies on information from the NRCS soils surveys, NRCS land inventory and monitoring criteria, and land use and water availability. Topography, climate, soil quality, and available irrigation water all factor into the FMMP farmland classifications. The FMMP was established by the California DOC, under the Division of Land Resource Protection. Important Farmland Maps are compiled by the FMMP pursuant to Government Code §65570. The FMMP is an informational service only and does not constitute State regulation of local land use decisions. Under the FMMP, "Important Farmland Categories" were established based on soils characteristics that have significant agricultural production values.

California Land Conservation Act

The California Land Conservation Act of 1965, commonly referred to as the Williamson Act, is promulgated in California Government Code Section 51200-51297.4. The Williamson Act enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space uses in return for reduced property tax assessments. Private land within locally designated agricultural preserve areas is eligible for enrollment under Williamson Act contracts. Shasta College is not considered private land, and therefore, the Williamson Act is not applicable.

Forest Land and Timberland

Public Resources Code section 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 Section 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 section 51104(g) defines Timberland Production Zone (TPZ) as *"an area which has been zoned pursuant to [Government Code] Section 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)."*

Shasta County General Plan

The *Shasta County General Plan Agricultural Lands Element*, as amended through September 2004, provides the following policies relative to the proposed Project:

- *AG-3*. Recognition by Shasta County residents that the preservation of agricultural lands for agricultural uses, both large and small scale, is in the public interest because it

preserves local and regional food supplies and is an important contributing industry to the Shasta County economy.

- *AG-4*. Recognition by Shasta County residents that preservation of agricultural lands, both large and small-scale, provides privately maintained open-space, facilitates a rural lifestyle, and requires Countywide understanding of the problems facing ranchers and farmers.
- *AG-5*. Protection of agricultural lands from development pressures and or uses which will adversely impact or hinder existing or future agricultural operations.
- *AG-6*. Protection of water resources and supply systems vital for the continuation of agriculture.
- *CO-4*. To guide development in a pattern that will minimize land use conflicts between adjacent land users.

The Shasta County General Plan Timberlands Element, as amended through September 2004, provides the following policies relative to the proposed project:

- *T-a.* Preservation of Timberland shall be achieved by the use of the Timberlands land use designation.
- *T-f.* The County should encourage and promote the utilization of wood waste produce in the County.

2019 Shasta College Facilities Master Plan Amendment One Project Initial Study & Mitigated Negative Declaration

On March 13, 2019, the Board of Trustees (the "Board") of the Shasta-Tehama-Trinity Joint Community College District (the "District") adopted *Resolution No. 2018-19-22* reaffirming approval of the Shasta-Tehama-Trinity Joint Community College District's May 2018 *Shasta College Facilities Master Plan – Amendment One (FMPA1)* for the Shasta College Main Campus. As noted in Section 2.0, PROJECT DESCRIPTION, the Mitigated Negative Declaration evaluated the potential environmental impacts of the proposed *Shasta College Facilities Master Plan Amendment 1 Projects*.

Based on the appropriate findings, the District determined that there would be ***no impacts*** on *Agriculture & Forestry Resources*.

IMPACT ANALYSIS

CEQA Section 21095 and *CEQA Guidelines Appendix G*, together, define Prime, Unique, and Farmland of Statewide Importance as "Important Farmland," whose conversion may be considered significant. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment (LESA) Model (1997, as updated), prepared by the California DOC, as an optional model to use in assessing impacts on agriculture and farmland.

In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection (CAL FIRE) regarding the State's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board (CARB).

The following includes an analysis of environmental parameters related to *Agricultural &Forestry Resources* based on *Appendix G* of the *State CEQA Guidelines*. The discussion not only identifies areas with potential environmental impacts but also provides justification for the conclusion that either no impacts, less than significant impacts, or less than significant impacts with mitigation could occur.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
II. AGRICULTURAL & FORESTRY RESOURCES *Would the project:*				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
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 5110(g))?				X
d. Result in the loss of forest land or conversion of forest land to non-forest use?				X
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?				X

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on Farmland Mapping and Monitoring Program Maps, to non-agricultural use?

Portions of the Shasta College area have been historically used for agricultural purposes, and the eastern portion of the Campus contains soils prime for agricultural production. However,

the three *Study Areas* are not located within areas of Prime Farmland identified by the California Department of Conservation's *Important Farmland Series Mapping and Monitoring Program*. The *Study Areas* are not identified as Prime Farmland, Unique Farmland, or Statewide Importance on the map titled Shasta County Important Farmland 2020. Therefore, the *Study Areas* within *FMPA2* would not convert prime farmland, unique farmland, or farmland of statewide importance to nonagricultural use. ***No impact*** would occur.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

Shasta College, being a public educational institution, cannot enter into a Williamson Act contract. Therefore, the development of the *Study Area* Projects would not result in conflicts with existing agricultural zoning. ***No impact*** would occur in this regard.

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 5110(g))?

The proposed *Study Area Projects* would not 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)). The project site is not forest land, timberland, or zone Timberland Production. Therefore, the *Study Area* Projects would not conflict with existing zoning or cause rezoning and would have no impact on timberlands zoned as Timber Production. ***No impact*** would occur in this regard.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

Shasta College is not located within existing forest land. Therefore, there would be no loss of forest land or conversion of forest land to non-forest use. ***No impact*** would occur in this regard.

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest land?

There would be no loss of forest land or conversion of forest land to non-forest use due to the *Study Areas* being located within Shasta College. The Campus is not forest land. In addition, the Study Areas and associated Projects are not located in an area of significant agricultural soils. There would be ***No impact*** in this regard.

MITIGATION MEASURES

No mitigation measures are required.

FINDINGS

In the course of the above evaluation, impacts associated with *Agricultural & Forestry Resources* were found ***not to be significant*** because the proposed *Study Area Projects'* scope and locations would not create such impacts.

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SECTION III – AIR QUALITY

This section examines the air quality in the Project area, includes a summary of applicable air quality regulations, and analyzes potential air quality impacts associated with the proposed project. Air quality impacts were assessed in accordance with methodologies recommended by the US Environmental Protection Agency (EPA), California Air Resources Board (CARB), and the Shasta County Air Quality Management District (SCAQMD). Where quantification was required, emissions were modeled using the California Emissions Estimator Model (CalEEMod). **Environmental Issue III. AIR QUALITY** and **Attachment A, CalEEMod – Shasta College Master Plan Amendment Two – Project-Level Improvements Detailed Report**, dated February 16, 2026.[17]

ENVIRONMENTAL SETTING

The *FMPA2* and associated *Study Area Projects* are located in the Northern Sacramento Valley Air Basin (NSVAB), which is one of the air "sub-basins" within the Sacramento Valley Air Basin. The other sub-basin is the Greater Sacramento Air Region. The NSVAB encompasses Shasta, Tehama, Glenn, Butte, Colusa, Sutter, and Yuba counties. The basin's principal geographic features include a large valley bounded on the north and west by the Coastal Mountain Range and on the east by the southern portion of the Cascade Mountain Range and the northern portion of the Sierra Nevada. The basin is about 200 miles long in a north-south direction, and has a maximum width of about 150 miles, although the valley floor averages only about 50 miles in width. The mountain ranges reach heights of over 6,000 feet, with peaks rising much higher. The general elevation of the Project site is about 650 feet above mean sea level.

The area's climate is characterized by hot, dry summers and cool, wet winters. During the summer months from mid-April to mid-October, significant precipitation is unlikely, and temperatures range from daily maximums exceeding 100° Fahrenheit (°F) to evening lows in the high 50s and low 60s. During the winter, highs are typically in the 60s with lows in the 30s. Wind direction is primarily along the valley due to the channeling effect of the mountains to either side of the valley. During the summer months, surface air movement is from the south, particularly during the afternoon hours. During the winter months, wind direction is more variable.

REGULATORY SETTING

This section summarizes current federal, State, and local regulations relevant to the review of *Air Quality* for this project. Ordinances, regulations, or standards that are applicable to the environmental review of air quality impacts include the following:

Ambient Air Quality Standards

The federal Clean Air Act of 1971 and the Clean Air Act Amendments (1977) established the national ambient air quality standards (NAAQS), which are promulgated by the U.S. Environmental Protection Agency (EPA). The State of California has also adopted its own

[17] The report is available to review at the Shasta College Administrative Services Office, Building 5000.

California ambient air quality standards (CAAQS), which are promulgated by CARB. Implementation of the project would occur in the Shasta County portion of the NSVAB, which is under the air quality regulatory jurisdiction of the SCAQMD and is subject to the rules and regulations adopted by the air district to achieve the NAAQS and CAAQS.

Shasta County Air Pollution Control District

The SCAQMD is designated by law to adopt and enforce regulations to achieve and maintain ambient air quality standards. The SCAQMD, along with other air districts in the Northern Sacramento Valley Air Basin (NSVAB), has committed to jointly prepare the NSVAB Air Quality Attainment Plan for the purpose of achieving and maintaining healthful air quality throughout the air basin. In addition, the SCAQMD adopts and enforces controls on stationary sources of air pollutants through its permit and inspection programs, and it regulates agricultural burning. Other responsibilities include monitoring air quality, preparing clean air plans, and responding to citizen complaints concerning air quality. All projects in Shasta County are subject to applicable SCAQMD rules and regulations in effect at the time of construction and operation. Descriptions of applicable specific rules may include, but are not limited to:

- Architectural coatings and solvents used at the project shall be compliant with SCAQMD Rule 3-31, Architectural Coatings.
- Cutback and emulsified asphalt application shall be conducted in accordance with SCAQMD Rule 3-15, Cutback and Emulsified Asphalt.
- SCAQMD Rule 3-16, Fugitive, Indirect, or Non-Traditional Sources, controls the emission of fugitive dust during earth-moving, construction, demolition, bulk storage, and conditions resulting in wind erosion.
- SCAQMD Rule 3-32, Adhesives and Sealants, limits the emissions of volatile organic compounds (VOCs) from adhesives and sealants and associated primers, and from related surface preparation solvents, cleanup solvents, and strippers.
- SCAQMD Rule 3-33, Wood Products Coating Operations, limits the emissions of volatile organic compounds (VOCs) from coatings and strippers used on wood products and from products used in surface preparation and cleanup.

Shasta County General Plan

The Shasta County General Plan, as amended through September 2004, provides the following air quality objectives and policies relative to the proposed *Study Area Projects*:

- *AQ-1.* To protect and improve the County's air quality in accordance with Federal and State clean air laws in order to: (1) safeguard human health, and (2) minimize crop, plant, and property damage.
- *AQ-2c.* Land use decisions, where feasible, should contribute to the improvement of air quality. New projects shall be required to reduce their respective air quality impacts to below levels of significance or proceed as indicated in Policy AQ-2e.

- *AQ-2d.* Shasta County shall ensure that air quality impacts identified during CEQA review are: (1) consistently and fairly mitigated, and (2) mitigation measures are feasible.
- *AQ-2e.* Shasta County will cooperate with the AQMD in assuring that new projects with stationary sources of emissions of non-attainment pollutants or their precursors that exceed 25 tons per year shall provide appropriate emission offsets. A comparable program which offsets indirect emissions of these pollutants exceeding 25 tons per year from development projects shall also be utilized to mitigate air pollution impacts. An Environmental Impact Report will be required for all projects that have unmitigated emissions of non-attainment pollutants exceeding 25 tons per year.
- *AQ-2f***.** Shasta County shall require appropriate Standard Mitigation Measures and Best Available Mitigation Measures on all discretionary land use applications as recommended by the AQMD in order to mitigate both direct and indirect emissions of non-attainment pollutants.
- *AQ-2g.* Significance thresholds as proposed by the AQMD for emissions shall be utilized when appropriate for: (1) Reactive Organic Gases (ROG) and Oxides of Nitrogen (NOx), both of which are precursors of ozone, and (2) inhalable particulate matter (PM10) in determining mitigation of air quality impacts.
- *AQ-4b.* The County's development standards shall require the paving of roads as a part of new development permits to the extent necessary to meet access and air quality objectives. These requirements shall be designed to help mitigate potentially significant adverse air quality impacts created by particulate emissions on both an individual and cumulative basis.
- *AQ-8a.* The County will encourage new development projects to reduce air quality impacts from area sources and energy consumption requirements for heating and cooling.
- *AQ-8b.* The County will encourage use of energy conservation features and low-emission equipment for all new residential and commercial development.

2019 Shasta College Facilities Master Plan Amendment One Project Initial Study & Mitigated Negative Declaration

On March 13, 2019, the Board of Trustees (the "Board") of the Shasta-Tehama-Trinity Joint Community College District (the "District") adopted *Resolution No. 2018-19-22* reaffirming approval of the Shasta-Tehama-Trinity Joint Community College District's May 2018 *Shasta College Facilities Master Plan – Amendment One (FMPA1)* for the Shasta College Main Campus. As noted in Section 2.0, PROJECT DESCRIPTION, the Mitigated Negative Declaration evaluated the potential environmental impacts of the proposed *Shasta College Facilities Master Plan Amendment 1 Projects*.

Based on the appropriate findings, the District determined that impacts to *Air Quality* after the implementation of ***Mitigation Measures*** would be ***less than significant***.

IMPACT ANALYSIS

The quantity of air pollutant emissions generated within the *NSVAB* is small compared to those in more densely populated areas, such as the Sacramento and San Francisco Bay areas. Nevertheless, the following characteristics of the *NSVAB* make it susceptible to the build-up of air pollution.

- Pollution generated in the broader Sacramento area and San Francisco Bay area can be transported northward into the *NSVAB.*
- The mountain ranges to the west, north, and east of the *NSVAB* act as horizontal barriers which restrict the flow of pollution out of the basin.
- The valley portion of the *NSVAB* (those areas below 1,000 feet elevation) is often subjected to temperature inversions that typically occur during cool, calm nights that restrict vertical mixing and dilution of pollutants.
- The typical clear skies and warm temperatures in the summer months promote the formation of the photochemical pollutant ozone.

The U.S. Environmental Protection Agency (USEPA), under the federal Clean Air Act (CAA), establishes maximum ambient concentrations for seven criteria air pollutants (CAPs). These maximum concentrations are known as the National Ambient Air Quality Standards (NAAQSs). The seven CAPs are ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), respirable particulate matter (PM_{10}), fine particulate matter ($PM_{2.5}$), and lead (Pb).

CARB, under the California CAA, establishes maximum concentrations for the seven federal CAPs, as well as four additional air pollutants: visibility-reducing particles, sulfates (SO_4), hydrogen sulfide (H_2S), and vinyl chloride (chloroethene). These maximum concentrations are known as the California Ambient Air Quality Standards (CAAQSs).

In addition to the CAAQSs, Toxic Air Contaminants (TACs) are also regulated under the California CAA. There are presently over 200 chemicals listed by the State as TACs with varying degrees of toxicity. TACs can cause long-term health effects (e.g., cancer, birth defects, neurological damage, etc.) or short-term acute affects (e.g., eye irritation, respiratory irritation, throat pain, headaches, etc.) (CARB, n.d.a). 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. There are no ambient air quality standards for TACs; however, under the Air Toxics "Hot Spots" Information and Assessment Act of 1987, facilities that release high volumes of toxic air pollution are required to conduct a detailed health risk assessment and install Maximum Achievable Control Technology on emission sources (CARB).

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. **Table AQ-1, Federal Criteria Pollutants** identifies the major criteria pollutants, characteristics, health effects and typical sources. The federal and State ambient air quality standards are summarized in **Table AQ-2**.

TABLE AQ-1 Federal Criteria Pollutants			
Pollutant	**Characteristics**	**Health Effects**	**Major Sources**
Ozone (O_3)	A colorless or bluish gas formed through chemical reactions between two major classes of air pollutants: reactive organic gases (ROG) and oxides of nitrogen (NOx). These reactions are stimulated by sunlight and temperature; thus, ozone occurs in higher concentrations during warmer times of the year.	Respiratory symptoms, worsening of lung disease leading to premature death, and damage to lung tissue. Damages crops, forests, and ecosystems. 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)	An odorless, colorless gas formed when produced by the incomplete process of carbon-containing fuels such as gasoline and wood. Because CO is emitted directly from internal combustion engines, motor vehicles operating at slow speeds are the primary source of CO.	Chest pain in patients with heart disease, headache, light-headedness, and reduced mental alertness.	Automobile exhaust, combustion of fuels, and combustion of wood in woodstoves and fireplaces.
Nitrogen Dioxide (NO_2)	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, damage to lung tissue, and worsening of cardiovascular disease. Precursor to ozone and acid rain. Contributes to global warming and nutrient overloading which deteriorates water quality. 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)	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 and worsening of cardiovascular disease. Damage to a variety of materials including marble, iron and steel. Damages crops and natural vegetation, impairs visibility, and 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 and liquid particles of dust, soot, smoke, fumes, and aerosols that are small enough to remain suspended in the air for a long period of time. Particulate matter with a diameter of 10 microns or less (PM_{10}) is inhalable into the lungs and can induce adverse health effects. 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, hospitalization for worsening of cardiovascular disease, hospitalization for respiratory disease, asthma-related emergency room visits, increased symptoms, and 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 (Pb)	A heavy metal that occurs both naturally in the environment and in manufactured products.	Impaired mental functioning in children, learning disabilities in children, brain and kidney damage, reproductive disorders, and 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.

Sources: U.S. Environmental Protection Agency, 2025.

TABLE AQ-2 Federal and State Air Quality Standards			
Pollutant	**Average Time**	**California Standards[a] Concentration[c]**	**Federal Standards[b] Primary[c, d]**
Ozone (O_3)	1 hour	0.09 ppm (180µg/m^3)	—
	8 hours	0.07 ppm (137 mg/m^3)	0.070 ppm (137 µg/m^3)
Particulate Matter (PM_{10})	24 hours	50 µg/m^3	150 µg/m^3
	Annual arithmetic mean	20 µg/m^3	—
Fine Particulate Matter ($PM_{2.5}$)	24 hours	—	35 µg/m^3
	Annual arithmetic mean	12 µg/m^3	12 µg/m^3
Carbon Monoxide (CO)	8 hours	9 ppm (10 µg/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)	Annual arithmetic mean	0.030 ppm (57 µg/m3)	0.053 ppm (100 µg/m^3)
	1 hour	0.18 ppm (339 µg/m3)	100 ppb (188 µg/m3)
Sulfur Dioxide (SO_2)	Annual arithmetic mean	N/A	0.030 ppm (80 µg/m^3)
	24 hours	0.04 ppm (105 µg/m^3)	—
	3 hours	—	—
	1 hour	0.25 ppm (655 µg/m^3)	75 ppb (196 µg/m3)
Lead (Pb)[e]	30 Day Average	1.5 µg/m3	—
	Calendar quarter	—	1.5 µg/m^3
Visibility-Reducing Particles	8 hours (10:00 to 18: PST)	—	—
Sulfates (SO_4)	24 hours	25 µg/m^3	—
Hydrogen Sulfide (H_2S)	1 hour	0.03 ppm (42 µg/m^3)	—
Vinyl Chloride (chloroethene)[e]	24 hours	0.01 ppm (26 µg/m^3)	—

Notes: ppm = Parts Per Million; µg/m^3 = micrograms per cubic meter; mg/m^3 = milligrams per cubic meter

[a] California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM_{10}, $PM_{2.5}$, and visibility-reducing particles) are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

[b] National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration of 150 µg/m^3) is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98% of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the US EPA for further clarification and current federal policies.

[c] Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based on a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

[d] National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

[e] The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

Source: California Air Resources Board, Ambient Air Quality Standards, n.d.c.

Air Quality Emission Impacts

Shasta County is located in a non-attainment-transitional area for the State ambient air quality standard for ozone; the County is designated as an attainment or unclassified area for all other federal and State ambient air quality standards (CCR, 2026; USEPA, 2026).

As discussed above, air districts within the State that have not attained air quality standards are required to develop and implement attainment plans. To this end, the air districts of the *NSVAB* have jointly prepared an Air Quality Attainment Plan (AQAP) for the purpose of achieving and

maintaining healthful air quality throughout the air basin. The Northern Sacramento Valley Planning Area (NSVPA) 2021 AQAP constitutes the region's State Implementation Plan (SIP) and was adopted by the SCAQMD Board on April 5, 2022.

The 2021 AQAP states that air pollution transport studies have demonstrated that a significant number of the ozone violations occurring in Shasta County are caused when pollutants from urban areas are transported aloft throughout the air basin. Shasta County's primary emphasis in implementing the 2021 AQAP is to attempt to reduce emissions from mobile sources through public education and grant programs.

The Shasta County Air Quality Management District (SCAQMD) is designated by law to adopt and enforce regulations to achieve and maintain ambient air quality standards. In addition, the SCAQMD adopts and enforces controls on stationary sources of air pollutants through its permit and inspection programs, and it regulates agricultural burning. Other responsibilities include monitoring air quality, preparing clean air plans, and responding to citizen complaints concerning air quality. All projects in Shasta County are subject to applicable SCAQMD rules and regulations in effect at the time of construction.

As shown in **Table AQ-3**, Shasta County has adopted air quality thresholds for emissions of Reactive Organic Gases (ROGs), Oxides of Nitrogen (NOx) and Particulate Matter, 10 microns in size (PM_{10}), to determine the level of significance for projects subject to CEQA review (Shasta County Rule 2:1, New Source Review, Part 300) (SCAQMD, n.d.).

TABLE AQ-3
Thresholds of Significance for Criteria Pollutants of Concern

Level	ROG	NOx	PM_{10}
Level A: Indirect Source	25 lbs/day	25 lbs/day	80 lbs/day
Level B: Indirect Source	137 lbs/day	137 lbs/day	137 lbs/day
Direct Stationary Sources	25 tons/year	25 tons/year	25 tons/year

Source: 2004 Shasta County General Plan, Chapter 6.5 (Air Quality).

All discretionary projects in Shasta County are required to implement Standard Mitigation Measures (SMMs) to minimize emissions and contribute to a reduction in cumulative impacts. Projects that generate unmitigated emissions above Level A must implement Best Available Mitigation Measures (BAMMs) in addition to the SMMs. If a project is not able to reduce emissions below the Level B threshold, emissions offsets are required. If after applying the emissions offsets, the project emissions still exceed the Level B threshold, an Environmental Impact Report is required.

Current project-level emissions were estimated using Version 2022.1.1.37 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:

- Although the Project would be constructed in two or more phases, in order to represent a worst-case scenario, reported emissions from the CalEEMod analysis are based on all of the current project-level improvements being constructed concurrently.
- Emissions from construction are based on all construction-related activities, including but not limited to site preparation, grading, demolition, use of construction equipment, material hauling, trenching, and architectural coatings.
- Emissions from operation of the proposed Project are based on all newly proposed 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.
- The Project would implement SCAQMD SMMs and would comply with applicable SCAQMD rules.

Output files, including site-specific inputs and assumptions, are provided in **Attachment A, CalEEMod – Shasta College Master Plan Amendment Two – Project-Level Improvements Detailed Report**.

Construction Impact Emissions

The 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} would be generated during site preparation, excavation, road paving, and from exhaust associated with construction equipment. **Table AQ-4** shows the highest daily levels regardless of construction phase.

TABLE AQ-4
Projected Maximum Construction Emissions

Construction Year	Pollutants of Concern (lbs/day)					
	ROG	**NO_X**	**PM_{10}**	**$PM_{2.5}$**	**CO**	**SO_2**
2026	3.10	**27.29**	18.15	9.59	28.98	0.05
2027	**31.76**	6.08	0.38	0.25	9.45	0.01
Level A Threshold	25	25	80	-	-	-
Level B Threshold	137	137	137	-	-	-

As indicated, the project would not exceed the County's Level A or Level B thresholds for PM_{10} in either construction year, and would not exceed the Level A or Level B thresholds for ROG in construction year 2026 or NO_X in construction year 2027.

The project would exceed the County's Level A threshold for ROG in construction year 2027 and the Level A threshold for NO_X in construction year 2026; however, the project would not exceed the County's Level B thresholds for ROG and NO_X. The exceedance of ROG emissions in 2027 is primarily due to the application of architectural coatings (e.g., primers, sealers,

lacquers, stains, varnishes, paint for structures and parking areas, etc.). The exceedance of NO_X in 2026 is from the use of off-road construction equipment.

However, due to phasing of the proposed improvements, construction emissions would be substantially less for each construction phase. With implementation of the SCAQMD SMMs identified in ***Mitigation Measure AQ-1***, impacts during construction would be ***less than significant***.

Operational Impact Emissions

The proposed project would result in the generation of ROG, NOx, PM_{10}, and other regulated pollutants during operations.

Table AQ-5 shows the estimated highest daily emissions associated with the current project-level improvements by source. Mobile sources include on-road motor vehicles and off-road engines and equipment used for maintenance and EVOC training activities. Area-wide sources include consumer products (e.g., cleaning supplies and aerosols), reapplication of architectural coatings, and road dust. Energy sources include electricity generated from fossil fuels (indirect emissions). As indicated, the increase in operational emissions would not exceed SCAQMD's Level A thresholds.

TABLE AQ-5
Projected Maximum Operational Emissions
(lbs/day)

Source	ROG	NOx	PM_{10}	$PM_{2.5}$	CO	SO_2
Mobile	2.01	1.53	1.94	0.51	11.54	0.02
Area	1.51	0.01	0.002	0.001	1.04	Trace
Energy	0.02	0.20	0.02	0.02	0.17	0.001
Off-Road	1.46	8.07	0.26	0.24	10.55	0.04
Total	5.0	9.81	2.22	0.77	23.3	0.04
Level A Threshold	25	25	80	-	-	-
Level B Threshold	137	137	137	-	-	-

In addition, as discussed in Chapter 2.0 – Project Description, the proposed *Study Area Project 1* includes the expansion of Shasta College's fire training program. A Drager Swede Survival System Phase I (Flashover Development Observation Burn Building) would be installed in *Study Area 1*, west of the existing training tower. The Drager Swede facilities would include a 5-story fire training tower with a 6-story elevator shaft, a 5-story stair tower, a 2-story residential/industrial unit, and a 1-story annex. The fourth floor of the tower would be equipped with a live fire burn room. The residential/industrial section would also include a second-floor live-fire burn room, and the annex would include a third live-fire burn room. Fuel sources associated with training activities include Class A materials (e.g., wood pallets and other wood products).

During periodic fire simulation trainings, the combustion of wood would produce visibility-reducing pollutants (e.g., $PM_{2.5}$ and PM_{10}). The project is subject to applicable SCAQMD rules, including Rule 2:6 (Open Burning: General Provisions) and Rule 2:7 (Conditions for Open Burning). Prior to the construction/installation of the Drager Swede facilities, Shasta College will consult with the SCAQMD to determine specific regulations and permit requirements for the facilities. If required, Shasta College would submit an application for an Authority to Construct/Permit to Operate and would comply with permit conditions imposed by the SCAQMD to minimize emissions and smoke from fire training simulations.

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), or vinyl chloride (chloroethene), 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 SMMs would be implemented to achieve compliance with established thresholds for ozone precursors, 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 during the decomposition of organic material in anaerobic environments, including sewage treatment processes. However, the proposed Project would not result in a significant increase in the amount of wastewater treated; therefore, the potential for an increase in hydrogen sulfide emissions is less than significant.

Vinyl chloride. Vinyl chloride is used to manufacture 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.

Because the project would comply with applicable SCAQMD rules and permit conditions, operational impacts associated with the current project-level improvements would be ***less than significant.***

Future projects under the *FMPA1* and *FMPA2* would be reviewed on a case-by-case basis to ensure compliance with applicable State and local codes. Future housing development in

Study Area 3 would be subject to compliance with the California Building Standards Code (CBSC). The California Energy Code (Part 6 of the CBSC), also known as the State's Energy Efficiency Standards, was established to reduce energy consumption for both residential and non-residential buildings, which will result in reductions of NO_X and SO_X emissions beginning in 2023. The Energy Code includes requirements for electric heat pumps, photovoltaic and battery storage systems, lighting, building envelopes, and HVAC (heating, ventilation, and air conditioning) systems. In addition, the California Green Building Standards Code (Part 11 of the CBSC) includes mandatory measures for residential development related to energy efficiency, water efficiency and conservation, resource efficiency, and environmental quality to minimize emissions of criteria pollutants.

Cumulative Impact Emissions

Implementation of the proposed Project combined with future development within the Project area could lead to cumulative impacts to air quality. As noted above, the County is located in a non-attainment-transitional area for state ambient air quality standards for ozone. Due to the County's non-attainment status for ozone, the SCAQMD has adopted significance thresholds for ROG and NO_X (ozone precursors). Thresholds for PM_{10} were also adopted based on the County's previous non-attainment status for PM_{10}. All discretionary projects are required to implement SMMs in order to reduce cumulative impacts, even if project emissions do not exceed the adopted thresholds.

As discussed above, the proposed Project would implement ***Mitigation Measure AQ-1*** to ensure that cumulative impacts are ***less than significant***. Future development under the Shasta College Master Plan would also comply with applicable California Building Codes that were enacted to minimize energy consumption and reduce emissions of criteria pollutants.

Sensitive Receptors

Sensitive receptors are typically defined as locations where people reside or where members of the population who are particularly sensitive to the effects of air pollutants are located. Children, the elderly, and the chronically or acutely ill are the most sensitive receptors. These sensitive receptors are commonly associated with residential uses, schools, parks and playgrounds, hospitals, retirement homes, convalescent homes, and similar facilities.

The nearest sensitive receptor to areas in which project-level construction activities would occur is a single-family residence approximately 975 feet to the west.

The nearest sensitive receptor to areas in which fire simulations would occur is a single-family residence located about 1,100 feet to the west. Due to the distance to sensitive receptors, as well as regulatory oversight by the SCAQMD, exposure of sensitive receptors to pollutant concentrations will be ***less than significant***.

Odor and Smoke Emissions

During construction, odors would be emitted from sources such as diesel equipment, paints, solvents, asphalt, and adhesives. Odors from construction would be 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 associated with operation of the proposed Project include emissions from vehicles and maintenance activities (painting, pavement maintenance, etc.).

In addition, during periodic fire-simulation training, the combustion of wood would produce smoke and odorous gases requiring Self-Contained Breathing Apparatus and gas monitoring to protect trainees. Also, the nearest sensitive receptor to areas in which fire simulations would occur is a single-family residence located about 1,100 feet to the west. Due to the intermittent nature of fire simulation training and the distance between simulations and sensitive receptors, potential odor-related operational impacts are considered ***less than significant***.

The following includes an analysis of environmental parameters related to *Air Quality* based on *Appendix G* of the *State CEQA Guidelines*. The discussion not only identifies areas with potential environmental impacts but also provides justification for the conclusion that either no impacts, less than significant impacts, or less than significant impacts with mitigation could occur.

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

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

As previously discussed, Shasta County is located in a non-attainment-transitional area for the State ambient air quality standard for ozone; the County is designated as an attainment or unclassified area for all other federal and State ambient air quality standards (CCR, 2026; USEPA, 2026).

Air districts within the State that have not attained air quality standards are required to develop and implement attainment plans. To this end, the air districts of the NSVAB have jointly prepared an Air Quality Attainment Plan (AQAP) to achieve and maintain healthful air quality throughout the air basin. The Northern Sacramento Valley Planning Area (NSVPA) 2021 AQAP constitutes the region's State Implementation Plan (SIP) and was adopted by the SCAQMD Board on April 5, 2022. The Study Area Projects within the *FMPA2* will continue to comply with the Air Quality Attainment Plan (AQAP) to achieve and maintain healthful air quality throughout the air basin. Therefore, potential impacts associated with conflicting or obstructing the implementation of the AQAP are considered ***less than significant***.

b) *Violate any air quality standard or contribute to an existing or projected air quality violation?*

The Shasta County Air Quality Management District (SCAQMD) is designated by law to adopt and enforce regulations to achieve and maintain ambient air quality standards. In addition, the SCAQMD adopts and enforces controls on stationary sources of air pollutants through its permit and inspection programs.

As identified in **Table AQ-3**, Shasta County has adopted air quality thresholds for emissions of Reactive Organic Gases (ROGs), Oxides of Nitrogen (NOx) and Particulate Matter, 10 microns in size (PM_{10}), to determine the level of significance for projects subject to CEQA review (Shasta County Rule 2:1, New Source Review, Part 300) (SCAQMD, n.d.).

Construction Emissions

The *Study Area Projects* would not exceed the County's Level A or Level B thresholds for PM10 in either construction year and would not exceed the Level A or Level B thresholds for ROG in construction year 2026 or NOX in construction year 2027. The *Study Area Projects* would exceed the County's Level A threshold for ROG in construction year 2027 and the Level A threshold for NOX in construction year 2026; however, the project would not exceed the County's Level B thresholds for ROG and NOX. The exceedance of ROG emissions in 2027 is primarily due to the application of architectural coatings (e.g., primers, sealers, lacquers, stains, varnishes, paint for structures and parking areas, etc.). The exceedance of NOX in 2026 is from the use of off-road construction equipment. However, due to phasing of the proposed improvements, construction emissions would be substantially less for each construction phase. With the implementation of the SCAQMD SMMs identified in ***Mitigation Measure AQ-1***, impacts during construction would be ***less than significant***.

Operational Emissions

The *Study Area Projects* would generate ROG, NOx, PM10, and other regulated pollutants during operations. **Table AQ-5** shows the estimated highest daily emissions associated with the current project-level improvements by source. Mobile sources include on-road motor vehicles and off-road engines and equipment used for maintenance and EVOC training activities. Area-wide sources include consumer products (e.g., cleaning supplies and aerosols), reapplication of architectural coatings, and road dust. Energy sources include

electricity generated from fossil fuels (indirect emissions). As indicated, the increase in operational emissions would not exceed SCAQMD's Level A thresholds.

During periodic fire simulation trainings, the combustion of wood would produce visibility-reducing pollutants (e.g., PM2.5 and PM10). The project is subject to applicable SCAQMD rules, including Rule 2:6 (Open Burning: General Provisions) and Rule 2:7 (Conditions for Open Burning). Prior to the construction/installation of the Drager Swede facilities, Shasta College will consult with the SCAQMD to determine specific regulations and permit requirements for the facilities. If required, Shasta College would submit an application for an Authority to Construct/Permit to Operate and would comply with permit conditions imposed by the SCAQMD to minimize emissions and smoke from fire training simulations.

Because the project would comply with applicable SCAQMD rules and permit conditions, operational impacts associated with the current project-level improvements would be ***less than significant.***

Cumulative Emissions

Implementation of the proposed *Study Area Projects*, combined with future development within the *FMPA2*, could result in cumulative impacts on air quality. The County is located in a non-attainment-transitional area for state ambient air quality standards for ozone. Due to the County's non-attainment status for ozone, the SCAQMD has adopted significance thresholds for ROG and NOX (ozone precursors). Thresholds for PM10 were also adopted based on the County's previous non-attainment status for PM10. All discretionary projects are required to implement SMMs to reduce cumulative impacts, even if project emissions do not exceed the adopted thresholds. The proposed *Study Area Projects* would implement ***Mitigation Measure AQ-1*** to ensure that cumulative impacts are ***less than significant***.

c) Expose sensitive receptors to substantial pollutant concentrations?

Sensitive receptors in proximity to the Shasta College Campus include single-family residences on Old Oregon Trail west of the Campus, on College View Drive south of the Campus, and on Ceramic Way northeast of the Campus. As discussed in the **IMPACT ANALYSIS,** due to the distance from sensitive receptors and regulatory oversight by the SCAQMD, exposure to pollutant concentrations will be negligible and considered ***less than significant***.

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

Construction odors would be intermittent and temporary, generally not extending beyond the construction areas for the proposed *Study Area Projects*. Due to the temporary and intermittent nature of construction odors, their impacts would be ***less than significant***.

Operational emissions would be intermittent and are not expected to be significantly greater than existing conditions. Therefore, potential odor-related operational impacts are considered ***less than significant***.

MITIGATION MEASURES

Implementation of the SCAQMD SMMs identified in ***Mitigation Measure AQ-1*** during construction would also ensure that cumulative impacts are ***less than significant***.

Mitigation Measure AQ-1

The following measures shall be implemented throughout construction:

a. *All material excavated, stockpiled, or graded shall be covered or sufficiently watered as necessary to prevent fugitive dust from leaving property boundaries and causing a public nuisance or a violation of ambient air quality standards.*
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.*
g. *Paved streets in and adjacent to the construction site shall be swept or washed at the end of the day (or more frequently if needed) 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.*
i. *All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications.*

FINDINGS

Due to the nature of the proposed *Study Area Projects* and the location of *FMPA2 Study Area Projects*, SCAQMD permit requirements, and adherence to applicable rules, *Air Quality* impacts will be ***less than significant***.

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SECTION IV – BIOLOGICAL RESOURCES

Catalyst Environmental Solutions (Catalyst) prepared biological and wetland evaluations for *Study Areas 1* and *2* that could potentially be impacted by development activities identified in **CHAPTER 2.0 – PROPOSED PROJECT**. Work included Project-level studies for the development of *Study Areas 1 and 2*. **Appendix A, Biological Resources Documentation** includes the following:

- U.S. Fish and Wildlife Service List of Threatened and Endangered Species and Critical Habitats (USFWS, 2025)
- California Natural Diversity Database (CNDDB) Query Summary (CDFW, 2025a)
- California Native Plant Society (CNPS) Query Summary (CNPS, 2025)
- Evaluation of the potential for special-status species to occur on the project site
- A list of vascular plants observed during the botanical surveys

Records reviewed for the evaluation consisted of California Natural Diversity Database (CNDDB) records for special-status species and natural communities (CDFW, 2025a, 2025b); California Native Plant Society (CNPS) records for special-status plants in the USGS Project City 7.5-minute quadrangle (CNPS, 2025); U.S. Fish and Wildlife Service (USFWS) records for federally listed, proposed, and candidate special-status species, and designated critical habitat for special-status species under jurisdiction of the USFWS (USFWS, 2025); USFWS records for Birds of Conservation Concern (USFWS, 2025); National Marine Fisheries Service (NMFS) records for federally listed fish species, critical habitat, and essential fish habitat (EFH) under the jurisdiction of NMFS (NOAA, 2022); USFWS National Wetlands Inventory (NWI) maps (USFWS, n.d.); and soils records maintained by the U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) (USDA, n.d.).

The CNDDB records search covered a five-mile radius around *Study Areas 1* and *2*. Soil records maintained by the NRCS were reviewed to determine the soil types and their potential to support wetlands. NWI maps were reviewed to determine if wetland features had been previously mapped in *Study Areas 1* and *2*.

Biological and wetland field surveys were conducted on April 16 and 23, 2024, and covered an alternate location for the proposed EVOC course east of the *Initial Study Area 1*; the April 2024 surveys covered approximately 12.4 acres. Due to the presence of on-site streams and wet swales that appear to be subject to both federal and State jurisdiction, this *Initial Study Area 1* was removed from consideration. Biological field surveys were conducted by an ENPLAN (now Catalyst Environmental Solutions) biologist on June 17 and 24, 2025, and included approximately 17.82 acres of the current project-level *Study Areas 1 and 2*. **Figure BR-1, Biological Resources Survey Coverage,** shows the survey coverage area for the 2024 and 2025 biological field surveys.

A tree survey was completed by certified arborist Rico Montenegro on July 22 and 25, 2024; the 2024 surveys covered the originally proposed location for the proposed Fire Apparatus Building, which encompassed about 3.4 acres southeast of the current *Study Areas 1* and *2* for the project-

specific improvements. Mr. Montenegro also completed a tree survey on August 4, 2025, to evaluate approximately 17.82 acres of the current Project-level *Study Areas 1* and *2*. **Figure BR-2, Tree Survey Coverage,** shows the survey coverage for both the 2024 and 2025 surveys.

ENVIRONMENTAL SETTING

As a result of field evaluations, the following communities were identified in the Project-level *Study Areas 1* and *2*: interior live oak woodland, seasonal wetlands, and urban.

Figure BR-3, Habitat Community Types, shows the oak woodland and urban habitat types. **Figure BR-4, Potential Waters of the U.S. and/or State**, shows the location of potential wetlands and other waters of the U.S. and State. The community types are characterized below.

- Interior Live Oak Woodland

  Interior live oak (*Quercus wislizeni*) is the dominant tree species in the oak woodland community and forms a nearly continuous canopy cover over much of the project-level *Study Areas 1 and 2*. A few blue oaks (*Quercus douglasii*), valley oaks (*Quercus kelloggii*), and gray pines *(Pinus sabiniana*) are also present. Poison oak is the only common understory shrub. Herbaceous cover is very limited under the oak canopy, but various grasses and forbs are present in openings, including hedgehog dogtail (*Cynosurus echinatus*), slender wild oats (*Avena barbata*), field hedge-parsley (*Torilis arvensis*), and shortpod mustard (*Hirschfeldia incana*). Oak woodlands are addressed in more detail under *Biological Resources* environmental issue '*e)*'.

- Seasonal Wetlands

  A total of approximately 0.023 acres of seasonal wetlands were mapped within Project-level *Study Areas 1* and *2*, consisting of three separate wetlands totaling approximately 0.003, 0.019, and 0.001 acres. The on-site seasonal wetlands are located along the proposed access road from Shasta College Drive to the future EVOC. Species present in the wetlands include annual ryegrass (*Festuca perennis*), pennyroyal (*Mentha pulegium*), rabbit's-foot grass (*Polypogon monspeliensis*), Mediterranean barley (*Hordeum marinum* ssp. *gussoneanum*), and curly dock (*Rumex crispus*). Seasonal wetlands are considered sensitive natural communities and are addressed in more detail under *Biological Resource* environmental issue '*c)*.'

  Additionally, three constructed drainage channels were mapped within Project-level *Study Areas 1 and 2*. The constructed ditches have low value for wildlife, as they do not hold water for long durations and do not support riparian vegetation. The constructed ditches may be considered waters of the State and are discussed in more detail under *Biological Resource* environmental issue '*c)*.'

- Urban Landscape

  Study Areas 1 and 2 include an existing solar photovoltaic array field with solar structures, as well as a constructed retention basin to the southeast. The Urban Habitat is not a natural community and is not considered significant by CDFW.

As a result of field evaluations, the following communities were identified in the Programmatic-level *Study Area 3*: interior live oak woodland and seasonal wetlands.

As shown on **Figure BR-5, Habitat Community Types and Potential Waters of the U.S. and/or State**, the principal natural community in *Study Area 3* is Oak Woodland. Interior live oaks (Quercus wislizeni) and blue oaks (Quercus douglasii) are the dominant tree species in the oak woodland community. Other trees present include gray pines (Pinus sabiniana) and valley oaks (Quercus lobata). The trees form a moderately dense canopy. The understory has been managed for fire-fuels reduction and is now relatively open with an herbaceous ground cover.

An intermittent stream parallels the western boundary of *Study Area 3*; the stream originates about a half mile north of the Shasta College campus and is conveyed through a box culvert under Shasta College Drive. A second, much smaller stream bisects the western portion of *Study Area 3*. This stream originates on the college campus, with flow from a series of wet swales being concentrated and directed under Shasta College Drive via a corrugated metal pipe. The stream channel is relatively indistinct in places, with the water spreading to sheet flow, then re-concentrating into a channel that discharges into the larger stream.

REGULATORY SETTING

This section summarizes current federal, State, and local regulations relevant to the review of *Biological Resources* for this project. Ordinances, regulations, or standards that are applicable to the environmental review of biological resource impacts include the following:

Wetlands and Waters

The United States Army Corps of Engineers (USACE) has primary federal responsibility for administering regulations that concern waters of the U.S. (including wetlands). Section 404 of the Clean Water Act (CWA), regulates the discharge of dredged or fill material into 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 discharges of dredged or fill material into waters below the ordinary high-water mark (OHWM). The USACE has established a series of nationwide permits (NWP) that authorize certain activities in waters of the U.S. Under CWA Section 401, a project requiring a USACE Section 404 permit must also obtain a State Water Quality Certification (or waiver) to ensure it will not violate established State water quality standards. The RWQCB regulates waters of the State and has a no-net-loss policy for wetlands. The Regional Water Quality Control Board (RWQCB) typically requires mitigation for all impacts to wetlands before it issues a water quality certification.

Federal Endangered Species Act

The U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) implement the federal Endangered Species Act (FESA) of 1973. Under FESA, threatened and endangered species on the federal list and their habitats are protected from "take" unless a Section 10 Permit is granted to an individual or a Section 7 consultation and a Biological Opinion with incidental take provisions are rendered by the lead federal agency. Under FESA, habitat loss is considered to be an impact to the species. Under Section 7 of the FESA, all federal agencies (including the USFWS and NMFS) are required to 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.

Federal Migratory Bird Treaty Act

Most bird species (especially those that are breeding, migrating, or of limited distribution) are protected under federal and/or State regulations. Under the Migratory Bird Treaty Act (MBTA) of 1918, migratory bird species, their nests, and their eggs are protected from injury or death, and any project-related disturbances during the nesting period.

Federal Magnuson-Stevens Fishery Conservation and Management Act

The Magnuson-Stevens Fishery Conservation and Management Act, also known as the Sustainable Fisheries Act (Public Law 104-297), requires that all federal agencies consult with NMFS on projects authorized, funded, or undertaken by that agency that may adversely affect Essential Fish Habitat of commercially managed marine and anadromous fish species.

Federal 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.

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

California Fish and Game Code §1600 et seq., requires that a project proponent notify the California Department of Fish and Wildlife (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 project proponent and the CDFW must enter into a Lake and Streambed Alteration Agreement (LSAA) prior to an action that would result in such an impact. The LSAA 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 Endangered Species Act

The California Endangered Species Act (CESA) prohibits the take of State-listed threatened and endangered species. Under CESA, state agencies are required to consult with the CDFW when preparing CEQA documents. The CDFW can authorize take if an incidental take permit is issued by the Secretary of the Interior in compliance with the FESA, or if the director of the CDFW issues a permit under §2080 in those cases where it is demonstrated that the impacts are minimized and mitigated.

California Native Plant Protection Act

The California Native Plant Protection Act (NPPA) (California Fish and Game Code §1900 – 1913) includes measures to preserve, protect, and enhance rare and endangered native plants. The list of native plants protected under the Native Plant Protection Act includes those listed as rare or endangered under the CESA. The NPPA states that no person will take, possess, sell, or import into the state any rare or endangered native plant, except in compliance with provisions of the act.

Shasta County General Plan

The Shasta County General Plan provides goals, policies, and implementation measures to reduce the impacts of projects on biological resources. Applicable goals and policies relative to the proposed project site are listed as follows:

- *FW-1.* Protection of significant fish, wildlife, and vegetation resources.
- *FW-2.* Provide for a balance between wildlife habitat protection and enhancement and the need to manage and use agricultural, mineral extraction, and timber land resources.
    - *Policy FW-b.* Recognition that classification of some fish, wildlife, and vegetation resources designated and used as Timberlands, Mineral Resource, Croplands, or Grazing lands does, in most cases, protect habitat resources. However, if there is a conflict, the timber, mineral extraction, or agricultural land use classifications mentioned above shall prevail in a manner consistent with State and Federal laws.
    - *Policy FW-c.* Projects that contain or may impact endangered and/or threatened plant or animal species, as officially designated by the California Fish and Game Commission and/or the U. S. Fish and Wildlife Service, shall be designed or conditioned to avoid any net adverse project impacts on those species.

2019 Shasta College Facilities Master Plan Amendment One Project Initial Study & Mitigated Negative Declaration

On March 13, 2019, the Board of Trustees (the "Board") of the Shasta-Tehama-Trinity Joint Community College District (the "District") adopted *Resolution No. 2018-19-22* reaffirming approval of the Shasta-Tehama-Trinity Joint Community College District's May 2018 *Shasta College Facilities Master Plan – Amendment One (FMPA1)* for the Shasta College Main Campus. As noted in **CHAPTER 2.0, PROJECT DESCRIPTION**, the Mitigated Negative Declaration evaluated the potential environmental impacts of the proposed *Shasta College Facilities Master Plan Amendment 1 Projects*.

Based on the appropriate findings, the District determined that impacts to *Biological Resources* after the implementation of ***Mitigation Measures*** would be ***less than significant***.

IMPACT ANALYSIS

This analysis presents thresholds of significance used and discusses potential effects of the proposed *Study Area Projects* on the existing environmental conditions, particularly with respect to Special-Status Plant Species, Special-Status Wildlife Species, Birds of Conservation Concern Impacts, Special-Status Bats, Nesting Birds, Noxious Weeds, Aquatic Resources, Migratory Fish and Wildlife Corridors, and Trees and Oak Woodlands.

Special-Status Plant Species Impacts

Review of the USFWS species list for the project area did not identify any federally listed plant species as potentially occurring in the project vicinity. The project area does not contain designated critical habitat for federally listed plant species (USFWS, 2025) (see **Appendix A, Biological Resources Documentation**).

As documented in **Appendix A, Biological Resources Documentation**, Table 1, CNDDB records showed that no special-status plant species have been previously reported on the project site. Five special-status plant species are known to occur within a five-mile radius of the project site: Red Bluff dwarf rush (California Rare Plant Rank [CRPR] 1B.1), Sanford's arrowhead (CRPR 1B.2), silky cryptantha (CRPR 1B.2), slender Orcutt grass (CRPR 1B.1, Federally Threatened [FT], State Endangered [SE]), and Sulphur Creek brodiaea (CRPR 1B.1). Two non-status plant species were reported within an approximate five-mile radius of the project site: dubious pea (CRPR 3) and Henderson's bent grass (CRPR 3.2) (CDFW, 2025a).

As documented in **Appendix A, Biological Resources Documentation**, Table 2, CNPS records identified one additional special-status plant species, Shasta snow-wreath (CRPR 1B.2), reported in the USGS Project City 7.5-minute quadrangle. Seven additional non-status plant species were reported in the USGS Project City 7.5-minute quadrangle: depauperate milk-vetch (CRPR 4.3), northern clarkia (CRPR 4.3), Redding checkerbloom (CRPR 3), Shasta County arnica (CRPR 4.2), Shasta maidenhair fern (CRPR 4.3), thread-leaved beakseed (CRPR 4.2), and tripod buckwheat (CRPR 4.2) (CNPS, 2025).

Special-status plants with a potential to occur in the study area would have been identifiable at the time of the botanical surveys. As documented in **Appendix A, Biological Resources Documentation**, Table 3, no special-status plants were observed during the project-level field evaluation, nor are any expected to be present. A list of plant species observed during the field study is provided in **Appendix A, Biological Resources Documentation**. Although the proposed project-level development would not affect special-status plant species, future program-level improvements identified in this Initial Study could potentially affect special-status species as further discussed under *Biological Resource* environmental issue '*a*.'.

Special-Status Wildlife Species Impacts

Review of the USFWS species list identified eight federally listed wildlife species as potentially being present in the project area: California condor (Experimental Population, Non-Essential [EXPN], SE, State Fully Protected [SFP]), monarch butterfly (Federally Proposed Threatened [FPT]), northern spotted owl (FT, State Threatened [ST]), northwestern pond turtle (FPT), State Species of Special Concern [SSSC]), Suckley's cuckoo bumble bee (Federally Proposed Endangered [FPE], State Candidate [SC]), valley elderberry longhorn beetle (FT), western spadefoot (FPT), and vernal pool fairy shrimp (FT) (USFWS, 2025).

As shown in **Appendix A, Biological Resources Documentation**, Table 1, CNDDB records showed that eight special-status wildlife species have been reported within a five-mile radius of the project site: bald eagle (Federally Delisted [FD], SE, SFP), Central Valley spring-run Chinook salmon (FT, ST), foothill yellow-legged frog – North Coast Distinct Population Segment (DPS) (SSSC), northwestern pond turtle (FPT, SSSC), Shasta salamander (ST), steelhead – Central Valley DPS (FT, SSSC), valley elderberry longhorn beetle (FT), and vernal pool tadpole shrimp (FE). The CNDDB records search also identified the following non-status wildlife species within the search radius: American bumble bee, California linderiella, North American porcupine, Shasta chaparral, silver-haired bat, and western pearlshell (CDFW, 2025a).

Some of the special-status wildlife species potentially occurring in the study area 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. As documented in **Appendix A, Biological Resources Documentation**, Table 3, none of these special-status wildlife species are expected to occur in the project-level study area. However, the oak woodland and individual trees in the study area have the potential to support various bat species, including special-status bats. In addition, future program-level improvements identified in this Initial Study could potentially affect special-status wildlife species as further discussed under *Biological Resource* environmental issue '*a*.'

Birds of Conservation Concern Impacts

The USFWS identified the following Birds of Conservation Concern as potentially being present in the project area: Belding's savannah sparrow, black swift, Bullock's oriole, California gull, California thrasher, Cassin's finch, Clark's grebe, common yellowthroat, Lawrence's goldfinch, long-eared owl, northern harrier, Nuttall's woodpecker, oak titmouse, olive-sided flycatcher,

Santa Barbara song sparrow, tricolored blackbird, western grebe, western screech-owl, willet, wrentit, and yellow-billed magpie. The bald eagle and golden eagle are not listed as Birds of Conservation Concern, but the USFWS noted that they are birds that warrant attention because they are protected under the Bald and Golden Eagle Protection Act (USFWS, 2025).

A number of existing trees and shrubs provide suitable nesting habitat for nesting birds. Under the Migratory Bird Treaty Act (MBTA) of 1918, migratory bird species, their nests, and their eggs are protected from injury or death, and any project-related disturbances during the nesting period. In addition, California Fish and Game Code §3503 and §3503.5 provide regulatory protection to resident and migratory birds and all birds of prey within the State.

Special-Status Bats Impacts

As stated above, oak woodlands and individual trees in the project-level study area provide suitable habitat for bats. Direct effects could include mortality resulting from the removal of a tree containing a roosting bat or colony. Indirect effects may include the abandonment of maternity colonies in response to construction noise.

Potential impacts to special-status bat species can be avoided by conducting construction outside of the maternal roosting period (April 1 through July 31) as described in ***Mitigation Measure BR-2.*** Additionally, the measure provides a two-step tree removal process to be used during construction periods, allowing bats to leave their daytime roosting sites before tree removal. With implementation of ***Mitigation Measure BR-2***, potential impacts to special-status bat species will be reduced to ***less than significant.***

Nesting Birds Impact

Migratory and resident birds are known to nest on the campus, and three nests were observed in *Study Areas 1* and *2* during the field surveys. Nesting birds may be present throughout all three S*tudy Areas*, with nesting locations changing annually. If nesting birds are present at or near construction sites, they may be directly or indirectly affected by construction activities. Direct effects could include mortality resulting from construction equipment operating in an area containing an active nest with eggs or chicks. Indirect effects could include nest abandonment by adults in response to loud noise levels or human encroachment, or a reduction in the amount of food available to young birds due to changes in adult feeding behavior.

In the local area, most birds nest between February 1 and August 31; the potential for adversely affecting nesting birds can be avoided by conducting earth disturbance, tree/vegetation removal, and construction activities either before February 1 or after August 31. If this is not possible, a nesting survey should be conducted within one week prior to commencement of demolition or construction (including site preparation/vegetation removal activities). If active nests are found, avoidance measures would be implemented.

As addressed in ***Mitigation Measure BR-2***, such measures may include work 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.

Implementation of ***Mitigation Measure BR-2*** would reduce potential impacts on migratory birds to a ***less than significant*** level.

As discussed in **SECTION 1.0 – INTRODUCTION**, *Study Areas 1* and *2* are being evaluated at a Programmatic-Level and were not included as part of the biological resources surveys completed in support of this IS/MND. However, applicable potential impacts to nesting birds and bats could result from the Programmatic-Level *Study Area 3 Student Housing Project*.

Mitigation Measure BR-3 requires that, in conjunction with the preparation of Project-Level plans, the Project engineer shall identify all improvements that would occur outside of the surveyed area (refer to **Figure BR-1, Biological Resources Survey Coverage**). All areas within the project footprint that were not previously surveyed by a qualified biologist shall be surveyed to identify potentially significant impacts on special-status species and their habitats. This would also be applicable to *Study Area 3*.

The dominant habitat types in the *Study Areas* are interior live oak woodland and Urban Habitat, with minimal seasonal wetlands. Based on the *California Natural Community List* (CDFW, 2025b), the on-site community is best represented by: *71.080.01 Quercus wislizeni – Quercus douglasii – Pinus sabiniana,* which is a vegetative association within the interior live oak woodland alliance. Although CDFW does not identify this community as a sensitive natural community (CDFW, 2025b), oak woodlands are an essential source of food and shelter for a variety of wildlife, and loss of oak woodlands may be considered a ***significant adverse impact*** under CEQA. The loss of native trees and oak woodlands is discussed in more detail under *Biological Resource* environmental issue 'e.'

Noxious Weeds Impacts

The introduction and spread of noxious weeds during construction activities has the potential to impact natural habitats. Noxious weeds could be introduced into the project area in landscaping materials or imported soil, or if unwashed construction vehicles are used during construction activities. Likewise, weeds currently established at the site could be transported offsite.

As required by ***Mitigation Measure BR-4***, the potential for the introduction and spread of noxious weeds will 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 equipment at a commercial wash facility before and after working on the Shasta College campus. Implementation of ***Mitigation Measures BR-3*** would reduce the potential impacts of noxious weeds to a ***less than significant*** level.

Aquatic Resources Impacts

A field evaluation of the *Study Areas* was conducted to identify wetlands, streams, drainages, and other waters of the U.S. and/or State. The field investigations were conducted in general accordance with technical methods outlined in the *Corps of Engineers Wetlands Delineation Manual* (USACE, 1987), *Regional Supplement to the Corps of Engineers Wetland Delineation*

Manual: Arid West Region (Version 2.0) (USACE, 2008a), and *A Field Guide to Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (USACE, 2008b).

As discussed, several surface water features were observed in and adjacent to the study area boundaries during the field screening. These include three constructed ditches that drain to culverts or surrounding upland areas outside of the study area boundary and three seasonal wetlands (see **Figure BR-4, Potential Waters of the U.S. and State**).

The constructed ditches within the study area measure about 295, 88, and 6 linear feet; all of which extend beyond the study area boundaries. The three seasonal wetlands total approximately 0.023 acres and are located along the proposed access road from Shasta College Drive to the proposed EVOC course. The seasonal wetlands are located in depressions where water carried by constructed features collects for extended periods. These features are subject to State jurisdiction and may be subject to federal jurisdiction. Definitions of waters subject to regulation are always subject to change, and ongoing regulatory changes are expected throughout the Project implementation period.

Migratory Fish and Wildlife Corridor Impacts

Due to the relatively urbanized nature of the college campus's general environment and the fencing located throughout, migratory wildlife corridors for mammals do not exist within all three *Study Areas*. Native wildlife nursery sites are locations where native fish and wildlife gather to breed and raise young. These areas may include fish and deer spawning areas, bird nesting rookeries, and bat maternal roosts. There is no fish habitat on or adjacent to the project site. In addition, no fawning grounds have been identified in the project area (CDFW, 2024).

However, as discussed under *Biological Resource* environmental issue 'a,' trees on the project site could provide habitat for nesting birds and bats. Implementation of ***Mitigation Measure BR-1*** (nesting bird protections) and ***BR-2*** (roosting bat protections) ensures that the project does not interfere with wildlife nursery sites for birds or bats. Impacts would be ***less than significant***.

Trees and Oak Woodlands Impacts

A tree survey was completed by certified arborist Rico Montenegro on July 22 and 25, 2024, for the originally proposed location for the proposed Fire Apparatus Building. Mr. Montenegro also completed a tree survey on August 4, 2025, to evaluate the 17.82 acres of the current project-level study area. **Figure BR-2, Tree Survey Coverage,** shows the survey coverage for both the 2024 and 2025 surveys. The 2024 and 2025 tree survey reports are included in **Appendix A, Biological Resources Documentation**.

The 2025 survey inventoried all native oaks in the current project-level study area with a trunk diameter of five inches or greater as measured at breast height (DBH) (4.5 feet above ground level). The approximately 17.82-acre *Study Areas 1* and *2* for the tree survey include about 6.48 acres of Oak Woodland (see **Figure BR-3**). A total of 146 native oaks were recorded. **Table 1, Summary of Trees by Species and Size Class,** shows the breakdown of trees by species and size

class; **Table 2**, **Summary of Trees by Species and Health Rating**, shows the health rating of the trees by species. **Figures BR-6, Tree Survey Results B** and **BR-7, Tree Survey Results B** show the locations of the trees.

TABLE 1
Summary of Trees by Species and Size Class

Tree Species	Size Class (DBH)				Total
	5-11 in.	12-18 in.	19-24 in.	25+ in.	
Blue Oak	11	9	7	9	36
Interior Live Oak	21	50	24	12	107
Valley Oak	0	0	0	3	3
Totals:	**32**	**59**	**31**	**24**	**146**

TABLE 2
Summary of Trees by Species and Health Rating[1]

Tree Species	Health Rating (1-5)					Total
	1	2	3	4	5	
Blue Oak	0	7	9	11	9	36
Interior Live Oak	2	26	56	18	5	107
Valley Oak	0	0	1	1	1	3
Totals:	**2**	**33**	**65**	**30**	**15**	**146**

[1] Health Rating: 1= Poor, 5= Excellent

1. *Extreme and profound visible evidence of disease, insect damage, decay, or limb loss. Less than 25% of branches are foliated. Trees may contain single or multiple trunks with deteriorated form and structure. Trees are in later stages of senescence.*
2. *Major and large amounts of visible disease, insect damage, decay, or limb loss. Between 25 and 50% of the branches are foliated. Trees can contain single or multiple trunks, with poor form and structure. Trees are in the early stages of senescence.*
3. *Moderate amounts of visible disease, insect damage, decay, or limb loss. Between 50 and 80% of the branches are foliated. Trees are generally single trunked, with compromised form and structure, and moderate growth.*
4. *Minor evidence of disease, insect damage, decay, or limb loss. More than 80 to 90% of the branches are foliated. Trees are generally single trunked, with good form and structure, and good growth.*
5. *None or very little evidence of disease, insect damage, decay, or limb loss. More than 90% of the branches are foliated. Trees are generally single trunked, with very good form and structure, and vigorous growth*

The arborist identified six trees with exceptional size and health and recommended retaining them, if feasible. Refer to **Figure BR-8, Exceptional Trees Recommended for Retention**.

Implementation of the current Project-Level improvements will result in the loss of about 6.48 acres of Oak Woodland Habitat. Future program-level improvements identified in this Initial Study would also result in the loss of native trees and oak woodland habitat.

Implementation of ***Mitigation Measure BR-8*** would reduce habitat impacts in both the oak woodland and urban landscape to a ***less than significant*** level in accordance with Shasta College's tree preservation/replacement policies.

Mitigation Measure BR-8 calls for preconstruction planning to minimize construction disturbance within oak woodlands, protection of oaks planned for retention, and replanting to offset the unavoidable loss of oak woodland habitat.

The following includes an analysis of environmental parameters related to *Biological Resources* based on *State CEQA Guidelines Appendix G*. The discussion not only includes the areas for which there is potential for environmental impacts, but also provides justification for the conclusions that either no impacts, less than significant impacts, or less than significant impacts with mitigation could occur.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES *Would the project:*				
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		X		
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 Game or U.S. Fish and Wildlife Service?		X		
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?		X		
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?		X		
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?		X		

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES *Would the project:*				
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?				X

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?

Special-status plants with the potential to occur in *Study Areas 1 and 2* would have been identifiable during the botanical surveys. As documented in **Appendix A, Biological Resources Documentation**, Table 3, no special-status plants were observed during the project-level field evaluation, nor are any expected to be present. Potential impacts are considered ***less than significant***.

Some of the special-status wildlife species potentially occurring in the *Study Areas 1 and 2* 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. As documented in **Appendix A, Biological Resources Documentation**, Table 3, none of these special-status wildlife species are expected to occur in project-level *Study Areas 1 and 2*. Therefore, potential impacts are ***less than significant***.

A number of existing trees and shrubs provide suitable nesting habitat for migratory birds. Under the Migratory Bird Treaty Act (MBTA) of 1918, migratory bird species, their nests, and their eggs are protected from injury or death, and any project-related disturbances during the nesting period. In addition, California Fish and Game Code §3503 and §3503.5 provide regulatory protection to resident and migratory birds and all birds of prey within the State.

As previously discussed, most birds nest between February 1 and August 31; the potential for adversely affecting nesting birds can be avoided by conducting earth disturbance, tree/vegetation removal, and construction activities either before February 1 or after August 31. If this is not possible, a nesting survey should be conducted within one week prior to commencement of demolition or construction (including site preparation/vegetation removal activities). If active nests are found, avoidance measures would be implemented.

As addressed in ***Mitigation Measure BR-1***, such measures may include work exclusion buffers, sound-attenuation measures, and 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. Implementation of ***Mitigation Measure BR-1*** would reduce potential impacts on migratory birds to a ***less than significant*** level.

As discussed in **CHAPTER 1.0 – INTRODUCTION AND PURPOSE**, the *Study Area Student Housing Project* is being evaluated at a Programmatic-Level and was not included as part of the biological resources surveys completed in support of this IS/MND.

Therefore, ***Mitigation Measure BR-2*** requires that, in conjunction with the preparation of Project Level plans, the Project engineer shall identify all improvements that would occur outside of the surveyed area (refer to **Figure BR-1, Biological Resources Survey Coverage**). All areas within the project footprint that were not previously surveyed by a qualified biologist shall be surveyed to identify potentially significant impacts on special-status species and their habitats.

Work should consist of a current biological records search, followed by a field study by a qualified biologist. The field studies should be conducted at a time of year in which special-status species would be present and identifiable, or, if deemed appropriate by the biologist, determinations of presence/absence could be based on observed habitat characteristics.

As described in ***Mitigation Measure BR-2***, if special-status species are found to be present, the proposed development could be modified to avoid/minimize adverse effects, the timing of work could be managed to avoid impacts, or the species could be excluded from the work area. If the species could not be fully avoided, mitigation would be implemented as necessary.

Due to the absence of special-status plant and wildlife species in the project-level *Study Areas 1 and 2*, and with implementation of ***Mitigation Measure BR-2***, potential impacts to special-status species would be reduced to a ***less than significant*** level.

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 Game or U.S. Fish and Wildlife Service?

The dominant habitat types in *Study Areas 1 and 2* are interior live oak woodland and urban landscapes, with minimal seasonal wetlands. Based on the *California Natural Community List* (CDFW, 2025b), the on-site community is best represented by: *71.080.01 Quercus wislizeni – Quercus douglasii – Pinus sabiniana,* which is a vegetative association within the interior live oak woodland alliance. Although CDFW does not identify this community as a sensitive natural community (CDFW, 2025b), oak woodlands are an essential source of food and shelter for a variety of wildlife, and the loss of oak woodlands may be considered a significant adverse environmental impact under CEQA. The loss of native trees and oak woodlands is discussed in more detail under *Biological Resource* environmental issue '*e*.'

The introduction and spread of noxious weeds during construction activities has the potential to impact natural habitats. Noxious weeds could be introduced into the project area in landscaping materials or imported soil, or if unwashed construction vehicles are used during

construction activities. Likewise, weeds currently established at the site could be transported offsite.

As required by ***Mitigation Measure BR-3***, the potential for the introduction and spread of noxious weeds will 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 equipment at a commercial wash facility before and after working on the Shasta College campus. Implementation of ***Mitigation Measures BR-3*** would reduce potential impacts of noxious weeds to a ***less than significant*** level.

c) *Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

Further review should be conducted prior to development activities in or near the mapped features shown in **Figure BR-4, Potential Waters of the U.S. and State**, to verify resource agency permit requirements. Prior to earth-disturbing activities that could impact jurisdictional waters, applicable permits must be obtained from the USACE, RWQCB, and/or CDFW. Both the State and federal governments have "no-net-loss" policies for wetlands, and mitigation requirements would be identified in the applicable permits.

Mitigation Measure BR-5 requires that, in conjunction with the preparation of Project-Level plans, the Project engineer shall identify all improvements that would occur outside of the surveyed area (refer to **Figure BR-1, Biological Resources Survey Coverage**). All areas within the *Survey Areas Projects* footprint that were not previously surveyed by a qualified biologist shall be surveyed to identify potentially significant impacts to wetlands and other waters of the U.S. and/or State. If regulated waters are present, then avoidance, minimization of impacts, or mitigation for the unavoidable loss of waters would be required at the State and/or federal level.

In addition, as required by ***Mitigation Measure BR-6***, the College must implement Best Management Practices (BMPs) for erosion and sediment control to minimize/avoid indirect impacts on wetlands and other waters. ***Mitigation Measure BR-7*** requires that exclusionary flagging or other markers be installed around wetlands and other jurisdictional waters that are to be avoided; the location of the flagging/markers must be verified by a qualified biologist.

Because ***Mitigation Measure BR-5*** requires completion of additional studies to identify potentially jurisdictional waters, compensatory mitigation for direct impacts would be required through the conditions of State and/or federal permits, and implementation of ***Mitigation Measures BR-6*** and ***BR-7*** would minimize/avoid potential indirect effects; impacts would be ***less than significant.***

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?

As discussed, due to the relatively urbanized nature of the college campus's general environment and the fencing throughout, migratory wildlife corridors for mammals do not exist in all *Study Areas*. There are no identified spawning areas, nesting rookeries, or maternal roosts. However, trees within all the *Study Areas* could provide habitat for nesting birds and bats. Implementation of ***Mitigation Measure BR-1*** (nesting bird protections) and ***BR-2*** (roosting bat protections) ensures that impacts on potential nest and roosting habitat would be ***less than significant***.

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

Shasta College is committed to minimizing the loss of on-site native trees and to the replacement of healthy, mature trees that would be removed as a result of Facilities Master Plan implementation. In 2021, the Shasta-Tehama-Trinity Joint Community College District prepared a *Landscape Master Plan* to direct and inform future improvements on the Shasta College main campus in Redding (Shasta-Tehama-Trinity Joint Community College District, 2021).

The Landscape Master Plan recognizes that the retention and/or replacement of native trees and oak woodlands is imperative to maintaining the overall health and viability of the Campus's natural setting. Areas throughout the Campus have been identified as possible locations for mitigation planting. Some of these areas are along Shasta College Drive by the entrance, south of the Shasta Head Start Development Center, the field between the two parking lots at the campus core's southeast corner, open space between the baseball field and solar panels, and a swath in the far northwest corner. In particular, the campus favors the region to the northwest, where the fire training yard and Fire Training Center are located for future tree mitigation (Shasta-Tehama-Trinity Joint Community College District, 2021).

Tree surveys were completed for the originally proposed location for the proposed Fire Apparatus Building and the approximately 17.82 acres of the current Project Level *Study Areas 1* and *2*. Six trees of exceptional size and health are recommended for retention, if feasible. ***Mitigation Measure BR-8*** calls for preconstruction planning and design to minimize construction disturbance within oak woodlands, protection of oaks planned for retention, and replanting to offset the unavoidable loss of oak woodland habitat. Implementation of ***Mitigation Measure BR-8*** would reduce habitat impacts in both the oak woodland and urban landscape to a ***less than significant level*** in accordance with Shasta College's tree preservation/replacement policies.

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

No Habitat Conservation Plan, Natural Community, Conservation Plan, or other approved habitat conservation plan has been adopted for the Project site or local area (CDFW, 2023, 2024). There is ***no impact***.

MITIGATION MEASURES

The following mitigation measures have been developed to reduce potential impacts related to *Biological Resources* to ***less than significant levels***:

Mitigation Measure BR-1

- To avoid impacts to active bat maternity colonies, tree removal for trees of 12" diameter at breast height (DBH) or larger shall occur only during the following time frames and subject to the following weather conditions, or as otherwise approved/recommended by a qualified bat biologist:
    - Between March 1 (or after evening temperatures rise above 45°F, and/or no more than ½" of rainfall within 24 hours occurs), and April 15; and
    - Between September 1 and October 15 (or before evening temperatures fall below 45°F, and/or more than ½" of rainfall within 24 hours occurs).
- Unless deemed unnecessary by the qualified bat biologist, trees greater than 12" DBH shall be removed using a two-step process to allow bats the opportunity to abandon the roost prior to removal. The two-step removal process shall be as follows:
    - Day 1: Remove small-diameter trees, brush, and non-habitat features of large trees (branches without cavities, crevices, or exfoliating bark), using chainsaws for cutting, and chippers wherever possible to cause a level of noise and vibration disturbance sufficient to cause bats to choose not to return to the tree for a few days after they emerge to forage.
    - Day 2: Remove the remainder of the trimmed tree.

Mitigation Measure BR-2

In order to avoid impacts to nesting migratory birds and/or raptors protected under the federal Migratory Bird Treaty Act of 1918 and California Fish and Game Code §3503, including their nests and eggs, the following measures shall be implemented:

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

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. 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.

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 conditions that may have affected the survey results (e.g., weather conditions, excess noise, the presence of predators, etc.).

The results of the survey shall be submitted electronically to the California Department of Fish and Wildlife at R1CEQARedding@wildlife.ca.gov *upon completion.*

If active nests are found, Shasta College shall consult with the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service 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, work-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 on-going monitoring by biologists.

Mitigation Measure BR-3

In conjunction with preparation of improvement plans for the project, the project engineer shall identify all improvements that would occur outside of the area that was surveyed for biological resources (refer to ***Figure BR-1 in the Draft Initial Study****). All ground-disturbing projects proposed outside of the surveyed areas shall be subject to the following measures:*

Prior to implementation of new projects within the Shasta College Facilities Master Plan footprint, an evaluation shall be undertaken by a qualified biologist to determine if potentially significant biological resources may be adversely affected by the proposed work. The biological evaluation shall include review of current special-status species listings, a field evaluation to determine if potentially suitable habitat for the special-status species is present in or adjacent to the project site, focused species-specific surveys if warranted based on the results of the records review and habitat evaluation, and written documentation of the results of the biological review.

If special-status species would be affected by implementation of the proposed project, actions shall be taken to ensure that the impacts are less than significant. Such actions may include modifying the project to avoid/minimize adverse effects, changing the timing of work to avoid impacts, or excluding the species from the work area. If the special-status species cannot be fully avoided, mitigation shall be implemented at a minimum 1:1 ratio. This may consist of the purchase of credits to offset the loss of the species, or creation, restoration, or preservation of suitable habitat elsewhere on the campus or at an off-site

location. Design and implementation of the avoidance, minimization, and mitigation measures shall be completed in consultation with the appropriate regulatory agencies.

Mitigation Measure BR-4

The potential for introduction and the spread of noxious weeds shall 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.*
- *Requiring the construction contractor to thoroughly wash all equipment at a commercial wash facility prior to entering the project site and immediately upon termination of its use at the project site.*

Mitigation Measure BR-5

In conjunction with preparation of improvement plans for the project, the project engineer shall identify all improvements that would occur outside of the area that was surveyed for biological resources (refer to ***Figure BR-1 in the Draft Initial Study****).*

In areas not previously surveyed, an evaluation shall be undertaken by a qualified wetland specialist or biologist to identify wetlands and other waters of the U.S. and/or State in the project footprint. If the biologist determines that no such resources are present, no further action is required.

If wetlands and other waters of the U.S. and/or State are present, the biologist shall consult with the U.S. Army Corps of Engineers, Central Valley Regional Water Quality Control Board, California Department of Fish and Wildlife, and other applicable agencies to determine required resource agency permits and permit conditions.

Shasta College shall obtain all necessary resource agency permits and comply with the permit conditions. The unavoidable loss of waters shall be mitigated at a minimum 1:1 ratio, or as otherwise required in the resource agency permits. Mitigation requirements shall be satisfied prior to commencement of earth-disturbing activities or as otherwise specified in the permits.

Mitigation Measure BR-6

To avoid and minimize indirect impacts to waters, Best Management Practices (BMPs) for soil stabilization, sediment control, and spill prevention shall be implemented to ensure that sediment/pollutant transport into waters of the U.S. and/or State is minimized. Other water quality control measures that may be required by resource agencies with permit authority over the project shall also be implemented.

Mitigation Measure BR-7

High-visibility indicators such as marking whiskers, pin flags, stakes with flagging tape, or other markers shall be installed along the outer edges of the construction zone adjacent to wetlands and other waters designated for avoidance. The marker/flag locations shall be determined by a qualified biologist in consultation with the project engineer and Shasta College. No construction activities (e.g., clearing, grading, trenching, etc.), including vehicle parking and materials stockpiling, shall occur within the marked/flagged area. The exclusionary markers/flags shall be periodically inspected during construction activities to ensure that the markers/flags are properly maintained. The markers/flags shall be removed upon completion of work.

Mitigation Measure BR-8

To minimize impacts to native trees and oak woodlands and offset the unavoidable loss of native trees and oak woodland habitat, the following measures shall be implemented. The loss of native trees greater than 5 inches DBH and oak woodlands shall be avoided/minimized and offset through implementation of the following:

- *Minimize loss of native trees and oak woodlands through careful pre-construction planning and design. Particular attention should be given to retaining the trees identified by the certified arborist as being of exceptional quality (see **Figure BR-7** in the Draft Initial Study).*

- *Erect temporary construction fencing or flagging along the outer edges of the construction zone where needed to prevent accidental entry into oak woodland habitat and under individual oaks planned for retention. Fencing/flagging shall be provided at least six feet outside of the dripline of all trees to be preserved (including individual native trees within the urban landscape). The fencing/flagging shall remain in place throughout construction. To the extent feasible, no construction activities (including grading, cutting or trenching), materials stockpiling, or equipment parking or storage, or vehicle parking shall occur within the fenced/flagged tree protection zone. If work must occur within the fenced/flagged tree protection zone, it shall be completed under the supervision of a certified arborist or the College horticulturist. Furthermore, site-specific measures recommended by the arborist or horticulturist to ensure tree protection shall be implemented.*

- *Shasta College shall offset the unavoidable loss of oak woodland habitat and the unavoidable loss of native trees within the urban landscape through replacement tree planting.*

  Prior to the removal of any healthy oak tree with a diameter at breast height (DBH) of 5 inches or greater, or 6 inches or greater DBH for other non-native tree species, the number of trees, species, and health shall be identified by a certified arborist

(or by the College Horticulturist). A vegetation planting and management plan shall be prepared that identifies the planting area size and location, mitigation site protections (e.g., conservation easement or deed restrictions), planting objectives in terms of acreage or number of plants by species, planting and maintenance methods, success criteria, duration of monitoring, corrective actions to be taken if success criteria are not met, and reporting requirements.

Trees removed shall be replaced either in close proximity to the construction activity or at a Tree Mitigation Site identified in the Shasta College Landscape Master Plan or other planning document. The mitigation ratio for all oak species removed shall be a 3:1 ratio, whereas mitigation for all other trees removed shall be at a 1:1 ratio. The College has the option to replace removed oak woodland areas at a 1:1 ratio, whereby (as an example) the removal of 10,000 square feet of oak woodland is replaced with 10,000 square feet of oak woodland. The minimum size of any replacement tree shall be 15 gallons.

FINDINGS

Based on the review and evaluation of the information presented, potential impacts on *Biological Resources* were found to be potentially significant; however, with the ***implementation of Mitigation Measures***, the proposed Project will have a ***less than significant impact*** on *Biological Resources*.

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SECTION V – CULTURAL RESOURCES

The purpose of the section of the Initial Study is to identify any potential cultural resources within or adjacent to the proposed project, and to assist the Lead Agency, in this case the Shasta County, in determining whether such resources meet the office definitions of "historical resources," as provided in the California Public Resources Code (PRC), in particular under the California Environmental Quality Act (CEQA).

CEQA requires a lead agency to determine whether a project may have a significant effect on historical resources (Section 21084.1). If it can be demonstrated that a project will cause damage to resources eligible for or listed in the California Register of Historic Resources (CRHR), Tribal Cultural Resources (TCRs) and other resources on county or local lists, or those determined by the lead agency to be significant, the lead agency may require reasonable efforts be made to permit any or all of the resources to be preserved in place or left in an undisturbed state. To the extent that they cannot be left undisturbed, mitigation measures are required (Section 21083.2[a], [b], and [c]).

The analysis in this section has been prepared in accordance with Section 15064.5 of the State CEQA Guidelines, which considers the potential impacts on prehistoric, historic, and paleontological resources. This section describes the potential cultural resources within the project *Study Areas 1 and 2*, and, to a limited degree, for *Study Area 3*, being evaluated at a Programmatic Level. The applicable regulations governing the cultural resources are identified. The following evaluations were prepared by ENPLAN and Catalyst Environmental Solutions who acquired ENPLAN.

As further discussed below, the Cultural Resources discussion is principally based on information provided in the following reports:[18]

- *Cultural Resources Inventory Report, Shasta College Master Plan Amendment Two, Shasta County, California*, prepared by Catalyst Environmental Solutions (Catalyst, 2025).
- *Cultural Resources Inventory Report Shasta College Master Plan Amendment Two Fire Apparatus Building, Shasta County,* California. (ENPLAN, November 2024).
- *Cultural Resources Screening Report, Shasta College Master Plan Amendment One, Shasta County, California*, (ENPLAN, 2019a).
- *Cultural Resources Inventory Report, Shasta College Regional Public Safety Training (RPST) Facility Project, Shasta County, California* (ENPLAN, 2019b).
- *Archaeological Letter Report for the Shasta College Museum Site Improvements* (ENPLAN, 2018).

[18] Copies of the reports are available for review at the Northeast Information Center of the California Historical Resources Information System in Chico.

It should be recognized that the reports identify the locations of cultural resource sites, and disclosure of this information to the public may be in violation of both federal and State laws. Applicable United States laws include, but may not be limited to, Section 304 of the National Historic Preservation Act (16 U.S.C. 470w-3), the Archaeological Resources Protection Act [16 U.S.C. Section 9(a) and Section 470(hh)], and Executive Order 13007. In California, such laws include, but may not be limited to, Government Code Section 6254.10. Site location information is be kept confidential and is not for public disclosure.

Additionally, records maintained or in the possession of the Native American Heritage Commission or state and local agencies that are exempt from public disclosure include those that contain information on Native American graves, cemeteries, and sacred places, and include records obtained during consultation with Native Americans (California Government Code §6254(r) and §6254.10).

Implementation of the Project has the potential to adversely affect cultural resources that may be located within *Study Areas 1* and *2* (also referred to as the Area of Potential Effects [APE]). A good-faith effort was therefore made to identify any cultural resources within and immediately adjacent to the APE.

In 2018, ENPLAN archaeologist Jacques Kerkhove-Peltier conducted a cultural resources evaluation for proposed improvements to the College museum building and surrounding property. This work included research at the Northeast Information Center of the California Historical Resources Information System at Chico State University (NEIC/CHRIS) and a field survey (ENPLAN, 2018).

The 2018 study was followed by a Cultural Resources Inventory Report (CRI) that was completed in conjunction with the Shasta College Master Plan Amendment One project (ENPLAN, 2019a). The study included research at the NEIC/CHRIS, a search of the Sacred Lands File (SLF) by the Native American Heritage Commission (NAHC), consultation with local Native American tribes, and a field survey. This study recommended that focused archaeological surveys be conducted for each ground-disturbing construction project undertaken by the College, with potential cumulative impacts considered.

The first project completed following the adoption of the Shasta College Master Plan Amendment One Project was the construction of the Shasta College Regional Public Safety Training Facility (RPSTF). A CRI for the RPSTF project was completed by ENPLAN archaeologist Jacques Kerkhove-Peltier in January 2019 (ENPLAN, 2019b). The CRI included records searches, field surveys, and Native American consultation.

No updated records search was performed by the NEIC/CHRIS for the *FMPA2*. The Shasta College Campus property has been assessed by the NEIC/CHRIS six times since 2018, most recently in August 2024 for a project east of the APE, with redundant results. In addition, no additional consultation was initiated with the NAHC and local Native American tribes, as consultation has been conducted as part of the above-noted projects, three of which included the College campus and one which involved a parcel east of the APE. The Mitigated Negative Declaration for the

Shasta College Master Plan Amendment One Project included a mitigation measure directing the College to notify appropriate Native American tribes prior to initial groundbreaking activities in natural, undisturbed areas, to allow the tribes to provide a Native American monitor (Diaz, 2019).

The records, literature searches, and consultation efforts of the previous studies revealed that 22 cultural resource studies have been conducted within a 1/2-mile radius of the College's property, and two additional studies were completed by ENPLAN following the previous record searches. Five of these surveys covered the APE.

The records search also indicated that eight cultural resources are located within a 1/2-mile radius of the College's property, one of which encompasses the entirety of the APE. This resource is Smith Ranch, a historic-period ranch recorded in 2010 by Eric Ritter and Elaine Sundahl. The site record for the Smith Ranch facilities notes that all physical remains of the ranch have been obliterated by construction of Shasta College facilities, but the site might contain buried cultural (prehistoric and historic) deposits which could yield important information and, therefore, be potentially eligible for listing on the National Register of Historic Properties (NRHP) and California Register of Historic Resources (CRHR) (Catalyst, 2025).

ENVIRONMENTAL SETTING

The Shasta College Campus lies within the ethnographic territory of the dawpom, or dau-pom ('front-ground' or Stillwater) Wintu. The dawpom are one of nine geographically distinct Wintu groups.

The Wintu subsistence/settlement strategy was similar to many other California groups and was based on seasonal transhumance and the exploitation of vegetal resources, fish, and game. The Wintu lived in permanent villages during the winter, subsisting mainly on stored foods. In the spring and summer months, they occupied resource procurement camps (in brush shelters) usually located no more than three to four days' walk from the main village. Extensive trade was practiced within and between various Wintu villages and tribes, and regional trade was practiced with the Shasta, Pomo, and Chimariko.

It is estimated that the Wintu arrived in the Sacramento Valley approximately 1,000 to 1,200 years ago, resulting in the displacement of Hokan speaking peoples from the area (Moratto 1984). Pre-contact population estimates for the Wintu are 14,250. In 1910, there were an estimated 395 Wintu remaining. It is estimated that approximately 75 percent of the Wintu populations living along the Sacramento River were lost to malaria and influenza epidemics brought about by the arrival of European-American trappers and settlers in the middle 1800s (LaPena 1978). By the 1870s and 1880s, some of the dawpom Wintu began returning to their traditional sites (Scholze and Brunmeier 2006).

The first known recorded historic use of the region by European-Americans occurred during the late 1820s and early 1830s, when the trapping expeditions of Jedediah Strong Smith, Peter Skene Ogden, and the Hudson Bay Company entered the Sacramento Valley (Petersen 1965; LaPena 1978). European-American settlement and population in the northern Sacramento Valley

expanded as a result of the acquisition of the Rancho Buenaventura land grant by Pierson B. Reading in 1844 followed by gold mining, which began in 1849; the Homestead Act of 1862; the arrival of the Central Pacific Railroad in 1872; the copper mining boom of the 1880s; and the Central Valley Project of 1935.

The Stillwater area provided prime agricultural lands suitable for farming and cattle grazing. In addition, archival and topological evidence suggests that small-scale mining occurred in the upper Stillwater area in the 1850s.

The Shasta College Campus, built in the late 1960s, occupies the site of the 300-acre Smith Ranch, an early 20th-century farm and cattle ranch. The ranch contained two residences, three barns, two smokehouses, a slaughterhouse, a woodshed, and other structures. None of these structures are currently standing.

Review of the NRHP, the CRHR, the California Inventory of Historic Resources, and the California Historical Landmarks identified no historic properties within a 1/2-mile radius of the project area.

Historic maps consulted include the 1858 and 1870 United States General Land Office (GLO) plat maps, the 1890 and 1894 U.S. Geological Survey's (USGS) Red Bluff 1:250,000 quadrangle maps, the 1901 USGS Redding 1:125,000 quadrangle map, the 1944 USGS Redding 1:62,500 quadrangle map, and the 1968 USGS Enterprise 1:24,000 quadrangle map.

The 1858 and 1870 GLO plat maps noted an old road that generally follows the route of what is now Old Oregon Trail. The 1901 USGS Redding 1:125,000 quadrangle map shows this same road that is now Old Oregon Trail as well as several additional roads near the project area. The 1944 USGS Redding 1:62,500 quadrangle map shows the first appearance of State Route 299 as it currently exists. The 1968 USGS Enterprise 1:24,000 quadrangle shows the first appearance of the Shasta College campus. No other USGS maps showed anything of note.

REGULATORY SETTING

This section summarizes the current federal, State, and local regulations relevant to the review of *Cultural Resources* for this Project. Ordinances, regulations, or standards that apply to the environmental review of cultural resource impacts include the following:

National Register of Historic Places

To be eligible for listing on the National Register, a resource must be significant in American history, architecture, archaeology, engineering, or culture, and generally must be greater than 50 years in age. Districts, sites, buildings, structures, and objects of potential significance must meet one or more of the following four established criteria identified in *36 CFR Section 60.4*:

- *Criterion A.* Properties that are associated with events that have made a significant contribution to the broad patterns of our history.
- *Criterion B.* Properties that are associated with the lives of persons significant to our past.

- *Criterion C.* Properties that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master; or that possess high artistic values; or that represent a significant and distinguishable entity whose components may lack individual distinction.

- *Criterion D.* Properties that have yielded, or may be likely to yield, information important in prehistory or history.

In addition to these criteria, a resource must retain integrity to be considered eligible for listing on the *NRHP*. Integrity is the authenticity of the physical identity that is evidenced by the survival of characteristics that existed during the resource's period of significance. Resources must retain enough of their character or appearance to be recognizable as resources and to convey the reasons for their significance. Integrity is the ability of a property to convey its significance. To be listed in the *NRHP*, a property must not only be shown to be significant under the *National Register* criteria, but it must also possess integrity. The *National Register Bulletin 15* describes seven aspects of integrity used in order to determine a historic property's integrity: location, design, setting, materials, workmanship, feeling, and association.

Section 101(d)(6)(A) of the *National Historic Preservation Act* (NHPA) allows properties of traditional religious and cultural importance to a Native American tribe to be determined eligible for NRHP inclusion. In addition, a broader range of *Traditional Cultural Properties* (*TCPs*) is also considered and may be determined eligible for or listed in the *NRHP*. A *TCP* is a property associated with the cultural practices or beliefs of a living community; *TCPs* are rooted in that community's history and are important for maintaining the community's ongoing cultural identity. In the *NRHP* programs, "culture" is understood to mean the traditions, beliefs, practices, lifeways, arts and crafts, and social institutions of any community, be it an Indian tribe, a local ethnic group, or the nation as a whole.

California Register of Historical Places

As provided in *California Public Resources Code* (*PRC*) *Section 5020.4*, the *Register of Historic Places* (*CRHR*) is used as a guide by state and local agencies, private groups, and citizens to identify the state's historical resources and properties to be protected, to the extent prudent and feasible, from substantial adverse change. The *CRHR* includes all California properties already listed in the *NRHP* and may also include various other types of historical resources that meet the criteria for eligibility, including individual historic resources, resources that contribute to a historic district, resources identified as significant in historic resource surveys, resources with significance ratings in the *State Inventory* (Categories 3 and 4 refer to potential eligibility for the *NRHP*; Category 5 indicates a property with local significance).

The *CRHR* follows the lead of the *NRHP* in utilizing the 50-year threshold: a resource is usually considered for its historical significance only after it reaches the age of 50 years. *CEQA Guidelines Section 15064.5(a)(3)* states that "[g]enerally, a resource shall be considered by the lead agency to be 'historically significant' if the resource meets the criteria for listing on the *California Register of Historical Resources*" (*PRC Section 5024.1; 14 CCR 4852*).

PRC Section 5024.1 requires an evaluation of historical resources to determine their eligibility for listing in the CRHR. The purpose of the register is to maintain listings of the State's historical resources and to indicate which properties are to be protected from substantial adverse change.

A historical resource is a resource listed in or determined to be eligible for listing, in the *CRHR* (*Section 21084.1*), a resource included in a local register of historical resources (*Section 15064.5[a][2]*), or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (*Section 15064.5[a][3]*).

2019 Shasta College Facilities Master Plan Amendment One Project Initial Study & Mitigated Negative Declaration

On March 13, 2019, the Board of Trustees (the "Board") of the Shasta-Tehama-Trinity Joint Community College District (the "District") adopted *Resolution No. 2018-19-22* reaffirming approval of the Shasta-Tehama-Trinity Joint Community College District's May 2018 *Shasta College Facilities Master Plan – Amendment One (FMPA1)* for the Shasta College Main Campus. As noted in **CHAPTER 2.0, PROJECT DESCRIPTION**, the Mitigated Negative Declaration evaluated the potential environmental impacts of the proposed *Shasta College Facilities Master Plan Amendment 1 Projects*.

Based on the appropriate findings, the District determined that impacts to *Cultural Resources*, after implementation of ***Mitigation Measures,*** would be ***less than significant***.

IMPACT ANALYSIS

The current APE was previously surveyed in 2019 by ENPLAN as part of the Shasta College Master Plan Amendment One Project (ENPLAN, 2019a).

Pedestrian archaeological surveys were conducted by Wayne Wiant and Evan Wiant, archaeologists with ENPLAN (now Catalyst Environmental Solutions [Catalyst]), on August 25, 27, and 29, 2024; the 2024 surveys covered the originally proposed location for the proposed Fire Apparatus Building, which encompassed approximately 3.4 acres southeast of the current APE. As part of the evaluation, the following investigative steps were taken:

1. An evaluation of the site's vegetation patterns (synchronic and diachronic) was undertaken to identify what, if any, changes had occurred in the vegetation prior to and during the College's development.

2. The original plans for the College were reviewed, specifically the original site grading plans, and compared to the current site geography and topography to discern how much of the project area had been modified since its historic use.

3. The APE was surveyed by foot with a metal detector at approximately five-meter transects. Any areas of interest were flagged for subsurface inspection.

4. Subsurface investigations were undertaken via a backhoe in the flagged areas. Eleven excavation units, measuring approximately five feet by one foot at a depth of 24 to 36

inches, were dug. Back dirt was closely examined for cultural artifacts. The units were placed in an intuitive manner based on examining all areas of the project evenly as well as considering metal detector returns. Excavation units were backfilled after examination.

Items found during the 2024 investigation included concrete with rebar, fragments of aluminum soda cans, a piece of lead, a bottle cap, a fragment of amorphous metal, and part of a sanitary can. There were no areas of concentration, and nothing could be identified as definitively historic. No buried deposits or soil structure anomalies were found by backhoe excavations.

The September 26, 2025, survey was a focused pedestrian survey of the Current APE to identify cultural resources, including visual inspections of the surface at regular intervals and close examination of exposed soil. Boot scrapes were made at regular intervals, and areas of exposed soil, such as rodent burrows, were thoroughly inspected for evidence of any possible buried cultural deposits and/or soil differentiation. As a result of the cultural resources survey conducted by Catalyst, several structures were noted within the current APE: the solar array structures and a retention pond. However, these were built after 1985 and are not considered historic. Therefore, no prehistoric or historic-era resources were identified within the APE, consistent with the 2019 studies.

Based on the geomorphological and topographic characteristics of the APE, the results of the records and literature search, Native American consultation, and the age of soils mapped in the area, the APE has a low to moderate potential for intact buried historical and prehistoric cultural resources.

The following provides an analysis of environmental parameters related to *Cultural Resources*, based on *Appendix G* of the *State CEQA Guidelines*. The discussion not only identifies areas with potential environmental impacts but also provides justification for concluding that either no impacts, less than significant impacts, or less than significant impacts with mitigation could occur.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES *Would the project:*				
a. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?		X		
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?		X		
c. Disturb any human remains, including those interred outside of formal cemeteries?		X		

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 formal cemeteries?

As documented above, no cultural resources were identified during the field surveys for the current APE. The Smith Ranch, a historic-period ranch, encompasses the entire APE. Although all physical remains of the ranch have been obliterated by development on the College campus, the APE may contain buried cultural (prehistoric and historic) deposits that could yield important information and, therefore, be potentially eligible for listing on the National Register of Historic Properties (NRHP) and California Register of Historic Resources (CRHR) (Catalyst, 2025). There is also a possibility that human remains could be identified during earth-disturbing activities. ***Mitigation Measure CR-1*** addresses the inadvertent discovery of cultural resources and human remains. ***Mitigation Measure CR-1*** also requires that the College notify applicable Native American tribes prior to all initial groundbreaking activities to allow them the opportunity to provide a Native American monitor.

As discussed in **CHAPTER 1.0 – INTRODUCTION AND PURPOSE**, portions of the Project are being evaluated at a Programmatic Level and were not included as part of the cultural resources surveys completed in support of this IS/MND (Catalyst, 2025). Therefore, ***Mitigation Measure CR-1*** requires that, in conjunction with the preparation of Project-level plans, the Project engineer shall identify all improvements that would occur outside of the surveyed area. Refer to **Figure CR-1, Archaeological Survey Coverage**.

All areas within the *Study Area Projects* footprint that were not previously surveyed by a qualified archaeologist shall be surveyed to identify potentially significant archaeological and historical resources.

Mitigation Measure CR-1 would reduce to a ***less than significant*** level potential impacts on archaeological and historical resources and human remains.

MITIGATION MEASURES

The following ***Mitigation Measures*** were developed to reduce potential impacts related to *Cultural Resources* to ***less than significant*** levels:

Mitigation Measure CR-1

*To reduce potential impacts on cultural resources to a **less than significant** level, the following measures shall be implemented.*

1. *In conjunction with the preparation of improvement plans for the Project, the project engineer shall identify all improvements that would occur outside of the area that was surveyed for archaeological and historical resources (refer to **Figure CR-1**).*

Areas that were not previously surveyed by a qualified archaeologist shall be surveyed to identify potentially significant archaeological and historical resources following project-level design approval. If the archaeologist determines that no such resources are present, no further action is required. If such resources are present, additional evaluation shall be completed by a qualified archaeologist in accordance with the significance criteria set forth in the National Historic Preservation Act and the California Register for Historical Resources. Appropriate mitigation measures recommended by the archaeologist shall be implemented. Potential measures may include avoidance of the resource, site capping (burial), recordation of conservation easements, and/or data recovery.

2. *A qualified archaeologist shall monitor all initial groundbreaking activities associated with project implementation in natural, undisturbed areas due to the possibility that previously unidentified historical or archaeological features or artifacts may be present.*

3. *Shasta College shall notify the appropriate Native American tribal representative(s) prior to all initial groundbreaking activities associated with project implementation in natural undisturbed areas. The Tribe(s) shall be provided the opportunity to provide a Native American monitor due to the possibility that previously unidentified archaeological features or artifacts may be present.*

4. *If any previously unevaluated cultural resources (i.e., burnt animal bone, midden soils, projectile points or other humanly modified lithics, historical artifacts, etc.) are encountered, all earth-disturbing work shall stop within 50 feet of the find until a qualified archaeologist can make an assessment of the discovery and recommend/implement mitigation measures as necessary. Depending on the type and significance of the find, subsequent monitoring by an archaeologist or Native American may be warranted. This stipulation does not apply to those cultural resources that have been evaluated by a qualified archaeologist and determined not to qualify as Historical Resources/Historic Properties.*

5. *If any human remains are encountered during any phase of construction, all earth-disturbing work shall stop within 50 feet of the find. The county coroner shall be contacted to determine whether investigation of the cause of death is required as well as to determine whether the remains may be Native American in origin. Should Native American remains be discovered, the county coroner must contact the Native American Heritage Commission (NAHC). The NAHC will then determine those persons it believes to be most likely descended from the deceased Native American(s). Together with representatives of the people of most likely descent, a qualified archaeologist shall make an assessment of the discovery and recommend/implement mitigation measures as necessary.*

FINDINGS

The probability of encountering historical or archaeological resources during construction in natural, undisturbed areas is low to moderate. However, adherence to State and federal laws and the implementation of ***Mitigation Measure CR-1*** would reduce potential impacts on *Cultural Resources* to a ***less than significant level***.

SECTION VI – ENERGY

The purpose of the section of the Initial Study is to analyze the potential direct and indirect environmental impacts associated with the project's projected energy consumption. Such impacts can include the depletion of nonrenewable resources (e.g., oil, natural gas, coal, etc.). Analyses of emissions of air quality and Greenhouse Gas (GHG) pollutants during both the construction and long-term operational phases of the project are analyzed in **SECTION III – AIR QUALITY**, and **SECTION VIII – GREENHOUSE GAS EMISSIONS**.

ENVIRONMENTAL SETTING

The majority of Campus light fixtures were replaced with Light Emitting Diode (LED) lighting. LED lighting offers up to 90 percent energy savings compared to traditional incandescent lighting.[19] Motion sensors were also installed throughout the Campus to detect movement and increase brightness when needed. There are also time clocks and dusk-to-dawn sensors to prevent lights from being on during the day.

Current CALFIRE diesel fuel usage is 3,600 gallons per year. The annual gasoline usage is 3,000 gallons. Current overall *FMPA1* annual electrical usage is 6,620 MWh.

Required energy resources for the proposed *Study Area Projects* include electricity, petroleum fuels, natural gas, and wood, which are currently consumed under the existing conditions. The College obtains its electrical power through a Power Purchase Agreement (PPA) with Constellation, a national energy supplier. Pacific Gas & Electric (PG&E) provides solar generation, distribution, transmission, and natural gas. The proposed *Study Area Projects* would not increase CAL FIRE's fuel usage; however, in the worst-case scenario, electrical usage would increase.

REGULATORY SETTING

This section summarizes current federal, State, and local regulations relevant to the review of *Energy* consumption for this project. Ordinances, regulations, or standards that are applicable to the environmental review of potential impacts related to energy consumption include the following:

Energy Policy and Conservation Act of 1975

The *Act* established nationwide fuel economy standards to conserve oil. Under this *Act*, the National Highway Traffic and Safety Administration is responsible for revising existing fuel economy standards and establishing new vehicle economy standards. The *Corporate Average Fuel Economy* (*CAFE*) *Program* was established to determine vehicle manufacturers' compliance with the government's fuel economy standards. Three *Energy Policy Acts* were passed in 1992, 2005, and 2007 to reduce dependence on foreign petroleum, provide tax incentives for alternative fuels, and support energy conservation.

[19] Relumination Energy-Efficient Lighting Solutions. *Want is LED Lighting: Definition, Working Principle, and Components.* https://www.relumination.com/led-lighting/. Website accessed February 18, 2026.

Energy Policy Act of 1992 (EPAct)

The *EPAct* was passed to reduce the country's dependence on foreign petroleum and improve air quality. *EPAct* includes several parts intended to build an inventory of alternative fuel vehicles (AFVs) in large, centrally fueled fleets in metropolitan areas. *EPAct* requires certain federal, state, and local government and private fleets to purchase a percentage of light-duty AFVs capable of running on alternative fuels each year. In addition, financial incentives are also included in *EPAct*. Federal tax deductions are allowed for businesses and individuals to cover the incremental cost of AFVs. States are also required by the act to consider a variety of incentive programs to help promote AFVs. The *Energy Policy Act of 2005* provides renewed and expanded tax credits for electricity generated by qualified energy sources, such as landfill gas; provides bond financing, tax incentives, grants, and loan guarantees for clean renewable energy and rural community electrification; and establishes a federal purchase requirement for renewable energy.

2025 California Energy Efficiency Action Plan

The California Energy Commission (CEC) published the Existing Buildings Energy Efficiency Action Plan in 2015 to fulfill the requirements of Assembly Bill 758 (Skinner, Chapter 470, Statutes of 2009). The action plan was updated in 2016 and 2019. For 2021, the action plan was incorporated into the Integrated Energy Policy Report as a separate volume. The 2025 California Building Energy Action Plan (2025 Energy Action Plan) updates statewide strategies for existing building decarbonization. The 2025 Energy Action Plan presents a statewide, multiagency perspective on ways to achieve greater decarbonization of existing buildings through improved energy efficiency, electrification, and supporting strategies. The analysis that supports the recommendations is broken into 21 topics.

The 2025 Energy Action Plan fulfills the mandates in California Public Resources Code Sections 25310(c), 25403(c), and 25943(f) and incorporates the status report on CEC's Equitable Building Decarbonization program, required by Senate Bill 306 (Caballero, Chapter 387, Statutes of 2023), as an appendix.

California Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24)

Building energy efficiency standards for new residential and nonresidential buildings were adopted by the California Energy Resources Conservation and Development Commission (now the California Energy Commission) in June 1977 and are updated every three years (CCR Title 24, Part 6). CCR Title 24, Part 6 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods.

On September 11, 2024, the CEC adopted the 2025 Energy Code, which the California Building Standards Commission approved for inclusion in the California Building Standards Code. The code took effect on January 1, 2026. The California Energy Code 2025 mandates stringent energy efficiency standards for buildings to reduce greenhouse gas emissions, enhance energy conservation, and promote the use of renewable energy technologies.

California Green Building Standards

The California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), commonly referred to as the CALGreen Code, is a statewide mandatory construction code that was developed and adopted by the California Building Standards Commission and the California Department of Housing and Community Development. The CALGreen standards require new residential and commercial buildings to comply with mandatory measures under the topics of planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and environmental quality. CALGreen also provides voluntary tiers and measures that local governments may adopt which encourage or require additional measures in the five green building topics. The most recent update to the CALGreen Code was adopted in 2025 and went into effect January 1, 2026.

Regulatory and Planning Efforts to Reduce Fossil Fuel Dependency

Various regulatory and planning efforts aim to reduce dependency on fossil fuels, increase the use of alternative fuels, and improve California's vehicle fleet. *Senate Bill (SB) 375* aligns regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. CARB, in consultation with the metropolitan planning organizations, provides each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in their respective regions for 2020 and 2035.

Pursuant to *Assembly Bill (AB) 2076 (Chapter 936, Statutes of 2000)*, the CEC and the CARB prepared and adopted a joint agency report in 2003, *Reducing California's Petroleum Dependence*. Included in the report are recommendations to increase the use of alternative fuels to 20 percent of on-road transportation fuel use by 2020 and 30 percent by 2030, significantly increase the efficiency of motor vehicles, and reduce per capita *VMT* (CEC and CARB 2003).

AB 1007 (*Chapter 371, Statutes of 2005*) required the CEC to prepare the *State Alternative Fuels Plan* to increase the use of alternative fuels in California.

In January 2012, CARB approved the *Advanced Clean Cars Program*, which combines controls on GHG emissions and criteria air pollutants, as well as requirements for greater numbers of zero-emission vehicles, into a single package of standards for vehicle model years 2017 through 2025. The program's zero-emission vehicle regulation requires battery, fuel cell, and/or plug-in hybrid electric vehicles to account for up to 15 percent of California's new vehicle sales by 2025.

On August 2, 2018, the National Highway Traffic Safety Administration (NHTSA) and EPA proposed the *Safer Affordable Fuel-Efficient Vehicles Rule (SAFE Rule)*. Part One of the *SAFE Rule* revokes a waiver granted by EPA to the State of California under *CAA Section 209* to enforce more stringent emission standards for motor vehicles than those required by EPA for the explicit purpose of GHG emission reduction, and indirectly, criteria air pollutant and ozone precursor emission reduction. On March 31, 2020, *Part Two of the SAFE Rule* was published and would amend existing *CAFE* and tailpipe CO2 emissions standards for passenger cars and light trucks and establish new standards covering model years 2021 through 2026.

SB X1-2 of 2011 requires all California utilities to generate 33 percent of their electricity from renewables by 2020. *SB X1-2* also requires the renewable electricity standard to be met

increasingly with renewable energy that is supplied to the California grid from sources within or directly proximate to California. *SB X1-2* mandates that renewables from these sources make up at least 50 percent of the total renewable energy for the 2011-2013 compliance period, at least 65 percent for the 2014-2016 compliance period, and at least 75 percent for 2016 and beyond.

SB 100, signed in September 2018, requires that all California utilities, including independently owned utilities, energy service providers, and community choice aggregators, supply 44 percent of retail sales from renewable resources by December 31, 2024, 50 percent of all electricity sold by December 31, 2026, 52 percent by December 31, 2027, and 60 percent by December 31, 2030. The law also requires that eligible renewable energy resources and zero-carbon resources supply 100 percent of retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all State agencies by December 31, 2045.

The *Energy Independence and Security Act of 2007* is designed to improve vehicle fuel economy and help reduce U.S. dependence on oil. It represents a major step forward in expanding the production of renewable fuels, reducing dependence on oil, and confronting global climate change. The Energy Independence and Security Act of 2007 increases the supply of alternative fuel sources by setting a mandatory *Renewable Fuel Standard* requiring fuel producers to use at least 36 billion gallons of biofuel in 2022, which represents a nearly five-fold increase over current levels; and reduces U.S. demand for oil by setting a national fuel economy standard of 35 miles per gallon by 2020—an increase in fuel economy standards of 40 percent.

The *Energy Independence and Security Act of 2007* builds upon the progress made by the *Energy Policy Act of 2005* in setting out a comprehensive national energy strategy for the 21st century by addressing renewable fuels and the *CAFE* standards.

2025 California Energy Action Plan

The California Public Utilities Commission and California Energy Commission *2025 Energy Action Plan Update* provide a status update on the *2008 Energy Action Plan II,* which is the State's principal energy planning and policy document. The CEC published the Existing Buildings Energy Efficiency Action Plan in 2015 to fulfill the requirements of Assembly Bill 758 (Skinner, Chapter 470, Statutes of 2009). The action plan was updated in 2016, 2019, and 2021. For 2021, the action plan was incorporated into the Integrated Energy Policy Report as a separate volume. The *2025 California Building Energy Action Plan* (*2025 Energy Action Plan*) updates statewide strategies for existing building decarbonization. The *2025 Energy Action Plan* presents a statewide, multiagency perspective on ways to achieve greater decarbonization of existing buildings through improved energy efficiency, electrification, and supporting strategies. The analysis supporting the recommendations is organized into 21 topics.

The 2025 Energy Action Plan fulfills the mandates in California Public Resources Code Sections 25310(c), 25403(c), and 25943(f) and incorporates requirements from Senate Bill 306 (Caballero, Chapter 387, Statutes of 2023).

Renewable Portfolio Standard Program

California's RPS program was established in 2002 by Senate Bill (SB) 1078 with the initial requirement that 20% of electricity retail sales must be served by renewable resources by 2017.

The program was accelerated in 2015 with SB 350, which mandated a 50% RPS by 2030. SB 350 includes interim annual RPS targets with three-year compliance periods and requires 65% of RPS procurement to be derived from long-term contracts of 10 or more years. In 2018, SB 100 was signed into law, which again increases the RPS to 60% by 2030 and requires that all of the state's electricity come from carbon-free resources by 2045. Compliance with the California RPS requires PG&E to develop and implement an IRP that demonstrates it is on schedule to meet the goal of providing 60 percent of its energy from renewable sources by 2030.

The CPUC implements and administers RPS compliance rules for California's retail sellers of electricity, including large and small investor-owned utilities (IOUs), electric service providers (ESPs), and community choice aggregators (CCAs). The CEC is responsible for certifying electrical generation facilities as eligible renewable energy resources and for adopting regulations to enforce RPS procurement requirements for public-owned utilities (POUs).

IMPACT ANALYSIS

The energy consumption impact analysis focuses on the four energy sources relevant to the proposed *Study Area Projects*: solar, electricity, natural gas, and transportation fuel for vehicle and truck trips, as well as the fuel required for project operations. The analysis of electricity/natural gas usage is based on the California Emissions Estimator Model (CalEEMod) Project-specific data, which quantifies energy use for occupancy purposes.

As previously discussed, the solar photovoltaic array field will be removed in *Study Area 2* to accommodate the proposed Training Facilities, EVOC, Apparatus Building, and other ancillary structures and equipment. Concerns were raised about why an existing electric-generating solar facility was being removed rather than moved or replaced at another Campus location. If not moved or replaced, then what would be the potential energy-related environmental impacts?

PG&E currently provides distribution and transmission services for the College's 1.622 MW solar photovoltaic fixed-tilt carport system, constructed in 2019. A 470-kW battery storage system and five dual-port electric vehicle (EV) chargers were included in that particular project.

Multiple factors were considered in the College's evaluation of the location for *Study Area 2*. The *CEQA Initial Study Area 1* was eliminated as an option because it was unacceptable from an environmental perspective, with impacts on biological and wetland resources and noise affecting residences on the west side of Old Oregon Trail.

Implementation of the proposed *Study Area 2 Projects* requires the removal of the existing 1.0 MW ground-mount solar photovoltaic array system built in 2010. The tracker system supporting the solar panels sustained damage during the February 2019 heavy snow event. The College was unable to repair the damage due to a lack of experienced solar service providers in the area. Upon evaluation, it was discovered that only 1/3 of the system was operational.[20]

[20] Ms. Theresa Markwood, AVP of Facilities and Capital Construction (personal communication, March 6, 2026).

The College contracted with a solar energy consultant, ARC Alternatives, to evaluate replacing the ground-mount system with a smaller, more efficient array. An analysis of 2022 data found that for much of the year, net demand fluctuated between drawing energy of 1,000 kW and exporting solar-generated energy back to the grid of -1,500 kW. Modeling of an 852-kW replacement array indicated the new system production would mostly occur when the campus is already exporting energy back to the electrical grid. Based on this analysis, a new system was estimated to export nearly 70% of its generated energy, resulting in the College exporting energy 346 days per year. The conclusion was that replacing the ground mount array with a new system in a different location would result in an overbuilt solar condition. Therefore, the removal and non-replacement of the existing 1.0 MW solar photovoltaic array system would result in ***less than significant*** energy generation impacts.

The proposed *Study Area 1* and *2 Projects* would not increase the current diesel fuel usage of 3,600 gallons per year. The annual gasoline usage of 3,000 gallons per year would also not increase. The overall *FMPA2* annual electrical usage of 6,620 MWh could, under a worst-case scenario, increase by 20 MWh to 6,620 MWh, which is not significant. The proposed *Study Area 1* and *2 Projects* would not result in wasteful, inefficient, or unnecessary energy consumption.

The following includes an analysis of environmental parameters related to *Energy* based on *State CEQA Guidelines Appendix G*. The discussion not only includes the areas for which there is potential for environmental impacts, but also provides justification for the conclusions that either no impacts, less than significant impacts, or less than significant impacts with mitigation could occur.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. ENERGY *Would the project:*				
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			X	
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			X	

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

The proposed *Study Area 1* and *2 Projects* would not increase the current diesel fuel usage of 3,600 gallons per year or the annual gasoline usage of 3,000 gallons per year. The overall *FMPA2* annual electrical usage under a worst-case scenario could increase by 20 MWh to 6,620 MWh, which is not significant.

Although the proposed *Study Area 3 Student Housing Project* is a CEQA Programmatic Level Project, it has been conceptually designed to exceed *Title 24, Part 6 Energy Code* by 15%,

consistent with the Board of Governors Energy and Sustainability policy. The design should incorporate sustainable goals for site, energy efficiency, water use reduction, storm water management, occupant health, as well as minimizing the building's impact on the environment, both by design and construction. Strategies will consider:[21]

- Natural and native planting materials will be incorporated around the building to minimize, if not eliminate, the irrigation demand.
- Concrete walkways will be minimized to reduce stormwater runoff and promote natural filtration into the soil, as well as a reduction in the heat island effect.
- Overhangs have been incorporated to shade glazing.
- Low E dual glazing will be incorporated to reduce heat gain.
- Roofing will incorporate cool roofing to reduce the heat island effect and heat gain.
- Heating and cooling will be provided by a highly energy-efficient HVAC system.
- Independent HVAC controls provided where applicable.
- Natural lighting will be incorporated into most spaces.
- Energy-saving lighting with automatic lighting controls and sensors.
- Interior materials will be low in volatile organic compounds and high in recycled content.
- Water-efficient fixtures, faucets, and devices will be incorporated.
- A strict recycling program will be required during construction.
- Requested participation in the local utility's energy incentive program.
- Photovoltaic panels will be incorporated where appropriate.
- Durable systems and finishes with long life cycles that minimize maintenance and replacement.
- Optimization of indoor environmental quality for occupants with high-efficiency industrial ventilation.
- Utilization of environmentally preferable products and processes, such as recycled content materials and recyclable materials.
- Procedures that monitor, trend, and report operational performance as compared to the optimal design and operating parameters to the campus's central energy management system.
- Space provided in each building to support an active program for recycling and reuse of materials.

Where applicable, the above strategies will be considered, not only for *Study Areas 1, 2,* and *3*, but also throughout *FMPA2*.

[21] Markword, Theresa, AVP of Facilities and Capital Construction. *California Energy Commission Approved Audit*. E-mail September 8, 2023.

The proposed *Study Area 1* and *2 Projects* would not result in wasteful, inefficient, or unnecessary energy consumption, and potential impacts would be ***less than significant***.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

The proposed Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. State and local agencies regulate energy use and consumption through various methods and programs. The proposed *Study Area Projects* are consumers and end users of electricity and fuel. Electricity consumed provided by Constellation will be in accordance with state renewable energy plans, and the equipment and vehicles used by the College and CAL FIRE will conform with state regulations and plans regarding fuel efficiency. The potential impacts would be ***less than significant*** in this regard.

MITIGATION MEASURES

No mitigation measures are required.

FINDINGS

Based on the information above, the implementation of the proposed *Study Area Projects* will have a ***less than significant*** impact on *Energy*.

SECTION VII – GEOLOGY & SOILS

This section of the *Initial Study* describes the geological and seismic setting of the Project area, identifies potential impacts associated with implementing the proposed Project, and, as necessary, recommends mitigation to reduce the significance of impacts. The issues addressed in this section are risks associated with faults, strong seismic ground shaking, seismic-related ground failures such as liquefaction, landslides, and unstable geological units and/or soils.

ENVIRONMENTAL SETTING

The site is located within the Great Valley Geomorphic province, which includes the Great Central Valley of California. The region is underlain by the Red Bluff Formation. The major rock formations in the area include recent alluvial fan deposits from the West Fork of Stillwater Creek.

The predominant soil series mapped for the campus is Perkins loam, 0 to 3 percent (PlA). The soil is well-drained with slow permeability. Runoff is very slow, the hazard of erosion is none to slight, and there is high shrink-swell (collapsible-expansion) potential. Even though this soil is used for irrigated hay and as irrigated and dryland pasture, it can be used for home sites and other related nonfarm uses, as evidenced by the development of Shasta College on this particular soil. Other soil series located in the eastern portions of the campus are Churn loam, 0 to 3 percent slopes (CcA) Class I-1 and Churn loam -, slightly wet, 0 to 3 percent slopes (CdA), Class IIw-2. These soils are well drained with moderately slow permeability. Run-off is slow and the hazard of erosion is none to slight. This soil is used for irrigated hay and as irrigated and dryland pasture. The soils within the major drainage parallel to Old Oregon Trail are Churn gravelly loam, deep, 0 to 3 percent (CfA), Perkins gravelly loam, 8 to 15 percent (PmC) and Perkins gravelly loam, 15 to 30 percent (PmD); however, no *FMPA2 Study Area Projects* are proposed in these areas.

Shasta County is located within an area of low seismic activity relative to other areas of California. According to the Alquist-Priolo Earthquake Maps defining faults in California, few faults are located within Shasta County. The potentially active Battle Creek fault is mapped approximately 17 miles south of the Project site. The closest known active fault, as zoned by the State, is the Hat Creek fault, located approximately 48 miles northeast of the site.

In terms of seismic shaking, the different geologic materials that underlie the region have different shaking characteristics. The areas that are comprised of alluvium from the West Fork of Stillwater Creek have more potential for ground shaking than those comprised of consolidated bedrock. Due to the minimal possibility of a strong intensity earthquake event, and the depth of the groundwater in the area, it is not likely that liquefaction will occur. The potential for landslides is nonexistent.

A tsunami is highly unlikely to occur since the Project area is not located in any proximity to an ocean. Likewise, the risk of seiche is remote as the nearest water body, Shasta Lake, is too far away to affect the site. Mount Lassen, the nearest center of potential volcanic activity, is located approximately 45 miles northeast, minimizing the potential for volcanic hazards to impact the *FMPA2 Projects* site.

REGULATORY SETTING

This section summarizes current federal, State, and local regulations relevant to the review of *Geology and Soils* for this Project. Ordinances, regulations, or standards that are applicable to the environmental review of potential impacts related to geology and soils include the following:

Alquist-Priolo Earthquake Fault Zoning Act

The *Alquist-Priolo Earthquake Fault Zoning Act*, passed in 1972 (originally enacted as the Alquist-Priolo Special Studies Zones Act and renamed in 1994), aims to reduce the risk to life and property from surface fault rupture during earthquakes. The main purpose of the law is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The law only addresses the hazard of surface fault rupture and is not directed toward other earthquake hazards. The *Alquist-Priolo Act* requires the State Geologist to establish regulatory zones known as "*Earthquake Fault Zones*" around the surface traces of active faults and to issue appropriate maps. The maps are distributed to all affected cities, counties, and state agencies for their use in planning efforts. Local agencies must regulate most development projects, including all land divisions and most structures for human occupancy in the zones.

Seismic Hazard Mapping Act

"The *Seismic Hazard Mapping Act* (*SHMA*) *of 1990* (*Public Resources Code, Chapter 7.8, Section 2690-2699.6*) directs the Department of Conservation, California Geological Survey to identify and map areas prone to earthquake hazards of liquefaction, earthquake-induced landslides and amplified ground shaking."[22] The *Act* was adopted by the state in 1990 to protect the public from the effects of non-surface fault rupture earthquake hazards, including strong ground shaking, liquefaction, seismically induced landslides, or other ground failure caused by earthquakes. The goal of the act is to minimize loss of life and property by identifying and mitigating seismic hazards. The California Geological Survey prepares seismic hazard zone maps and provides them to local governments. These maps identify areas susceptible to amplified shaking, liquefaction, earthquake-induced landslides, and other ground failures.. *SHMA* requires responsible agencies to only approve projects within seismic hazard zones following a site-specific investigation to determine if the hazard is present and, if so, to include appropriate mitigation measures. Additionally, the SHMA requires real estate sellers and agents to disclose at the time of sale whether a property is located within one of the designated seismic hazard zones.

2025 California Building Code

The *California Building Code* (*CBC*), codified in *CCR Title 24, Part 2*, was promulgated to safeguard public health, safety, and general welfare by establishing minimum standards related to structural strength, egress facilities, and general building stability. The purpose of the *CBC* is to regulate and control the design, construction, materials quality, use/occupancy, location, and maintenance of all buildings and structures within its jurisdiction. *Title 24* is administered by the California

[22] California Department of Conservation. *California Seismic Hazard Zones*. Available at https://www.conservation.ca.gov/cgs/hazards/seismic-hazards-mapping-act. Accessed September 5, 2024.

Building Standards Commission, which, by law, is responsible for coordinating all building standards. Under State law, all building standards must be centralized in *Title 24*, or they are not enforceable. The 2025 CBC incorporates updated seismic hazard data from the USGS, improving the safety of structures in high-risk areas.

Shasta County General Plan

The Shasta County General Plan Public Safety Element provides the following geologic and seismic hazards policies relative to the proposed *Study Area Projects*.

- *SG-1.* Protection of all development from seismic hazards, etc.
- *SG-2.* Protection of development on unstable slopes by developing standards for the location of development relative to these hazards.
- *SG-3.* Protection of development from other geologic hazards, such as volcanoes, erosion, and expansive soils.
- *SG-4.* Protection of waterways from adverse water quality impacts caused by development on highly erodible soils.
- *FL-1.* Protection of public health and safety, both onsite and downstream, from flooding through floodplain management, which regulates the types of land uses which may locate in the floodplain, prescribes construction designs for floodplain development, and requires mitigation measures for development which would impact the floodplain by increasing runoff quantities.

2019 Shasta College Facilities Master Plan Amendment One Project Initial Study & Mitigated Negative Declaration

On March 13, 2019, the Board of Trustees (the "Board") of the Shasta-Tehama-Trinity Joint Community College District (the "District") adopted *Resolution No. 2018-19-22* reaffirming approval of the Shasta-Tehama-Trinity Joint Community College District's May 2018 *Shasta College Facilities Master Plan – Amendment One (FMPA1)* for the Shasta College Main Campus. As noted in **CHAPTER 2.0, PROJECT DESCRIPTION**, the Mitigated Negative Declaration evaluated the potential environmental impacts of the proposed *Shasta College Facilities Master Plan Amendment 1 Projects*.

Based on the appropriate findings, the District determined that impacts to *Geology & Soils* would be ***less than significant***.

IMPACT ANALYSIS

The Project site is located in an area considered relatively free of seismic hazards in the immediate vicinity. The most significant seismic activity that can be anticipated is ground shaking generated by seismic events from distant faults. The Campus area is also located in an area designated in the City of Redding Health and Safety Element of the General Plan as having low ground-shaking potential. Consequently, the *Study Areas* are also at low risk for geologic

events commonly associated with earthquakes, including liquefaction, subsidence, lurch cracking, and ground shaking. Future structures are required by State law to be constructed in accordance with the California Building Code (CBC) and to comply with all modern earthquake construction standards, including those related to soil characteristics. Impacts are considered ***less than significant***.

Excessive erosion requires time and expense to repair and could result in violations of discharge requirements. Preventing erosion is usually less costly than repairing damage. Erosion control methods prevent soil from moving. Soil particles are set in motion either by raindrop impact or by flowing water. The faster and deeper the water flows, the more erosion will occur. To reduce erosion, soil is compacted to bond soil particles together and/or covered to reduce raindrop impact and slow runoff. Steeper slopes are more susceptible to erosion because the runoff flows faster. Concentrated flow also increases erosion because higher flow can transport more sediment, especially on steeper slopes. Erosion control practices include straw mulching for temporary (one-season) control and seeding, mulching, and hydroseeding for long-term control. For very steep slopes, there are more intensive and costly methods, including straw mats and adhesive-type hydroseeding.

The areas within the Campus where the renovations, new building construction, and future building sites are located are relatively level, and the extent of site grading will include the removal of the existing building foundations, trees and landscaping, tennis and basketball courts, parking lot and roadway pavement, pathways, and the installation of utilities.

Grading and construction activities will disturb soils and potentially expose them to wind and water erosion. However, because more than one acre of ground will be disturbed, the College is required to prepare a stormwater pollution prevention plan (SWPPP) to comply with the Regional Water Quality Control Board's General Construction Storm Water Permit requirements. The SWPPP will identify best management practices (BMPs) to implement to minimize soil erosion and protect the existing drainage systems and the ultimate receiving waterways, which in this case are the West Fork of Stillwater Creek and, eventually, the Sacramento River. Compliance with the State's General Construction Storm Water Permit will minimize soil erosion from grading and construction, thereby reducing this potential impact to a level ***less than significant***.

Most of Shasta County is characterized by moderately expansive soils. These expansive soils generally contain clays that expand when moisture is absorbed into the crystal structure. This results in a rise in the ground surface. Though expansive soils are not considered to pose a significant hazard within Shasta County, the effects of potentially expansive soils on structures can be reduced through proper engineering design and standard corrective measures, thereby reducing the potential impact to a ***less than significant*** level.

The following includes an analysis of environmental parameters related to *Geology & Soils* based on *State CEQA Guidelines Appendix G*. The discussion identifies areas with potential environmental impacts and also provides justification for the conclusion that either no impacts, less than significant impacts, or less than significant impacts with mitigation could occur.

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

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: i. Rupture of a known earthquake fault as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? ii. Strong seismic ground shaking? iii. Seismic-related ground failure, including liquefaction? iv. Landslides?

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

As previously noted, the Project area is not affected by Alquist-Priolo Earthquake Fault Zones as determined by the California Geologic Survey. The Project site is located in a low severity earthquake area, as designated by the California Geologic Survey, and is considered to be at low risk for impacts associated with earthquakes. The *Study Area Projects* will be designed and constructed in accordance with the requirements of the most recent Uniform Building

Code (UBC) and California Building Code (CBC), including the latest supplements for Seismic Zone 3 and all other applicable State and Federal laws, regulations, and guidelines, or other ground shaking standards as determined by the Project structural engineer and geotechnical professional. Incorporating these design standards will prevent catastrophic failure of the *Study Area Project* facilities in the event of an earthquake or other disaster, in accordance with a reasonable standard of professional design care. There is a ***less than significant impact*** with respect to potential seismic-related impacts.

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

As previously noted, excessive erosion requires time and expense to repair and could result in violations of discharge requirements. Preventing erosion is usually less costly than repairing damage. Erosion control methods prevent soil from moving. Erosion control practices include straw mulching for temporary (one-season) control and seeding, mulching, and hydroseeding for long-term control. For very steep slopes, which are not applicable to the *Study Area Projects*, more intensive and costly methods, such as straw mats and adhesive-type hydroseeding, are available.

As previously discussed, a SWPPP will be required, which will identify best management practices (BMPs) to be implemented to minimize soil erosion and protect existing drainage systems and ultimate receiving waterways. Compliance with the State's General Construction Storm Water Permit will minimize soil erosion from grading and construction, which reduces this potential impact to a ***less than significant*** level. Examples of BMPD include, but are not limited to, the following.

- *Ground disturbing work for site development shall be limited to the dry season to the greatest feasible extent, and all erodible surfaces shall be protected by paving, mulching, or landscaping, as provided in the erosion control plan (required) prior to the advent of the rainy season (September to March). Berms shall be provided around construction sites to contain sediment. If construction operations occur during rainy periods, use of erosion control measures, such as straw-bale dikes, gravel filters, stabilized construction entrances, and sediment traps, shall be required. No areas shall be left exposed during winter.*

- *Surface soils may be subject to erosion when excavated and exposed to weathering. Erosion and sediment control measures shall be implemented during and after construction to conform to acceptable erosion control and County grading standards. The erosion control plan shall include revegetation of denuded areas.*

- *Drainage facilities shall be lined as necessary to prevent erosion. A detailed geotechnical investigation shall be prepared to determine specific site characteristics prior to construction of the FMPA1 Projects. A civil engineer shall be involved during the construction phase(s) to ensure that recommendations are implemented or modified as necessary.*

- *To minimize dust/grading impacts during construction, no grading activity shall be conducted when sustained wind speeds exceed 25 miles per hour. Construction activities may occur during sustained wind speeds between 10 and 25 miles per hour, provided dust control measures are increased, and dust and erosion impacts are controlled to the satisfaction of the College's inspection staff.*

Compliance with the State's General Construction Storm Water Permit will minimize soil erosion from grading and construction, thereby reducing this potential impact to a ***less than significant*** level.

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

Construction in conformance with the California Building Standards Code and the Uniform Building Code will ensure that potential impacts related to soil expansivity are reduced to a level ***less than significant***.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

This issue is not applicable to the proposed Projects in *Study Areas 2* and *3*, which will be served by the College's wastewater treatment facilities. However, the Training Facilities in *Study Area 1* will be served by an existing septic tank and leach field system. However, the College plans to eventually extend a sewer collection pipeline to *Study Area 1* and connect it to the wastewater treatment plant. There is ***no impact*** associated with septic systems or alternative wastewater disposal systems.

MITIGATION MEASURES

No mitigation measures are required.

FINDINGS

Based on the review of the above information, the implementation of the proposed *Study Area Projects* will have a ***less than significant impact*** regarding *Geology and Soils* due to specific design, construction, and operational measures to be incorporated into the *Study Area Projects*. Furthermore, regulations and oversight by State and Federal regulators, along with adherence to their requirements, will provide additional safeguards with respect to seismic, structural, and soil-related issues.

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SECTION VIII – GREENHOUSE GAS EMISSIONS

This section of the *Initial Study* evaluates greenhouse gas (GHG) emissions associated with the proposed Project and analyzes Project compliance and consistency with applicable plans, policies, and regulations as well as the introduction of new sources of GHGs is included in this section. The majority of the ensuing discussion and evaluations are from the Catalyst Environmental Solutions narrative addressing **Environmental Issue VIII. GREENHOUSE GAS EMISSIONS** and **Attachment A, CalEEMod – Shasta College Master Plan Amendment Two – Project-Level Improvements Detailed Report**, dated February 16, 2026. [23]

ENVIRONMENTAL SETTING

"Global warming" and "climate change" are common terms used to describe the increase in the average temperature of the Earth's near-surface air and oceans since the mid-20th century. Natural processes and human actions have been identified as impacting the climate. Since the 19th century, increasing GHG concentrations resulting from human activities, such as fossil fuel combustion, deforestation, and other activities, have been recognized as a major factor in climate change. GHGs in the atmosphere naturally trap heat by impeding the exit of solar radiation – a phenomenon sometimes referred to as the "greenhouse effect." Some GHGs occur naturally and are necessary for keeping the Earth's surface habitable. However, increases in the concentrations of these gases in the atmosphere over the last 100 years have trapped solar radiation and reduced the amount reflected back into space, intensifying the natural greenhouse effect and resulting in a global average temperature increase.

Carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O) are the principal GHGs. When the concentration of these gases exceeds historical concentrations in the atmosphere, the greenhouse effect is intensified. CO_2 is the reference gas for climate change, as it is the GHG emitted in the highest volume. The effect of each GHG on global warming is the product of the mass of their emissions and their global warming potential (GWP). GWP indicates how much a gas is predicted to contribute to global warming relative to how much warming would be predicted to be caused by the same mass of CO_2. For example, CH_4 and N_2O are substantially more potent GHGs than CO_2, with GWPs of approximately 25 and approximately 298 times that of CO_2, which has a GWP of 1.[24]

In emissions inventories, GHG emissions are typically reported as metric tons of CO_2 equivalents (MT CO_2e). CO_2e is calculated as the product of the mass emitted of a given GHG and its specific GWP. While CH_4 and N_2O have much higher GWPs than CO_2, CO_2 is emitted in higher quantities and accounts for the majority of GHG emissions in CO_2e, both from developments and human activity in general.

[23] **Attachment A, *CalEEMod – Shasta College Master Plan Amendment Two – Project-Level Improvements Detailed Report***. The report is available to review at the Shasta College Administrative Services Office, Bond Department, Building 5000.

[24] California Air Resources Board. 2022. *GHG Global Warming Potentials*. Available at https://ww2.arb.ca.gov/ghg-gwps.

The primary generators of GHG emissions in the United States are electricity generation and transportation. The EPA estimates that nearly 85 percent of the nation's GG emissions are comprised of carbon dioxide (CO_2). The majority of CO_2 is generated by petroleum consumption for transportation and by coal consumption for electricity generation. The remaining emissions are predominantly the result of natural gas consumption associated with a variety of uses.

California is a substantial contributor to global greenhouse gas (GHG) emissions, emitting over 400 million tons of carbon dioxide (CO_2) each year. GHGs are global in their effect, which is to increase the earth's ability to absorb heat in the atmosphere. Because primary GHGs have long lifetimes in the atmosphere, accumulate over time, and are generally well mixed, their impact on the atmosphere is mostly independent of the point of emission.

Each GHG is assigned a global warming potential (GWP), a measure of its heat-trapping potential over a specified period of time. The GWP metric converts all GHGs into CO2 equivalent (CO2e) units, allowing policymakers to compare the impacts of GHG emissions on an equal basis. **Table GHG-1, Greenhouse Gases**, provides descriptions of the GHGs identified in California Health and Safety Code §38505(g).

TABLE GHG-1
Greenhouse Gases

Greenhouse Gas	Description
Carbon Dioxide (CO_2)	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 uses also emit CO_2.
Methane (CH_4)	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; the decomposition of waste in landfills; and in the treatment of wastewater.
Nitrous Oxide (N_2O)	In 2014, 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. 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 increasing the amount of N_2O in the atmosphere.
Hydrofluorocarbons (HFCs)	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)	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). Perfluorocarbons are produced as a byproduct of various industrial processes associated with aluminum production and the manufacturing of semiconductors.

TABLE GHG-1 Greenhouse Gases	
Greenhouse Gas	**Description**
Sulfur Hexafluoride (SF_6)	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)	NF_3 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.

Source: U.S. Environmental Protection Agency, 2025.

REGULATORY SETTING

This section summarizes current federal, State, and local ordinances, regulations, or standards applicable to the environmental review of potential impacts related to *Greenhouse Gas Emissions* for the proposed Project.

California Renewable Portfolio Standard

In 2002, California established a *Renewable Portfolio Standard* (*RPS*) that requires a retail seller of electricity to include in its resource portfolio a certain amount of electricity from renewable energy sources, such as wind, geothermal, small hydro, and solar energy. The retailer can satisfy this obligation by using renewable energy from its own facilities, purchasing renewable energy from another supplier's facilities, using *Renewable Energy Credits* (*RECs*) that certify renewable energy has been created, or a combination of all of these. California's *RPS* requirements have been accelerated and expanded a number of times since the program's inception. Governor Jerry Brown signed into law *Senate Bill* (*SB*) *100* in September 2018, which requires utilities to procure 60 percent of their electricity from renewables by 2030 and establishes a state policy that state agencies and end-use retail customers receive 100 percent of their energy from renewable and zero-carbon resources by 2045. In addition, *SB 350* requires California utilities to develop *Integrated Resource Plans* (*IRPs*) that include a GHG-emission reduction planning component. Compliance with the California *RPS* requires PG&E to develop and implement an *IRP* that demonstrates it is on schedule to meet the goal of providing 60 percent of its energy from renewable sources by 2030. To ensure retail sellers meet their *RPS* requirements, the California Public Utilities Commission (CPUC) is responsible for establishing enforcement procedures and imposing penalties for non-compliance with the program (CPUC, 2018).

Executive Order S-3-05

In 2005, in recognition of California's vulnerability to the effects of climate change, then-Governor Arnold Schwarzenegger established *Executive Order S-3-05*. This order sets forth target dates by which statewide GHG emissions would be reduced. These include reducing GHG emissions to 2000 levels by 2010, to 1990 levels by 2020, and to 80 percent below 1990 levels by 2050. The first and second goals became law by the legislation known as *AB 32*, or the *Global Warming Solutions Act of 2006*, which gave the California Air Resources Board broad authority to implement a market-based system (also known as cap-and-trade) to achieve these goals.

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

The primary legislation that has driven GHG regulation and analysis in California is the *California Global Warming Solutions Act of 2006* (*AB 32*; *California Health and Safety Code Division 25.5, Sections 38500 - 38599*), which instructs CARB to develop and enforce regulations for the reporting and verifying of statewide GHG emissions – a reduction of approximately 15 percent below emissions expected under a "business as usual" scenario. The act directed CARB to set a greenhouse gas emissions limit based on 1990 levels, to be achieved by 2020. The limit was 431 million metric tonnes of carbon dioxide equivalent (MMTCO2e).[25] The bill set a timeline for adopting a scoping plan that would be updated every five years to achieve GHG reductions in a technologically and economically feasible manner. In December 2022, CARB adopted a *Climate Change Scoping Plan* (discussed below) to guide state policies to meet its targets to cut GHG emissions by 85% below 1990 levels by 2045 and achieve carbon neutrality by 2045.

Executive Order B-30-15

In April 2015, Governor Edmund G. Brown, Jr. signed *Executive Order B-30-15* to establish an interim GHG reduction goal of 40 percent below 1990 levels by 2030 for California. This target GHG reduction by 2030 would allow California to reach the ultimate goal of reducing GHG emissions by 80 percent below 1990 levels by the year 2050.

Senate Bill 32 (California Global Warming Solutions Act of 2006: Emissions Limit)

On September 8, 2016, Governor Jerry Brown signed *Senate Bill 32* (Pavley - *Chapter 249, Stats. of 2016*), requiring California to reduce GHG emissions to 40 percent below 1990 levels by 2030. SB 32 states that: "In adopting rules and regulations to achieve the maximum technologically feasible and cost-effective greenhouse gas emissions reductions authorized by this division, the state [air resources] board shall ensure that statewide greenhouse gas emissions are reduced to at least 40 percent below the statewide greenhouse gas emissions limit no later than December 31, 2030." *SB 32* codifies the interim target created by *EO B-30-15* for 2030.

CARB Climate Change Scoping Plan

The California Air Resources Board (CARB) adopted the *Climate Change Scoping Plan* (*Scoping Plan*) to achieve the goals of *AB 32*. The *Scoping Plan* establishes an overall framework for the measures that would be adopted to reduce California's GHG emissions. CARB determined that achieving the 1990 emissions level would require a reduction of GHG emissions of approximately 29 percent below what would otherwise occur in 2020 in the absence of new laws and regulations (referred to as "business-as-usual"). The *Scoping Plan* functions as a roadmap to achieve GHG reductions in California required by *AB 32* through subsequently enacted regulations. *AB 32* requires CARB to update the *Scoping Plan* at least once every five years. CARB adopted the first major update to the *Scoping Plan* on May 22, 2014. The updated *Scoping Plan* summarizes recent science related to climate change, including anticipated impacts on California and the levels of

[25] California Air Resources Board, *GHG 1990 Emissions Level & 2020 Limit*. Available at https://ww2.arb.ca.gov/ghg-2020-limit. Accessed September 4, 2024.

GHG reduction necessary to likely avoid irreversible damage. It identifies the actions California has already taken to reduce GHG emissions and focuses on areas where further reductions could be achieved to help meet the 2020 target established by *AB 32*. The 2020 goal was ultimately reached in 2016–four years ahead of the schedule called for under *AB 32*.

On December 14, 2017, CARB adopted a second update to the *Scoping Plan*. The 2017 *Scoping Plan* details how the State will reduce GHG emissions to meet the 2030 target set by *Executive Order B-30-15* and codified by *SB 32*. Other objectives listed in the 2017 *Scoping Plan* include providing direct GHG emissions reductions, supporting climate investment in disadvantaged communities, and supporting the Clean Power Plan and other Federal actions.

In December 2022, CARB adopted a *Scoping Plan Update* to guide state policies to meet its targets to cut emissions to cut GHG emissions by 85% below 1990 levels by 2045 and achieve carbon neutrality by 2045. The 2022 update assesses progress toward achieving the State's 2030 emissions reduction goal and draws on a decade and a half of proven regulations, incentives, and carbon pricing policies alongside new approaches to outline a balanced and aggressive course of effective actions to achieve carbon neutrality by 2045 or sooner. This includes an unprecedented pace of actions to develop the clean energy foundation on which to build the low-carbon economy.[26]

California Building Energy Efficiency Standards and Green Building Standards

The *California Building Standards Code*, also known as *Title 24* of the *California Code of Regulations*, regulates the construction or alteration of new homes and businesses in California. It includes requirements for the structural, plumbing, electrical, and mechanical systems of buildings, as well as for fire and life safety, energy conservation, green design, and accessibility within and around buildings. Two sections of *Title 24–Part 6, the California Energy Code*, and *Part 11, the California Green Building Standards Code,* or the *CALGreen Code,* contain standards that address construction-related GHG emissions. The 2022 *Title 24, Part 6 Standards* were formally adopted in August 2021 and went into effect on January 1, 2023, as did *Part 11, the California Green Building Standards Code*. A supplement to the CALGreen Code took effect on July 1, 2024.

Shasta County Air Quality Management District (SCAQMD)

The SCAQMD does not have an adopted Climate Action Plan, greenhouse gas threshold of significance, or guidance document for assessing project-level greenhouse gas impacts under CEQA. The following SCAQMD rule is applicable to the project: "Rule 3:28 Stationary Internal Combustion Engines. This rule applies to any gaseous, diesel, or any other liquid-fueled stationary internal combustion engine within the boundaries of the air district, including emergency standby engines. Emergency standby internal engines may be operated only during

[26] California Air Resources Board, *California's 2022 Climate Change Scoping Plan Fact Sheet*. Available at https://ww2.arb.ca.gov/resources/fact-sheets/californias-2022-climate-change-scoping-plan-fact-sheet/printable/print. Accessed September 4, 2024.

emergencies and for testing and maintenance purposes. Testing and maintenance shall be limited to no more than 100 hours per year."

Shasta County General Plan

The County's current General Plan (2004) does not contain goals or policies directly aimed at reducing greenhouse gas emissions. Goals and policies within the Circulation Element and the Air Quality Element affect or reduce greenhouse gas emissions by requiring or promoting alternative transit infrastructure.

There are currently no State, regional, or county guidelines or thresholds to guide project-level CEQA review. As a result, Shasta County reserves the right to use a qualitative and/or quantitative threshold of significance until a specific quantitative threshold is adopted by the state or regional air district. The United States Environmental Protection Agency (EPA) identifies four primary constituents that are most representative of the GHG emissions. They are:

- *Carbon Dioxide (CO2).* Emitted primarily through the burning of fossil fuels. Other sources include the burning of solid waste and wood and/or wood products and cement manufacturing.
- *Methane (CH4).* Emissions occur during the production and transport of fuels, such as coal and natural gas. Additional emissions are generated by livestock and agricultural land uses, as well as the decomposition of solid waste.
- *Nitrous Oxide (N2O).* The principal emitters include agricultural and industrial land uses and fossil fuel and waste combustion.
- *Fluorinated Gases.* These can be emitted during some industrial activities. Also, many of these gases are substitutes for ozone-depleting substances, such as CFC's, which have been used historically as refrigerants. Collectively, these gases are often referred to as "high global-warming potential" gases.

2019 Shasta College Facilities Master Plan Amendment One Project Initial Study & Mitigated Negative Declaration

On March 13, 2019, the Board of Trustees (the "Board") of the Shasta-Tehama-Trinity Joint Community College District (the "District") adopted *Resolution No. 2018-19-22* reaffirming approval of the Shasta-Tehama-Trinity Joint Community College District's May 2018 *Shasta College Facilities Master Plan – Amendment One (FMPA1)* for the Shasta College Main Campus. As noted in **CHAPTER 2.0, PROJECT DESCRIPTION**, the Mitigated Negative Declaration evaluated the potential environmental impacts of the proposed *Shasta College Facilities Master Plan Amendment 1 Projects*.

Based on the appropriate findings, the District determined that impacts to *Greenhouse Gas Emissions* would be ***less than significant***.

IMPACT ANALYSIS

California Executive Order (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.

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-03-05 (CARB, 2022). 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. 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, rather than focusing only on targets for 2020 or 2050. In December 2017, CARB's second update to the Scoping Plan included strategies to achieve the 2030 mid-term target and substantially advance toward the 2050 climate goal to reduce GHG emissions by 80 percent below 1990 levels.

The generation of electricity through the combustion of fossil fuels (e.g., coal, natural gas, and petroleum) produces GHG emissions. To address this issue, SB 1078 was passed in 2002 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 RPS has been subsequently amended, most recently in September 2018 by SB 100, which codified a target of 60 percent renewable energy in the State's electricity mix by 2030. SB 100 also sets a goal of completely phasing out electricity produced from fossil fuels by 2045. As the use of renewable energy sources for electricity generation increases, GHG emissions will continue to decrease.

The Sustainable Communities and Climate Protection Act of 2008 (SB 375) aims to reduce GHG emissions from passenger vehicles and light-duty trucks by coordinating land-use, housing, and transportation strategies. Under SB 375, CARB sets regional targets for reducing GHGs for each Metropolitan Planning Organization (MPO) in the State or for regions without an MPO, through the Regional Transportation Planning Agency (RTPA). The MPO/RTPA must include a Sustainable Communities Strategy (SCS) in the applicable Regional Transportation Plan that demonstrates how the region will meet the GHG emissions reduction targets. The Shasta Regional Transportation Agency (SRTA) serves as Shasta County's RTPA. The SCS included in the 2022 Shasta County Regional Transportation Plan identifies potential strategies for reducing GHG emissions, including expanding interregional public transportation options and expanding bicycle and pedestrian infrastructure.

As previously noted, there are presently no State or local thresholds for GHG emissions; however, §15064.4 of the CEQA Guidelines states that a lead agency, which is the District for the proposed *Study Area Projects*, has the discretion to quantify GHG emissions or to rely on a qualitative or performance-based standard. The District may use a model or methodology to estimate greenhouse gas emissions resulting from a project. The District also has discretion to select the

model or methodology it considers most appropriate to enable the Board, as decision makers, to intelligently take into account the proposed *Study Area Project's* incremental contribution to climate change.

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 potential effects of a particular project are still cumulatively considerable even with compliance with adopted regulations or requirements, an Environmental Impact Report must be prepared for the project.

Current project-level GHG emissions were estimated using Version 2022.1.1.37 of the California Emissions Estimator Model (CalEEMod). 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 PG&E's mix of renewable and non-renewable energy sources to estimate indirect GHG emissions associated with the Project's electricity use.

CalEEMod provides default values when site-specific inputs are not available. For the current project-level improvements, site-specific inputs and assumptions include, but are not limited to, the following:

- Although the Project would be constructed in two or more phases, in order to represent a worst-case scenario, reported emissions from the CalEEMod analysis are based on all of the current project-level improvements being constructed concurrently.
- Emissions from construction are based on all construction-related activities, including but not limited to site preparation, grading, demolition, use of construction equipment, material hauling, trenching, and architectural coatings.
- Emissions from operation of the proposed Project are based on all newly proposed 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.

Output files, including all site-specific inputs and assumptions, are provided in **Attachment A, CalEEMod – Shasta College Master Plan Amendment Two – Project-Level Improvements Detailed Report**

As previously stated, there are no State or local quantitative GHG thresholds. Numerical thresholds that have been referenced by various communities in the Sacramento Valley and

Northeast Plateau air basins are 1,100 MT/year CO_2e for both construction and operational emissions and 10,000 MT/year CO_2e for stationary sources. Shasta College has determined that these thresholds are appropriate for the proposed project. If construction or operational emissions exceed these thresholds, then the impact is considered significant.

Construction Emissions

Construction of the proposed *Study Area Projects* would emit GHG emissions as shown in **Table GHG-2**, **Construction-Related Greenhouse Gas Emissions** primarily from the combustion of diesel fuel in heavy equipment. Because the CO2e associated with the construction of the proposed Project would not exceed the numerical threshold of 1,100 metric tons/year of CO_2e, impacts during construction would be ***less than significant***.

Table GHG-2
Construction-Related Greenhouse Gas Emissions (Metric Tons)

Year	Carbon Dioxide (CO_2)	Methane (CH_4)	Nitrous Oxide (N_2O)	Refrigerants (R)	Carbon Dioxide Equivalent (CO_2e)
2026	145.78	0.006	0.002	0.01	146.47
2027	62.98	0.002	0.0009	0.007	63.32
Total	208.76	0.008	0.0029	0.017	209.79

NOTE: Totals may not add due to rounding.

Operational Emissions

The proposed operational emissions from the *Study Area Projects* would result in the generation of operational GHG emissions as shown in **Table GHG-3**, **Operation-Related Greenhouse Gas Emissions**.

For the proposed Project-Level improvements, Mobile sources include on-road motor vehicles, off-road vehicles, and equipment used for maintenance activities and training activities on the EVOC course. Area sources include consumer products, architectural coatings, and road dust. Energy sources include electricity generated from fossil fuels (indirect emissions). Reporting for Water sources includes increased demand associated with the Project-Level facilities. Solid waste includes increased solid waste generation associated with the *Study Area Projects*. Refrigerants include those used in vehicles and cooling systems. Reporting under Vegetation reflects changes in sequestration resulting from land-use changes and tree removal. Construction emissions are amortized over a 30-year period, which is considered the minimum service life of the *Study Area Projects*, and added to the operational emissions.

In addition, as discussed in **CHAPTER 2.0 – PROJECT DESCRIPTION**, the *Study Area Projects* include the expansion of Shasta College's Regional Public Safety Training Facility. A Drager Swede Survival System Phase I (Flashover Development Observation Burn Building) would be installed in *Study Area 1*, west of the existing training tower, and also in *Study Area 2 Training Facilities*.

Table GHG-3 Operation-Related Greenhouse Gas Emissions (Metric Tons)					
Phase	**Carbon Dioxide (CO_2)**	**Methane (CH_4)**	**Nitrous Oxide (N_2O)**	**Refrigerants (R)**	**Carbon Dioxide Equivalent (CO_2e)**
Mobile	300.4	0.02	0.02	0.41	306.47
Area	0.35	0.00001	0.000005	0	0.35
Energy	62.14	0.007	0.0005	0	62.47
Water	0.56	0.03	0.0006	0	1.39
Waste	2.70	0.27	0	0	9.44
Refrigerants	0	0	0	0.69	0.69
Off-Road	319.21	0.01	0.003	0	320.30
Vegetation	1.51	0	0	0	1.51
Amortized Construction Emissions	6.96	0	0	0	6.99
Total	**693.83**	**0.34**	**0.02**	**1.1**	**709.61**

NOTE: Totals may not add due to rounding.

The Drager Swede facilities would include a 5-story fire training tower with a 6-story elevator shaft, a 6-story stair tower, a 2-story residential/industrial unit, and a 1-story annex. The fourth floor of the tower would be equipped with a live fire burn room. The residential/industrial section would also include a second-floor live-fire burn room, and the annex would include a third live-fire burn room. Fuel sources associated with training activities include Class A materials (e.g., wood pallets and other wood products). GHG emissions would also be generated during fire simulation training.

As indicated in **Table GHG-3**, **Operation-Related Greenhouse Gas Emissions**, CalEEMod estimates that the current project-level improvements would not exceed the referenced operational threshold of 1,100 metric tons/year of CO_2e. Even with fire simulation training, given the intermittent nature of such training, it is not expected that the project's GHG emissions would exceed the referenced numerical threshold. Therefore, operational impacts for the current project-level improvements would be ***less than significant***.

Future projects under *FMPA2* would be reviewed on a case-by-case basis to ensure compliance with applicable State and local codes. The future *Student Housing Project* proposed in *Study Area 3* would be subject to compliance with the California Building Standards Code (CBSC). The California Energy Code (Part 6 of the CBSC), also known as the State's Energy Efficiency Standards, was established to reduce energy consumption in both residential and non-residential buildings, resulting in reduced GHG emissions beginning in 2023. In addition, the California Green Building Standards Code (CALGreen) (Part 11 of the CBSC) was enacted in 2007 in an effort to meet the State's goals for GHG reductions. CALGreen has been updated periodically since then to

implement additional mandatory measures to further reduce GHG emissions for residential and non-residential structures.

In addition, the Renewables Portfolio Standard established a target of 60 percent renewable energy in the State's electricity mix by 2030 and a goal of completely phasing out electricity produced from fossil fuels by 2045. Since build-out of future *FMPA2* Projects would not occur until post 2030, additional Statewide regulations aimed at reducing GHG emissions will be in place prior to full build-out. Future projects would be evaluated on a case-by-case basis to ensure compliance with State and local codes enacted to reduce GHG emissions.

Cumulative Emissions

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 areas where they are generated. As documented above, GHG emissions would not exceed the numerical threshold of 1,100 metric tons/year CO_2e. Because State regulations apply to all development projects, cumulative impacts are ***less than significant***.

As discussed under **ENVIRONMENTAL SETTING**, the State legislature has adopted numerous programs and regulations to reduce statewide GHG emissions. As documented above, the current project-level improvements do not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHGs. Future development under the Facilities Master Plan will also comply with State and local GHG-reduction measures. Therefore, there is ***no impact***.

The following includes an analysis of environmental parameters related to *Greenhouse Gas Emissions* based on *State CEQA Guidelines Appendix G*. The discussion not only includes the areas for which there is potential for environmental impacts, but also provides justification for the conclusions that either no impacts, less than significant impacts, or less than significant impacts with mitigation could occur.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. GREENHOUSE GAS EMISSIONS *Would the project:*				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b. Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?				X

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

Shasta College has determined the commonly adopted numeric thresholds for land development projects of 1,100 metric tons of CO2e per year for construction emissions, and 1,100 metric tons of CO2e per year for operational emissions are appropriate for the proposed Project. If construction or operational emissions exceed 1,100 metric tons of CO2e, then the impact is considered significant.

Construction Emissions

Construction of the proposed *Study Area Projects* would emit GHG emissions as shown in **Table GHG-3, Construction-Related Greenhouse Gas Emissions,** primarily from the combustion of diesel fuel in heavy equipment. Because the CO2e associated with the construction of the proposed Project would not exceed the numerical threshold of 1,100 metric tons/year of CO_2e, impacts during construction would be ***less than significant***.

Operational Emissions

As indicated in ***Table GHG-4, Operational Greenhouse Gas Emissions***, CalEEMod estimates that the proposed *Study Area Projects* would only slightly exceed the referenced operational threshold of 1,100 metric tons/year of CO_2e. Because build-out of future *FMPA2 Projects* would not occur until post 2030, additional Statewide regulations aimed at reducing GHG emissions by 40 percent below 1990 levels will be in place prior to full build-out. Furthermore, the College intends to complete energy conservation improvements that would reduce existing operational emissions (e.g., upgrading climate control systems consisting of heating, ventilation, and cooling/air conditioning; and implementation of alternative and passive technologies to conserve energy, such as energy-efficient windows, window coverings and shade control, shade canopies, etc.).

Given when future buildout could occur, the use of alternative transportation improvements to reduce emissions, energy conservation improvements to reduce operational emissions, and the implementation of State regulations, which would further reduce GHG emissions, operational impacts would be ***less than significant.***

Cumulative Emissions

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 documented, construction-related GHG emissions would not exceed the numerical threshold of 1,100 metric tons/year CO_2e. Although operational CO_2e emissions are projected to slightly exceed the threshold, existing and proposed State regulations to reduce GHG emissions would be in place prior to the build-out of the *FMPA2*, and because State regulations apply to all development projects, cumulative impacts are ***less than significant***.

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

As discussed under **ENVIRONMENTAL SETTING,** the State legislature has adopted numerous programs and regulations to reduce GHG emissions statewide. The *FMPA2* and proposed *Study Area Projects* do not conflict with any applicable plan, policy, or regulation adopted to reduce GHGs, and therefore, there is ***no impact***.

MITIGATION MEASURES

No mitigation measures are required.

FINDINGS

Based on the review of the information evaluated, the implementation of the proposed *Study Area Projects* and *FMPA2* will have ***less than significant impacts*** with respect to *Greenhouse Gas Emissions*.

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SECTION IX – HAZARDS & HAZARDOUS MATERIALS

Hazards are physical safety factors that can cause injury or death. While they may not pose a significant safety hazard to the public on their own, they can exacerbate hazardous conditions when combined with project development. Hazardous materials are typically chemicals or processes used or generated by a project that could harm people working at the site or in adjacent areas. Many of these chemicals can pose hazardous conditions if improperly disposed of or accidentally spilled during project development or operations.

Hazardous materials generally refer to hazardous substances, hazardous waste, and other materials that exhibit corrosive, poisonous, flammable, and/or reactive properties and have the potential to harm human health and/or the environment. The term "hazardous materials," as used in this section, includes all materials defined in the *California Health and Safety Code Section 25501(n)*: "A material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. 'Hazardous materials' include, but are not limited to, hazardous substances, hazardous waste, and any material that a handler or the unified program agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment."

This section of the *Initial Study* aims to identify, to the extent feasible, the potential hazards associated with historical and current site uses, surrounding lands, and recognized environmental conditions in connection with the Project site and potential risks to human health.

ENVIRONMENTAL SETTING

I-5, SR 299, and roads such as the Old Oregon Trail, rail, and pipeline infrastructure, as well as the widespread use of chemicals in businesses and agriculture throughout Shasta County, increase the risk of hazardous material incidents. Shasta County has designated specific routes for the transportation of hazardous materials to ensure safety and regulatory compliance. These routes and descriptions are identified in the *National Hazardous Materials Route Registry*.[27]

I-5, approximately 120 to 280 feet to the west of the Project site, is a significant route for the transportation of various types of hazardous materials, including flammable liquids, gases, and corrosives. Specifically, the commonly transported hazardous materials along I-5 in Northern California include:

- Flammable Liquids: Such as gasoline, diesel, and ethanol.
- Gases: Including propane, natural gas, and chlorine.
- Corrosives: Like sulfuric acid and hydrochloric acid.

[27] U.S. Department of Transportation. Federal Motor Carrier Safety Administration. December 22, 2021. *National Hazardous Materials Route Registry – California*. Available at https://www.fmcsa.dot.gov/regulations/hazardous-materials/national-hazardous-materials-route-registry---california. Accessed February 16, 2026.

- Toxics: Such as pesticides and industrial chemicals.
- Radioactive Materials: Used in medical and industrial applications.
- Explosives: Including fireworks and ammunition.

Transporters of hazardous materials must comply with strict regulations, such as obtaining proper permits, using appropriate packaging, and displaying warning placards on their vehicles.[28]

To date, no Phase I studies have been prepared addressing the areas or buildings where the new building construction or future building sites are to be located in *Study Areas 1, 2,* or *3*. None of the areas proposed for new construction or designated as future building sites has been known to contain hazardous materials.

As a frame of reference, a Phase I Environmental Site Assessment (ESA) was prepared for an approximate 35-acre area within which the existing and future RPSTF is located. The ESA addressed the area between Old Oregon Trail and the tributary to West Stillwater Creek, where the existing and future RPSTF is to be located. The ESA found evidence of current operations involving the use, storage, or disposal of hazardous substances on the site. The ESA report also noted that five underground storage tanks and two above-ground storage tanks are located at the College. These tanks are all located southeast of the area covered by this Phase I ESA, with the closest tank approximately 2,000 feet southeast of the RPSTF.

Following the Phase 1 ESA, an inspection for asbestos-containing materials in the former Crime Lab Building was conducted, and remediation work was identified prior to demolition. In addition, there was no evidence of leakage from a 55-gallon drum. As per State and Federal regulations, a waste determination was made for the contents of the drums, which were correctly characterized, labelled, manifested, and shipped to an appropriate facility for disposal by a licensed hazardous waste hauler.

According to Section 25117 of the California Health and Safety Code, a hazardous material is any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health or the environment if released into the workplace or the environment. Hazardous substances can take the form of a solid, dust, liquid, or fume and exhibit any of the criteria set forth in 22 CCR, Chapter 30, Article 11. A list of wastes that are presumed hazardous is presented in Chapter 30, Article 9 of Title 22. Hazardous waste criteria include toxicity, ignitability, reactivity, and corrosivity.

REGULATORY SETTING

Hazardous materials and waste can pose a significant actual or potential hazard to human health and the environment when improperly treated, stored, transported, disposed of, or otherwise managed. Many federal, State, and local programs that regulate the use, storage, and transportation of hazardous materials and hazardous waste are in place to prevent these

[28] Microsoft Bing Copilot. *Hazardous Materials Transported Along I-5 Northern California*. Https://www.bing.com/ search?q= hazardous+materials+transported+along+I-5+northern+califoria. Accessed September 6, 2024.

unwanted consequences. These regulatory programs are designed to reduce the risk that hazardous substances may pose to people and businesses under normal daily circumstances and in the event of emergencies and disasters.

Current federal, State, and local regulations, ordinances, or standards relevant to the review of *Hazards & Hazardous Materials* for the *FMPA2 Projects* are summarized below.

California Environmental Protection Agency

One of the primary agencies that regulates hazardous materials is the Cal EPA. The state, through Cal EPA, is authorized by the EPA to enforce and implement certain federal hazardous materials laws and regulations. The California DTSC, a department of the Cal EPA, protects California and Californians from exposure to hazardous waste, primarily under the authority of the RCRA and the California Health and Safety Code. The DTSC requirements include the need for written programs and response plans, such as Hazardous Materials Business Plans. DTSC programs include dealing with cleanups of improper hazardous waste management; evaluation of samples taken from sites; enforcement of regulations regarding use, storage, and disposal of hazardous materials; and encouragement of pollution prevention.

California Division of Occupational Safety and Health

Like OSHA at the federal level, the California Division of Occupational Safety and Health (Cal/OSHA) is the responsible State-level agency for ensuring workplace safety. Cal/OSHA assumes primary responsibility for the adoption and enforcement of standards regarding workplace safety and safety practices. If a site is contaminated, a site safety plan must be developed and implemented to protect workers. Site safety plans establish policies, practices, and procedures to prevent the exposure of workers and members of the public to hazardous materials originating from contaminated sites or buildings.

2026 California Building Code

The State of California established minimum standards for building design through the California Building Code (CBC), which is in Part 2 of Title 24 of the California Code of Regulations. Commercial buildings are plan-checked by the County for compliance with the CBC. Typical fire safety requirements of the CBC included the installation of sprinklers, the establishment of fire resistance standards for fire doors, certain building materials, and particular types of construction, and the clearance of debris and vegetation within a prescribed distance from occupied structures in wildlife hazard areas.

2025 California Vehicle Code

The State of California regulates the transportation of hazardous waste that originates in or passes through the state. Common carriers are licensed by the California Highway Patrol (CHP) pursuant to the California Vehicle Code, Section 32000. This section requires licensing for every motor (common) carrier who transports, for a fee, in excess of 500 pounds of hazardous materials at one time, and for every carrier, if not for hire, that carries more than 1,000 pounds of

hazardous material of the type requiring placards. Common carriers conduct a large portion of the business in the delivery of hazardous materials.

California Department of Forestry and Fire Protection

The California Department of Forestry and Fire Protection (CAL FIRE) has mapped the potential fire threat across California. CAL FIRE ranks fire threat based on the availability of fuel and the likelihood of an area burning (based on topography, fire history, and climate). The fire threat rankings include no threat, moderate, high, and very high threat.

CAL FIRE produced the *2024 California Strategic Fire Plan* with goals, objectives, and policies to prepare for and mitigate the effects of fire on California's natural and built environment. It emphasizes a collaborative approach to wildfire management, focusing on operational improvements, community engagement, and ecological resilience. The plan is the result of extensive input from CAL FIRE employees, community stakeholders, and partners, and aims to address the increasing wildfire risks exacerbated by climate change.

2025 California Fire Code

The California Fire Code (CFC) is Part 9 of the California Building Standards Code (California Code of Regulations, Title 24). Updated every 3 years, the CFC includes provisions and standards for emergency planning and preparedness, fire service features, fire protection systems, hazardous materials, fire flow requirements, and fire hydrant locations and distribution. Similar to the CBC, the CFC is generally adopted on a jurisdiction-by-jurisdiction basis, subject to further modifications based on local conditions.

The 2025 updates to the California Fire Code, effective January 1, 2026, introduce significant changes to enhance fire safety, particularly in response to the growing threat of wildfires. Some notable updates include Wildfire-Resistant Construction Standards and new requirements mandating the use of flame-resistant materials for roofing and exterior walls, as well as dual-pane windows to improve protection against radiant heat. The code now requires modern Automated Detection and Suppression Systems that can alert emergency services instantly, thereby improving response times.

Emergency Response to Hazardous Materials Incidents

The 2024 California State Emergency Plan, referred to as the State Emergency Plan (SEP), addresses California's response and recovery to emergency situations associated with natural or human-caused disasters. The SEP plays a key role in guiding state agencies, local jurisdictions, and the public on emergency management. It describes the state's emergency operations, mutual aid system, emergency response capabilities, resource mobilization, public information, and continuity of government during an emergency.[29]

[29] Cal OES Governors Office of Emergency Services. California State Emergency Plan. https://www.caloes.ca.gov/office-of-the-director/operations/planning-preparedness-prevention/planning-preparedness/california-state-emergency-plan/. Website accessed February 16, 2026.

The SEP was originally developed for civil defense in the 1950's but was superseded by the 1970 California Emergency Services Act (ESA). The ESA established the Governor's Office of Emergency Services (Cal OES). The Cal OES is charged with coordinating statewide emergency preparedness, post disaster recovery, mitigation efforts, and the development, review, approval, and integration of emergency plans. Local agencies are required to develop area plans for an organized response to releases of hazardous materials, which depend on Business Plans submitted by handlers of hazardous materials and waste within that agency's area. Pursuant to California Health and Safety Code, Section 25503(a) and CCR Section 2729, any business handling hazardous material must establish and implement a Hazardous Materials Business Plan. These Business Plans are then submitted to the local administering agency. In the County, the administering agency is SCEHD.

2025 Shasta County Emergency Operations Plan

The Shasta County *2025 Emergency Operations Plan* is an all-hazard plan that describes how Shasta County will organize and respond to emergencies and disasters in the community. It is based on, and is compatible with, federal, State of California, and other applicable laws, regulations, plans, and policies, including Presidential Policy Directive 8, the National Response Framework, and the California Governor's Office of Emergency Services plans. Consisting of a Basic Plan, Emergency Function Annexes, and Incident Annexes, the *Emergency Operations Plan* provides a framework for coordinated response and recovery activities during a large-scale emergency. The plan describes how various agencies and organizations in the County will coordinate resources and activities with other federal, State, local, tribal, community organizations, faith-based organizations, and private-sector partners.

Shasta County General Plan

The Public Safety Group, Hazardous Materials subsection of the General Plan, contains objectives and policies regarding the handling and release of hazardous materials. The following objectives and policies are intended to protect persons and property within the *FMPA2 Projects* area from accidental release of hazardous materials.

- *HM-I*. Protection of life and property from contact with hazardous materials through site design and land use regulations and storage and transportation standards.
- *HM-2.* Protection of life and property in the event of the accidental release of hazardous materials through emergency preparedness planning.
- *Policy HM-a.* The County shall make every effort to inform applicants for discretionary and nondiscretionary projects which are located within potential border zone property of known hazardous waste facilities that they must comply with State requirements regarding hazardous waste facilities. A map shall be prepared and maintained which identifies these areas.

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

In January 1996, Cal-EPA adopted regulations implementing a "Unified Hazardous Waste and Hazardous Materials Management Regulatory Program" (Unified Program). The most recent Unified Program is governed by the California Health and Safety Code Section 25404. The six elements of the Unified Program are as follows: 1) hazardous waste generators and hazardous waste on-site treatment; 2) underground storage tanks; 3) above-ground storage tanks; 4) hazardous material release response plans and inventories; 5) risk management and prevention programs; and 6) Unified Fire Code hazardous materials management plans and inventories. The Unified Program is implemented at the local level by a local agency — the Certified Unified Program Agency (CUPA). The CUPA is responsible for consolidating the administration of the six program elements within its jurisdiction. As mentioned above, the SCEHD is the designated CUPA in the County.

2019 Shasta College Facilities Master Plan Amendment One Project Initial Study & Mitigated Negative Declaration

On March 13, 2019, the Board of Trustees (the "Board") of the Shasta-Tehama-Trinity Joint Community College District (the "District") adopted *Resolution No. 2018-19-22* reaffirming approval of the Shasta-Tehama-Trinity Joint Community College District's May 2018 *Shasta College Facilities Master Plan – Amendment One (FMPA1)* for the Shasta College Main Campus. As noted in **CHAPTER 2.0, PROJECT DESCRIPTION**, the Mitigated Negative Declaration evaluated the potential environmental impacts of the proposed *Shasta College Facilities Master Plan Amendment 1 Projects*.

Based on the appropriate findings, the District determined that impacts from *Hazards & Hazardous Materials* would be ***less than significant***.

IMPACT ANALYSIS

Information provided by the College, as well as *Fire Hazard Severity Zones* (*FHSZ*) and *State Responsibility Area* (*SRA*) maps and information available from Shasta County and the State of California, was reviewed. Evaluations of the potential impacts are based on information obtained from CAL FIRE, Shasta County, applicable General Plan objectives and policies, County Codes, and the California Building Code.

The following includes an analysis of environmental parameters related to *Hazards and Hazardous Materials* based on *State CEQA Guidelines Appendix G*. The discussion not only includes the areas for which there is potential for environmental impacts, but also provides justification for the conclusions that either no impacts, less than significant impacts, or less than significant impacts with mitigation could occur.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. HAZARDS AND HAZARDOUS MATERIALS *Would the project:*				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
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?			X	
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
d. Be located on a site which is included on a list of hazardous materials compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.				X
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				X
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?			X	

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?

It is the College's operational policy that, after consultation with a Registered Environmental Property Assessor, a determination is made whether to proceed with a Phase I ESA to address potential hazards and hazardous materials. A Phase 1 ESA includes database research and a pedestrian survey of the site to determine the likely presence of hazardous materials. Even though the database records may not have records of hazardous materials specifically located

on a Project building or site, the Phase 1 ESA may identify areas and associated activities, some of which generate waste that needs to be properly disposed of. Once the Phase I ESA is prepared, if there are any recommendations regarding hazardous materials, asbestos-containing materials, or lead-based paint, a determination is made whether to proceed with a Phase II ESA, if a site is considered contaminated, and/or to just address specific issues such as asbestos-containing materials or lead-based paint. A Phase II ESA may be conducted based on ASTM E1903, a more detailed investigation involving sampling of soils, air, groundwater, and/or building materials, involving chemical analysis to determine hazardous substances and/or petroleum hydrocarbons.

Although highly unlikely, a potential release of hazardous materials could occur during construction work on any given project. Any such releases would most likely be minor spillages of motor vehicle fuels and oils. Given the requirement for a General Construction Stormwater permit from the State Regional Water Quality Control Board (RWQCB), the Project will be required to prepare a Stormwater Pollution Prevention Plan (SWPPP), which would stipulate how and where vehicles can be refueled and will include Best Management Practices (BMPs) implemented during construction to avoid spills, immediately respond to any spills, and minimize the effects of such spills. The use and handling of chemicals during construction activities will occur in accordance with applicable Federal, State, and Local laws including California Occupational Health and Safety Administration (Cal OSHA) requirements.

Due to the operational, permitting, and reporting requirements imposed by the College, State, and Federal governments, it is highly unlikely that the release of hazardous materials at a level that would present a hazard to the environment or to human or animal life would occur. Potential impacts are considered ***less than significant***.

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 compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.*

Shasta College is not located on or within one-quarter mile of a known hazardous materials site; therefore, there is ***no impact***.

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

The proposed *Study Area Projects* are located approximately seven miles north of the Redding Municipal Airport and clearly outside the adopted safety zone. The Airport is strictly

regulated through the *Redding Municipal Airport Master Plan.*[30] No private airstrip exists in the area. There are ***no impacts***.

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

The *Study Area Projects* will not impair or interfere with any future emergency response or excavation plans. Potential impacts are considered ***less than significant***.

g) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Wildland fire hazards exist due to the Campus's location adjacent to semi-rural residential parcels to the west and east, and to large undeveloped parcels to the north. The Shasta College EOP Action Plans address potential wildland fires, given that portions of the College are surrounded by wooded areas that pose a serious threat to campus facilities. Implementation of the applicable EOP Action Plans results in potentially ***less than significant*** impacts.

MITIGATION MEASURES

No mitigation measures are required.

FINDINGS

Based on the information above, the implementation of the proposed project will have a ***less than significant impact*** with respect to *Hazards and Hazardous Materials*.

[30] Coffman Associates, Inc. April 2024. *Draft Airport Master Plan for Redding Municipal Airport.*

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SECTION X – HYDROLOGY & WATER QUALITY

The purpose of this section is to describe the hydrologic and water quality setting of the proposed Project site and the surrounding area. This section also evaluates potential long-term and short-term water quality impacts associated with the construction and long-term operation of the proposed Project.

ENVIRONMENTAL SETTING

Shasta College is located within the Redding Groundwater Basin (RGWB). The RGWB underlies approximately 544 square miles in the north end of the Sacramento Valley. The County is a member of the Redding Area Water Council (RAWC), a consortium of water purveyors that operate in Shasta County. In 1998, the Shasta County Water Agency, on behalf of the RAWC, prepared the *Coordinated AB 3030 Groundwater Management Plan* for the RGWB. The *Groundwater Management Plan* was prepared to provide a mechanism for both the public and private stakeholders in the RGWB to evaluate, manage, protect, and preserve local groundwater resources.

The County is also participating in a consortium of nearby groundwater users to form a Groundwater Sustainability Agency (GSA) pursuant to the requirements of AB 1739, SB 1168, and SB 1319, collectively known as the Sustainable Groundwater Management Act (SGMA). SGMA requires governments and water agencies of high and medium priority basins to halt overdraft and bring groundwater basins into balanced levels of pumping and recharge. Under SGMA, these basins should reach sustainability within 20 years of implementing their sustainability plans. For critically over-drafted basins, that will be 2040. For the remaining high and medium-priority basins, 2042 is the deadline.[31]

The Enterprise Anderson Groundwater Sustainability Agency (EAGSA) was formed in 2017 and is tasked with sustainably managing local groundwater resources. It consists of the overlying members of the Redding Area Groundwater Basin and was formed by a Memorandum of Understanding (MOU) agreed to by the City of Anderson, the County of Shasta, the Clear Creek Community Services District (CCCSD), the Bella Vista Water District, the Anderson Cottonwood Irrigation District (ACID), and the City of Redding.

In January 2024, the California Department of Water Resources (DWR) approved the Groundwater Sustainability Plans for the Enterprise and Anderson Subbasins and determined that both are healthy and sustainably managed. The College is located within the Enterprise Subbasin that is monitored, reported, and managed by the EAGSA.

The majority of the Shasta College Campus site has already been altered as a result of the development of the College, which was constructed between 1966 and 1972 and includes the majority of the facilities still in use today. Approximately 43.9 percent (148.0 acres) of the 337-acre campus can be considered developed with buildings and associated support facilities,

[31] City of Redding. Enterprise Anderson Groundwater Sustainability Agency (EAGSA). *https://files.cityofredding.gov/government/departments/water/eagsa.php.* Website accessed February 17, 2026.

athletic fields, and infrastructure, which includes roads, parking lots, driveways, pathways, landscaped and hardscaped gathering areas and quads, utilities, and services such as Wastewater Treatment Ponds and facilities. Approximately 189.0 acres of the campus could be classified as being in its natural state, including the approximately 127 acres of Farming & Grazing lands, which would be classified as Open Space, albeit that 10 acres are utilized for agricultural operation facilities. The developed portion of the campus would be subject to rain runoff that would not be directly absorbed into the ground. Most campus runoff flows to the various streams, drainage ditches, and onto agricultural lands before being absorbed into the ground or flowing into West Stillwater Creek.

In terms of flood hazards, Shasta County is subject to flooding from three basic sources: natural seasonal flooding, dam inundation, and mud and debris flows. Natural flooding results from seasonal storms that generate runoff that can cause streams to overflow their natural banks or man-made levees. Dam inundation could occur from a structural failure of the Shasta Dam, releasing significant floodwaters to the Sacramento River, which is located approximately 3.5 miles "as the crow flies" southwest of the campus.

Study Areas 1, 2, and *3*, and the majority of *FMPA2*, are located within the May 22, 2024, Flood Insurance Rate Map (FIRM) Panel 1239, Map Number 06089C1239H for Shasta County, California, and Incorporated Areas. The *Study Areas* are not affected by the 100-year flood hazard.

REGULATORY SETTING

This section summarizes current federal, State, and local regulations relevant to the review of *Hydrology & Water Quality* for *FMPA2 Projects*. Ordinances, regulations, or standards that are applicable to the environmental review of potential impacts related to hydrology and water quality include the following:

Clean Water Act

The Clean Water Act (CWA) is a federal law that protects the nation's surface waters, including lakes, rivers, coastal wetlands, and "waters of the United States." The CWA specifies that discharges to waters are illegal unless authorized by an appropriate permit. The permits regulate the discharge of dredged and fill materials, construction-related stormwater discharges, and activities that may result in discharges of pollutants to waters of the United States. If waters of the U.S. are located on a project site, a proposed project is likely to discharge to them, and if impacts on them are anticipated, the project must obtain a CWA Section 401 Water Quality Certification from the appropriate Regional Water Quality Control Board (RWQCB).

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 includes the following primary provisions: (1) existing instream uses and water quality necessary to protect those uses shall be maintained and protected; (2) where existing water quality is better

than necessary to support fishing and swimming conditions, that quality shall be maintained and protected unless the state finds that allowing lower water quality is necessary for important local economic or social development; and (3) where high-quality waters constitute an outstanding national resource, such as waters of national and state parks, wildlife refuges, and waters of exceptional recreational or ecological significance, that water quality shall be maintained and protected.

National Pollutant Discharge Elimination System (NPDES)

The NPDES program is administered by the U.S. Environmental Protection Agency (EPA), which delegated oversight in California to the Regional Water Quality Control Boards. The NPDES program provides general permits and individual permits. General permits apply to construction projects that disturb more than one acre of land. The general permit requires the applicant to file a public Notice of Intent (NOI) to discharge stormwater and to prepare and implement a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP includes a site map, description of proposed activities, demonstration of compliance with applicable ordinances and regulations, and a description of Best Management Practices (BMPs) that would be implemented to reduce erosion and discharge of construction-related pollutants. The CWA-established NPDES permit program regulates municipal and industrial discharges to surface waters of the United States from their municipal separate storm sewer systems (MS4s). Under the NPDES program, all facilities that discharge pollutants into waters of the United States are required to obtain an NPDES permit. Requirements for stormwater discharges are also regulated under this program.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act, in cooperation with the CWA, established the SWRCB. The SWRCB is divided into nine regions, each overseen by an RWQCB. The SWRCB, and thus each RWQCB, is responsible for protecting California's surface waters and groundwater supplies. The Porter-Cologne Water Quality Control Act develops Basin Plans that designate the beneficial uses of California's rivers and groundwater basins. The Basin Plans also establish narrative and numerical water quality objectives for those waters. Basin Plans are updated every 3 years and serve as the basis for determining waste discharge requirements, taking enforcement actions, and evaluating clean water grant proposals. The Porter-Cologne Water Quality Control Act also requires SWRCBs and RWQCBs to implement CWA Sections 401-402 and 303(d).

Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) was originally passed by Congress in 1974 to protect public health by regulating the nation's public drinking water supply. The law was amended in 1986, 1996, and 2018 and requires many actions to protect drinking water and its sources—rivers, lakes, reservoirs, springs, and groundwater wells. (SDWA does not regulate private wells that serve fewer than 25 individuals.) SDWA authorizes the United States Environmental Protection Agency (US EPA) to set national health-based standards for drinking water to protect against both naturally occurring and man-made contaminants. US EPA, states, and water systems then work together to ensure these standards are met.

State Water Resources Control Board Waste Discharge Requirements

The State Water Resources Control Board (SWRCB) and nine Regional Water Quality Control Boards (RWQCBs) are responsible for issuing the Waste Discharge Requirements (WDR) Permit. The WDR Permit is a critical component of California's framework for protecting water quality and preventing pollution. It regulates discharges from various sources, including industrial facilities, agricultural operations, and wastewater treatment plants. The permit addresses the primary environmental concern of preventing pollution and degradation of California's surface and groundwater resources caused by waste discharges.

The WDR Permit operates within California's broader regulatory framework for water quality protection, established by the Porter-Cologne Water Quality Control Act of 1969. The permit specifically regulates discharges to surface waters, groundwater, and land that could impact surface or groundwater quality. The SWRCB and RWQCBs have the authority to regulate discharges to state waters and ensure compliance with the WDR Permit.[32]

California State Portal

Waste discharges that can be exempted from the California Code of Regulations (CCR) requirements are issued waste discharge requirements (WDRs) and are regulated by the WDR Program. Typical discharge types include domestic or municipal wastewater, food processing-related wastewater, and industrial wastewater.

Statewide General Construction Permit

The California State Water Resources Control Board (SWRCB) regulates stormwater runoff from construction sites through the Construction General Permit. All construction projects disturbing one or more acres of soil are subject to the Permit. The Permit influences project design, implementation, and reporting. The Permit prescribes quantitative methodologies to estimate the risk of a project to discharge sediment, classify project risk levels, and mandate monitoring activities. The State has adopted this approach to minimize the potential for construction site runoff to negatively affect downstream water quality.

Under the terms of the permit, applicants must file permit registration documents with the SWRCB prior to the start of construction, including a Notice of Intent, risk assessment, site map, SWPPP, annual fee, and signed certification statement.

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 action that can adversely affect water quality in surface and ground waters must be consistent with maximum benefit to the people of the State, not unreasonably

[32] State Water Resources Control Board. *Waste Discharge Requirements Program*. https://www.waterboards.ca.gov/water_issues/programs/waste_discharge_requirements/. Website accessed February 17, 2026.

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.

Sustainable Groundwater Management Act

In 2014, California enacted the Sustainable Groundwater Management Act (SGMA; Water Code Section 10720 et seq.). SGMA and related amendments to California law require all groundwater basins designated as high or medium priority in the DWR California Statewide Groundwater Elevation Monitoring (CASGEM) Program, and that are subject to critical overdraft conditions, must be managed under a new Groundwater Sustainability Plan (GSP) or a coordinated set of GSPs. High or medium-priority basins that are not subject to a critical overdraft must be regulated under one or more GSPs by 2022. Where GSPs are required, one or more local Groundwater Sustainability Agencies (GSAs) must be formed to implement applicable GSPs. A GSA has the authority to require registration of groundwater wells, measure and manage extractions, require reports, assess fees, and request revisions of basin boundaries, including establishing new subbasins.

Water Quality Control Plan, Fifth Edition, for the Sacramento and San Joaquin River Basins

The CVRWQCB adopted a Water Quality Control Plan, Fifth Edition (February 2019), for the Sacramento and San Joaquin River Basins (Basin Plan) that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. Waste discharge requirements (WDRs) were adopted in order to attain the beneficial uses listed for the Basin Plan area. Water quality objectives are established for numerous constituents, including bacteria; chemical constituents such as trace elements, mercury, and methylmercury; pH; dissolved oxygen; pesticides; and salinity.

2019 Shasta College Facilities Master Plan Amendment One Project Initial Study & Mitigated Negative Declaration

On March 13, 2019, the Board of Trustees (the "Board") of the Shasta-Tehama-Trinity Joint Community College District (the "District") adopted *Resolution No. 2018-19-22* reaffirming approval of the Shasta-Tehama-Trinity Joint Community College District's May 2018 *Shasta College Facilities Master Plan – Amendment One (FMPA1)* for the Shasta College Main Campus. As noted in **CHAPTER 2.0, PROJECT DESCRIPTION**, the Mitigated Negative Declaration evaluated the potential environmental impacts of the proposed *Shasta College Facilities Master Plan Amendment 1 Projects*.

Based on the appropriate findings, the District determined that impacts associated with *Hydrology & Water Quality* would be ***less than significant***.

IMPACT ANALYSIS

The following includes an analysis of environmental parameters related to *Hydrology & Water Quality* based on *State CEQA Guidelines Appendix G*. The discussion not only includes the areas

for which there is potential for environmental impacts but also provides justification for the conclusions that either no impacts, less than significant impacts, or less than significant impacts with mitigation could occur.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
X. HYDROLOGY AND WATER QUALITY *Would the project:*				
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			X	
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			X	
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) Result in substantial erosion or siltation on- or off-site;			X	
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;		X		
iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or		X		
iv) Impede or redirect flood flows?		X		
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				X
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?				X

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Under Section 402 of the Clean Water Act, the Regional Water Quality Control Board (RWQCB) issues National Pollutant Discharge Elimination System (NPDES) permits to regulate waste discharges to Waters of the US. Waters of the US include rivers, lakes, tributary streams, and wetlands. Waste discharges include discharges of stormwater and construction

project discharges. A construction project resulting in the disturbance of one or more acres requires an NPDES permit. As previously discussed, a Storm Water Pollution Prevention Plan (SWPPP) must be prepared prior to construction because the area of disturbance exceeds one acre.

Adherence to the Best Management Practices (BMPs) advanced as required in the SWPPP, and the permitting, operational, and reporting requirements imposed by the State and County ensure that the Project will not violate water quality or discharge standards, or otherwise substantially degrade water quality. Any potential impacts associated with water quality will be reduced to a level that is ***less than significant***.

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

The Project will receive water service from the Bella Water District and does not propose any direct groundwater withdrawal. The Bella Vista Water District has adequate capacity to meet Shasta College's long-term needs, including the development of the proposed *Study Areas*. Therefore, this impact is considered to be ***less than significant.***

c) *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:*

i) *Result in substantial erosion or siltation on- or off-site.*

Overall, the proposed *Study Area Project* will not substantially alter any existing drainage patterns of the *Study Area Project* sites or the overall *FMPA2* area, as construction on relatively level land minimizes grading; therefore, the potential erosion impacts are ***less than significant***.

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

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

iv) *Impede or redirect flood flows?*

Drainage patterns and surface runoff amounts result from several factors, including slope, soil permeability, vegetation, and surface type. Approximately 11.3 acres of *Study Areas 1* and *2* have been altered by previous development and are relatively level topographically. *Study Area 3* is undeveloped, even though there has been vehicle-related land disturbance in the northeastern portion of the *Study Area*.

For any development project, even on a site that has been significantly altered, standard practice calls for preparing a hydrology/drainage analysis by a registered civil engineer or a certified hydrologist. The analysis will determine the upstream and project cumulative impacts, as well as increased runoff resulting from the Project. In coordination with the Project's civil engineer, the College shall review the currently recommended improvements to the storm drainage facilities, including the expansion of the retention pond and upsizing of the storm pipes, in accordance with applicable civil engineering standards. To avoid substantially increasing the amount of stormwater runoff that could result in on- or off-site flooding, ***Mitigation Measure H-1*** is to be implemented, thereby reducing potential stormwater-related drainage impacts to a less-than-significant ***level***.

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

The *Study Areas* are not located within or in close proximity to flood hazard areas. Tsunamis are defined as sea waves created by undersea fault movement. A seiche is an oscillation of the surface of a lake or landlocked sea. Mudflows typically occur in mountainous or hilly terrain. The site is in little danger from tsunami, being some distance from the Pacific Ocean. Shasta Lake is too far away to impact the site by seiche. The lack of steep slopes reduces the likelihood of mudflow. There are ***no impacts*** due to these hazardous conditions.

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

The *Water Quality Control Plan for the California Regional Water Quality Control Board Central Valley Region (Fifth Edition)* was prepared for the Sacramento River Basin and the San Joaquin River Basin. The *Basin Plan* includes water quality objectives for the Sacramento River. Implementation of the plan is conducted through NPDES permits and waste discharge requirements to address pollution. Implementation of the proposed Project would not result in a conflict with the Sacramento River *Basin Plan*; therefore, there is ***no impact***.

As previously discussed under **ENVIRONMENTAL SETTING***,* the Campus and surrounding area are located within the Sacramento River hydrologic region of northern California within the Redding Groundwater Basin (DWR, 2021). It is important to note that the RGWB is not an adjudicated basin. As the basin is not in overdraft, no legal pumping limit has been set; therefore, no overdraft mitigation efforts are currently underway. Though no safe yield has been established for the RGWB, groundwater modeling as part of the *Coordinated AB3030 Groundwater Management Plan* indicates that the RGWB is resilient to severe drought and can recover within 1 year of normal rainfall (COR, 2015).

Given the current and foreseeable status of the RGWB as a non-adjudicated basin, the *Study Areas* proposed Project's lack of groundwater impacts, and the continued management of the RGWB pursuant to the SGMA Act via the Enterprise Anderson Groundwater Agency, implementation of the *Study Area Projects* would not result in adverse impacts to groundwater resources. Potential impacts are ***less than significant***.

MITIGATION MEASURES

Study Area development must comply with all applicable federal, state, and local laws, regulations, and standards imposed as part of the initial and ongoing permitting and operational monitoring processes. However, to avoid substantially increasing the amount of stormwater runoff that could result in on- or off-site flooding, ***Mitigation Measure H-1*** is to be implemented, thereby reducing potential stormwater-related drainage impacts to a ***less than significant level***.

Mitigation Measure H-1

The potential for on-site and/or off-site flooding resulting from future improvements, including but not limited to buildings, athletic facilities, roadways, driveways, pedestrian and bicycle pathways, parking lots, or any other improvement resulting in the creation of impervious surfaces, shall be reduced by the expansion of the existing retention pond in Study Area 2. Other stormwater-related improvements recommended by a licensed civil engineer or hydrogeologist shall be implemented.

Stormwater drainage facilities shall be located in the general location of existing disturbed areas throughout the campus. If the facilities are proposed on land in a natural state, a separate CEQA environmental clearance will be required, likely a Categorical Exemption, depending on the location and size of the structure.

If necessary, in-stream detention facilities can be constructed, provided the necessary U.S. Army Corps Nationwide or Individual Permit is obtained when impacting jurisdictional Waters of the U.S. If there is no Corps jurisdiction, then the in-stream detention/retention facility cannot be constructed until the State Regional Water Quality Control Board approves a Notice of Applicability to permit the fill to create the detention/retention facility. In addition, a State Fish & Wildlife 1602 Streambed Alteration Agreement would be required.

FINDINGS

Under *Section 402* of the *Clean Water Act*, the Regional Water Quality Control Board (RWQCB) issues *National Pollutant Discharge Elimination System* (*NPDES*) permits to regulate waste discharges to Waters of the U.S. Waters of the U.S. include rivers, lakes, tributary streams, and wetlands. Waste discharges include stormwater and construction project discharges. A construction project that disturbs one or more acres, which each of the *Study Area Projects* proposes, requires an NPDES permit and the preparation of a *Storm Water Pollution Prevention Plan* (*SWPPP*) before construction can begin.

Adherence to the *Best Management Practices* (*BMPs*) advanced as required in the *SWPPP*, and the permitting, operational, and reporting requirements imposed by the State and the County ensure that the Project will not violate water quality or discharge standards or otherwise substantially degrade water quality. Potential flooding impacts are also ***less than significant*** due

to the nature of the proposed *Study Area Projects, their* associated improvements, and site alterations.

Based on the review and evaluation of the information provided, and the implementation of ***Mitigation Measure H-1***, the proposed development in *Study Areas 1* and *2* will have a ***less than significant impact*** with respect to *Hydrology and Water Quality*. Furthermore, there are ***no impacts*** associated with groundwater, placement of structures within flood hazard areas, floodplain, seiche, tsunami, or mudflows issues.

SECTION XI – LAND USE & PLANNING

This section of the *Initial Study* describes the impacts on land use and planning that would result from the implementation of the proposed Project, including consistency with relevant local land use plans and compatibility with surrounding land uses.

ENVIRONMENTAL SETTING

The Shasta County General Plan Land Use Classification for Shasta College is *Public Facilities,* and the Zoning District Designation is *Public Facilities* (*PF*). The proposed Project and related activities, all contained within the Shasta College Campus, are consistent with the County's General Plan and Zoning.

Lands to the north, to the west, and west of Old Oregon Trail are designated as *Suburban Residential* (*SR*), *Urban Residential 25 Dwelling Units per Acre (UR-25),* and *Commercial (C).* Zoning consists of *Multi-Family Residential 25 Dwelling Units per Acre (R-3-25), Community Commercial (C-2), Commercial Design Review (C-2-DR), Interim Rural Residential Mobile Home Permitted* (*IR-T*), and *Interim Rural Residential* (*IR)*. Land east of the West Fork of Stillwater Creek, which defines the eastern campus boundary, is designated *Rural Residential A* (RA) and zoned as *Rural Residential Mobile Home Permitted on Minimum 5-Acres* (*R-R-T-BA-5*) and *Rural Residential* (*R-R*). Abutting the southern boundary of the campus is SR-299. Lands to the south of SR-299 are designated *Commercial Agricultural Small Scale Cropland/Grazing* (*A-cg*) and zoned *Community Commercial (C-2)* and *Limited Agricultural* (*A-1*). Significant natural open space buffers provide for land use compatibility along the western, northern, and eastern boundaries of the campus with adjacent land uses, whereas natural open space and then SR-299 provide a buffer with land uses to the south.

REGULATORY SETTING

This section summarizes current State and local regulations relevant to the review of *Land Use and Planning* for this project. Ordinances, regulations, or standards that are applicable to the environmental review of potential impacts related to land use and planning include the following:

Shasta County General Plan

The Shasta County General Plan is a statement of public policy reflecting the aspirations and values of Shasta County residents, which is adopted by their elected representatives. The Shasta County General Plan, amended in 2004, identifies strategies, policies, and implementation recommendations for land use within its planning area. The Shasta County General Plan is a long-range comprehensive plan that governs growth and development in the unincorporated areas of Shasta County. The function of the General Plan is to provide a policy framework that must be reflected in the zoning ordinance, specific plans, and other development guidelines.

Shasta County Zoning Ordinance

The Shasta County Zoning Plan, amended in 2003, assists the County in attaining goals identified in the Shasta County General Plan. The Zoning Plan establishes the various zoning districts within the County's unincorporated area. As a legal instrument, the Zoning Map has immediate force and effect and is a key tool for implementing the General Plan's policies. The purpose of the Zoning Plan is to promote and protect the public health, safety, peace, morals, comfort, convenience, and general welfare; to implement the General Plan, and to facilitate and guide growth in accordance with the General Plan; and to protect the social and economic stability of residential, commercial, industrial, resource production, and recreational.

Shasta County Community Plan Areas

Shasta County includes a number of plans made specifically for designated community or plan areas (i.e., the Cottonwood Community Plan). These plans outline policies and objectives specific to that area. Shasta College is not located within a Community Plan Area.

2019 Shasta College Facilities Master Plan Amendment One Project Initial Study & Mitigated Negative Declaration

On March 13, 2019, the Board of Trustees (the "Board") of the Shasta-Tehama-Trinity Joint Community College District (the "District") adopted *Resolution No. 2018-19-22* reaffirming approval of the Shasta-Tehama-Trinity Joint Community College District's May 2018 *Shasta College Facilities Master Plan – Amendment One (FMPA1)* for the Shasta College Main Campus. As noted in **CHAPTER 2.0, PROJECT DESCRIPTION**, the Mitigated Negative Declaration evaluated the potential environmental impacts of the proposed *Shasta College Facilities Master Plan Amendment 1 Projects*.

Based on the appropriate findings, the District determined that there would be ***no impacts*** associated with *Land Use & Planning*.

IMPACT ANALYSIS

California Government Code Section 6586021 requires zoning to be consistent with the general plan. Consistency with the general plan is possible only if the local government, in this case, Shasta County, has officially adopted a general plan. The land uses authorized in the Shasta County Zoning Plan must be compatible with the objectives, policies, general land uses, and programs specified in the Shasta County General Plan. General plan consistency does not mean strict conformity of a project with each and every general plan objective and policy. Rather, a project is consistent if it is in agreement with, or in harmony with, the general plan as a whole. In other words, a project may not have to strictly or substantially conform to a particular general plan policy or policies.

For the purposes of this analysis, relevant planning documents, particularly the Shasta County General Plan and the Shasta County Municipal Code, Title 17, were reviewed. The proposed *Study Area* Projects were qualitatively assessed to determine whether they would conflict with any

applicable land-use plans, policies, or regulations. If the proposed Projects were determined to conflict with a relevant plan, a determination was then made as to whether the conflict or inconsistency would result in a significant physical environmental impact that would otherwise be mitigated or avoided without implementation of the proposed project.

The following includes an analysis of environmental parameters related to *Land Use & Planning* based on *Appendix G* of the *State CEQA Guidelines*. The discussion not only identifies areas with potential environmental impacts but also provides justification for the conclusion that either no impacts, less than significant impacts, or less than significant impacts with mitigation could occur.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. LAND USE AND PLANNING *Would the project:*				
a. Physically divide an established community?				X
b. Cause a significant environmental impact due to conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?				X

a) Physically divide an established community?

The *Study Areas*, due to their location within the Shasta College Campus, will not divide an established community. Therefore, ***no impacts*** will result.

b) Cause a significant environmental impact due to conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

The Project does not conflict with any applicable land use plans, policies, or regulations identified in the Shasta County General Plan, nor does it conflict with the Zoning Ordinance. There are ***no impacts*** associated with the proposed Project.

MITIGATION MEASURES

No mitigation measures are required.

FINDINGS

Based on the review of the information presented, the implementation of the proposed *Study Area Projects* will have no impact on *Land Use & Planning*.

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XII – MINERAL RESOURCES

The purpose of this section of the Initial Study is to address the potential impact of the proposed *Study Area Projects* on mineral resources. This section also discusses the *Projects* in the context of regional and local mineral resources and addresses potential impacts on mineral resource deposits that may result from the implementation of the *Study Area Projects*.

ENVIRONMENTAL SETTING

A mineral resource is land on which known deposits of commercially viable minerals or aggregate deposits exist. This designation is applied to sites determined by the State Division of Mines and Geology to be a resource of regional significance. It is intended to help maintain any quarrying operations and protect them from encroachment by incompatible uses.

There are no known mineral resources within Shasta College or in the vicinity. Historic mining has not occurred at the site, nor do there appear to be significant quantities of mineral resources that could be exploited in the future. The proposed Project site is not considered significant in terms of mineral resource potential.

The California Department of Conservation's (DOC) Division of Mine Reclamation (DMR) compiles data on the status of mines and the commodities produced. The California Geological Survey (CGS) produces Mineral Land Classification (MLC) studies that identify areas with potentially important mineral resources that should be considered in local and regional planning. Based on mapping prepared by the DOC, this area of Shasta County does not contain oil, natural gas, or geothermal fields (DOC, 2022a).

REGULATORY SETTING

Surface Mining and Reclamation Act of 1975

The Surface Mining and Reclamation Act of 1975 (SMARA, Public Resources Code, Sections 2710-2796) provides a comprehensive surface mining and reclamation policy, regulating surface mining operations to assure that adverse environmental impacts are minimized and mined lands are reclaimed to a usable condition. SMARA also encourages the production, conservation, and protection of the state's mineral resources. Public Resources Code Section 2207 establishes annual reporting requirements for all mines in the state, and it also grants the State Mining and Geology Board authority and obligations. SMARA also requires the State Geologist to classify land into MRZs according to its known or inferred mineral potential. The primary goal of mineral land classification is to ensure that the mineral potential of land is recognized by local government decision makers and considered before land-use decisions are made that could preclude mining.

Shasta County General Plan

The Minerals Element of the Shasta County General Plan is developed in a form that meets the County's land-use planning needs while remaining consistent with the General Plan Guidelines and SMARA's objectives and requirements. Although the Minerals Element is a fundamental

component of the Natural Resources Group, no applicable policies are presented because the potential for mineral resources is not present on the Campus.

2019 Shasta College Facilities Master Plan Amendment One Project Initial Study & Mitigated Negative Declaration

On March 13, 2019, the Board of Trustees (the "Board") of the Shasta-Tehama-Trinity Joint Community College District (the "District") adopted *Resolution No. 2018-19-22* reaffirming approval of the Shasta-Tehama-Trinity Joint Community College District's May 2018 *Shasta College Facilities Master Plan – Amendment One (FMPA1)* for the Shasta College Main Campus. As noted in **CHAPTER 2.0, PROJECT DESCRIPTION**, the Mitigated Negative Declaration evaluated the potential environmental impacts of the proposed *Shasta College Facilities Master Plan Amendment 1 Projects*.

Based on the appropriate findings, the District determined that there would be ***no impacts*** regarding *Mineral Resources*.

IMPACT ANALYSIS

A review of the California Geological Surface Mining and Reclamation Act (SMARA) mineral classification maps does not identify mineral resource deposits that could be impacted, either on-site or within the area. There are no valuable minerals or extraction sites known to occur within the Shasta College Campus, even though USGS maps indicate gravel extraction activities having occurred within and adjacent to the West Fork of Stillwater Creek, north of the campus.

The following analysis examines environmental parameters related to *Mineral Resources* based on the *State CEQA Guidelines Appendix G*.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. MINERAL RESOURCES. *Would the project:*				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
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?				X

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.

The proposed *Study Area Projects* would not result in the loss of available known mineral resources that would be of value to the region and the residents of the State. No known mineral resources of regional value are located on or near the *Study Area Project* sites.

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.

The proposed *Study Area Projects* would not result in the loss of availability of a locally important mineral resource recovery site discussed or delineated in the *Shasta County General Plan Mineral Resources*. There is no specific plan or other land use plan referring to the proposed Project site as a site containing a locally important mineral resource.

MITIGATION MEASURES

No mitigation measures are required.

FINDINGS

Based on the information presented, the implementation of the proposed *Study Area Projects* will have no impact on *Mineral Resources*.

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XIII – NOISE

This section evaluates the impacts of on-site noise sources and surrounding land uses resulting from the proposed development of the Project. The majority of the following evaluation is based on the *Environmental Noise Assessment Shasta College Emergency Vehicle Operator Course (EVOC) Project, Shasta County, California*, prepared by Bollard Acoustical Consultants (BAC), dated January 10, 2025. Refer to **Appendix C**.[33]

The ensuing narrative will address the relocation of the *EVOC Facilities* from the alternate *CEQA Initial Study Area 2* to the new *Study Area 2* location discussed under **7. Project Description** in the **ENVIRONMENTAL CHECKLIST FORM** Chapter. Specifically addressed was why no new noise assessment was required to discuss potential impacts from relocating the *EVOC Facilities* from the alternate *CEQA Initial Study Area 2* to the new *Study Area 2* location.

Originally, the approximately 12.4-acre *CEQA Study Area 1* for the *EVOC Facilities* would have placed training activities, particularly fire engine maneuvering, closer to existing residences west of Old Oregon Trail. This location, in the most northwestern corner of the Campus, was originally considered the preferred location for an *Emergency Vehicle Operator Course* (*EVOC*).[34]

CEQA Initial Study Area 2, immediately west of the solar photovoltaic array and accessed from the south through the *Regional Public Safety Training Facility* (*RPSTF*), was proposed as an alternative location for an approximate 3.99-acre *EVOC Facility* area.

Biological and wetland evaluations for the *CEQA Initial Study Area 1* began in October 2023, since wetlands were of major concern. After evaluation and consideration by the College and CAL FIRE, it was determined that the development of the *EVOC* at the *CEQA Initial Study Area 1* site would significantly impact wetlands and associated biological features. Furthermore, the permitting time, requirements, and associated costs rendered this *Initial Study Area* potentially infeasible for use as an *EVOC Facility*.

Thereafter, *CEQA Initial Study Area 2*, about 3.99 acres, which was an alternative location for the EVOC Facility, was evaluated for noise impacts on existing residences on the west side of Old Oregon Trail. Noise studies began in May 2024, when existing ambient noise measurements were taken in the area of three residences west of Old Oregon Trail. The closest residences are about 700 feet from the nearest operational point of the *EVOC* site within the then-CEQA Initial Study Area 2 and approximately 1,000 feet from the effective noise center of the proposed *EVOC* site. Refer to **Figure N-1, Ambient Noise Level Locations & CEQA Initial Study Area 2 Existing & Proposed EVOC Training Areas**.

As previously noted, fire engine maneuvering within *EVOC* areas is the primary source of noise. Short-term noise level measurements of *EVOC* training activities at the current training area,

[33] Bollard Acoustical Consultants. January *10, 2025. Environmental Noise & Vibration Analysis Shasta College EVOC Project.*

[34] *EVOC* stands for *Emergency Vehicle Operator Course*. It is a standardized training program that covers both the classroom principles of emergency driving and the hands-on skills needed to safely maneuver vehicles like ambulances, fire engines, and police cruisers. https://trainevoc.com/what-is-evoc/. Website accessed December 24, 2025.

which is the large Pine Parking, were taken in May 2024. Refer to **Figure N-2, Existing EVOC Short-Term Noise Survey Locations**.

Based on the sound measurements, the predicted noise levels at the nearest residences resulting from proposed *EVOC* operations are below Shasta County noise standards and existing ambient noise conditions at those residences. As a result, the residences to the west were not expected to be exposed to noise levels from *CEQA Initial Study Area 2*, thereby avoiding significant adverse noise impacts. Therefore, the noise impacts were predicted to be ***less than significant***, and no noise mitigation measures were warranted. This is important to note because the EVOC Facilities were moved farther east to a new location, now addressed as *Study Area 2*.

In December 2024, the College and CAL FIRE redefined the *CEQA Initial Study Areas*. *CEQA Initial Study Area 1* was formally dropped from further consideration. The four *CEQA Initial Study Areas* became three *Study Areas*, with the names "CEQA" and "Initial" dropped. Projects within the now three *Study Areas* were identified.

To provide comprehensive training opportunities, CAL FIRE and the College determined that it would be more appropriate to collocate the *EVOC Facilities* with the *Apparatus Building Facilities*, along with their respective ancillary *Training Facilities*, including structures and equipment, to the area where the 8.0-acre solar photovoltaic array field is located, which will be removed. A major portion of the area that encompassed *CEQA Initial Study Area 3,* where the Apparatus Building was located, was dropped from further consideration.

In that the potential noise impacts from the location of the *EVOC Facilities* in *CEQA Initial Study Area 2* were predicted to be *less than significant* based on consultation with Mr. Paul Bollard, of BAC[35] whose firm prepared the noise assessment for *CEQA Initial Study Area 2,* moving the EVOC to the new *Study Area 2* would also result in *less than significant impacts*. This was due to the distance between the residences west of Old Oregon Trail increasing the distance from the edge of the EVOC Facility to approximately 1,400 feet and the center of the *EVOC* to around 1,800 feet, resulting in increases of 700 and 800 feet, respectively. Therefore, it was determined that no new Noise Assessment was required to address potential impacts from relocating the *EVOC Facilities* from the alternate *CEQA Initial Study Area 2* to the new *Study Area 2* location.

BACKGROUND INFORMATION

Noise is often described as unwanted sound. Sound is defined as any pressure variation in air that human hearing can detect. If the pressure variations occur frequently enough (i.e., at least 20 times per second) they can be identified as sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second or Hertz (Hz).

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals of pressure) as a reference point, defined as 0 dB. Other sound

[35] Mr. Paul Bollard, Principal Consultant with BAC, Inc. is a Board-Certified Member of the Institute of Noise Control Engineering

pressures are then compared to the reference pressure, and the logarithm is taken to keep the numbers within a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB. Another useful aspect of the decibel scale is that changes in decibel levels correspond closely to human perception of relative loudness. Figure 2, Examples of Noise Levels Associated with Common Noise Sources in **APPENDIX C, Shasta College Emergency Operator Course Project Environmental Noise Assessment** illustrates common noise levels associated with various sources.

The perceived loudness of sound depends on many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, loudness perception is relatively predictable and can be approximated by weighing the frequency response of a sound level meter using the standardized A-weighting network. There is a strong correlation between A-weighted sound levels (dBA) and community responses to noise. All noise levels reported in this section are A-weighted.

Community noise is commonly described in terms of the ambient noise level, which is the overall noise level associated with a given noise environment. A common statistical tool for measuring ambient noise level is the average, or equivalent, sound level (Leq) over a given time period (usually 1 hour). The L_{eq} is the foundation of the Day-Night Average Level noise descriptor, L_{dn}, and shows very good correlation with community response to noise.

The Day-Night Average Level (L_{dn}) is based upon the average noise level over a 24-hour day, with a +10 decibel weighing applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because L_{dn} represents a 24-hour average, it tends to disguise short-term variations in the noise environment. L_{dn} based noise standards are commonly used to assess noise impacts associated with traffic and railroad. and aircraft noise sources.

ENVIRONMENTAL SETTING

The EVOC is a crucial training program for first responders, particularly firefighters, equipping them to operate their vehicles safely in challenging conditions. The program's focus on defensive driving principles for both emergency and non-emergency situations and its coverage of topics such as emergency driving, intersection hazards, and backing apparatus and vehicles are designed to enhance vehicle safety operations for firefighters.

Currently, the EVOC training takes place in the large Pine Parking Lot west of the CDF CAL FIRE building and northwest of the gymnasium, accessed from the north Shasta College Drive entrance to the College. During EVOC training activities, that parking lot is rendered largely unusable for safety reasons.

BAC utilized aerial imagery and site inspections to identify the locations of the nearest representative potentially affected sensitive receptors (residences) to the *Study Area Project* areas. It is important to note that impacts need not be evaluated at every residence; rather,

sensitive receptors with similar noise exposure are typically grouped, with one or more representative receptors selected to be applicable to the larger group.

Because sound decreases with distance, it is normally unnecessary to model receptors at considerable distances from the project area, particularly if there are closer receptors in the same general direction to be analyzed. If no noise impacts are identified at closer receptors, it can usually be concluded that similar findings would occur at the more distant receptors. Conversely, if impacts are identified at closer receptors, typical mitigation implemented for those closer receptors would benefit the more distant receptors as well, depending on the type of mitigation. For the *CEQA Study Area 2* (now *Study Area 1*), three receptor locations were selected to represent noise-sensitive uses in the immediate and general vicinity of the Project. Those receptor locations are identified in **Figure N-1, Ambient Noise Level Locations & CEQA Initial Study Area 2 Existing & Proposed EVOC Training Areas**.

The existing ambient noise environment in the immediate project vicinity is defined primarily by local traffic on Old Oregon Trail and, to a lesser extent, by distant traffic on SR 299. Natural sounds (wind, birds, insects, etc.) also contribute to the ambient noise at the nearest residences on the west side of Old Oregon Trail.

To quantify the existing ambient noise environment at representative residential receivers nearest to the *Study Areas 1* and *2*, continuous ambient noise level measurements were conducted at three (3) locations shown on **Figure N-1, Ambient Noise Level Locations & CEQA Initial Study Area 2 Existing & Proposed EVOC Training Areas** on May 9-10 (Sites LT-1 and LT-2), and May 20-22 (Site LT-3).

Numerical summaries of the ambient noise level measurement results are provided in **Table N-1, Ambient Noise Survey Results.** The **Table N-1** data include average noise levels recorded for both daytime and nighttime hours (L_{max}, L_{eq}, L_{50}, L_{90}). Appendices C & D in **Appendix C, Environmental Noise Assessment Shasta College Emergency Vehicle Operator Course (EVOC) Project**, show complete tabular and graphical representations of the results, respectively.

Table N-1 data indicate that baseline ambient noise levels present during the ambient noise measurement period were relatively low, with L_{dn} values ranging from 53-56 dBA at the measurement sites. Daytime average and maximum noise levels typically averaged between 51 to 54 dBA Leq and 63-69 dBA Lmax.

REGULATORY SETTING

This section summarizes current State and local regulations relevant to the review of *Noise* for the proposed Project, as well as ordinances, regulations, or standards applicable to the environmental review of potential noise-related impacts.

California Government Code

California Government Code Section 65302 (f) mandates that the legislative body of each county and city adopt a noise element as part of its comprehensive general plan. The local noise element

must recognize the land use compatibility guidelines established by the State Department of Health Services.

Table N-1
Ambient Noise Survey Results[1]
Nearest Residences to the Shasta College EVOC Project Area

		Daytime[3]		Nighttime[3]		
Site[2]	Date	Leq[4]	Lmax[5]	Leq[4]	Lmax[5]	Ldn[6]
1	5/9/2024	51	67	46	63	53
	5/10/2024	51	68	45	61	53
2	5/9/2024	52	69	45	62	53
	5/10/2024	51	63	48	61	55
3	5/20/2024	53	68	46	64	54
	5/21/2024	54	66	48	65	56
	5/22/2024	53	67	47	63	55

1. All noise measurement results are A-weighted sound pressure levels (dBA)
2. Noise measurement locations are identified on Figure 1.
3. Daytime hours are 7 AM – 10 PM. Nighttime hours are 10 PM – 7 AM.
4. Leq = Average noise level for the period.
5. Lmax = Average of the highest measured noise levels in each hour of the period.
6. Ldn = Day/Night Average Level. See definition in Appendix A.

The guidelines rank noise land use compatibility in terms of "normally acceptable", "conditionally acceptable", "normally unacceptable", and "clearly unacceptable" noise levels for various land use types. Single-family homes are "normally acceptable" in exterior noise environments up to 60 CNEL and "conditionally acceptable" up to 70 CNEL. Multiple-family residential uses are "normally acceptable" up to 65 CNEL and "conditionally acceptable" up to 70 CNEL. Schools, libraries, and churches are "normally acceptable" up to 70 CNEL, as are office buildings and business, commercial, and professional uses.

Title 24 - Building Code

The state's noise insulation standards are codified in the California Code of Regulations, Title 24: Part 1, Building Standards Administrative Code, and Part 2, California Building Code. These noise standards apply to new construction to ensure interior noise compatibility with exterior noise sources. The regulations specify that acoustical studies must be prepared when noise-sensitive structures, such as residential buildings, schools, or hospitals, are located near major transportation noise sources and when those sources create an exterior noise level of 65 dBA CNEL or higher. Acoustical studies accompanying building plans must demonstrate that the structure has been designed to limit interior noise in habitable rooms to acceptable levels. For new residential buildings, schools, and hospitals, the acceptable interior noise limit is 45 dBA CNEL.

Federal Interagency Commission on Noise (FICON)

The Federal Interagency Commission on Noise (FICON) has developed a graduated scale for assessing Project-related noise level increases. FICON developed the criteria shown in **Table N-2, Significance of Changes in Cumulative Noise Exposure**, to establish thresholds for identifying impacts from Project-related noise level increases.

The use of the FICON standards is considered conservative relative to thresholds used by other agencies in the State of California. For example, the California Department of Transportation (Caltrans) requires a Project-related traffic noise level increase of 12 dB for a finding of significance, and the California Energy Commission (CEC) considers project-related noise level increases between 5 to 10 dB to be significant, depending on local factors. Therefore, using the FICON standards, which set the threshold for finding significant noise impacts as low as 1.5 dB, provides a very conservative approach to impact assessment.

Shasta County General Plan

For residential uses affected by transportation noise sources (i.e., off-site traffic), the County's Noise Element identifies 60 dB Ldn as an acceptable noise exposure limit. For residential uses affected by non-transportation noise sources (stationary or mobile sources on private property, such as the fire engines operating at the proposed EVOC site), the Shasta County General Plan establishes noise standards of 55 dB Ldn as the daytime 7 a.m. to 10.00 p.m. and 50 dB for nighttime 10 p.m. to 7:00 a.m. as acceptable exterior noise levels.

For the proposed *Study Area 1* and *2 Projects*, the evaluation period is defined as the worst-case hours during which on-site equipment would operate. Each of the noise level standards specified above is reduced by five (5) dBA for simple tone noises, noises consisting primarily of speech or music, or recurring impulsive noises. The College could impose noise level standards more restrictive than the County standards, based on a determination of existing low ambient noise levels. In addition, in rural areas where large lots exist, the exterior noise level standard is applied at a point 100' away from the residence.

2019 Shasta College Facilities Master Plan Amendment One Project Initial Study & Mitigated Negative Declaration

On March 13, 2019, the Board of Trustees (the "Board") of the Shasta-Tehama-Trinity Joint Community College District (the "District") adopted *Resolution No. 2018-19-22* reaffirming approval of the Shasta-Tehama-Trinity Joint Community College District's May 2018 *Shasta College Facilities Master Plan – Amendment One (FMPA1)* for the Shasta College Main Campus. As noted in **CHAPTER 2.0, PROJECT DESCRIPTION**, the Mitigated Negative Declaration evaluated the potential environmental impacts of the proposed *Shasta College Facilities Master Plan Amendment 1 Projects*.

Based on the appropriate findings, the District determined that there would be ***no significant impacts*** with respect to *Noise*.

IMPACT ANALYSIS

CEQA guidelines require assessment of a project's noise impacts relative to both established local noise standards and existing noise conditions present without the project. The local noise standards of Shasta County were described in the previous section. This section pertains to criteria for assessing the significance of project-related increases in existing ambient noise conditions.

While CEQA requires that noise impacts be assessed relative to ambient noise levels present without the project, CEQA does not provide guidance on numeric thresholds to be used to evaluate impacts. Shasta County General Plan Policy N-g identifies thresholds for findings of significant noise increases related to roadway improvement projects, but that policy doesn't specifically pertain to increases in off-site traffic noise levels resulting from increased traffic resulting from a non-roadway improvement project, such as the CCA Project. That said, the Shasta County thresholds for identifying significant noise increases in General Plan Policy N-g are consistent with recommendations from the Federal Interagency Commission on Noise (FICON), which are described below.

FICON has developed a graduated scale to guide the identification of the significance of project-related noise level increases. **Table N-2, Significance of Changes in Cumulative Noise Exposure** was developed by FICON to establish thresholds for identifying impacts of project-related noise level increases. The rationale for the graduated scale is that it tests subjects' reactions to increases in noise levels, which vary depending on the starting ambient noise level prior to introducing the increase. Specifically, in lower ambient noise environments, such as those below 60 dB Ldn, a larger increase in noise levels was determined to be required to elicit a negative reaction than in more elevated noise environments.

Table N-2
Significance of Changes in Cumulative Noise Exposure

Ambient Noise Level (No Project), dB L_{dn}	Increase Required for Finding of Significance, dB
<60	+5 or more
60-65	+3 or more
>65	+1.5 or more

Source: Federal Interagency Committee on Noise (FICON)

Based on the FICON research, a 5 dB increase in noise levels due to a project is required for a finding of significant noise impact where ambient noise levels without the project are less than 60 dB L_{dn}. Where pre-project ambient conditions are between 60 and 65 dB L_{dn}, a 3 dB increase is applied as the standard of significance. Finally, in areas already exposed to higher noise levels – specifically, pre-project noise levels in excess of 65 dB Ldn – FICON considers a 1.5 dB increase the threshold of significance. These thresholds are identical to those established in General Plan Policy N-g for assessing impacts related to roadway improvement projects. As a result, **Table N-**

2, **Significance of Changes in Cumulative Noise Exposure** criteria, is applied to evaluate increases in noise levels resulting from the project.

It should be noted that audibility is not a test of significance according to the California Environmental Quality Act (CEQA). If this were the case, any project that added any audible noise to the environment would be considered significant under CEQA. Because every physical process creates noise, using audibility alone as a significance criterion would be unworkable. CEQA requires a substantial increase in noise levels before noise impacts are identified, not simply an audible change. The discussion of what constitutes a substantial change in noise environments, both existing and cumulative, is provided in the Regulatory Setting section of this report.

Because fire engine operational training will occur throughout the proposed EVOC training area, the effective noise source location for the purposes of predicting project noise exposure at the nearest residences was assumed to be the approximate center of the EVOC site. For predicting maximum noise exposure, the nearest location within the EVOC site to the existing residences to the west was used for computation purposes.

The nearest residences to the west are approximately 700 feet from the nearest operational point within the proposed EVOC site, and approximately 1,000 feet from the effective noise center of the proposed EVOC site. Using the reference levels of 63 dBA Leq and 80 dBA Lmax at a distance of 100 feet and a sound attenuation rate of 6 dBA per doubling of distance from the noise source, project noise exposure at the nearest residences was calculated. The results of those calculations indicate that EVOC training operations would generate noise levels of approximately 63 dBA Lmax and 43 dBA Leq at the nearest residences to the west. These predictions do not account for atmospheric absorption of sound or absorption provided by intervening ground cover, both of which would further reduce noise levels at the nearest residences.

The predicted noise levels of 43 dBA Leq and 63 dBA Lmax at the nearest residences resulting from proposed EVOC training operations are below both the Shasta County noise standards and the existing ambient noise conditions at those residences, as shown in **Table N-1, Ambient Noise Level Locations & CEQA Initial Study Area 2 Existing & Proposed EVOC Training Areas**. As a result, the existing residences to the west are not predicted to be exposed to project noise levels, which would result in significant adverse noise impacts. Therefore, the noise impacts are predicted to be ***less than significant***.

This **IMPACT ANALYSIS** concludes that noise generated by *EVOC* training operations at the location on the Shasta College campus identified on **Figure N-1, Ambient Noise Level Locations & CEQA Initial Study Area 2 Existing & Proposed EVOC Training Areas** would be below both the Shasta County noise standards and below existing ambient noise conditions at those residences shown in **Table N-1**. As a result, no noise impacts are identified for the proposed *FMPA2 Projects*, and no noise mitigation measures would be warranted.

These conclusions are based on the ambient noise survey results and measurements of existing *EVOC* training activities described in this report, as well as the proposed *EVOC* location shown on

Figure N-1, Ambient Noise Level Locations & CEQA Initial Study Area 2 Existing & Proposed EVOC Training Areas. Deviation from these or modification to the location of the proposed EVOC training area could cause noise levels at the nearest residences to differ from those presented in this analysis.

The following includes an analysis of environmental parameters related to *Noise* based on *State CEQA Guidelines Appendix G*. The discussion includes the areas for which there is potential for environmental impacts and provides justification for the conclusions that either no impacts, less than significant impacts, or less than significant impacts with mitigation could occur.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. NOISE *Would the project result in:*				
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			X	
b. Generation of excessive groundborne vibration or groundborne noise levels?				X
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X

a) Exposure of people to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Based on the sound measurements for *CEQA Initial Study Area 2*, the predicted noise levels at the nearest residences resulting from proposed *EVOC* operations are below both the Shasta County noise standards shown and the existing ambient noise conditions at those residences. As a result, the existing residences to the west were not expected to be exposed to noise levels from *CEQA Initial Study Area 2*, thereby avoiding significant adverse noise impacts. The potential noise impacts were predicted to be ***less than significant***, and ***no mitigation measures*** were warranted. Furthermore, it was determined that no new noise assessment was required to discuss potential impacts from relocating the *EVOC Facilities* from the alternate *CEQA Initial Study Area 2* to the new *Study Area 2* location, given the increased distance between the two locations. Again, potential noise impacts were predicted to be ***less than significant***.

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

The closest *Study Area Project* in *FMPA2* to SR 299 is the proposed *Student Housing Project* in *Study Area 3*. The *Study Area* is located approximately 2,600 feet north of SR-299, where truck traffic would be the most intense source of groundborne vibration and noise. Potential impacts from excessive groundborne vibrations or noise will be ***less than significant*** due to the location and adherence to building code standards.

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

The Shasta College Campus is not located within the vicinity of a private airstrip. The Redding Municipal Airport is located approximately seven miles south of the Project site. Therefore, there are ***no impacts*** due to distance, and also because the airport is strictly regulated by the *Redding Municipal Airport Master Plan*.

MITIGATION MEASURES

No mitigation measures are required.

FINDINGS

The Noise Assessment concluded that noise generated by EVOC training operations would be below both the Shasta County noise standards and the existing ambient noise conditions at those residences west of Old Oregon Trail; there are ***no impacts*** and ***less than significant impacts*** related to *Noise*.

XIV – POPULATION & HOUSING

This section examines the potential impacts of the *Study Area Projects* on the population and housing, providing an overview of current population estimates and population growth trends.

ENVIRONMENTAL SETTING

According to the Shasta Regional Transportation Agency's *2022 Regional Transportation Plan* (RTP) for Shasta County, the population was 182,155 in September 2020. Between September 2020 and January 1, 2023, the County's population shrank from 182,155 to 179,436 (DOF, 2023).[36] The population is projected to grow to 188,049 by 2042, an increase of approximately 3.2 percent over 22 years. This projected population is significantly less than the 2018 RTP anticipated growth to an estimated population of 214,364 persons in Shasta County by 2035 (SRTA, 2018).

Redding's population is approximately 53% of the County's estimated population. On April 1, 2020, the City of Redding's population was estimated at 93,903. In 2024, the estimate was 93,502, a reduction of 401 persons (U.S. Census, 2024)[37] It is projected that the City's population will be about 95,388 by 2045, an approximate 2.5 percent increase.

Whereas both the County and the City of Redding have experienced declining populations, growth projections show a slow but realistic increase over the next 20-plus years.

Shasta County had an estimated 80,211 housing units in 2023, up from 79,380 in 2022, an increase of 831 units. The City of Redding also experienced an increase of 426 housing units from 40,083 in 2020 to 40,509 in 2023 (DOF 2021,2022).[38]

Full-Time Equivalent Students (FTES) at the College have increased by 25% from 5,346 in 2021 to 6,688 in 2024-2025, as shown in **Table PH-1, Full-Time Equivalent Students**.

Table PH-1
Full-Time Equivalent Students

Fiscal Year	Total FTES
2021-2022	5,346.15
2022-2023	5,769.90
2023-2024	6,210.41
2024-2025	6,688.69

Increases in enrollments were also experienced for the Fire Technology (FIRE), Emergency Medical Training (EMT), and Administration of Justice (AOJ) Programs over the last several years. Enrollments increased from 1,709 students in academic year 2021-2022 to 2,682 students in academic year 2024-2025. The overall growth rate was 57%. Refer to **Table PH-2, Enrollments**.

[36] Department of Finance (DOF). *2023. Table 2: E-5 City/County Population and Housing Estimates, 1/1/2023.* https://dof.ca.gov/forecasting/demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2023/. Website accessed February 18, 2026.

[37] U.S. Census Bureau. *QuickFacts Redding City, California. Table. People*. https://www.census.gov/quickfacts/fact/table/reddingcitycalifornia/PST045224. Website accessed February 18, 2026.

[38] City of Redding. March 2024. *Redding General Plan Updated Final EIR.*

Table PH-2 Enrollments				
Fiscal Year	**Fire**	**EMT**	**AOJ**	**Total**
2021-2022	747	284	678	1,709
2022-2023	593	371	779	1,743
2023-2024	1,096	454	812	2,362
2024-2025	1,554	427	701	2,682

REGULATORY SETTING

This section summarizes current federal, state, and local ordinances, regulations, or standards relevant to the review of *Population & Housing* for this Project.

State law requires each city and county to adopt a general plan for future growth. This plan must include a housing element that identifies housing needs across all economic segments and provides opportunities for housing development to meet those needs. At the state level, the California Department of Housing and Community Development (HCD) estimates the relative shares of California's projected population growth that could occur in each county in the state based on the Department of Finance (DOF) population projections and economic projections.

The County's 2020-2028 Housing Element[39] includes policies and programs to address the County's housing needs through 2028, and provides a comprehensive analysis of the County's demographic, economic, and housing characteristics as required by State law. The Element also includes an evaluation of the County's progress in implementing its most recent Housing Element. Based on the County's housing needs, available resources, constraints, and opportunities for housing production and preservation, and its past performance, the current Housing Element establishes a strategy with goals, measurable objectives, and related policies and programs to address the County's present and future housing needs.

2019 Shasta College Facilities Master Plan Amendment One Project Initial Study & Mitigated Negative Declaration

On March 13, 2019, the Board of Trustees (the "Board") of the Shasta-Tehama-Trinity Joint Community College District (the "District") adopted *Resolution No. 2018-19-22* reaffirming approval of the Shasta-Tehama-Trinity Joint Community College District's May 2018 *Shasta College Facilities Master Plan – Amendment One (FMPA1)* for the Shasta College Main Campus. As noted in **CHAPTER 2.0, PROJECT DESCRIPTION**, the Mitigated Negative Declaration evaluated the potential environmental impacts of the proposed *Shasta College Facilities Master Plan Amendment 1 Projects*.

Based on the appropriate findings, the District determined there would be ***no impact*** regarding *Population & Housing*.

[39] Shasta County Department of Resource Management Planning Division. July 28, 2020. *Shasta County 2020–2028 Housing Element 7.3 of the Shasta County General Plan Community Development Group.*

IMPACT ANALYSIS

Shasta County is the land use authority with primary responsibility for implementing growth strategies. The Shasta-Tehama-Trinity Joint Community College District is responsible for implementing renovation and growth strategies through the adopted 2014 *Facilities Master Plan 2014-2030*, the May 2018 *Facilities Master Plan Amendment One,* and the proposed *Facilities Master Plan Amendment Two*.

It is anticipated that, with the proposed reconfigurations and new construction activities, student enrollment will increase, particularly in the Fire Technology (FIRE), Emergency Medical Training (EMT), and Administration of Justice (AOJ) Programs. Therefore, student, associated faculty, and College employee growth is anticipated.

The following includes an analysis of environmental parameters related to *Population and Housing* based on *State CEQA Guidelines Appendix G*. The discussion not only includes the areas for which there is potential for environmental impacts but also provides justification for the conclusions that either no impacts, less than significant impacts, or less than significant impacts with mitigation could occur.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. POPULATION AND HOUSING *Would the project:*				
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension or roads or other infrastructure?				X
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X

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

The proposed *Study Area Projects* will not induce population growth in the area due to their nature, which involves demolition, renovation, construction of new buildings, and future building sites that address the College's existing and future curriculum and student needs. Regardless, *Study Area 3* identifies Two *Student Housing* building sites to accommodate future housing needs. There is ***no impact***.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

The Projects proposed for implementation in the *Study Areas* of *FMPA2* will not displace any housing or persons, as the proposed *FMPA2* construction and future *Student Housing* building sites are located within the Shasta College Campus, an educational public facility. There is ***no impact***.

MITIGATION MEASURES

No mitigation measures are required.

FINDINGS

In the course of the evaluation of this section, there are no significant impacts associated with *Population and Housing* due to the inability of the proposed *FMPA2 Projects to* create such impacts or the absence of related characteristics producing effects of this type.

XV – PUBLIC SERVICES

This section describes the affected environment for public services that serve the *FMPA2* area. It also describes the impacts on existing public services that would result from implementing the proposed *Study Area Projects*, as well as any necessary mitigation measures to reduce impacts.

ENVIRONMENTAL SETTING

CAL FIRE Station 73, located on campus in Building 2800, will provide services to the proposed *Study Area Project improvements*. The one-story, 6,119-square-foot building, with a sleeping loft, contains storage areas, offices, and the campus fire department. The jurisdictional range extends into the far regions of Jones Valley, Bella Vista, and the outskirts of the Shasta College campus. The fire station has one Battalion Chief, three Fire Captains, three Fire Apparatus Engineers, and four Firefighters.

Shasta College has a Campus Safety Department that is committed to a safe and secure working and learning environment. In all aspects of plant operations and maintenance, the safety of students, staff, and visitors is their primary consideration." All individuals who work for the department are Campus Security Authorities (CSA). The function of a Campus Security Authority is to report to Campus Safety any allegations of Clery Act crimes that are reported to them in their capacity as a CSA. CSAs are not responsible for investigating incidents, only reporting.[40]

The Campus Safety Department coordinates law enforcement efforts with the Shasta County Sheriff's Department and the City of Redding Police Department. Campus Safety Department officers patrol the campus 24 hours a day, Monday through Sunday. Currently, on Monday through Thursday, one Redding Police Officer is on campus each day working a shift from 8:00 A.M. to 5:00 P.M.

REGULATORY SETTING

2019 Shasta College Facilities Master Plan Amendment One Project Initial Study & Mitigated Negative Declaration

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[40] The Clery Act requires all colleges and universities that participate in federal financial aid programs to keep and disclose information about crime on and near their respective campuses. Compliance is monitored by the United States Department of Education, which can impose civil penalties for each violation against institutions for each infraction and can suspend institutions from participating in federal student financial aid programs. Institutions are required to report on crimes such as murder (including nonnegligent and negligent manslaughter), sex offenses (forcible/nonforcible, domestic violence, dating violence, and stalking), robbery, aggravated assault, burglary, motor vehicle theft, arson, and arrest. Institutions are required to report on persons referred for campus disciplinary action for: liquor law violations, drug-related violations, and weapons possession. Institutions are required to report on crimes or bodily harm related to/caused by hate crimes.

potential environmental impacts of the proposed *Shasta College Facilities Master Plan Amendment 1 Projects*.

Based on the appropriate findings, the District determined there would be ***no impact*** on *Public Services*.

IMPACT ANALYSIS

Shasta College offers a wide array of recreation programs, including the arts, theatre, sports, and club organizations. No law enforcement protection, schools, parks, recreational facilities, or other public facilities are affected by the proposed Project due to its nature. Fire protection facilities will be enhanced due to the proposed Projects in *Study Areas 1* and *2*. Potential impacts related to Fire Protection and Law Enforcement Protection are considered to be ***less than significant***. There are no impacts associated with schools, parks, or public facilities.

The proposed *Study Area Projects* do not substantially increase the number of people employed in the region, nor do they create or require new housing or related facilities, nor do they increase demand for public facilities. ***No impacts*** would occur in this regard.

The following includes an analysis of environmental parameters related to *Public Services* based on *State CEQA Guidelines Appendix G*. The discussion not only includes the areas for which there is potential for environmental impacts, but also provides justification for the conclusions that either no impacts, less than significant impacts, or less than significant impacts with mitigation could occur.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. PUBLIC SERVICES				
a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?			X	
Law enforcement protection?			X	
Schools?				X
Parks?				X
Other public facilities?				X

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered

governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: fire protections, police protection, schools, parks, other public facilities?

Fire Protection – The proposed *FMPA2 Projects* do provide for the storage of flammable materials. The proposed *Study Area Projects* and associated equipment must meet or exceed the minimum standards of the applicable building codes. The design, construction, and operation of the proposed facilities have a very low fire hazard, as oversight is provided by CAL FIRE Station 73 and CAL FIRE Redding Training Center personnel. The potential impact on fire protection services is therefore considered ***less than significant***.

Law Enforcement Protection – As previously noted, the Campus Safety Department will provide law enforcement protection. Coordination will occur with the Shasta County Sheriff's Department, with assistance from the City of Redding Police Department and the California Highway Patrol, as necessary. The potential impact on the provision of law enforcement services is considered ***less than significant***.

Schools and Parks – Due to the nature of the proposed *Study Area Projects*, there are ***no impacts*** on schools and parks.

Other Public Facilities – There are no other known public facilities owned, leased, or operated by the College that could be impacted by the proposed *Study Area Projects*. There is ***no impact***.

MITIGATION MEASURES

No mitigation measures are required.

FINDINGS

In the course of the above evaluation, potential adverse impacts associated with *Public Services* were found ***not significant*** because the scope and characteristics of the proposed *Study Area Projects* were unable to create such impacts.

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XVI – RECREATION

This section describes the recreational resources within the *FMPA2* area and discusses any increased demand for various recreational facilities, as well as any potential need for new facilities generated by the proposed *FMPA2 Study Area Projects*.

ENVIRONMENTAL SETTING

There are no existing neighborhoods, regional parks, or other recreational activities within the vicinity of the proposed *Study Area Projects*. However, the College offers a wide array of recreation programs, including the arts, theatre, sports, and club organizations, none of which are affected by *FMPA2* and the proposed *Study Area Projects*.

REGULATORY SETTING

This section summarizes the current state and local ordinances, regulations, or standards that are applicable to the relevant environmental review of potential *Recreation* impacts.

Quimby Act

The Quimby Act provides for a maximum of three acres of park dedication/fee per 1,000 persons unless the amount of existing neighborhood and community parkland exceeds that limit. If the limit is exceeded, the jurisdiction may adopt the higher standard of five acres per 1,000 persons. Since the proposed *FMPA2 Projects* are not a residential subdivision, it is exempt from the requirements of the Quimby Act.

Shasta County Parks, Trails, and Open Space Plan

The Shasta County *Parks, Trails, and Open Space Plan* addresses issues and opportunities for improving the provision of parks, trails, and open space throughout Shasta County. The Plan outlines strategies and recommendations to meet current and future community needs, based on changing trends in recreation, new patterns of recreation participation, and new areas of growth and development in the County. The Projects proposed by *FMPA2* are not subject to County oversight.

Shasta County General Plan

The Shasta County General Plan addresses recreation needs as part of community development. While urban residents have established park agencies to provide a variety of developed recreation opportunities, rural residents lack facilities for gathering and playing. The General Plan requires town centers to develop community plans to include planning and implementation strategies for park and recreation facilities. The *Open Space and Recreation Element* addresses recreation at the countywide level and its relationship to the County's tourist industry. The Element includes a discussion of the resources and facilities provided by federal, State, and County governments, as well as private interests, designed to accommodate users throughout the County. Applicable goals within the element are as follows:

- *Policy OSR-a.* Protection of the open space resources under Shasta County jurisdiction shall be achieved primarily through policies recognizing the contributions of these resources to the economy of the County. Specifically, the Timber, Croplands, Grazing, and Small-Scale Croplands/Grazing, and Natural Resource Protection Habitat land use designations shall be used for this purpose. Other open space resources generally with no known economic value for timber, croplands, or grazing shall be classified as Natural Resources Protection – Open Space (N-O). The purpose of this N-O classification is to recognize open space values by permitting low density residential development along with the resource uses. Typically, lands classified as N-O are adjacent to major landforms, riparian corridors, habitat areas, etc. Residential densities that do not exceed one dwelling per twenty acres may be permitted. In recognition of their resource or open space value, federally-owned lands shall be classified as N-O. Land changed from public to private ownership shall remain in the N-O designation unless an approved General Plan amendment places the property in a more appropriate land use designation.

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Based on the appropriate findings, the District determined there would be ***no impacts*** on *Recreation.*

IMPACT ANALYSIS

The following evaluates environmental parameters related to *Recreation,* based on *State CEQA Guidelines Appendix G*. Addressed are areas for which there is potential for environmental impacts to justify conclusions of no impacts, less than significant impacts, or less than significant impacts with mitigation.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. RECREATION				
a. 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?				X
b. Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X

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?

As described under the impact discussion **Section XIV, POPULATION AND HOUSING**, the proposed *Study Area Projects* do not result in a significant increase in housing or population in the County, resulting in an increased use of neighborhood or regional parks. ***No impact*** would result in this regard.

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

The proposed *Study Area Projects* do not include recreational facilities, nor would they require the construction or expansion of recreational facilities, which might have an adverse effect on the environment. Implementing the *Study Area Projects* would not result in a substantially increased use of any area recreational facilities and would, therefore, not require new construction or the expansion of any existing recreational facilities. ***No impact*** would occur in this regard.

MITIGATION MEASURES

No mitigation measures are required.

FINDINGS

In the course of the above evaluation, impacts associated with *Recreation* were found not to be significant because the *Study Area Projects* proposed by *FMPA2* are unable to create such impacts or lack characteristics that would produce them. There is ***no impact***.

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XVII – TRANSPORTATION

The purpose of the evaluation is to assess the traffic and transportation impacts of the proposed Project on surrounding streets and intersections, and to evaluate Vehicle Miles of Travel (VMT). This section also discusses the proposed *FMPA2* and *Study Area Projects* in the context of roadway, bicycle, and pedestrian safety; emergency access; and potential hazards resulting from the geometric design features of the proposed Project.

ENVIRONMENTAL SETTING

There are two primary access points to the Shasta College Campus from Old Oregon Trail. The first is Shasta College Drive (South), located approximately 550 feet from the SR-299 westbound off-ramp and approximately 1,025 feet from the eastbound SR-299 off-ramp. The northern access point from Old Oregon Trail is also called Shasta College Drive (North) and is approximately 2,450 feet north of the intersection of Shasta College Drive (South) and Old Oregon Trail. Old Oregon Trail is a two to four-lane, north-south arterial that runs between State Route 44 (SR-44) to the south and Oasis Road to the north. Old Oregon Trail between Shasta College Drive (North) and Shasta College Drive (South) has a two-lane cross-section. SR-299 is an interregional highway in relatively close proximity to the Campus, with full-access interchanges with I-5, Churn Creek Road, and Old Oregon Trail. SR-299 has a four-lane divided cross-section through these interchanges.

Within Shasta County, the goals for bicycle and trail facilities are contained in the *Shasta County 2010 Bicycle Transportation Plan*. The Plan identifies that Old Oregon Trail from SR-44 to Oasis Road is a Class II Bike Lane. The California Department of Transportation (Caltrans) defines a Class II Bike Lane.

> "Class II Bike Lanes are restricted rights-of-ways designated for the exclusive or semi-exclusive use of bicycles. Travel by motor vehicles or pedestrians are not allowed; except for vehicle parking and cross flows. In most cases, Class II Bikeways require a lane of at least four feet of well-maintained pavement for the cyclist to ride on."

According to the Shasta County Public Health Department, Shasta College students and faculty previously identified the intersection of Old Oregon Trail and Collyer Drive, near the Shasta College Drive (South) entrance, as difficult for pedestrians and bicyclists to cross. The City of Redding applied for and received an Active Transportation Program grant. Through that process, the City and Shasta County received funding for the construction of the Old Oregon Trail Shasta College Active Transportation Project. The project limits were Old Oregon Trail from College View just south of Highway 299 to 300 feet North of Shasta College's entrance at Collyer Drive, plus on Shasta College Drive from the intersection of Collyer Drive and Old Oregon Trail to the College's South Parking Lot. Bike lanes were installed along with pavement markings and a flashing beacon on the Shasta College campus. In addition to the added bicycle lanes, intersection improvements were made for non-motorized users. The bicycle facility gap between the campus and existing bike lanes was reduced.

FMPA1 proposed replacing campus walkways, thereby offering the opportunity to improve and realign the pedestrian circulation network to address ADA needs and coordinate it with uses by alternative modes of transportation. The proposed pedestrian circulation network focuses not on connecting building entry points but on organizing pathways into a hierarchy that aids user wayfinding. These concepts were implemented as projects were constructed, including, but not limited to, the Library Building Renovation, Computer Information Systems Building, Regional Public Safety Training Center, Veterans Support and Success Center, Campus Safety Offices Renovation, and Career and Technical Education Building. The most recent projects were the Life Sciences and Student Services Buildings Renovations.

The primary roadway system through the campus is Shasta College Drive, which loops the Campus core, but often becomes a circuitous route, particularly in the northeast portion of the Campus where the majority of athletic facilities are located. There are other vehicular access routes throughout portions of the campus that would be difficult to use should an emergency arise. *FMPA2* reinforces that to accommodate future campus enrollment growth, a roadway realignment is proposed in the northeast area of the campus. This realignment aims to improve vehicular flow and provide space for additional roadway widening and additional parallel parking capacity, as necessary, near the underserved athletic fields.

There are several parking lots near the proposed *Study Area Projects*. *Study Area 1* can be served by the parking lot east of West Avenue, which has around 56 spaces. Two parking areas can serve the proposed *Student Housing Project* in *Study Area 3*. They are the *Dormitory Parking Lot* (Key ID P), in close proximity to the existing dormitories with about 56 spaces, and the *North Parking Lot* (Key ID N), whose northern boundary is Shasta College Drive (North) has around 579 spaces.

REGULATORY SETTING

California Department of Transportation

The California Department of Transportation (Caltrans) policies are applicable to SR-299 and are summarized in the *Guide for the Preparation of Traffic Impact Studies* (December 2002). These guidelines identify when a traffic impact study is required, what should be included in the study, analysis scenarios, and guidance on acceptable analysis methodologies. Caltrans endeavors to maintain a target service level of between LOS C and LOS D on State highway facilities; however, this may not always be feasible, and a lower service level may be acceptable.

Shasta County General Plan

The Shasta County General Plan Circulation Element sets forth future plans for the transportation systems in the County and represents the County's overall transportation plan to accommodate the movement of people and goods within and through the County. It establishes goals and policies to achieve a balanced transportation system that adequately serves the growth and development anticipated in the Land Use Element. The transportation plan consists not only of the physical transportation system itself, such as streets, highways, bicycle routes, and trails, but

also the various modes of transportation, such as cars, rail, buses, trucks (goods movement), bicycles, and walking. The following General Plan policy relates to traffic and transportation.

- *C-5c.* The County shall work with RTPA to implement the recommendations for development and improvement of bikeways and bicycle facilities as described in the County's adopted Bikeway Plan. New development projects should be evaluated for their consistency with the County Bikeway Plan. Where appropriate, new development should dedicate land and/or construct/install bicycle facilities.
- *C-6l.* New development which may result in exceeding LOS E on existing facilities shall demonstrate that all feasible methods of reducing travel demand have been attempted to reach LOS C. New development shall not be approved unless traffic impacts are adequately mitigated. Such mitigation may take the form of, but not limited to, the following:
    - Provision of capacity improvements to the specific road link to be impacted, the transit system, or any reasonable combination; and
    - Provision of demand reduction measures included as part of the project design or project operation or any feasible combination.

2022 Shasta County Regional Transportation Plan and Sustainable Communities Strategy for the Shasta Region

Shasta Regional Transportation Agency (SRTA) is the federally designated metropolitan planning organization (MPO) and state-designated regional transportation planning agency (RTPA) for Shasta County. SRTA is required to prepare and adopt a comprehensive regional transportation plan (RTP) covering a minimum 20-year planning horizon. The RTP for Shasta County is updated every four years. The purpose of the RTP is to "encourage and promote the safe and efficient management, operations, and development of a regional intermodal transportation system that, when linked with appropriate land use planning, will serve the mobility needs of goods and people" (California Transportation Commission 2010 RTP Guidelines). The RTP is implemented by way of shorter-term transportation improvement and work programs.

GoShasta Regional Active Transportation Plan

The *GoShasta Regional Active Transportation Plan* (ATP) "presents a visionary yet implementable plan that will strategically guide the development of programs and infrastructure for walking, bicycling, and connecting to transit in the Shasta Region. Improving bicycle and pedestrian connections throughout the region supports active transportation, links to transit, and provides people with viable means to travel longer distances without using a car. Improved connections also provide more opportunities for recreational riding, walking for exercise, and building a healthy, more economically competitive community. In addition to infrastructure

recommendations, the ATP also provides recommendations for support programs and initiatives to encourage people to walk, bike, and ride transit."[41]

ATP supports the bicycle transportation objectives of the general plans of Shasta County, and the cities of Anderson, Redding, and Shasta Lake. Additionally, BTP provides a transportation environment that encourages and promotes non-motorized means of transportation.

Senate Bill 743

Passed in 2013, SB 743 shifts the focus of transportation impact analysis under the California Environmental Quality Act (CEQA) from measuring impacts on drivers to measuring the impact of driving. The change has been made by replacing the level of service (LOS) with Vehicle Miles Traveled (VMT). This shift in transportation impact focus is intended to better align transportation impact analysis with outcomes that support the State's goals to reduce greenhouse gas (GHG) emissions, encourage infill development, and improve public health through more active transportation. Level of Service or other delay metrics may still be used to evaluate the impact of projects but are not used to determine a significant impact under CEQA.

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Based on the appropriate findings, the District determined there would be ***no impacts*** on *Transportation.*

IMPACT ANALYSIS

With the introduction of the *California Governor's Office of Planning and Research Technical Advisory*, *VMT* has become an important indicator for determining if a new development will result in a "significant transportation impact" under *CEQA*. Passed in 2013, *SB 743* changed the focus of transportation impact analysis in *CEQA* from measuring impacts on drivers to measuring the impact of driving. The change has been made by replacing *LOS* with *VMT*. This shift in transportation impact focus is intended to better align transportation impact analysis and mitigation outcomes with the State's goals of reducing greenhouse gas (GHG) emissions, encouraging infill development, and improving public health through increased active

[41] Shasta Regional Transportation Planning Agency. Updated August 2019. *GoShasta Regional Active Transportation Plan*

transportation. *LOS* or other delay metrics may still be used to evaluate the impact of projects, but are not used to determine a significant impact under *CEQA*.

A detailed VMT analysis is not required for land use elements of a project that meet identified screening criteria.[42] Therefore, the College may, at its discretion, make the determination that, based on the unique characteristics of not only the proposed *Study Area Projects*, but also the entire *FMPA2* area, is locally serving and therefore exempt from a detailed CEQA transportation analysis. The use of the Local Essential Service Screening Criteria results in a ***less than significant*** impact since Shasta College is a "local serving community college" and the Student Housing Project is not only "adjacent to a college campus or other similar educational facility," but is located on the Campus. Therefore, a VMT analysis is not required.

The following includes an analysis of environmental parameters related to *Transportation* based on *State CEQA Guidelines Appendix G*. The discussion not only includes the areas for which there is potential for environmental impacts but also provides justification for the conclusions that either no impacts, less than significant impacts, or less than significant impacts with mitigation could occur.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. TRANSPORTATION *Would the project:*				
a. Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?			X	
b. Conflict or be inconsistent with CEQA Guidelines Section 15064.3, Subdivision (b)?			X	
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				X
d. Substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	
e. Result in inadequate emergency access?			X	

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

FMPA1, which is a program plan, addresses transit, roadway, bicycle, and pedestrian facilities, but also the need for ADA compliance, establishing a hierarchy of pedestrian pathway use

[42] Kimley Horn. December 2023. *Analyzing Vehicle Miles Traveled for CEQA Compliance SB 743 Implementation Guidelines for the City of Scotts Valley*. Page 9. December 2023. https://www.scottsvalley.gov/DocumentCenter/View/4457/Analyzing-Vehicle-Miles-Traveled-for-CEQA-Compliance---December-2023. Website accessed February 19, 2026.

that includes bicycle travel, and roadway realignments to improve vehicular flow, and allows space to add additional roadway widening, albeit not currently needed. *FMPA2* reinforces the program plan. Potential impacts are ***less than significant***.

b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, Subdivision (b)?

A VMT analysis was not required because the use of the Local Essential Service Screening Criteria results in impacts that are ***less than significant***.

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

The Project has no potential to change air traffic patterns to or from the City of Redding Municipal Airport, which is strictly regulated by the *Comprehensive Airport Land Use Plan*, either through increased traffic levels or a change in location that results in substantial safety risks. There are ***no impacts***.

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

Although there are no existing hazardous design features of concern, the proposed roadways and driveways to be constructed will improve circulation; therefore, potential impacts are considered ***less than significant***.

e) Result in inadequate emergency access?

The proposed roadways and driveways to be constructed will provide emergency access by improving circulation between *Study Areas 1* and *2* by creating a roadway loop through the Regional Public Safety Training Facility to and from Shasta College Drive. *Study Area 1* proposes a connection to *Study Area 2* by extending West Avenue with a 40-foot-wide pavement width from Shasta College Drive to the northern boundary of *Study Area 1* and then extending a new 40-foot-wide roadway eastward through *Study Area 2*. This roadway will intersect with a 20-foot-wide roadway that extends south through the proposed Training Facilities, EVOC, Apparatus Facilities, and Stormwater Retention Facilities, and then intersect with Shasta College Drive. Potential impacts on emergency access resulting from the implementation of the proposed *FMPA2 Projects* are considered ***less than significant***.

MITIGATION MEASURES

No mitigation measures are required.

FINDINGS

The proposed *Study Area Projects* do not impact the capacity of the existing area road system, traffic circulation, or parking availability, thereby resulting in ***less than significant*** impacts on *Transportation*.

XVIII – TRIBAL CULTURAL RESOURCES

This section of the *Initial Study* describes the affected environment and regulatory setting for *Tribal Cultural Resources* (*TCRs*) on the Project site. Portions of the ensuing discussion are primarily derived from the February 2026, *Cultural Resources Inventory Report, Shasta College Master Plan Amendment Two, Shasta County, California*, prepared by Catalyst Environmental Solutions (Catalyst, 2025).[43] This document is not for public distribution because information on the specific location of prehistoric and historic sites is confidential and exempt from the Freedom of Information Act (FOIA) and the California Public Records Act (CPRA). Disclosure of this information to the public may be in violation of both federal and State laws. Applicable United States laws include, but may not be limited to, Section 304 of the National Historic Preservation Act (16 U.S.C. 470w-3). In California, such laws include, but are not limited to, Government Code Section 6254.10.

ENVIRONMENTAL SETTING

The College lies within the ethnographic territory claimed by the Stillwater band of the Wintu (Kroeber 1976). Ethnographic accounts of the Wintu are derived from four primary sources: DuBois (1935), Kroeber (1976), Morrato (1984) and LaPena (1978).

The Wintu political organization consisted of nine tribelets, each an independent social group that maintained a well-defined territory (LaPena 1978). Each territory was further divided into villages and camps, with villages being the primary social, political, and economic unit of the tribelet (LaPena 1978). The villages would contain between five and fifty conical bark houses, each of which could accommodate between three to seven family members. Some of the larger villages also had an earthen lodge that served as a gathering place for men. Unlike many hunter-gatherer groups, the Wintu were socioeconomically stratified, with each tribelet having a chief or headman (LaPena 1978).

According to LaPena (1978), the Wintu practiced a semi-sedentary subsistence/settlement strategy. Year-round villages were common, as were seasonal camps. The Wintu utilized a wide variety of resources in the production of tools and other utilitarian items (LaPena 1978; Clewett and Sundahl 1983). Woodland, grassland, and riverine environments provided a variety of materials suitable to a wide range of economic activities. Extensive trade existed within and between various Wintu villages, and limited trade existed with adjacent groups such as the Shasta, Pomo, and Chimariko.

Wintu mortuary practices included upright flexed burials in round pits approximately four feet deep (DuBois 1935; LaPena 1978). The individual's personal effects would eventually be broken and burned. Graveyards were typically located approximately 100 yards from dwellings and served either a family or a whole village (LaPena 1978). If remains of previous burials were encountered in the process, they were wrapped with the new burial and buried together.

[43] A copy of the report is available for review at the Shasta College Administrative Services Office Building 5000.

The earliest encounter between the Wintu and Euro-Americans occurred sometime between 1826 and 1827, when fur-trapping expeditions led by Jedidiah Strong Smith and Peter Skene Ogden came to the area (LaPena 1978). Following this initial contact, the Wintu people and culture suffered a number of devastating events that signaled a decline of the Wintu numbers in the area. It is estimated that approximately 75 percent of the Wintu population living along the Sacramento River was lost to malaria and influenza epidemics brought about by the arrival of European American trappers and settlers in the 1830s (LaPena 1978). In the 1840s and 1850s, Euro-Americans began settling in the area, acquiring land for ranching and mining that had been traditionally occupied by the Wintu. As a result, many of the Wintu were displaced from their land or killed outright (LaPena 1978). Throughout the 1860s, the remaining Wintu were forcibly removed from their lands and assigned to reservations. The final dispersal of the Wintu from their traditional lands occurred primarily due to flooding caused by the Shasta Dam and Central Valley Water projects. In 1910, an estimated 395 Wintu remained (LaPena 1978).

REGULATORY SETTING

This section summarizes current State and local regulations relevant to the review of *Tribal Cultural Resources* for this Project. Ordinances, regulations, or standards that are applicable to the environmental review of potential impacts related to *Tribal Cultural Resources* include the following:

Assembly Bill 52

Assembly Bill 52 (*AB 52*) amended *CEQA* to require that: 1) a lead agency provide notice to any California Native American tribes that have requested notice of projects proposed by the lead agency; and 2) for any tribe that responded to the notice within 30 days of receipt with a request for consultation, the lead agency must consult with the tribe. Topics that may be addressed during the consultation include tribal cultural resources, the potential significance of project impacts, the type of environmental document that should be prepared, and possible mitigation measures and project alternatives.

Pursuant to *AB 52*, *Section 21073 of the Public Resources Code* defines California Native American tribes as "a Native American tribe located in California that is on the contact list maintained by the NAHC (Native American Heritage Commission) for the purposes of *Chapter 905 of the Statutes of 2004*." This includes both federally and non-federally recognized tribes. *Section 21074(a) of the Public Resources Code* defines TCRs for the purpose of *CEQA* as:

1) Sites, features, places, cultural landscapes (geographically defined in terms of the size and scope), sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
   (a) included or determined to be eligible for inclusion in the *California Register of Historical Resources*; and/or
   (b) included in a local register of historical resources as defined in *Subdivision (k) of Section 5020.1*; and/or

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

Because criteria (a) and (b) also meet the definition of a Historical Resource under *CEQA*, a *TCR* may also require additional consideration as a Historical Resource. T*CRs* may or may not exhibit archaeological, cultural, or physical indicators.

Recognizing that California tribes are experts in their tribal cultural resources and heritage, *AB 52* requires the CEQA lead agency, which is Shasta College for the proposed *FMPA2 Projects*, to provide tribes that have requested notification an opportunity to consult at the commencement of the *CEQA* process to identify *TCRs*. Furthermore, because a significant effect on a *TCR* is considered a significant impact under *CEQA*, consultation is used to develop appropriate avoidance, impact minimization, and mitigation measures.

Tribal Consultation

No updated records search was performed by the Northeast Information Center at Chico State University (NEIC/CHRIS) for the current project. The campus property has been assessed by the NEIC/CHRIS six times since 2018, most recently in August 2024, with the results being redundant. In addition, no additional consultation was initiated with the Native American Heritage Commission and local Native Americans, as consultation has been conducted as part of the above-noted projects, three of which included the College campus and one which involved an adjacent parcel. The CEQA document for the *Shasta College Master Plan Amendment One Project* includes a mitigation measure that directs the College to notify appropriate Native American tribes prior to initial groundbreaking activities in natural, undisturbed areas to allow the tribes to provide a Native American monitor (Diaz 2019).

For previous efforts, ENPLAN, now Catalyst Environmental Solutions, the College's Cultural Resources sent certified Project notification letters to the Winnemem Wintu Tribe, Redding Rancheria, Wintu Tribe of Northern California, Greenville Rancheria of Maidu Indians, Quartz Valley Indian Community, Shasta Indian Nation, and Shasta Nation pursuant to *PRC Section 21080.3.1*. The letter notified the Tribes that the Project was under review and gave them 30 days from receipt to request consultation on the Project in writing.

IMPACT ANALYSIS

The following includes an analysis of environmental parameters related to *Tribal Cultural Resources* based on *State CEQA Guidelines Appendix G*. The discussion not only includes the areas for which there is potential for environmental impacts but also provides justification for the conclusions that either no impacts, less than significant impacts, or less than significant impacts with mitigation could occur.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. TRIBAL CULTURAL RESOURCES *Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:*				
a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or		X		
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.		X		

a) Listed *or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources?*

b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1?

Although much of the Campus has been substantially disturbed, there is a high potential to encounter previously unreported subsurface historical and archaeological resources (possibly including human remains) elsewhere during construction of the proposed Study Area Projects facilities and throughout the *FMPA2*. Implementation of ***Mitigation Measure CR-1*** under **SECTION V – CULTURAL RESOURCES** reduces potential impacts on Tribal Cultural Resources to a ***less than significant*** level.

MITIGATION MEASURES

The following mitigation measure, in addition to ***Mitigation Measures CR-1*** in **SECTION V – CULTURAL RESOURCES,** has been developed to reduce potential impacts related to *Tribal Cultural Resources* to ***less than significant*** levels:

Mitigation Measure TCR-1

Unanticipated Discovery – If any suspected *TCRs* are discovered during ground-disturbing construction activities, all work shall cease within at least 50 feet of the find. The College shall invite a Tribal Representative from a California Native American tribe that is traditionally and culturally affiliated with the geographic area to make recommendations about whether or not the discovery represents a *TCR* (*PRC Section 21074*) and, if so, to make recommendations for culturally appropriate treatment. The contractor shall implement any measures the College determines to be necessary. Work at the discovery location cannot resume until the treatment has been implemented to the satisfaction of the College.

FINDINGS

The probability of encountering historical or archaeological resources during construction is low in previously disturbed portions of the *Study Areas*. There is greater potential to encounter Native American-related historical or archaeological resources during construction in natural, undisturbed areas. However, adherence to state law and the implementation of ***Mitigation Measures***.***CR-1*** in **SECTION V – CULTURAL RESOURCES**, and ***Mitigation Measure TCR-1*** for the protection of currently unknown but potentially discoverable resources limits potential *Tribal Cultural Resources* impacts to a ***less than significant*** level.

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XIX – UTILITIES & SERVICE SYSTEMS

This section addresses the proposed Project's potential impacts on various Utilities and Service Systems, including water, wastewater, stormwater, solid waste, electricity, and telecommunications. Refer to **Section X, HYDROLOGY & WATER QUALITY**, for additional discussions regarding hydrology, water supply and quality, wastewater treatment, and stormwater drainage. This section also provides detailed discussions of the existing conditions of Utilities & Services Systems, as well as potential environmental impacts that could result from the proposed *FMPA2 Study Area Projects*.

ENVIRONMENTAL SETTING

The Shasta College Campus is served by a full complement of utilities and services provided by Shasta College (water distribution lines, wastewater, and storm drainage), Bella Vista Water District (water supply), Waste Management, Inc. (solid waste collection and landfill operation), and the Shasta County/Redding Management Agency (landfill oversight).

Other utilities are provided by Constellation (electricity), PG&E (solar generation distribution and transmission, and natural gas), AT&T and Spectrum (telephone, television, and internet), Dish, and DireTV (television). Refer to the discussion regarding *Campus Fabric Utilities* under the *Project Description* discussion for an overview of existing facilities.

REGULATORY SETTING

This section summarizes current State and local regulations relevant to the review of *Utilities and Service Systems* for this project. Ordinances, regulations, or standards that are applicable to the environmental review of potential impacts related to utilities and service systems include the following:

California Integrated Waste Management Act

The California Integrated Waste Management Act of 1989, or Assembly Bill (AB) 939, required the implementation of integrated waste management plans and mandated that local jurisdictions divert at least 50 percent of all solid waste generated (from 1990 levels), beginning January 1, 2000, and divert at least 75 percent by 2010. Projects that would have an adverse effect on waste diversion goals are required to include waste diversion mitigation measures to assist in reducing these impacts to less than significant levels. With the passage of Senate Bill (SB) 1016 (the Per Capita Disposal Measurement System) in 2006, only per capita disposal rates are measured to determine if a jurisdiction's efforts are meeting the intent of AB 939.

California Solid Waste Reuse and Recycling Access Act

The California Solid Waste Reuse and Recycling Access Act of 1991 (AB 1327) is codified in Public Resources Code Sections 42900-42911. As amended, AB 1327 requires each local jurisdiction to adopt an ordinance requiring commercial, industrial, or institutional building, marina, or

residential buildings having five or more living units to provide an adequate storage area for the collection and removal of recyclable materials. The size of these storage areas is to be determined by the appropriate jurisdictions' ordinance. If no such ordinance exists in the jurisdiction, the Cal Recycle model ordinance shall take effect.

2019 Shasta College Facilities Master Plan Amendment One Project Initial Study & Mitigated Negative Declaration

On March 13, 2019, the Board of Trustees (the "Board") of the Shasta-Tehama-Trinity Joint Community College District (the "District") adopted *Resolution No. 2018-19-22* reaffirming approval of the Shasta-Tehama-Trinity Joint Community College District's May 2018 *Shasta College Facilities Master Plan – Amendment One (FMPA1)* for the Shasta College Main Campus. As noted in **CHAPTER 2.0, PROJECT DESCRIPTION**, the Mitigated Negative Declaration evaluated the potential environmental impacts of the proposed *Shasta College Facilities Master Plan Amendment 1 Projects*.

Based on the appropriate findings, the District determined that there would be ***less than significant impacts*** on *Utility & Service Systems.*

IMPACT ANALYSIS

Utilities and services, as applicable, will need to be extended or individually provided to serve the proposed *Study Area Projects*.

Water, storm drain, electrical, and natural/propane gas lines will need to be extended or individually provided, as necessary, to serve *Study Area 1*. Wastewater is currently provided by an existing septic tank and leach field system. A 1,000-gallon propane tank is located in the Regional Public Safety Training Facility (RPSTF) area. An additional 500-gallon propane tank is planned to serve the 6-Story Fire Tower.

Water, wastewater, storm drain, electrical, and propane gas lines will need to be extended or installed to serve *Study Area 2*. The proposed Draeger Phase 1 will be a mobile, wood-fired structure. Oil and paint-free wood pallets to be used are stored on the west side of the 2950 Physical Plant Department Building, where the main Campus warehouse and Physical Plant offices are located, and behind the 6100 Fire Tech/A.O.J. Building located in the RPSTF area. A 500-gallon propane tank is planned to serve the Draeger Phase 1.

Water, wastewater, storm drain, electrical, and natural gas lines will need to be extended or installed to serve *Study Area 3*.

All the *Study Areas* will be provided with solid waste and telecommunications facilities as necessary.

Water

To supply water, the Bella Vista Water District (BVWD) diverts surface water from the Sacramento River, uses its groundwater wells and has a long-term contract to purchase water

from the U.S. Bureau of Reclamation (Bureau), whose water source is the Central Valley Project (CVP). This reliance on CVP water is subject to significant water-supply uncertainty and shortages during drought conditions. Whereas the goal of BVWD is to meet 100 percent of demand in normal years, it must rely on instituting water conservation measures during drought conditions.

The 2025 annual normal water supply was 24,474-acre feet (AF). Water demand in 2025 was 9,960 AF, projected to be 10,843 AF in 2045 under normal conditions. The 2025 surplus was 15,505 AF, which is projected to be 14,631 in 2045. During a multi-year dry period, CVP contract water can be reduced by 50 percent or more for municipal and industrial uses, and agricultural water can be reduced to 0 percent. Assuming a multiple-dry-year (drought) period (five years), BVWD's available water supplies are projected to be insufficient to meet the water demands.[44]

Due to the severe reductions in CVP supplies for the 2021-22 water year, BVWD declared a Stage 2 water shortage on March 22, 2021, which included the declaration of a water shortage emergency requiring customers to reduce their demand by at least 10% of their historical (average of their past three years) water usage. All water usage above 90% of their historical usage will be billed at an overuse penalty rate approximately 2.16 times BVWD's regular water consumption charge.[45]

On June 2, 2021, in response to CVP's further reduction of their water allocation for BVWD, a Stage 3 water shortage was declared requiring all customers to reduce their demand by at least 20% of their historical water usage, with usage above that amount subject to the overuse penalty rate.[46]

The DSA has implemented self-certification landscape requirements that are part of a broader effort to enhance water conservation and manage water resources effectively in California.[47] The requirements include the following key points:

- New and rehabilitated landscape areas must comply with the Model Water Efficient Landscape Ordinance (MWELO) prescriptive requirements.
- New landscape areas are required to include shade trees to be planted to provide over 20% of the landscape area within 15 years.
- Site Landscape Area Location Plan is not required for landscape-only work at existing facilities.
- Landscape documentation package must be completed in accordance with MWELO and Title 24, Part 11, Sections 301.4, 5.304.6, and 5.106.12.
- Periodic site observations are required during construction to ensure compliance with the requirements.

[44] Provost & Pritchard Consulting Group. Adopted June 21, 2021. Bella Vista Water District. *Urban Water Management Plan 2020 Update*.

[45] Ibid. Pages 83 and 84. 2 Water Shortage is a result of a moderate water shortage of 80% to 90% of normal water production.

[46] Ibid.

[47] DSA 1-L, *Outdoor Water Use Self-Certification Of Landscape And Irrigation Design Documentation Compliance*. https://www.documents.dgs.ca.gov/dgs/fmc/gs/dsa/DSA_1-L.pdf. Webpage accessed March 4, 2026.

- Updated documentation must be provided if the scope of landscape work changes prior to or during construction.

Self-certification is a two-step process: 1) at the initial submittal to DSA, and 2) after completion of the installation of the irrigated landscape areas. The 2025 California Green Building Standards Code (also known as the CALGreen Code) features mandatory provisions for community college buildings to reduce outdoor water use for landscape irrigation.

The California Department of Water Resources (DWR) has established specific square-footage requirements for new irrigated landscape installations under the Model Water-Efficient Landscape Ordinance (MWELO). These areas are defined as follows:

- New irrigated landscape installations: When the new aggregate area of irrigated landscape within the scope of a project is 500 square feet or greater.
- Rehabilitated irrigated landscape installations: When the rehabilitated aggregate area of irrigated landscape within the scope of a project is 1,200 square feet or greater.

Potential impacts on the water supply are considered ***less than significant***.

Wastewater

As part of the replacement, renovations, or building construction, the *Study Area Projects* will relocate, reconnect, replace, or construct new or expanded wastewater lines to dispose of wastes to be treated at the College's *Wastewater Treatment* facilities, which do not have to be expanded. The Project will not violate wastewater treatment requirements. Potential impacts are considered ***less than significant***.

Stormwater Drainage

The existing storm drain system appears to be functioning adequately in the areas where it exists. However, large portions of the campus are not connected to the storm drain system. There is an existing Stormwater Retention Pond in *Study Area 2* that will need to be expanded to accommodate the proposed *Study Area 2* Projects, in particular the CAL FIRE Training and EVOC facilities, which will generate potentially significant water runoff due to the significant areas of hard surfaces. These and the other future construction projects proposed for the *Study Areas*, not connected to the storm drain system, will be analyzed, and if necessary, the storm drain system will be expanded to include these *Study Areas* as part of the *FMPA2*. Potential impacts are considered ***less than significant***.

The following includes an analysis of environmental parameters related to *Utility & Service Systems* based on *State CEQA Guidelines Appendix G*. The discussion not only includes the areas for which there is potential for environmental impacts but also provides justification for the conclusions that either no impacts, less than significant impacts, or less than significant impacts with mitigation could occur.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. UTILITY & SERVICE SYSTEMS *Would the project:*				
a. Require or result in the relocation or construction of new or expanded water or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?			X	
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?			X	
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			X	
d. Generate solid waste in excess of State or local standards, or infrastructure, or otherwise impair the attainment of solid waste reduction goals?			X	
e. Comply with federal, state, and local statutes and regulations related to solid waste?			X	

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

Water

To serve the proposed *Study Area Projects 1* and *2*, the Bella Vista Water District (BVWD) does not need to construct or expand water treatment facilities. When the proposed *Study Area 3 Student Housing Project* is funded and constructed, the College and the BVWD will continue to coordinate efforts to ensure continued water provision. Potential impacts are ***less than significant***.

Wastewater

As part of the replacement, renovations, or building construction, the *Study Area Projects* will relocate, reconnect, replace, or construct new or expanded wastewater lines to dispose of wastes to be treated at the College's *Wastewater Treatment* facilities, which do not have to be expanded. The Project will not violate wastewater treatment requirements. Potential impacts are ***less than significant***.

Utilities

Implementation of the proposed project will require the relocation or construction of expanded electricity, gas, and telecommunication facilities. Potential impacts are ***less than significant***.

Stormwater Drainage

The existing Stormwater Retention Pond in *Study Area 2* will be expanded to accommodate the proposed *Study Area 2* Projects. These and other future construction projects proposed for the Study Area 3 Student Housing Project will be analyzed, and, if necessary, the storm drain system will be extended or expanded to include these *Study Areas* as part of the *FMPA2*. Potential impacts are considered ***less than significant***.

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

To serve the Project, the Bella Vista Water District (BVWD) has sufficient water supplies available to serve the proposed *Study Area Projects* and reasonably foreseeable future development in *FMPA2* during normal years. During normal and multiple dry years, the BVWD has policies to continue providing water.

Given BVWD's ability to provide water during normal, dry, and multiple dry years and the College's ability to significantly reduce the amount of overall campus water consumption, particularly with respect to the selective removal of non-native trees and the conversion of turf and shrub areas to hardscape and native vegetation; the Project's potential impacts on water supplies are considered ***less than significant***.

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

The Campus's wastewater treatment facilities have adequate capacity to serve the proposed *Study Area Projects*. Potential impacts are considered ***less than significant***.

d) *Generate solid waste in excess of State or local standards, or infrastructure, or otherwise impair the attainment of solid waste reduction goals?*

The College disposes of solid waste at the Richard W. Curry West Central Landfill, which has adequate capacity to serve the area through 2034. Potential solid waste impacts will be ***less than significant***.

e) *Comply with federal, State, and local management and reduction statutes and regulations related to solid waste?*

Solid waste collection and disposal within California is subject to the provisions of the California Integrated Waste Management Act. In addition, Shasta College complies with all regulations to ensure compliance with State mandates, in particular applicable elements of

the California Solid Waste Reuse and Recycling Access Act of 1991, as amended. Potential impacts will be ***less than significant***.

MITIGATION MEASURES

No mitigation measures are required.

FINDINGS

Based on the review of the information provided, the implementation of the proposed *Study Area Projects* will have ***less than significant impacts*** on *Utilities & Service Systems*.

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XX – WILDFIRE

This section of the *Initial Study* provides an analysis of potential *Wildfire* impacts. The analysis considers the proposed potential impacts on emergency access and evacuation routes to and from the *Study Areas*, as well as the fire risk that may result in temporary or ongoing environmental impacts during or following a fire.

ENVIRONMENTAL SETTING

Wildfires can be ignited by lightning or by human activity, such as smoking, campfires, equipment use, and arson. "Wildfires are costly, putting lives and property at risk and compromising rivers and watersheds, open space, timber, range, recreational opportunities, wildlife habitats, endangered species, historic and cultural assets, scenic assets, and local economies. Vulnerability to flooding and debris flows increases following wildfires due to the loss of forest and ground cover within watersheds. The potential for damage to life and property increases in areas where development is adjacent to densely vegetated areas, known as wildland-urban interface areas. (FEMA, 2020)."

Generally, the fire season extends from early spring through late fall each year during the hotter, drier months. Precipitation is usually at its lowest from July to September. Thunderstorm activity, which typically begins in June with wet storms, transitions to dry conditions with little or no precipitation reaching the ground as the season progresses into July and August. Drought conditions also may extend the fire season in Shasta County. Fire conditions arise and spread due to a combination of high temperatures, high intensity, low moisture content in the air and fuel, accumulation of vegetation, and high winds and their direction.

CAL FIRE has mapped areas of significant fire hazards in the state through its *Fire and Resources Assessment Program* (*FRAP*). CAL FIRE designates Shasta College as being in the *Moderate Fire Hazard Severity Zone* (*MFHSZ*) and in the *Very High Fire Hazard Severity Zone* (*VHFHSZ*) east of *Study Area 2*.[48]

Fire conditions arise from a combination of high temperatures, low moisture content in the air and fuel, vegetation accumulation, and high winds. The outbreak and spread of wildland fires within the *Study Areas* is a potential danger, particularly during the hot, dry summer and fall months. Various factors contribute to the intensity and spread of wildland fires: humidity, wind speed and direction, vegetation type, vegetation amount (fuel), and topography. The climate and vegetation of much of the area are conducive to the spread of wildland fires once started.

In July 2018, the Carr Fire swept from the Whiskeytown Lake area to northwestern Redding, with varying degrees of fire intensity. Where the fire burned cooler, many residential and commercial structures survived. In many areas, the fire burned extremely hot, resulting in nearly complete destruction of structures and vegetation.

[48] CAL FIRE, *Fire Hazard Severity Zones*. https://osfm.fire.ca.gov/what-we-do/community-wildfire-preparedness-and-mitigation/fire-hazard-severity-zones. Website accessed. February 21, 2026.

Fire Protection

Fire protection services for the project area are provided by the Shasta County Fire Department (SCFD) and the California Department of Forestry and Fire Protection (CAL FIRE), both based in the Redding area. CAL FIRE manages and oversees Campus Operations. CAL FIRE maintains automatic and mutual aid agreements with adjacent fire districts, including the Redding Fire Department and the City of Anderson Fire District.

CAL FIRE Station 73, located on campus in Building 2800, will provide services to the proposed *Study Area Project improvements*. The one-story, 6,119-square-foot building, with a sleeping loft, contains storage areas, offices, and the campus fire department. The jurisdictional range extends into the far regions of Jones Valley, Bella Vista, and the outskirts of the Shasta College campus. Station 73 has a minimum of a Type II structure fire engine, a Type III wildland fire engine, a rescue unit, and a water tender, in addition to the vehicles and equipment available at the Fire Training Center. The fire station has one Battalion Chief, three Fire Captains, three Fire Apparatus Engineers, and four Firefighters.*Fire Hazard Severity Zone*

As previously noted, CAL FIRE has mapped areas of significant fire hazards in the state through its *Fire and Resources Assessment Program* (*FRAP*). These maps place areas of the state into different *Fire Hazard Severity Zones* (*FHSZ*) based on a hazard scoring system that uses subjective criteria for fuels, fire history, topography, housing density, and occurrence of severe fire weather where urban conflagration could result in catastrophic losses. This classification system designates lands into three general classifications: *Moderate, High*, and *Very High Fire Hazard Severity Zones*.

As part of this mapping system, land where CAL FIRE is responsible for wildland fire protection, and which is generally located in unincorporated areas, is classified as a State Responsibility Area (SRA). CAL FIRE currently identifies the project site as an SRA (CAL FIRE, 2024). In addition to establishing local or state responsibility for wildfire protection in a specific area, CAL FIRE designates the Campus as being in a *Moderate Fire Hazard Severity Zone* (*MFHSZ*) and *Very High Fire Hazard Severity Zone* (*VHFHSZ*) in the area east of *Study Area 2*.

CAL FIRE 2024 Strategic Fire Plan

"The CAL FIRE 2024 Strategic Fire Plan focuses on fire prevention, suppression, and natural resource management to reduce wildfire hazards and protect lives, property, and ecosystems. The plan includes strategies for community wildfire preparedness and mitigation, hazard inspections, education, and grants for wildfire prevention efforts. CAL FIRE's Utility Wildfire Mitigation Program aims to mitigate wildfires caused by electric utilities, while the Wildfire Prevention Grants Program funds projects in fire-threatened communities. The plan also emphasizes the importance of partnerships and external relations to enhance the department's capabilities and effectiveness in addressing wildfire risks."[49]

[49] CAL FIRE. *CAL FIRE Strategic Plan 2024*. https://www.fire.ca.gov/about/cal-fire-strategic-plan-2024. Accessed March 4, 2026.

REGULATORY SETTING

This section summarizes current federal, state, and local regulations relevant to the review of *Wildfire* for this Project. Ordinances, regulations, or standards that are applicable to the environmental review of potential impacts related to wildfire hazards include the following:

California Department of Forestry and Fire Protection

CAL FIRE protects the people of California from fires, responds to emergencies, and protects and enhances forest, range, and watershed values, providing social, economic, and environmental benefits to rural and urban citizens. The Office of the State Fire Marshal supports CAL FIRE's mission by focusing on fire prevention. The Office provides support through a wide variety of fire safety responsibilities including by regulating buildings in which people live, congregate, or are confined; by controlling substances and products which may, in and of themselves, or by their misuse, cause injuries, death, and destruction by fire; by providing statewide direction for fire prevention in wildland areas; by regulating hazardous liquid pipelines; by reviewing regulations and building standards; and by providing training and education in fire protection methods and responsibilities.

2025 California Building Code

One of the several notable changes in the *2025 California Building Code* (CBC), which will become effective January 1, 2026, is the creation by the International Code Council of the *Wildland-Urban Interface* (*WUI*) *Code*. The new code is aimed at reducing wildfire risk. California repealed *CBC Chapter 7A* and adopted the new *WUI* code, incorporating prior California amendments.

California Fire Code

The *California Fire Code* (*CFC*) is contained within *Title 24, Chapter 9 of the California Code of Regulations*. Based on the *International Fire Code*, the *CFC* was created by the California Buildings Standards Commission and regulates the use, handling, and storage requirements for hazardous materials at fixed facilities. Similar to the *International Fire Code*, the *CFC* and *the California Building Code (CBC) use a hazard classification system to determine the appropriate measures* to protect life and property.

2025 California Public Resources Code

The *2025 California Public Resources Code Section 42*90 requires minimum fire safety standards related to defensible space that apply to state responsibility area lands under the authority of CAL FIRE and to lands classified and designated as *Very High Fire Hazard Severity Zones*, as defined in *subdivision (i)* of *Government Code Section 51177*. These regulations apply to the perimeters and access to all residential, commercial, and industrial building construction within *SRAs* approved after January 1, 1991, and within lands classified and designated as *Very High Fire Hazard Severity Zones*, as defined in *subdivision (i)* of Section 51177 of the Government Code after July 1, *2021*.

IMPACT ANALYSIS

Publications were reviewed and evaluated to assess the proposed Project's overall impacts on wildfire risk. The following includes an analysis of environmental parameters related to *Wildfire* based on *State CEQA Guidelines Appendix G*. The discussion not only includes the areas for which there is potential for environmental impacts but also provides justification for the conclusions that either no impacts, less than significant impacts, or less than significant impacts with mitigation could occur.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. WILDFIRE: If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:				
a. Substantially impair an adopted emergency response plan or emergency evacuation plan? ?			X	
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?			X	
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?			X	
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?			X	

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

Refer to impact discussion **IX. f**) under **SECTION IX – HAZARDOUS AND HAZARDOUS MATERIALS**. There would be ***less than significant*** *impacts* associated with substantial impairment of an emergency response plan or emergency evacuation plan.

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

Together, slope and prevailing winds can create dangerous conditions, especially in hilly or mountainous areas with strong winds. Fires tend to spread more rapidly uphill due to rising

smoke and heat, which further dries out the fuel. Conversely, fires spread more slowly downhill because they cannot preheat the downhill fuel as effectively, since the flames above them preheat the fuel, making it easier to ignite. Therefore, upslope topography increases the rate of fire spread compared to level conditions.

Wind has one of the largest (and most unpredictable) impacts on how quickly a wildfire spreads. Wind supplies the fire with extra oxygen, dries out potential fuels, and pushes the fire across the land. The speed of the wind has a direct correlation to the speed of a fire's spread – the stronger the wind, the faster the fire grows. It can also throw embers into the air, creating additional fires, or thrust the fire upwards, causing the tree canopy to burn – otherwise known as a crown fire.[50]

The topography not only in the *Study Areas*, but throughout the Campus is relatively level and gently sloping, as is the surrounding area. As noted, the *Study* Areas and *FMPA2* are located within an *SRA*, *MFHSZ*, and *VHFHSZ* for fire protection. Landowners within this designated area are subject to the requirements of *California Public Resources Code* (*PRC*) *Sections 4125* and *4142*. *PRC Section 4291* establishes six maintenance requirements for whoever owns, leases, controls, operates, or maintains any buildings or structures in, upon, or adjoining any mountainous or forest-covered lands, brush-covered lands, or grass-covered lands, or any land covered in flammable material. These maintenance requirements include fuel management, maintaining defensible space, and providing emergency access.

The Campus's existing firefighting resources, in addition to the on-site water resources available for fire suppression, would help reduce the potential for the *Study Area Projects* to exacerbate existing fire hazard risks. Additionally, the proposed landscaping, with associated trees, provides a long-term opportunity to reduce fire danger in the area by spacing plantings and eliminating fuel ladders.

It is believed that fire suppression is highly effective when firefighters can extinguish fires early. During 1995–2005, more than 97% of US wildland fires were extinguished almost immediately while they were very small. Therefore, a location with readily accessible access is important to allow firefighting efforts to begin as quickly as possible.

Potential impacts related to slope, prevailing winds, and other factors, such as location and access, that could exacerbate wildfire risks and expose occupants to pollutant concentrations from a wildfire or its uncontrolled spread are considered ***less than significant***.

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

The proposed *Study Area Projects* must comply with the defensible space standards outlined in *California Public Resources Code 4291*. Furthermore, they must comply with all applicable

[50] Western Fire Chiefs Association. July 30, 2024. *How Fast Do Wildfires Spread?* https://wfca.com/wildfire-articles/how-fast-do-wildfires-spread/. Accessed October 22, 2024.

California Fire Code requirements for constructing and operating *Study Area Project*-related activities within an *MFHSZ* and a *VHFHSZ*, including, but not limited to, requirements for water supply, signage, and fire department access.

Full access roads and driveways will be provided as part of the proposed improvements, including a roadway loop connection from Shasta College Drive to the Fire Training Center, *Study Areas 1* and *2*, and back to Shasta College Drive. Also, along the northern property line from the western limit of *Study Area 1* to Old Oregon Trail, emergency access with an all-weather road exists. *Study Area 3* has direct frontage along Shasta College Drive.

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

The proposed *FMPA2 Study Area Projects* would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, resulting from runoff, post-fire slope instability, or drainage changes. The locations of the proposed *Study Area Projects* do not fall within a *Federal Emergency Management Agency* (*FEMA*) *Flood Zone*, nor are there any sheer or unstable cliffs in the immediate area that could result in landslides.

The development of the proposed *Study Area Projects* does not significantly alter existing onsite drainage patterns but would introduce a significant area of impervious surfaces in *Study Area 2* compared to existing conditions. Downslope or downstream drainage patterns would not be significantly impacted due to the improvement of the existing *Retention Pond* to which *Study Area 2* improvements would flow. Also, due to the relatively level on-site and off-site topographic conditions, there is no risk of creating or being impacted by landslides.

The proposed Project is subject to compliance with the SWRQCB *Water Quality Permit Order No. 2014-0057-DWQ* and implementation of *Best Management Practices* (BMPs) to reduce stormwater quality impacts. The *Industrial General Permit* expired on June 30, 2020, but is administratively continued in accordance with *40 Code of Federal Regulations 122.6* until a new permit is issued.

Considering the *Study Area Projects* site features and characteristics, potential future post-fire conditions are not expected to increase the risks of runoff and erosion. Also, due to compliance with SWRQCB Water Quality Permit Orders and erosion control BMPs, potential impacts associated with runoff, post-fire slope instability, or drainage changes are considered ***less than significant***.

MITIGATION MEASURES

No mitigation measures are required.

FINDINGS

Based upon the review of the information above, implementation of the proposed *Study Area Projects* within *FMPA2* will have a ***less than significant impact*** with respect to *Wildfire*.

XXI – MANDATORY FINDINGS OF SIGNIFICANCE

Based on the analysis undertaken as part of this *Initial Study*, the following findings can be made:

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

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 the self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number, or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Evaluation of the proposed *FMPA2 Study Area Projects,* as provided in **SECTION IV, BIOLOGICAL RESOURCES**, has shown that the activities of the proposed *FMPA2 Study Area Projects* do not have the potential to degrade the environment and will not substantially reduce the habitat or cause wildlife populations to drop below self-sustaining levels. ***Mitigation Measures*** for biological resources have been developed to reduce potential impacts on sensitive habitats and species to ***less than significant levels***.

Based on the discussion and findings in **SECTION V, CULTURAL RESOURCES**, there is evidence to support a finding that the proposed *FMPA2 Study Area Projects* are not eligible for listing

in the *National Register of Historic Places* (*NRHP*) or the *California Register of Historic Resources* (*CRHR*) under any significance criteria. The proposed *FMPA2 Study Area Projects* are located in an area that appears to be sensitive for prehistoric or historic occupation and is considered low in sensitivity for surface sites and a low to moderate sensitivity for subsurface sites. Although no archaeological deposits or features are known to occur onsite, implementation of ***Mitigation Measures*** for cultural and Tribal cultural resources will ensure that any additional archaeological deposits or features discovered are fully protected during construction, thereby reducing potential impacts to ***less than significant levels***.

As discussed in **SECTION X, HYDROLOGY & WATER QUALITY,** the potential for on-site and/or off-site flooding impacts resulting from future improvements in the *FMPA2*, in particular the *Study Area 2 Projects* proposing the development of buildings, roadways, driveways, or any other improvement resulting in the creation of impervious surfaces, shall be reduced by the implementation of ***Mitigation Measures***. The expansion of the existing retention pond in *Study Area 2*, and any other stormwater-related improvements recommended by a licensed civil engineer or hydrogeologist, shall be implemented to reduce potential impacts to ***less than significant levels***.

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)?*

CEQA Guidelines Section 15130 et. seq. requires an analysis of the cumulative impacts of a proposed project in conjunction with other closely related past, present, and reasonably foreseeable probable future projects that affect or could affect the project area. As discussed throughout this document, implementation of the proposed *FMPA2 Study Area Projects* has the potential to result in environmental impacts that are individually limited but could initially be considered cumulatively considerable. Cumulative conditions refer to the analysis scenarios that reflect future conditions with regard to air quality emissions, biological resources, energy consumption, greenhouse gas emissions, and water supply.

The proposed *FMPA2 Study Area Projects* have the potential to contribute to significant cumulative GHG emissions and cumulative impacts on local air quality – particularly to an existing non-attainment condition for ozone within the Northern Sacramento Valley Air Basin. However, implementation of ***Mitigation Measures*** to reduce potential air quality impacts, imposition of construction and operational related emission reduction measures, regulations, and oversight provided by Shasta College, the SCAQMD, applicable State and Federal agencies, and measures that are an integral part of the *FMPA2 Study Area Projects*; and measures prescribed in the air quality and GHG emissions sections will reduce the cumulative air quality and GHG impacts to ***less than significant levels***.

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

The potential for the proposed *FMPA2 Study Area Projects* to result in environmental effects that could adversely affect human beings, either directly or indirectly, has been discussed throughout this *Initial Study*. In instances where the proposed *FMPA2 Study Area Projects* have the potential to result in direct or indirect adverse effects on human beings, including impacts on aesthetic, air quality, biological, cultural, and tribal cultural resources, and hydrology and water quality, ***Mitigation Measures*** have been applied to reduce the impact to ***below a level of significance***. In other instances, the *FMPA2 Study Area Projects* design and compliance with existing laws and regulations would also reduce potential significant impacts to ***less than significant levels***. Therefore, the proposed *FMPA2 Study Area Projects*, as designed, mitigated, and in compliance with existing regulatory requirements, would not have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly. Therefore, impacts with ***Mitigation Measures*** incorporated would be ***less than significant.***

MITIGATION MEASURES

The following are the ***Mitigation Measures*** referenced above to reduce potential impacts associated with aesthetics, air quality, biological and cultural resources, hydrology and water quality, and tribal cultural resources to levels that are ***less than significant***.

II. AESTHETICS

Mitigation Measure BR-8 is also applicable to Aesthetics. Refer to **SECTION IV. BIOLOGICAL RESOURCES** to review the **Mitigation Measure**.

III. AIR QUALITY

Mitigation Measure AQ-1

The following measures shall be implemented throughout construction:

a. *All material excavated, stockpiled, or graded shall be covered or sufficiently watered as necessary to prevent fugitive dust from leaving property boundaries and causing a public nuisance or a violation of ambient air quality standards.*
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.

g. Paved streets in and adjacent to the construction site shall be swept or washed at the end of the day (or more frequently if needed) 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.

i. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications.

IV. BIOLOGICAL RESOURCES

Mitigation Measure BR-1

- To avoid impacts to active bat maternity colonies, tree removal for trees of 12" diameter at breast height (DBH) or larger shall occur only during the following time frames and subject to the following weather conditions, or as otherwise approved/recommended by a qualified bat biologist:
    - Between March 1 (or after evening temperatures rise above 45°F, and/or no more than ½" of rainfall within 24 hours occurs), and April 15; and
    - Between September 1 and October 15 (or before evening temperatures fall below 45°F, and/or more than ½" of rainfall within 24 hours occurs).
- Unless deemed unnecessary by the qualified bat biologist, trees greater than 12" DBH shall be removed using a two-step process to allow bats the opportunity to abandon the roost prior to removal. The two-step removal process shall be as follows:
    - Day 1: Remove small-diameter trees, brush, and non-habitat features of large trees (branches without cavities, crevices, or exfoliating bark), using chainsaws for cutting, and chippers wherever possible to cause a level of noise and vibration disturbance sufficient to cause bats to choose not to return to the tree for a few days after they emerge to forage.
    - Day 2: Remove the remainder of the trimmed tree.

Mitigation Measure BR-2

In order to avoid impacts to nesting migratory birds and/or raptors protected under the federal Migratory Bird Treaty Act of 1918 and California Fish and Game Code §3503, including their nests and eggs, the following measures shall be implemented:

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

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. 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.

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 conditions that may have affected the survey results (e.g., weather conditions, excess noise, the presence of predators, etc.).

The results of the survey shall be submitted electronically to the California Department of Fish and Wildlife at R1CEQARedding@wildlife.ca.gov *upon completion.*

If active nests are found, Shasta College shall consult with the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service 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, work-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 on-going monitoring by biologists.

Mitigation Measure BR-3

In conjunction with preparation of improvement plans for the project, the project engineer shall identify all improvements that would occur outside of the area that was surveyed for biological resources (refer to ***Figure BR-1 in the Draft Initial Study****). All ground-disturbing projects proposed outside of the surveyed areas shall be subject to the following measures:*

Prior to implementation of new projects within the Shasta College Facilities Master Plan footprint, an evaluation shall be undertaken by a qualified biologist to determine if potentially significant biological resources may be adversely affected by the proposed work. The biological evaluation shall include review of current special-status species listings, a field evaluation to determine if potentially suitable habitat for the special-status species is present in or adjacent to the project site, focused species-specific surveys if warranted based on the results of the records review and habitat evaluation, and written documentation of the results of the biological review.

If special-status species would be affected by implementation of the proposed project, actions shall be taken to ensure that the impacts are less than significant. Such actions may include modifying the project to avoid/minimize adverse effects, changing the timing of work to avoid impacts, or excluding the species from the work area. If the special-status species cannot be fully avoided, mitigation shall be implemented at a minimum 1:1 ratio. This may consist of the purchase of credits to offset the loss of the species, or creation, restoration, or preservation of suitable habitat elsewhere on the campus or at an off-site location. Design and implementation of the avoidance, minimization, and mitigation measures shall be completed in consultation with the appropriate regulatory agencies.

Mitigation Measure BR-4

The potential for introduction and the spread of noxious weeds shall 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.*
- *Requiring the construction contractor to thoroughly wash all equipment at a commercial wash facility prior to entering the project site and immediately upon termination of its use at the project site.*

Mitigation Measure BR-5

In conjunction with preparation of improvement plans for the project, the project engineer shall identify all improvements that would occur outside of the area that was surveyed for biological resources (refer to ***Figure BR-1 in the Draft Initial Study****).*

In areas not previously surveyed, an evaluation shall be undertaken by a qualified wetland specialist or biologist to identify wetlands and other waters of the U.S. and/or State in the project footprint. If the biologist determines that no such resources are present, no further action is required.

If wetlands and other waters of the U.S. and/or State are present, the biologist shall consult with the U.S. Army Corps of Engineers, Central Valley Regional Water Quality Control Board, California Department of Fish and Wildlife, and other applicable agencies to determine required resource agency permits and permit conditions.

Shasta College shall obtain all necessary resource agency permits and comply with the permit conditions. The unavoidable loss of waters shall be mitigated at a minimum 1:1 ratio, or as otherwise required in the resource agency permits. Mitigation requirements shall be satisfied prior to commencement of earth-disturbing activities or as otherwise specified in the permits.

Mitigation Measure BR-6

To avoid and minimize indirect impacts to waters, Best Management Practices (BMPs) for soil stabilization, sediment control, and spill prevention shall be implemented to ensure that sediment/pollutant transport into waters of the U.S. and/or State is minimized. Other water quality control measures that may be required by resource agencies with permit authority over the project shall also be implemented.

Mitigation Measure BR-7

High-visibility indicators such as marking whiskers, pin flags, stakes with flagging tape, or other markers shall be installed along the outer edges of the construction zone adjacent to wetlands and other waters designated for avoidance. The marker/flag locations shall be determined by a qualified biologist in consultation with the project engineer and Shasta College. No construction activities (e.g., clearing, grading, trenching, etc.), including vehicle parking and materials stockpiling, shall occur within the marked/flagged area. The exclusionary markers/flags shall be periodically inspected during construction activities to ensure that the markers/flags are properly maintained. The markers/flags shall be removed upon completion of work.

Mitigation Measure BR-8

To minimize impacts to native trees and oak woodlands and offset the unavoidable loss of native trees and oak woodland habitat, the following measures shall be implemented. The loss of native trees greater than 5 inches DBH and oak woodlands shall be avoided/minimized and offset through implementation of the following:

- *Minimize loss of native trees and oak woodlands through careful pre-construction planning and design. Particular attention should be given to retaining the trees identified by the certified arborist as being of exceptional quality (see **Figure BR-7** in the Draft Initial Study).*
- *Erect temporary construction fencing or flagging along the outer edges of the construction zone where needed to prevent accidental entry into oak woodland habitat and under individual oaks planned for retention. Fencing/flagging shall be provided at least six feet outside of the dripline of all trees to be preserved (including individual native trees within the urban landscape). The fencing/flagging shall remain in place throughout construction. To the extent feasible, no construction activities (including grading, cutting or trenching), materials stockpiling, or equipment parking or storage, or vehicle parking shall occur within the fenced/flagged tree protection zone. If work must occur within the fenced/flagged tree protection zone, it shall be completed under the supervision of a certified arborist or the College horticulturist. Furthermore, site-specific measures recommended by the arborist or horticulturist to ensure tree protection shall be implemented.*

- *Shasta College shall offset the unavoidable loss of oak woodland habitat and the unavoidable loss of native trees within the urban landscape through replacement tree planting.*

  Prior to the removal of any healthy oak tree with a diameter at breast height (DBH) of 5 inches or greater, or 6 inches or greater DBH for other non-native tree species, the number of trees, species, and health shall be identified by a certified arborist (or by the College Horticulturist). A vegetation planting and management plan shall be prepared that identifies the planting area size and location, mitigation site protections (e.g., conservation easement or deed restrictions), planting objectives in terms of acreage or number of plants by species, planting and maintenance methods, success criteria, duration of monitoring, corrective actions to be taken if success criteria are not met, and reporting requirements.

  Trees removed shall be replaced either in close proximity to the construction activity or at a Tree Mitigation Site identified in the Shasta College Landscape Master Plan or other planning document. The mitigation ratio for all oak species removed shall be a 3:1 ratio, whereas mitigation for all other trees removed shall be at a 1:1 ratio. The College has the option to replace removed oak woodland areas at a 1:1 ratio, whereby (as an example) the removal of 10,000 square feet of oak woodland is replaced with 10,000 square feet of oak woodland. The minimum size of any replacement tree shall be 15 gallons.

V. CULTURAL RESOURCES

Mitigation Measure CR-1

To reduce potential impacts on cultural resources to a ***less than significant*** *level, the following measures shall be implemented.*

1. *In conjunction with the preparation of improvement plans for the Project, the project engineer shall identify all improvements that would occur outside of the area that was surveyed for archaeological and historical resources (refer to* ***Figure CR-1****).*

   Areas that were not previously surveyed by a qualified archaeologist shall be surveyed to identify potentially significant archaeological and historical resources following project-level design approval. If the archaeologist determines that no such resources are present, no further action is required. If such resources are present, additional evaluation shall be completed by a qualified archaeologist in accordance with the significance criteria set forth in the National Historic Preservation Act and the California Register for Historical Resources. Appropriate mitigation measures recommended by the archaeologist shall be implemented. Potential measures may include avoidance of the resource, site capping (burial), recordation of conservation easements, and/or data recovery.

2. *A qualified archaeologist shall monitor all initial groundbreaking activities associated with project implementation in natural, undisturbed areas due to the possibility that previously unidentified historical or archaeological features or artifacts may be present.*
3. *Shasta College shall notify the appropriate Native American tribal representative(s) prior to all initial groundbreaking activities associated with project implementation in natural undisturbed areas. The Tribe(s) shall be provided the opportunity to provide a Native American monitor due to the possibility that previously unidentified archaeological features or artifacts may be present.*
4. *If any previously unevaluated cultural resources (i.e., burnt animal bone, midden soils, projectile points or other humanly modified lithics, historical artifacts, etc.) are encountered, all earth-disturbing work shall stop within 50 feet of the find until a qualified archaeologist can make an assessment of the discovery and recommend/implement mitigation measures as necessary. Depending on the type and significance of the find, subsequent monitoring by an archaeologist or Native American may be warranted. This stipulation does not apply to those cultural resources that have been evaluated by a qualified archaeologist and determined not to qualify as Historical Resources/Historic Properties.*
5. *If any human remains are encountered during any phase of construction, all earth-disturbing work shall stop within 50 feet of the find. The county coroner shall be contacted to determine whether investigation of the cause of death is required as well as to determine whether the remains may be Native American in origin. Should Native American remains be discovered, the county coroner must contact the Native American Heritage Commission (NAHC). The NAHC will then determine those persons it believes to be most likely descended from the deceased Native American(s). Together with representatives of the people of most likely descent, a qualified archaeologist shall make an assessment of the discovery and recommend/implement mitigation measures as necessary.*

XI. HYDROLOGY AND WATER QUALITY

Mitigation Measure H-1

The potential for on-site and/or off-site flooding resulting from future improvements, including but not limited to buildings, athletic facilities, roadways, driveways, pedestrian and bicycle pathways, parking lots, or any other improvement resulting in the creation of impervious surfaces, shall be reduced by the expansion of the existing retention pond in Study Area 2. Other stormwater-related improvements recommended by a licensed civil engineer or hydrogeologist shall be implemented.

Stormwater drainage facilities shall be located in the general location of existing disturbed areas throughout the campus. If the facilities are proposed on land in a natural state, a

separate CEQA environmental clearance will be required, likely a Categorical Exemption, depending on the location and size of the structure.

If necessary, in-stream detention facilities can be constructed, provided the necessary U.S. Army Corps Nationwide or Individual Permit is obtained when impacting jurisdictional Waters of the U.S. If there is no Corps jurisdiction, then the in-stream detention/retention facility cannot be constructed until the State Regional Water Quality Control Board approves a Notice of Applicability to permit the fill to create the detention/retention facility. In addition, a State Fish & Wildlife 1602 Streambed Alteration Agreement would be required.

XVIII. TRIBAL CULTURAL RESOURCES

Mitigation Measure TCR-1

Unanticipated Discovery – If any suspected *TCRs* are discovered during ground-disturbing construction activities, all work shall cease within at least 50 feet of the find. The College shall invite a Tribal Representative from a California Native American tribe that is traditionally and culturally affiliated with the geographic area to make recommendations about whether or not the discovery represents a *TCR* (*PRC Section 21074*) and, if so, to make recommendations for culturally appropriate treatment. The contractor shall implement any measures the College determines to be necessary. Work at the discovery location cannot resume until the treatment has been implemented to the satisfaction of the College.

XXII – MITIGATION MONITORING & REPORTING PROGRAM

The *Mitigation Monitoring Program* (*MMRP*) for the *Shasta College Facilities Master Plan Amendment Two (FMPA2)* includes a brief discussion of the legal basis for and the purpose of the program, discussion, and direction regarding complaints about noncompliance, a key to understanding the monitoring table, and the monitoring table itself. The *MMRP* approved on April 15, 2026, by the District Board for the *FMPA2 Project* IS/MND, State Clearinghouse No. 2017022006, is incorporated herein by reference.

Legal Basis of and Purpose for the Mitigation Monitoring Program

California Public Resources Code Section 21081.6 requires public agencies to adopt mitigation monitoring or reporting programs whenever certifying an environmental impact report (EIR) or a mitigated negative declaration (MND). This requirement facilitates the implementation of all mitigation measures adopted through the CEQA process.

The *MMRP* contained herein is intended to satisfy the requirements of CEQA as they relate to the *FMPA2 Project*. It is intended to be used by the College, participating agencies, project contractors, and mitigation monitoring personnel during implementation of the *Study Areas 1, 2,* and *3 Projects*.

Mitigation is defined by CEQA Guidelines Section 15370 as a measure that does any of the following:

- Avoids impacts altogether by not taking a certain action or parts of an action.
- Minimizes impacts by limiting the degree or magnitude of the action and its implementation.
- Rectifies impacts by repairing, rehabilitating or restoring the impacted environment.
- Reduces or eliminates impacts over time by preservation and maintenance operations during the life of the project.
- Compensates for impacts by replacing or providing substitute resources or environments.

The intent of the *MMRP* is to ensure the effective implementation and enforcement of adopted mitigation measures and permit conditions. The *MMRP* will provide for monitoring of construction activities as necessary, on-site identification and resolution of environmental problems, and proper reporting to Agency staff.

Mitigation Monitoring Table MMRP-1 identifies the mitigation measures proposed for the *FMPA2 Project*. The table has the following columns:

- **Mitigation Measure:** Lists the mitigation measure along with its number as identified in the Initial Study/MND for each specific impact.
- **Timing:** Identifies at what point in time, review process, or phase the mitigation measure will be completed.
- **Agency Monitoring/Consultation:** References Tehama County or any other public agency with which coordination is required to satisfy the identified mitigation measure.
- **Verification:** Spaces to be initialed and dated by the individual designated to verify adherence to a specific mitigation measure.

Noncompliance Complaints

Any person or agency may file a complaint asserting noncompliance with the mitigation measures associated with the *Study Area 1, 2,* and *3 Projects*. The complaint shall be made in writing to the College, providing specific information regarding the asserted violation. The College shall investigate and determine the validity of the complaint. If noncompliance with a mitigation measure has occurred, the

College shall take appropriate action to remedy the violation. The complainant shall receive written confirmation indicating the results of the investigation or the final action corresponding to the particular noncompliance issue.

TABLE MMRP - 1 Mitigation Monitoring & Reporting Program			
Mitigation	**Timing/ Implementation**	**Agency Monitoring/ Consultation**	**Verification (Date & Initials)**
I. AESTHETICS			
*Refer to Section IV. Biological Resources Mitigation Measure **BR-8**.*	Preparation of improvement plans, before and during construction.	Director of the Physical Plant or Designee, Certified Arborist, or the College Horticulturist, Contractor.	
III. AIR QUALITY			
***AQ-1** – The following measures shall be implemented throughout construction:* *a. All material excavated, stockpiled, or graded shall be covered or sufficiently watered as necessary to prevent fugitive dust from leaving property boundaries and causing a public nuisance or a violation of ambient air quality standards.* *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.* *g. Paved streets in and adjacent to the construction site shall be swept or washed at the end of the day (or more frequently if needed) 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.* *i. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications.*	During construction.	Director of the Physical Plant or Designee, Shasta County Air Quality Management District, Contractor.	
IV. BIOLOGICAL RESOURCES			
BR-1 • *To avoid impacts to active bat maternity colonies, tree removal for trees of 12" diameter at breast height (DBH) or larger shall occur only during the following time frames and subject to the following weather conditions, or as otherwise approved/recommended by a qualified bat biologist:* o *Between March 1 (or after evening temperatures rise above 45°F, and/or no more than ½" of rainfall within 24 hours occurs), and April 15; and*	Prior to tree removal.	Director of the Physical Plant or Designee, Qualified Bat Biologist, Contractor.	

TABLE MMRP - 1 Mitigation Monitoring & Reporting Program			
Mitigation	**Timing/ Implementation**	**Agency Monitoring/ Consultation**	**Verification (Date & Initials)**
o Between September 1 and October 15 (or before evening temperatures fall below 45°F, and/or more than ½" of rainfall within 24 hours occurs). • *Unless deemed unnecessary by the qualified bat biologist, trees greater than 12" DBH shall be removed using a two-step process to allow bats the opportunity to abandon the roost prior to removal. The two-step removal process shall be as follows:* *o Day 1: Remove small-diameter trees, brush, and non-habitat features of large trees (branches without cavities, crevices, or exfoliating bark), using chainsaws for cutting, and chippers wherever possible to cause a level of noise and vibration disturbance sufficient to cause bats to choose not to return to the tree for a few days after they emerge to forage.* *o Day 2: Remove the remainder of the trimmed tree.*			
BR-2 – *In order to avoid impacts to nesting migratory birds and/or raptors protected under the federal Migratory Bird Treaty Act of 1918 and California Fish and Game Code §3503, including their nests and eggs, the following measures shall be implemented:* *Vegetation removal and other ground-disturbing activities associated with construction shall occur between September 1 and January 31 when birds are not nesting; or* *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. 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.* *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 conditions that may have affected the survey results (e.g., weather conditions, excess noise, the presence of predators, etc.).* *The results of the survey shall be submitted electronically to the California Department of Fish and Wildlife at R1CEQARedding@wildlife.ca.gov upon completion.* *If active nests are found, Shasta College shall consult with the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service 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, work-exclusion buffers, sound-attenuation measures,*	Prior to tree removal and grading.	Director of the Physical Plant or Designee, Qualified Biologist, Contractor.	

TABLE MMRP - 1 Mitigation Monitoring & Reporting Program			
Mitigation	**Timing/ Implementation**	**Agency Monitoring/ Consultation**	**Verification (Date & Initials)**
seasonal work closures based on the known biology and life history of the species identified in the survey, as well as on-going monitoring by biologists.			
***BR-3** – In conjunction with preparation of improvement plans for the project, the project engineer shall identify all improvements that would occur outside of the area that was surveyed for biological resources (refer to Figure BR-1 in the Initial Study). All ground-disturbing projects proposed outside of the surveyed areas shall be subject to the following measures:* *Prior to implementation of new projects within the Shasta College Facilities Master Plan footprint, an evaluation shall be undertaken by a qualified biologist to determine if potentially significant biological resources may be adversely affected by the proposed work. The biological evaluation shall include review of current special-status species listings, a field evaluation to determine if potentially suitable habitat for the special-status species is present in or adjacent to the project site, focused species-specific surveys if warranted based on the results of the records review and habitat evaluation, and written documentation of the results of the biological review.* *If special-status species would be affected by implementation of the proposed project, actions shall be taken to ensure that the impacts are less than significant. Such actions may include modifying the project to avoid/minimize adverse effects, changing the timing of work to avoid impacts, or excluding the species from the work area. If the special-status species cannot be fully avoided, mitigation shall be implemented at a minimum 1:1 ratio. This may consist of the purchase of credits to offset the loss of the species, or creation, restoration, or preservation of suitable habitat elsewhere on the campus or at an off-site location. Design and implementation of the avoidance, minimization, and mitigation measures shall be completed in consultation with the appropriate regulatory agencies.*	In conjunction with the preparation of improvement plans.	Director of the Physical Plant or Designee, Architect, Civil Engineer, Qualified Biologist, Contractor.	
***BR-4** – The potential for introduction and the spread of noxious weeds shall 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.* • *Requiring the construction contractor to thoroughly wash all equipment at a commercial wash facility prior to entering the project site and immediately upon termination of its use at the project site.*	Preparation of improvement plans and during construction.	Director of the Physical Plant or Designee, Architect, Civil Engineer, Contractor.	
***BR-5** – In conjunction with preparation of improvement plans for the project, the project engineer shall identify all improvements that would occur outside of the area that was surveyed for biological resources (refer to Figure BR-1 in the Draft Initial Study).* *In areas not previously surveyed, an evaluation shall be undertaken by a qualified wetland specialist or biologist to identify wetlands and other waters of the U.S. and/or State in the*	In conjunction with the preparation of improvement plans, if construction is proposed outside of *Study Areas 1* and *2,* surveys will need to be	Director of the Physical Plant or Designee, Civil Engineer, Qualified Biologist. U.S. Army Corps of Engineers, California	

TABLE MMRP - 1 Mitigation Monitoring & Reporting Program			
Mitigation	**Timing/ Implementation**	**Agency Monitoring/ Consultation**	**Verification (Date & Initials)**
project footprint. If the biologist determines that no such resources are present, no further action is required. *If wetlands and other waters of the U.S. and/or State are present, the biologist shall consult with the U.S. Army Corps of Engineers, Central Valley Regional Water Quality Control Board, California Department of Fish and Wildlife, and other applicable agencies to determine required resource agency permits and permit conditions.* *Shasta College shall obtain all necessary resource agency permits and comply with the permit conditions. The unavoidable loss of waters shall be mitigated at a minimum 1:1 ratio, or as otherwise required in the resource agency permits. Mitigation requirements shall be satisfied prior to commencement of earth-disturbing activities or as otherwise specified in the permits.*	undertaken. If wetlands are present and impacted, permits must be issued before construction can occur. When *Study Area 3* is proposed for development, surveys will need to be undertaken. If wetlands are present and impacted, permits must be issued before construction can occur.	Department of Fish and Wildlife, *State* Regional Water Quality Control Board.	
BR-6 *– To avoid and minimize indirect impacts to waters, Best Management Practices (BMPs) for soil stabilization, sediment control, and spill prevention shall be implemented to ensure that sediment/pollutant transport into waters of the U.S. and/or State is minimized. Other water quality control measures that may be required by resource agencies with permit authority over the project shall also be implemented.*	Preparation of improvement plans and during construction.	Director of the Physical Plant or Designee, Civil Engineer, Qualified Stormwater Developer/Practitioner, Contractor.	
BR-7 *– High-visibility indicators such as marking whiskers, pin flags, stakes with flagging tape, or other markers shall be installed along the outer edges of the construction zone adjacent to wetlands and other waters designated for avoidance. The marker/flag locations shall be determined by a qualified biologist in consultation with the project engineer and Shasta College. No construction activities (e.g., clearing, grading, trenching, etc.), including vehicle parking and materials stockpiling, shall occur within the marked/flagged area. The exclusionary markers/flags shall be periodically inspected during construction activities to ensure that the markers/flags are properly maintained. The markers/flags shall be removed upon completion of work.*	Prior, during, and after construction.	Director of the Physical Plant or Designee, Civil Engineer/Surveyor, Qualified Biologist, Contractor.	
BR-8 *– To minimize impacts to native trees and oak woodlands and offset the unavoidable loss of native trees and oak woodland habitat, the following measures shall be implemented. The loss of native trees greater than 5 inches DBH and oak woodlands shall be avoided/minimized and offset through implementation of the following:* • *Minimize loss of native trees and oak woodlands through careful pre-construction planning and design. Particular attention should be given to retaining the trees identified by the certified arborist as being of exceptional quality (see Figure BR-7 in the Draft Initial Study).* • *Erect temporary construction fencing or flagging along the outer edges of the construction zone where needed to prevent accidental entry into oak woodland habitat*	Preparation of improvement plans, before, during, and after construction.	Director of the Physical Plant or Designee, Certified Arborist, or the College Horticulturist, Contractor.	

TABLE MMRP - 1 Mitigation Monitoring & Reporting Program			
Mitigation	**Timing/ Implementation**	**Agency Monitoring/ Consultation**	**Verification (Date & Initials)**
and under individual oaks planned for retention. Fencing/flagging shall be provided at least six feet outside of the dripline of all trees to be preserved (including individual native trees within the urban landscape). The fencing/flagging shall remain in place throughout construction. To the extent feasible, no construction activities (including grading, cutting, or trenching), materials stockpiling, or equipment parking or storage, or vehicle parking shall occur within the fenced/flagged tree protection zone. If work must occur within the fenced/flagged tree protection zone, it shall be completed under the supervision of a certified arborist or the College Horticulturist. Furthermore, site-specific measures recommended by the arborist or horticulturist to ensure tree protection shall be implemented. • *Shasta College shall offset the unavoidable loss of oak woodland habitat and the unavoidable loss of native trees within the urban landscape through replacement tree planting.* *Prior to the removal of any healthy oak tree with a diameter at breast height (DBH) of 5 inches or greater, or 6 inches or greater DBH for other non-native tree species, the number of trees, species, and health shall be identified by a certified arborist (or by the College Horticulturist). A vegetation planting and management plan shall be prepared that identifies the planting area size and location, mitigation site protections (e.g., conservation easement or deed restrictions), planting objectives in terms of acreage or number of plants by species, planting and maintenance methods, success criteria, duration of monitoring, corrective actions to be taken if success criteria are not met, and reporting requirements.* *Trees removed shall be replaced either in close proximity to the construction activity or at a Tree Mitigation Site identified in the Shasta College Landscape Master Plan or other planning document. The mitigation ratio for all oak species removed shall be a 3:1 ratio, whereas mitigation for all other trees removed shall be at a 1:1 ratio. The College has the option to replace removed oak woodland areas at a 1:1 ratio, whereby (as an example) the removal of 10,000 square feet of oak woodland is replaced with 10,000 square feet of oak woodland. The minimum size of any replacement tree shall be 15 gallons.*			
V. CULTURAL RESOURCES			
***CR-1** – To reduce potential impacts on cultural resources to a less than significant level, the following measures shall be implemented.* *1. In conjunction with the preparation of improvement plans for the Project, the project engineer shall identify all improvements that would occur outside of the area that was surveyed for archaeological and historical resources (refer to Figure CR-1).*	In conjunction with the preparation of improvement plans and construction.	Director of the Physical Plant or Designee, Architect, Civil Engineer, Qualified Archaeologist, Native American Tribal Representative(s), Shasta	

TABLE MMRP - 1 Mitigation Monitoring & Reporting Program			
Mitigation	**Timing/ Implementation**	**Agency Monitoring/ Consultation**	**Verification (Date & Initials)**
Areas that were not previously surveyed by a qualified archaeologist shall be surveyed to identify potentially significant archaeological and historical resources following project-level design approval. If the archaeologist determines that no such resources are present, no further action is required. If such resources are present, additional evaluation shall be completed by a qualified archaeologist in accordance with the significance criteria set forth in the National Historic Preservation Act and the California Register for Historical Resources. Appropriate mitigation measures recommended by the archaeologist shall be implemented. Potential measures may include avoidance of the resource, site capping (burial), recordation of conservation easements, and/or data recovery. 2. *A qualified archaeologist shall monitor all initial groundbreaking activities associated with project implementation in natural, undisturbed areas due to the possibility that previously unidentified historical or archaeological features or artifacts may be present.* 3. *Shasta College shall notify the appropriate Native American tribal representative(s) prior to all initial groundbreaking activities associated with project implementation in natural undisturbed areas. The Tribe(s) shall be provided the opportunity to provide a Native American monitor due to the possibility that previously unidentified archaeological features or artifacts may be present.* 4. *If any previously unevaluated cultural resources (i.e., burnt animal bone, midden soils, projectile points or other humanly modified lithics, historical artifacts, etc.) are encountered, all earth-disturbing work shall stop within 50 feet of the find until a qualified archaeologist can make an assessment of the discovery and recommend/implement mitigation measures as necessary. Depending on the type and significance of the find, subsequent monitoring by an archaeologist or Native American may be warranted. This stipulation does not apply to those cultural resources that have been evaluated by a qualified archaeologist and determined not to qualify as Historical Resources/Historic Properties.* 5. *If any human remains are encountered during any phase of construction, all earth-disturbing work shall stop within 50 feet of the find. The county coroner shall be contacted to determine whether investigation of the cause of death is required as well as to determine whether the remains may be Native American in origin. Should Native American remains be discovered, the county coroner must contact the Native American Heritage Commission (NAHC). The NAHC will then determine those persons it believes to be most likely descended from the deceased Native American(s). Together with representatives of the people of most likely descent, a qualified archaeologist shall make an assessment of the discovery and recommend/implement mitigation measures as necessary.*		County Coroner, Native American Heritage Commission, Contractor.	

TABLE MMRP - 1 Mitigation Monitoring & Reporting Program			
Mitigation	**Timing/ Implementation**	**Agency Monitoring/ Consultation**	**Verification (Date & Initials)**
IX. HYDROLOGY AND WATER QUALITY			
H-1 *– The potential for on-site and/or off-site flooding resulting from future improvements, including but not limited to buildings, athletic facilities, roadways, driveways, pedestrian and bicycle pathways, parking lots, or any other improvement resulting in the creation of impervious surfaces, shall be reduced by the expansion of the existing retention pond in Study Area 2. Other stormwater-related improvements recommended by a licensed civil engineer or hydrogeologist shall be implemented.* *Stormwater drainage facilities shall be located in the general location of existing disturbed areas throughout the campus. If the facilities are proposed on land in a natural state, a separate CEQA environmental clearance will be required, likely a Categorical Exemption, depending on the location and size of the structure.* *If necessary, in-stream detention facilities can be constructed, provided the necessary U.S. Army Corps Nationwide or Individual Permit is obtained when impacting jurisdictional Waters of the U.S. If there is no Corps jurisdiction, then the in-stream detention/retention facility cannot be constructed until the State Regional Water Quality Control Board approves a Notice of Applicability to permit the fill to create the detention/retention facility. In addition, a State Fish & Wildlife 1602 Streambed Alteration Agreement would be required.*	Preparation of improvement plans. If stormwater drainage facilities are proposed on land in a natural state, outside of *Study Areas 1* and *2*, a separate CEQA environmental clearance will be required. CEQA clearance will be required when *Study Area 3* is proposed for development.	Director of the Physical Plant or Designee, Civil Engineer, Qualified Biologist, CEQA Planner, U.S. Army Corps of Engineers, California Department of Fish and Wildlife, State Regional Water Quality Control Board, Contractor.	
XVII. TRIBAL CULTURAL RESOURCES			
Refer to Section V. Cultural Resources Mitigation Measure ***CR-1***	In conjunction with the preparation of improvement plans and construction.	Director of the Physical Plant or Designee, Architect, Civil Engineer, Qualified Archaeologist, Native American Tribal Representative(s), Shasta County Coroner, Native American Heritage Commission, Contractor.	
TCR-1 – *Unanticipated Discovery – If any suspected TCRs are discovered during ground-disturbing construction activities, all work shall cease within at least 50 feet of the find. The College shall invite a Tribal Representative from a California Native American tribe that is traditionally and culturally affiliated with the geographic area to make recommendations about whether or not the discovery represents a TCR (PRC Section 21074) and, if so, to make recommendations for culturally appropriate treatment. The contractor shall implement any measures the College determines to be necessary. Work at the discovery location cannot resume until the treatment has been implemented to the satisfaction of the College.*	During construction.	Director of the Physical Plant or Designee, Qualified Archaeologist, Native American Tribal Representative(s), Contractor.	

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XXIII – PREPARERS

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XXIV – REFERENCE DOCUMENTS

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APPENDICES

APPENDIX A – FIGURES

APPENDIX B – BIOLOGICAL DOCUMENTATION

APPENDIX C – SHASTA COLLEGE EMERGENCY VEHICLE OPERATOR COURSE PROJECT ENVIRONMENTAL NOISE ASSESSMENT

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APPENDIX A
FIGURES

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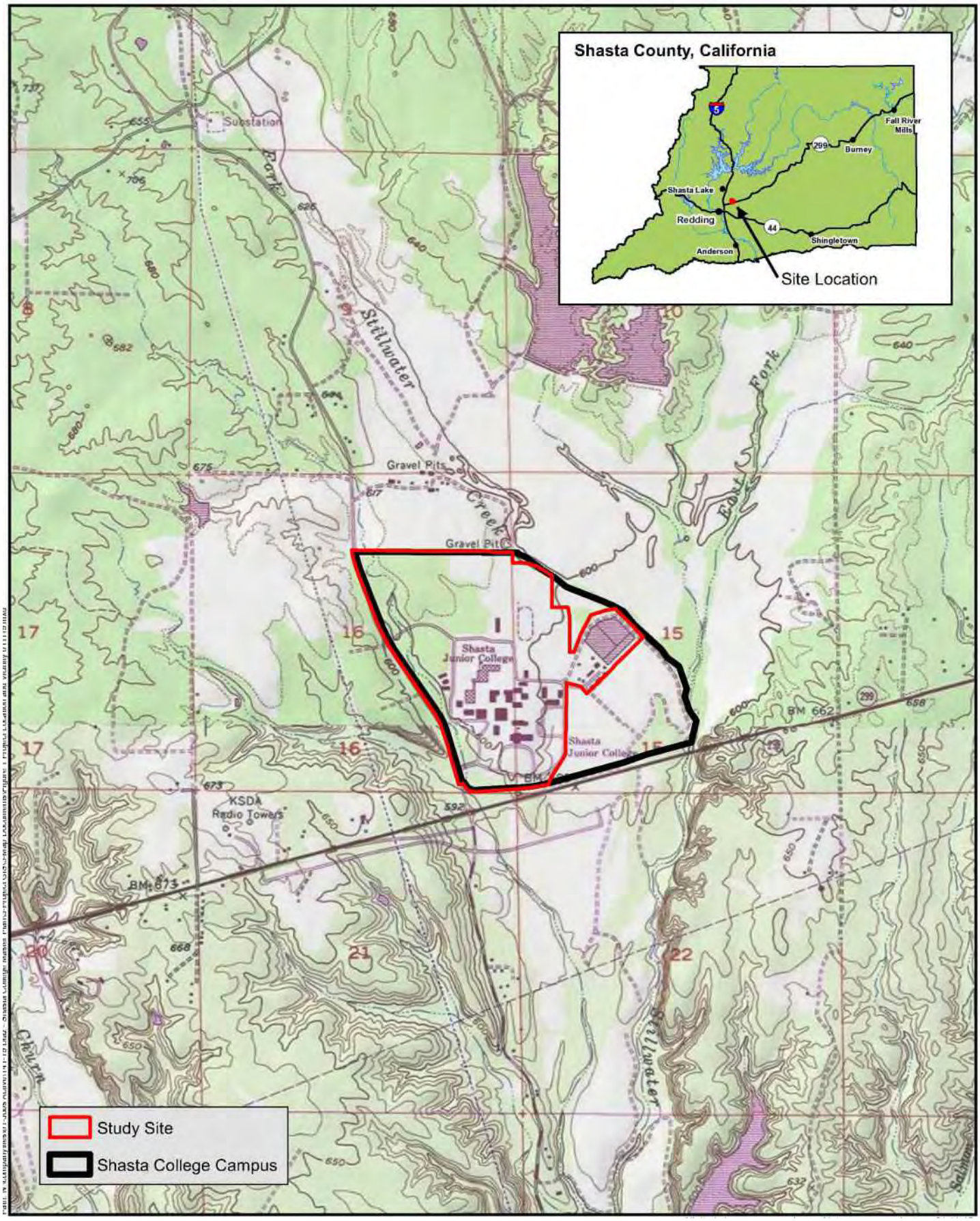


Figure Prepared by Catalyst Environmental Solutions

FIGURE 1 – PROJECT LOCATION & USGS MAP

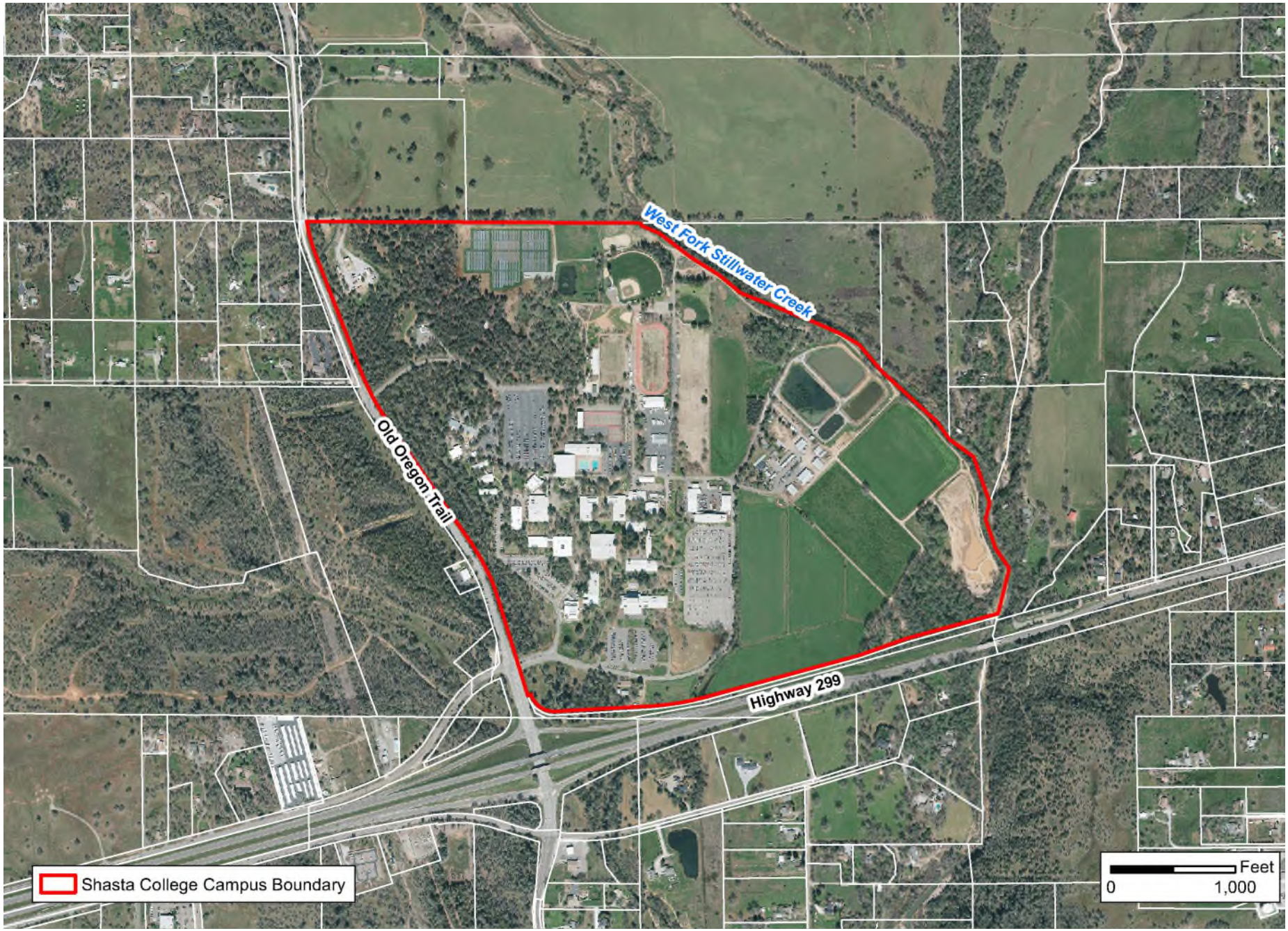


Figure Prepared by Catalyst Environmental Solutions

FIGURE 2 – SHASTA COLLEGE CAMPUS AERIAL

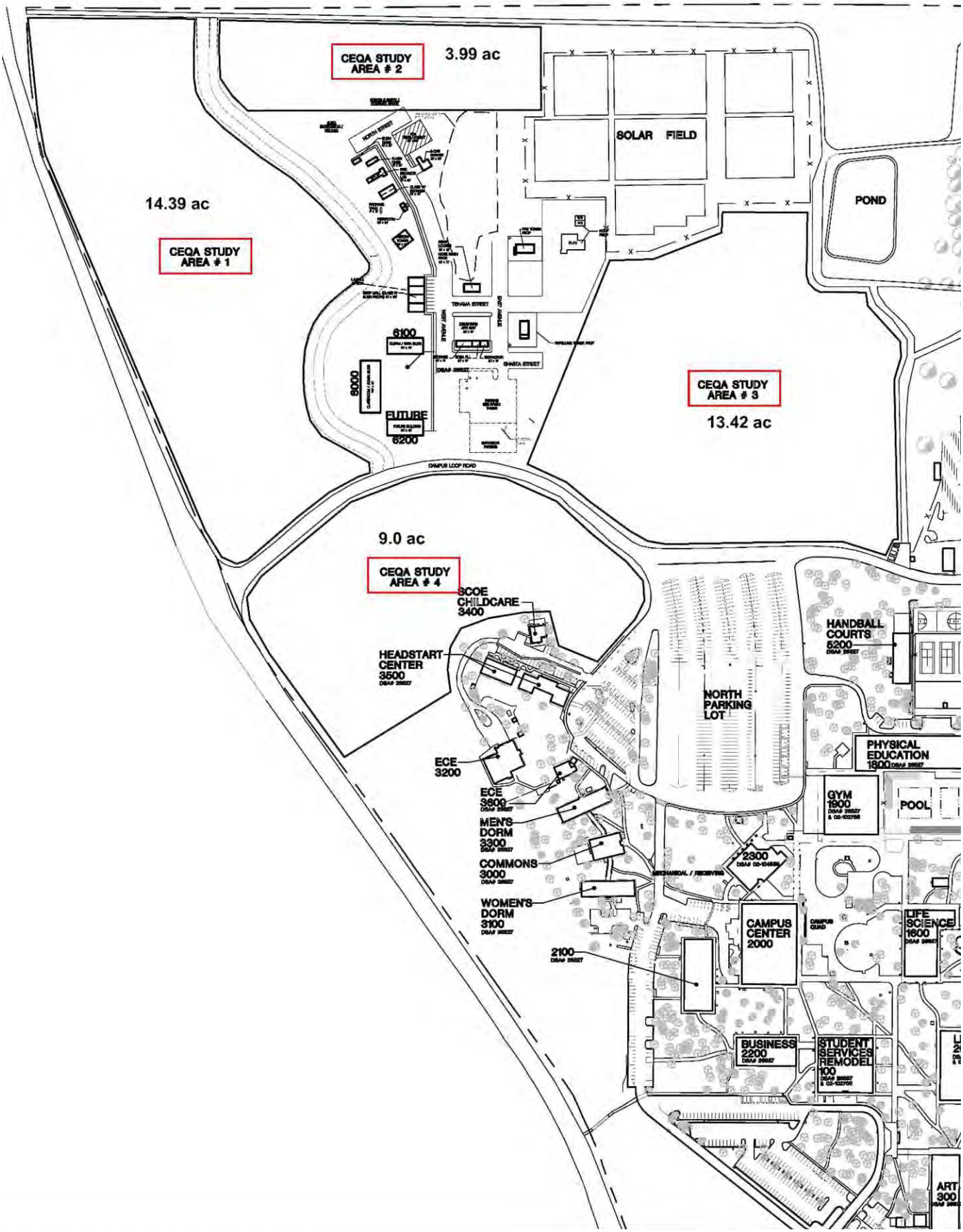


Figure Prepared by NMR – Nichols Melburg & Rossetto Architects + Engineers

FIGURE 3 – CEQA INITIAL STUDY AREAS 1-4

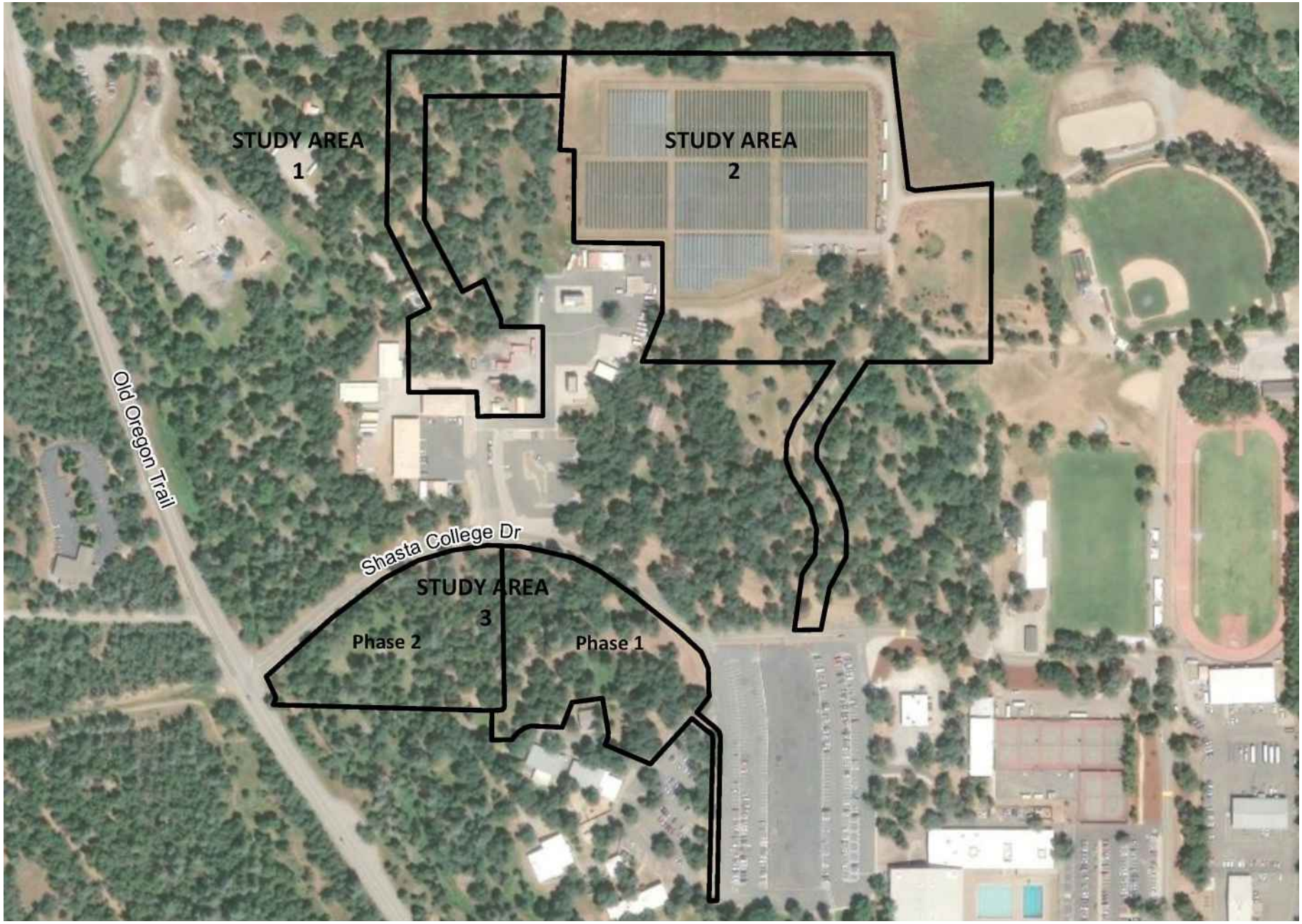


Figure Prepared by Catalyst Environmental Solutions

FIGURE 4 – STUDY AREAS 1-3

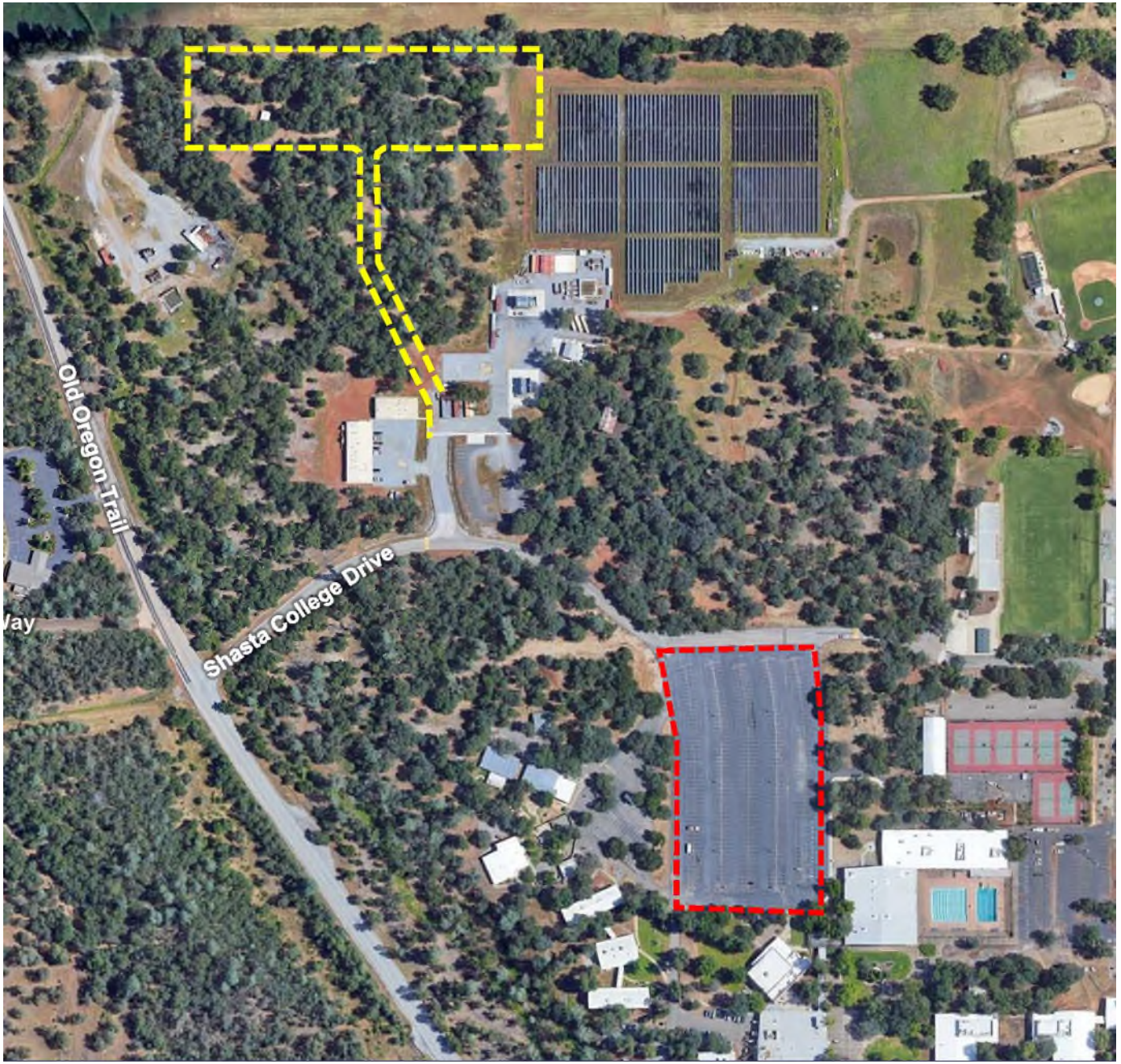
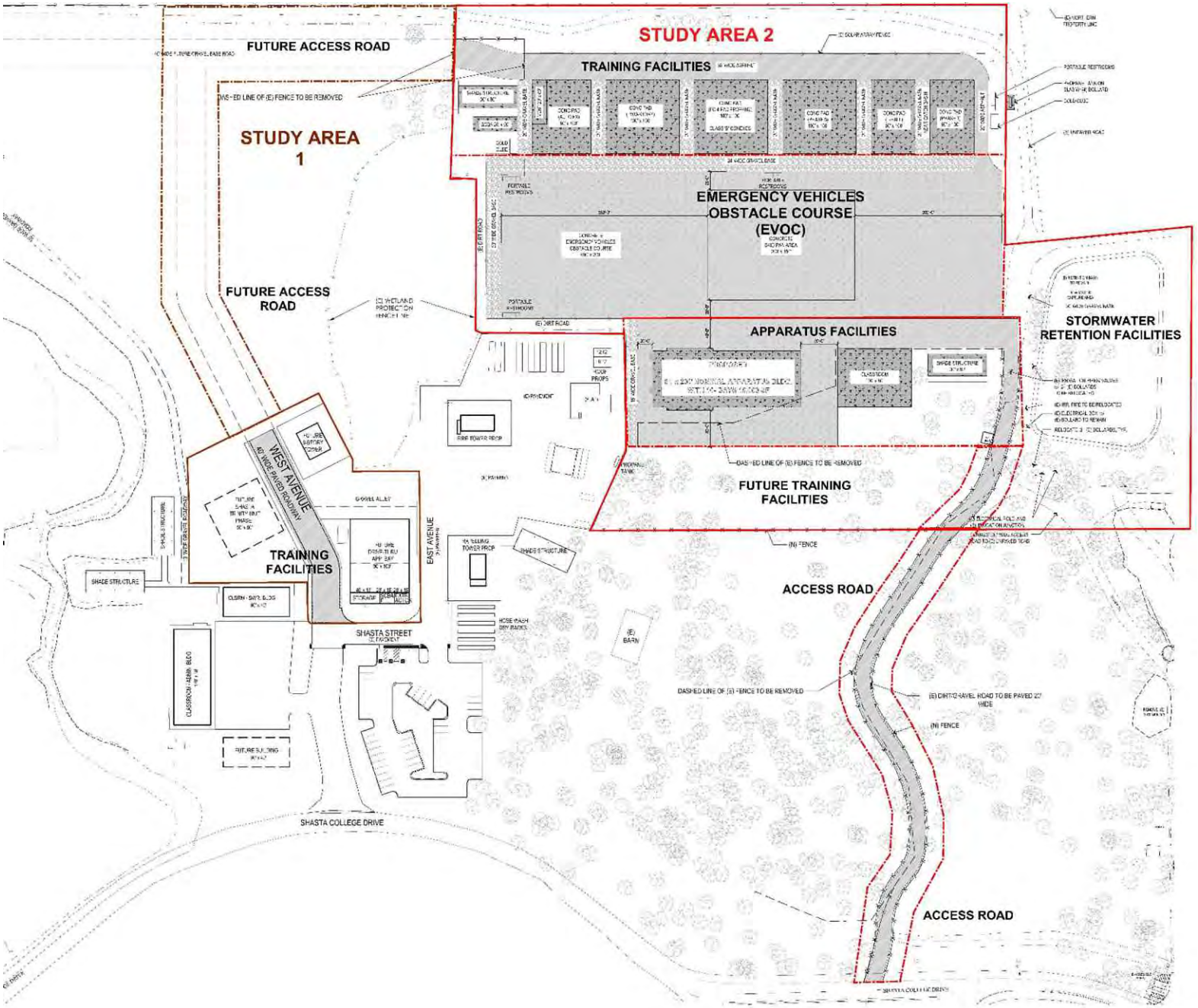


Figure Prepared by Bollared Acoustical Consultants

FIGURE 5 – CEQA INITIAL STUDY AREA 2



Base Map Prepared by NMR – Nichols Melburg & Rossetto Architects + Engineers

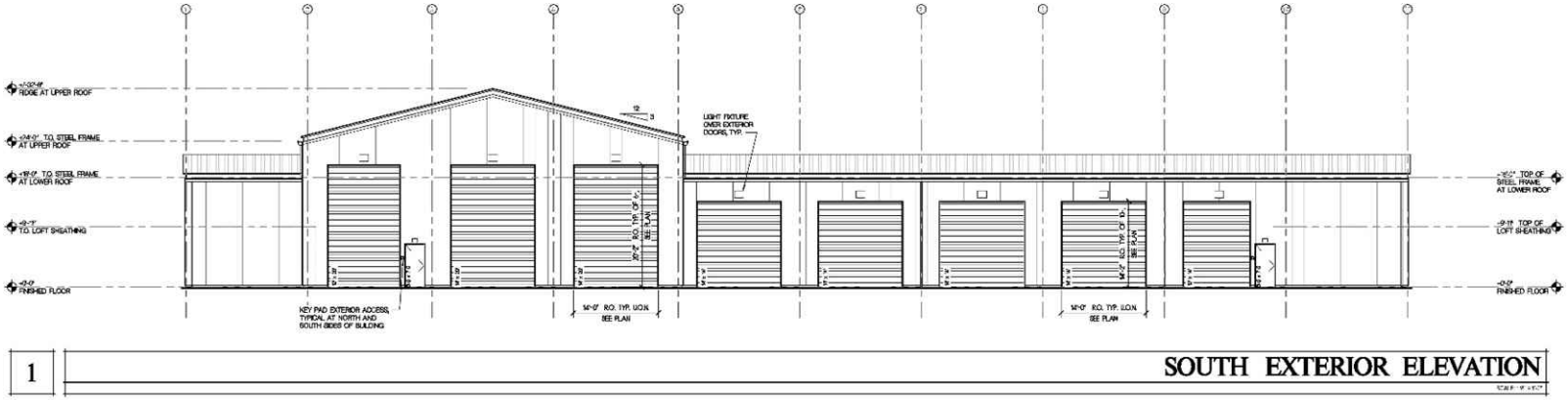
FIGURE 2-1 – STUDY AREAS 1 & 2 SITE PLANS

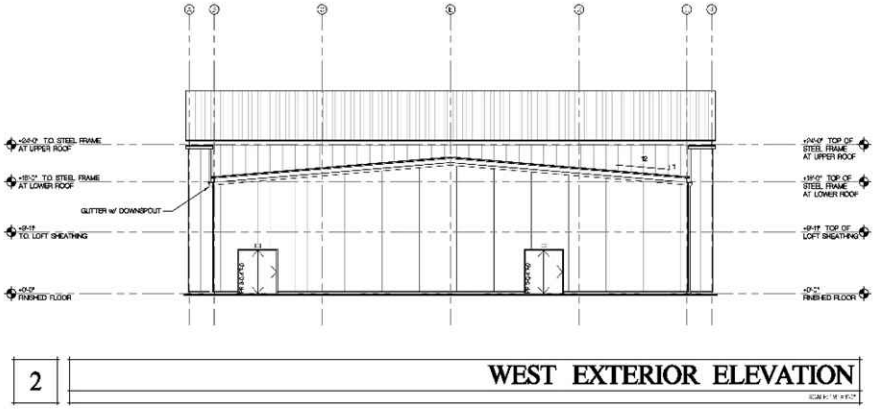
Dräger Survival System Phase I – Flashover Development Observation Burn Building

Dräger Survival System Phase 5 – Multi-Story

Figure by Fire Facilities Steel Fire Training Towers

FIGURE 2-3 – FIRE TRAINING TOWER WESCO MODEL WT-4





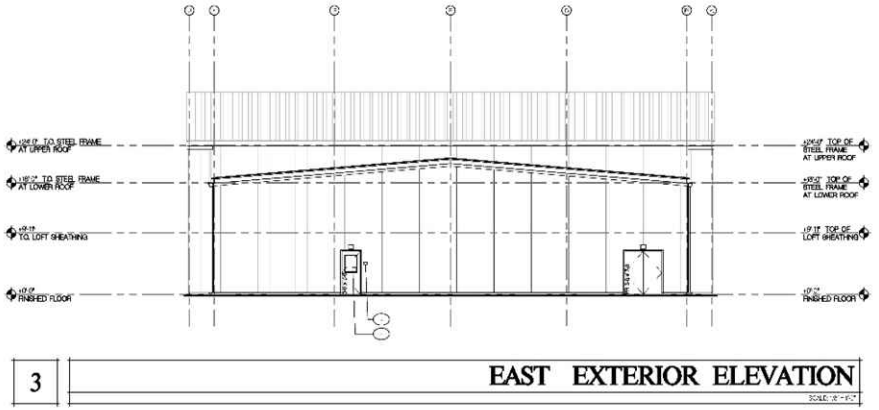


Figure Prepared by NMR – Nichols Melburg & Rossetto Architects + Engineers

FIGURE 2-4 – APPARATUS BUILDING EXTERIOR ELEVATIONS

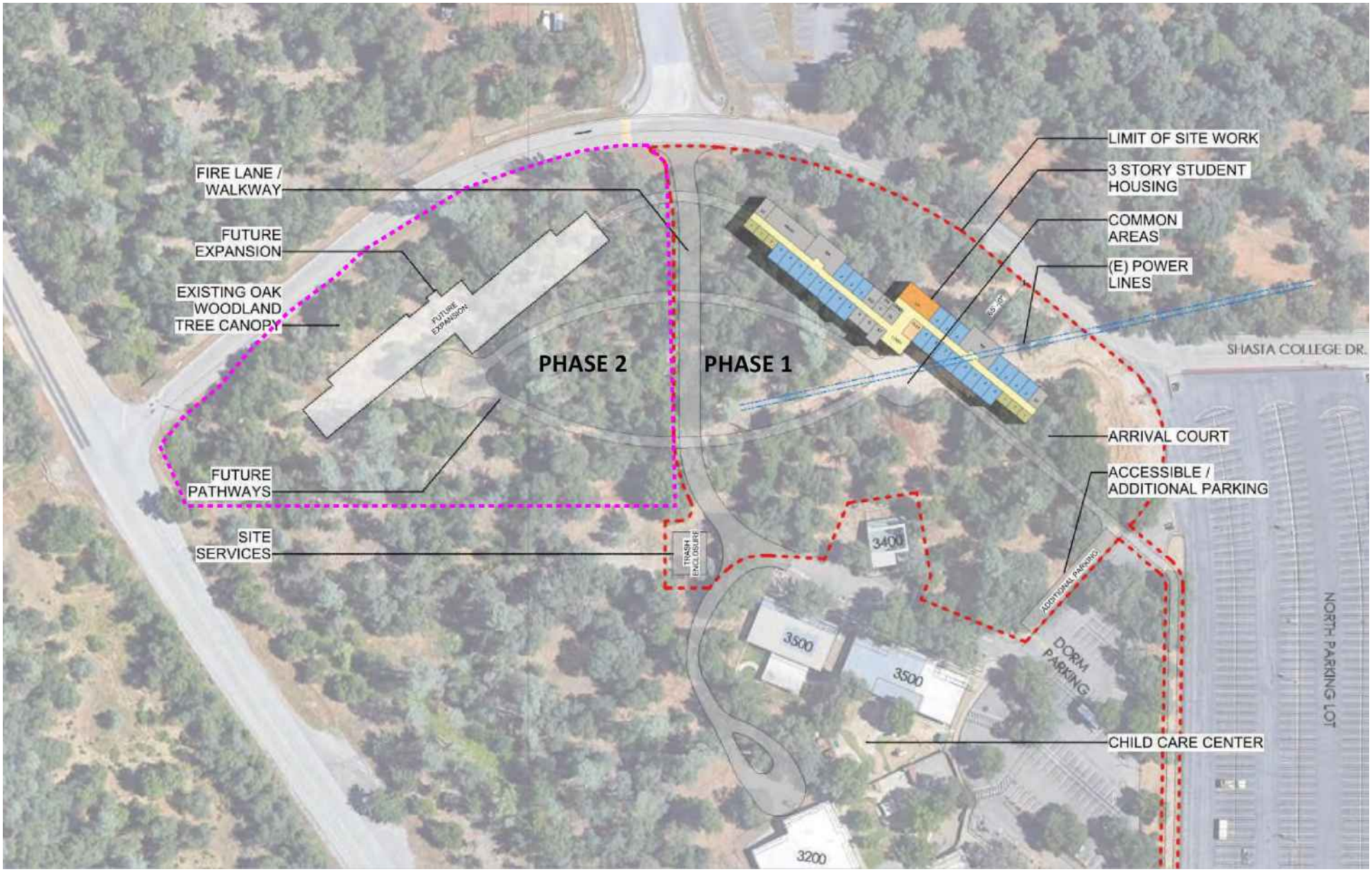
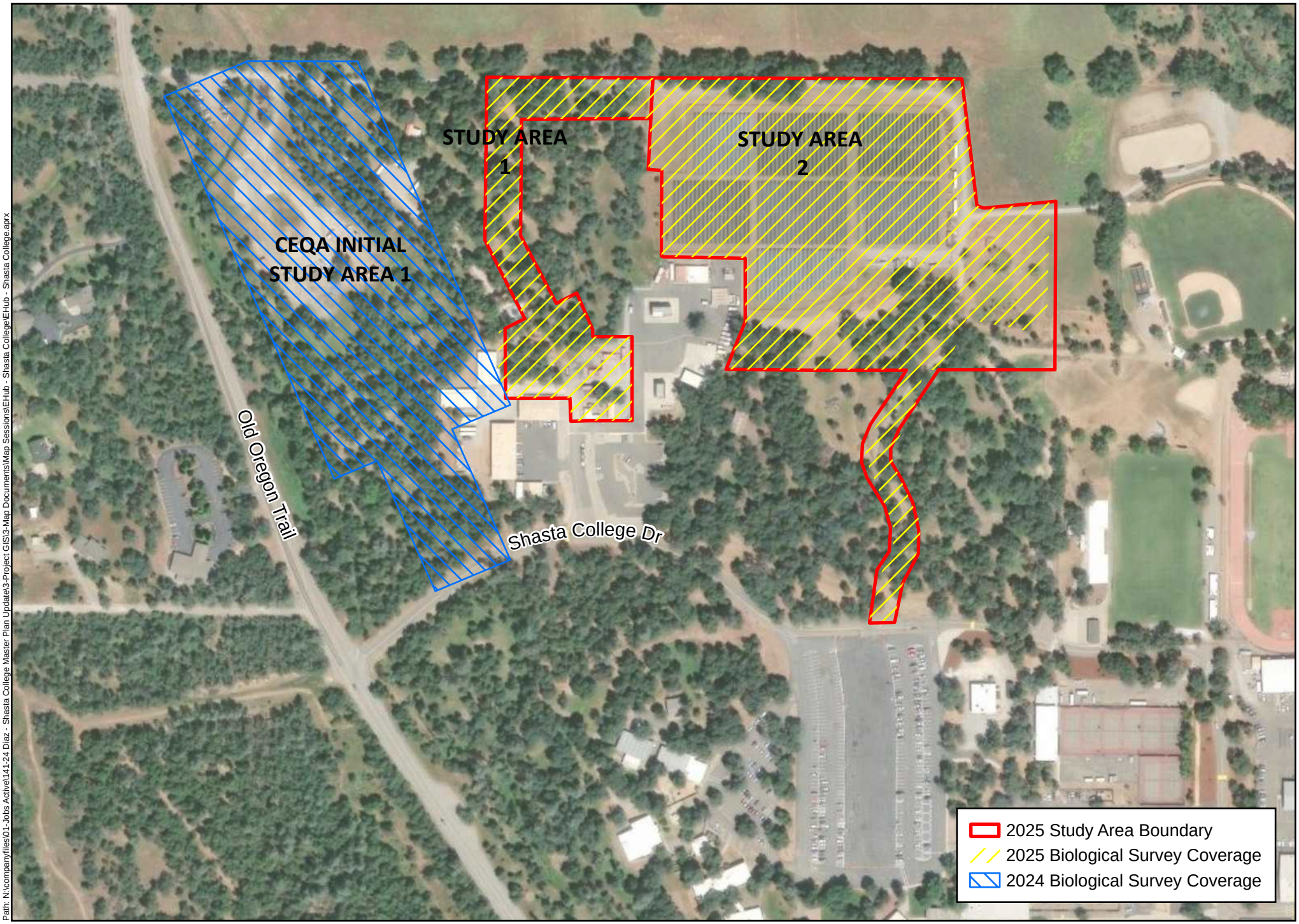


Figure Prepared by NMR – Nichols Melburg & Rossetto Architects + Engineers

FIGURE 2-5 – STUDY AREA 3 SITE PLAN

Figures Prepared by Image, Design, Build., JK Architecture Engineering, and Hanbury

FIGURE 2-6 – STUDENT HOUSING BUILDING ELEVATIONS



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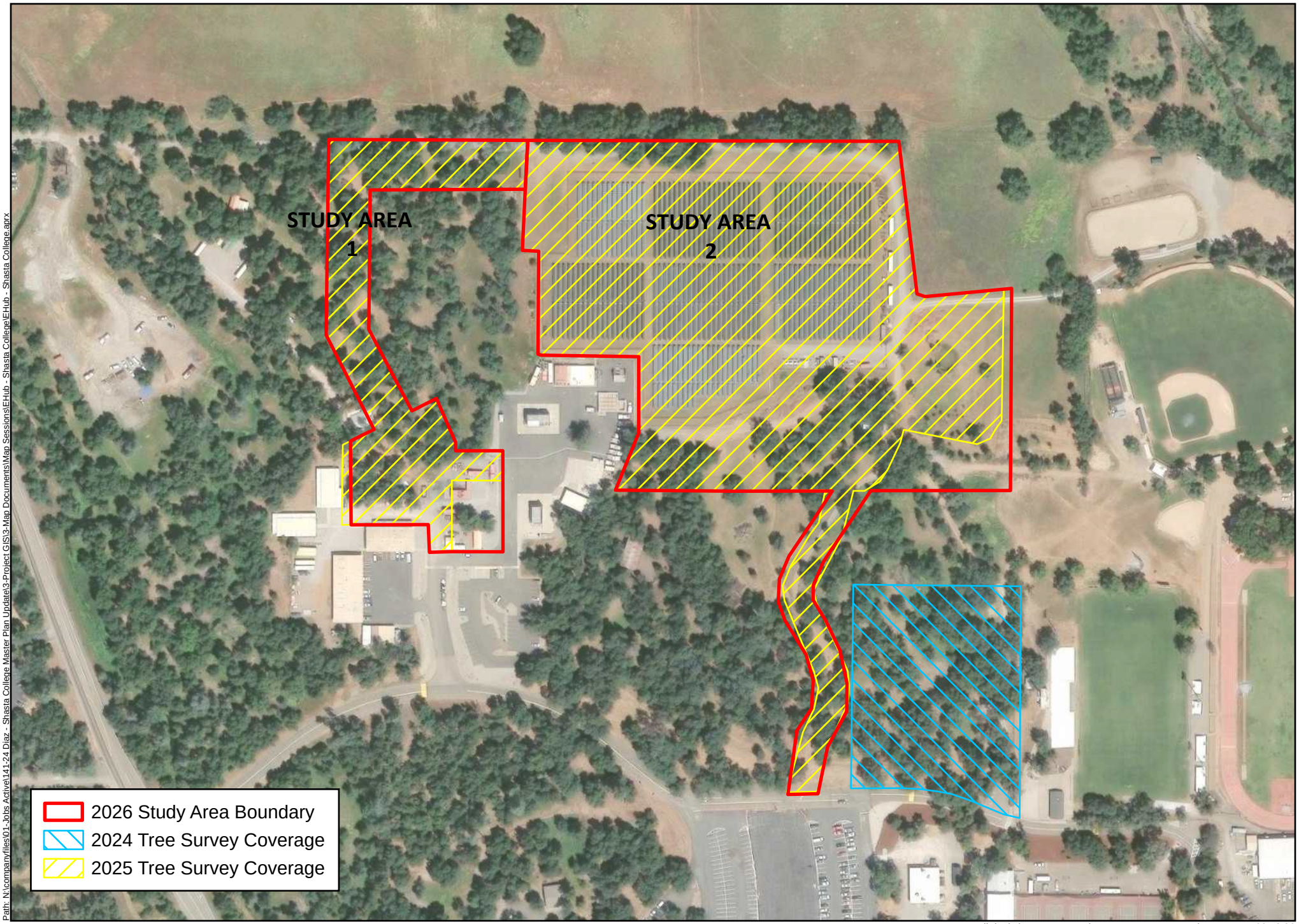
All depictions are approximate. Not a survey product. 02.12.26

0 300 Feet

FIGURE BR-1

Biological Resources Survey Coverage

Catalyst Environmental Solutions



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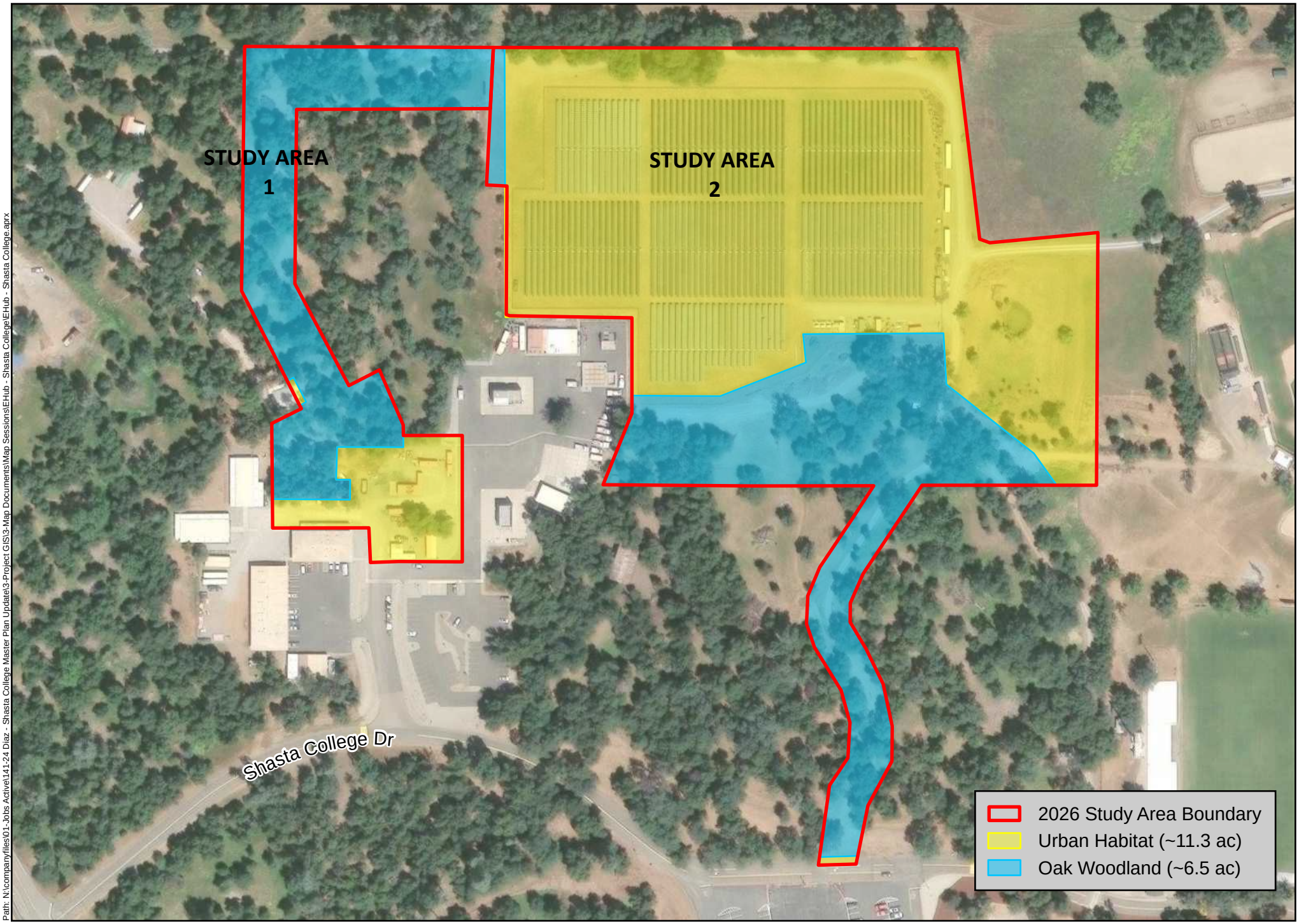
All depictions are approximate. Not a survey product. 02.12.26

0 250 Feet

FIGURE BR-2

Tree Survey Coverage

Catalyst ENVIRONMENTAL SOLUTIONS



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All depictions are approximate. Not a survey product. 02.16.26

0 200 Feet

FIGURE BR-3

Habitat Community Types

STUDY AREA 1

STUDY AREA 2

Shasta College Dr

CEQA Study Areas
Aquatic Resources Survey Coverage
Offsite Wetland Protection Fence
Wetland
Constructed Ditch
Culvert
Flow Direction

0 150 Feet

Feature and boundary locations depicted are approximate only.
This is not a survey product.

02.11.26

FIGURE BR-4

Potential Waters of the U.S. and/or State

Catalyst ENVIRONMENTAL SOLUTIONS

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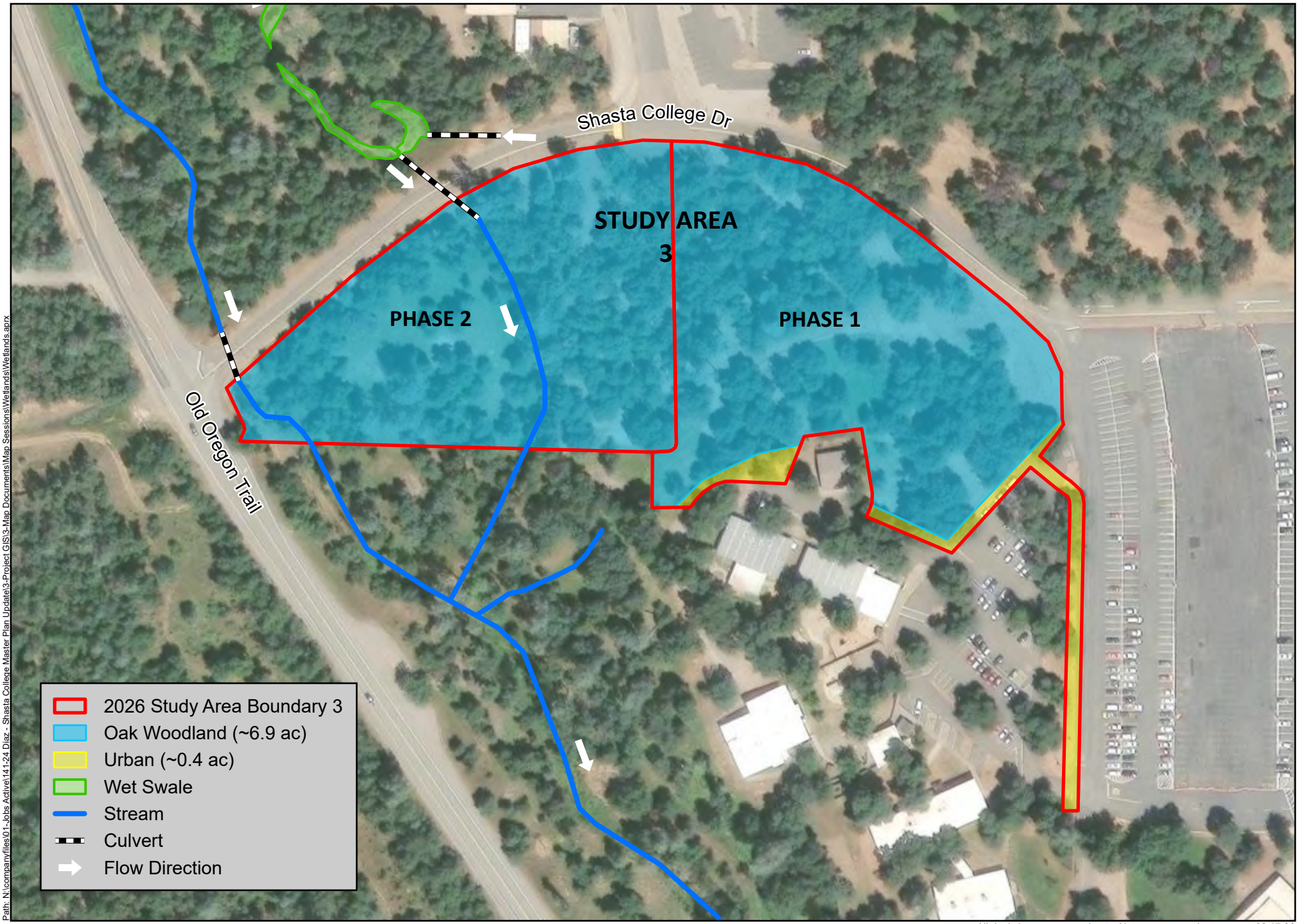

FIGURE BR-5

Habitat Community Types and Potential Waters of the U.S. and/or State

STUDY AREA 1

Study Area Boundary
Blue Oak
Interior Live Oak
Valley Oak

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All depictions are approximate. Not a survey product. 02.11.26

0 60 Feet

FIGURE BR-6

Tree Survey Results

Catalyst ENVIRONMENTAL SOLUTIONS

STUDY AREA
2

Study Area Boundary
Blue Oak
Interior Live Oak
Valley Oak

0 60 Feet

All depictions are approximate. Not a survey product. 02.11.26

FIGURE BR-7

Tree Survey Results

Catalyst ENVIRONMENTAL SOLUTIONS

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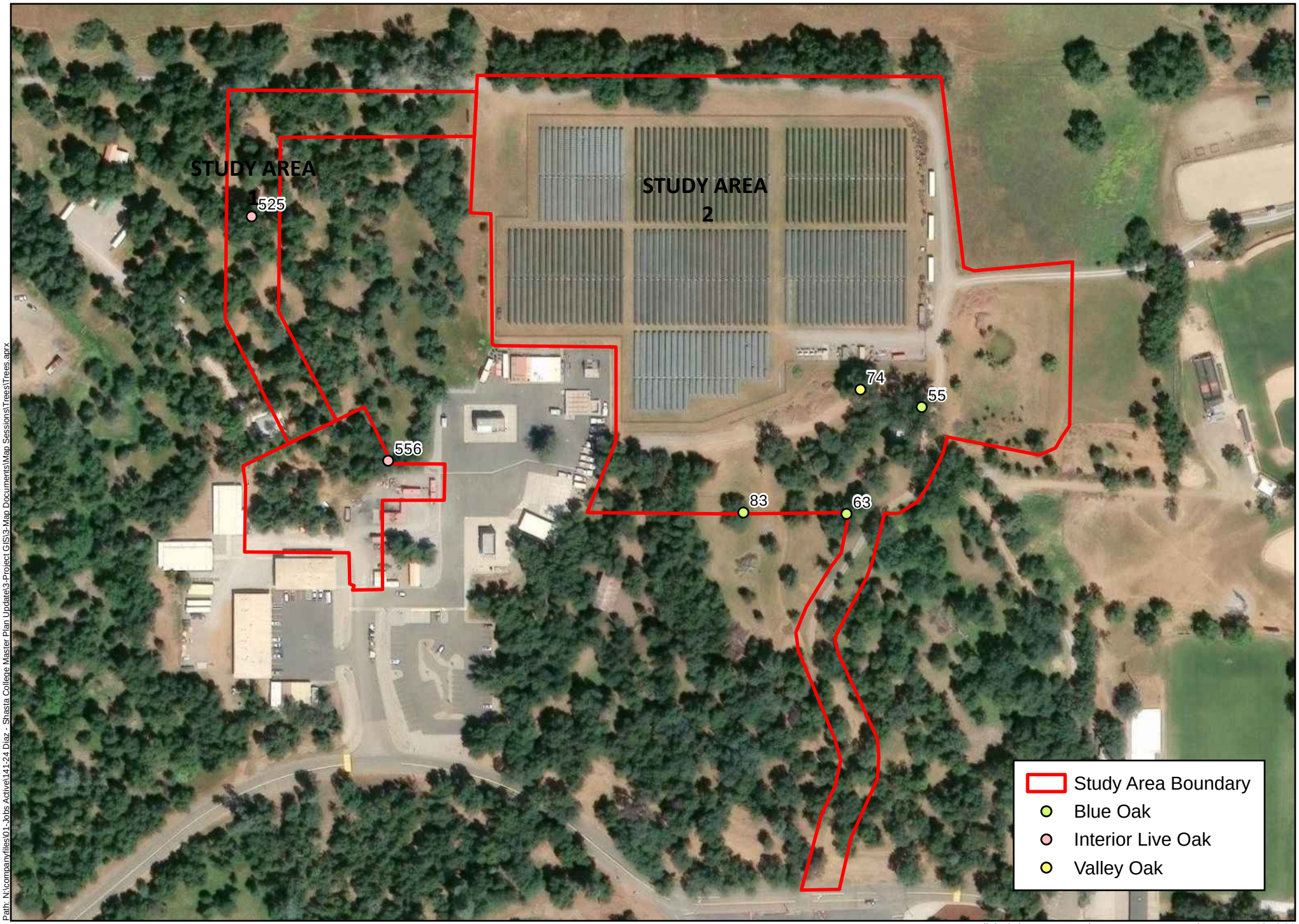

FIGURE BR-8

Exceptional Trees Recommended for Retention

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All depictions are approximate. Not a survey product. 01.26.26

0 250 Feet

FIGURE CR-1

Archaeological Survey Coverage

Catalyst ENVIRONMENTAL SOLUTIONS

Legend

- Proposed EVOC Training Area (Approximate)
- Current Cal Fire EVOC Training Area
- Ambient Noise Survey Locations

N

Scale (Feet)

0 200 400

AMBIENT NOISE LEVEL SURVEY LOCATIONS AND CEQA INITIAL STUDY AREA 2 EXISTING & PROPOSED EVOC TRAINING AREAS

FIGURE N-1

BOLLARD Acoustical Consultants

Legend

Fire Engine Training Area During Noise Survey (Approximate)

Short-Term Noise Survey Locations during Fire Engine Training

N

Scale (Feet)

0 75 150

EXISTING EVOC
SHORT-TERM NOISE SURVEY
LOCATIONS

FIGURE N-2

BOLLARD
Acoustical Consultants

APPENDIX B
BIOLOGICAL RESOURCES DOCUMENTATION

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To: 12/30/2025 17:31:49 UTC
Project Code: 2026-0031385
Project Name: Shasta College Facilities Master Plan Amendment Two

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see https://www.fws.gov/program/migratory-bird-permit/what-we-do.

It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

PROJECT SUMMARY

Project Code: 2026-0031385
Project Name: Shasta College Facilities Master Plan Amendment Two
Project Type: Commercial Development
Project Description: The proposed project consists of three areas of study for CEQA review as part of the proposed second amendment to the Shasta College Master Plan. Study Area 2A includes the construction of an access road from Shasta College Drive to the site, a fire apparatus building for fire truck and equipment storage, a classroom, and an emergency vehicle obstacle course (EVOC) and associated concrete pads for training purposes.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@40.6309658,-122.31938431972277,14z

Counties: Shasta County, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 8 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

BIRDS

NAME	STATUS
California Condor *Gymnogyps californianus* Population: Pacific Northwest NEP No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8193 General project design guidelines: https://ipac.ecosphere.fws.gov/project/UIPM5FKLUFGFVB2AUGSO55V54A/documents/generated/11271.pdf	Experimental Population, Non-Essential
Northern Spotted Owl *Strix occidentalis caurina* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1123 General project design guidelines: https://ipac.ecosphere.fws.gov/project/UIPM5FKLUFGFVB2AUGSO55V54A/documents/generated/11271.pdf	Threatened

REPTILES

NAME	STATUS
Northwestern Pond Turtle *Actinemys marmorata* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1111 General project design guidelines: https://ipac.ecosphere.fws.gov/project/UIPM5FKLUFGFVB2AUGSO55V54A/documents/generated/11271.pdf	Proposed Threatened

AMPHIBIANS

NAME	STATUS
Western Spadefoot *Spea hammondii* Population: Northern DPS No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5425 General project design guidelines: https://ipac.ecosphere.fws.gov/project/UIPM5FKLUFGFVB2AUGSO55V54A/documents/generated/11271.pdf	Proposed Threatened

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743 General project design guidelines: https://ipac.ecosphere.fws.gov/project/UIPM5FKLUFGFVB2AUGSO55V54A/documents/generated/11271.pdf	Proposed Threatened

NAME	STATUS
Suckley's Cuckoo Bumble Bee *Bombus suckleyi* Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10885	Proposed Endangered
Valley Elderberry Longhorn Beetle *Desmocerus californicus dimorphus* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7850	Threatened

CRUSTACEANS

NAME	STATUS
Vernal Pool Fairy Shrimp *Branchinecta lynchi* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498 General project design guidelines: https://ipac.ecosphere.fws.gov/project/UIPM5FKLUFGFVB2AUGSO55V54A/documents/generated/11271.pdf	Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: ENPLAN
Name: Hannah Raab
Address: 3179 Bechelli Ln Suite 100
City: Redding
State: CA
Zip: 96002
Email hraab@enplan.com
Phone: 5302210440

TABLE 1
CNDDB Report Summary
Shasta College Master Plan Amendment Two; Five-Mile Radius of Project Area
December 2025

Listed Element	Quadrangle [1]					Status [2]
	RD	PR	EN	PC	BV	
ANIMALS						
American bumble bee	●					None
Bald eagle		●	●			SE, SFP
California linderiella			●	●		None
Chinook salmon – Central Valley spring-run ESU	●					FT, ST
Foothill yellow-legged frog – north coast DPS	●		●			SSSC
North American porcupine					●	None
Northwestern pond turtle	●	●	●			FPT, SSSC
Shasta chaparral	●					None
Shasta salamander		●				ST
Silver-haired bat			●			None
Steelhead – Central Valley DPS				●		FT, SSSC
Valley elderberry longhorn beetle			●			FT
Vernal pool tadpole shrimp			●			FE
Western pearlshell			●			None
PLANTS						
Dubious pea	●					3
Henderson's bent grass		●	●			3.2
Red Bluff dwarf rush		●	●			1B.1
Sanford's arrowhead		●				1B.2
Silky cryptantha		●	●			1B.2
Slender Orcutt grass			●			FT, SE, 1B.1
Sulphur Creek brodiaea	●					1B.1

Highlighting denotes the quadrangle in which the project site is located
*Denotes species on the project site

[1] QUADRANGLE CODE

RD	Redding	PC	Palo Cedro
PR	Project City	BV	Bella Vista
EN	Enterprise		

[2] STATUS CODES

Federal		***State***	
FE	Federally Listed – Endangered	SFP	State Fully Protected
FT	Federally Listed – Threatened	SE	State Listed – Endangered
FP	Federal Proposed	ST	State Listed – Threatened
FD	Federally Delisted	SCCC	State Species of Special Concern

RARE PLANT RANK

1A	Plants Presumed Extinct in California
1B	Plants Rare, Threatened or Endangered in California and Elsewhere
2	Plants Rare, Threatened, or Endangered in California, but More Common Elsewhere
3	Plants About Which We Need More Information *(A Review List)* (generally not considered special-status, unless unusual circumstances warrant)
4	Plants of Limited Distribution *(A Watch List)* (generally not considered special-status, unless unusual circumstances warrant)

Rare Plant Threat Ranks

0.1	Seriously Threatened in California
0.2	Fairly Threatened in California
0.3	Not Very Threatened in California

TABLE 2
California Native Plant Society
Inventory of Rare and Endangered Plants
U.S. Geological Survey's Project City 7.5-minute Quadrangle

Common Name	Scientific Name	CA Rare Plant Rank	Blooming Period	State Listing Status	Federal Listing Status
Depauperate milk-vetch	*Astragalus pauperculus*	4.3	Mar-Jun	None	None
Henderson's bent grass	*Agrostis hendersonii*	3.2	Apr-Jun	None	None
Northern clarkia	*Clarkia borealis ssp. borealis*	4.3	Jun-Sep	None	None
Red Bluff dwarf rush	*Juncus leiospermus var. leiospermus*	1B.1	Mar-Jun	None	None
Redding checkerbloom	*Sildalcea celata*	3	Apr-Aug	None	None
Sanford's arrowhead	*Sagittaria sanfordii*	1B.2	May-Oct(Nov)	None	None
Shasta County arnica	*Arnica venosa*	4.2	May-Jul(Sep)	None	None
Shasta maidenhair fern	*Adiantum shastense*	4.3	Apr-Aug	None	None
Shasta snow-wreath	*Neviusia cliftonii*	1B.2	Apr-Jun	CT	None
Silky cryptantha	*Cryptantha crinite*	1B.2	Apr-May	None	None
Thread-leaved beakseed	*Bulbostylis capillaris*	4.2	Jun-Aug	None	None
Tripod buckwheat	*Tripod buckwheat*	4.2	May-Jul	None	None

Rare Plant Rank	
1A	Plants Presumed Extinct in California
1B	Plants Rare, Threatened or Endangered in California and Elsewhere
2	Plants Rare, Threatened, or Endangered in California, but More Common Elsewhere
3	Plants About Which We Need More Information – A Review List (generally not considered special-status, unless unusual circumstances warrant)
4	Plants of Limited Distribution – A Watch List (generally not considered special-status, unless unusual circumstances warrant)
Rare Plant Threat Rank	
0.1	Seriously Threatened in California
0.2	Fairly Threatened in California
0.3	Not Very Threatened in California

Source: *California Native Plant Society, Rare Plant Program. 2025. Inventory of Rare and Endangered Plants of California (online edition, v9.5.1). http://www.rareplants.cnps.org. Accessed December 2025.*

TABLE 3
Potential for Special-Status Species to Occur in Study Areas 1 or 2
Shasta College Facilities Master Plan Amendment 2
December 2025

COMMON NAME	SCIENTIFIC NAME	STATUS [1]	GENERAL HABITAT DESCRIPTION	HABITAT PRESENT (Y/N)	CRITICAL HABITAT PRESENT (Y/N)	SPECIES PRESENT (Y/N/POT.)	RATIONALE/COMMENTS
PLANTS							
Red Bluff dwarf rush	*Juncus leiospermus* var. *leiospermus*	1B.1	Red Bluff dwarf rush is an annual herb that typically occurs along the edges of vernal pools and vernal drainages, or on clay-rich terrace soils. The species is found between 100 and 3,400 feet in elevation. The flowering period is March through May.	No	No	No	Small seasonal wetlands and drainages are found on the project site, but they do not support vernal pool species. Red Bluff dwarf rush was not observed during the botanical surveys and is not expected to be present.
Sanford's arrowhead	*Sagittaria sanfordii*	1B.2	Sanford's arrowhead occurs in freshwater ponds, marshes, and ditches with perennial water. The species is reported from sea level to 2,200 feet in elevation. The flowering period is May through October.	No	No	No	No permanent water bodies capable of supporting Sanford's arrowhead are present in the study area. The species was not observed during the botanical surveys and is not expected to be present.
Shasta snow-wreath	*Neviusia cliftonii*	1B.2	Shasta snow-wreath is a shrub that occurs in cismontane woodland, lower montane coniferous forest, and riparian woodland, often on shaded, north-facing, or sheltered canyons, and occasionally on limestone and in mesic areas. The species is found between 900 and 1,700 feet in elevation. The species is known from fewer than 20 occurrences in the mountains around Lake Shasta. The flowering period is April through June.	No	No	No	No suitable habitat for Shasta snow-wreath is found on the project site. The species was not observed during the botanical surveys and is not expected to be present.

TABLE 3
Potential for Special-Status Species to Occur in Study Areas 1 or 2
Shasta College Facilities Master Plan Amendment 2
December 2025

COMMON NAME	SCIENTIFIC NAME	STATUS [1]	GENERAL HABITAT DESCRIPTION	HABITAT PRESENT (Y/N)	CRITICAL HABITAT PRESENT (Y/N)	SPECIES PRESENT (Y/N/POT.)	RATIONALE/COMMENTS
Silky cryptantha	*Cryptantha crinita*	1B.2	Silky cryptantha is an annual herb that occurs along low-gradient seasonal streams with broad floodplains, usually on the valley floor, where it is found on gravelly or cobbly substrates. The species also occurs in vernally moist uplands. Less frequently, it occurs along perennial streams, including the Sacramento River. The species is found between 200 and 4,000 feet in elevation. The flowering period is April and May.	No	No	No	No suitable habitat for silky cryptantha is found on the project site. The species was not observed during the botanical surveys and is not expected to be present.
Slender Orcutt grass	*Orcuttia tenuis*	FT, SE, 1B.1	Slender Orcutt grass is an annual herb that occurs in vernal pools and similar habitats, occasionally on reservoir edges or stream floodplains, and on clay soils with seasonal inundation. Surrounding habitat types may include valley grassland, oak woodland, coniferous forest, and sagebrush scrub. The species is found between 100 and 5,800 feet in elevation. The flowering period is May through September.	No	No	No	No vernal pools or other potentially suitable habitat for slender Orcutt grass is present on the project site. The species was not observed during the botanical surveys and is not expected to be present.
Sulfur Creek brodiaea	*Brodiaea matsonii*	1B.1	Sulphur Creek brodiaea, a perennial bulbiferous herb, is reported only from two locations along Sulphur Creek. This plant occurs on metamorphic amphibolite schists in close proximity to streams, meadows, and/or seeps within cismontane woodland. The species is reported to be between 600 and 700 feet in elevation. The flowering period is May and June.	No	No	No	No suitable habitat for Sulfur Creek brodiaea is found on the project site. The species was not observed during the botanical surveys and is not expected to be present.

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CRUSTACEANS							
Shasta crayfish	*Pacifastacus fortis*	FE, SE	Shasta crayfish inhabit sections of the Pit River, Fall River, Hat Creek, and tributary streams and springs characterized by cool, clear water, low gradient, and substrate consisting of volcanic rubble on sand and/or gravel.	No	No	No	The project area is well outside the known range of Shasta crayfish. No suitable habitat for Shasta crayfish is present in the project area. Thus, the species would not be present.
Vernal pool fairy shrimp	*Branchinecta lynchi*	FT	Vernal pool fairy shrimp inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump or basalt-flow depression pools.	No	No	No	No vernal pools or other potentially suitable habitat for vernal pool fairy shrimp are present in the study area. Vernal pool fairy shrimp would thus not be present.
Vernal pool tadpole shrimp	*Lepidurus packardi*	FE	Vernal pool tadpole shrimp occur in vernal pools in California's Central Valley and in the surrounding foothills.	No	No	No	No vernal pools or other potentially suitable habitats for vernal pool tadpole shrimp are present in the study area. Vernal pool tadpole shrimp would thus not be present.
BIRDS							
Bald eagle	*Haliaeetus leucocephalus*	FD, SE, SFP	Bald eagles nest in large, old-growth trees or snags in mixed stands near open bodies of water. Adults tend to use the same breeding areas year after year and often use the same nest, though a breeding area may include one or more alternate nests. Bald eagles usually do not begin nesting if human disturbance is evident. In California, the bald eagle nesting season is from February through July.	No	No	No	The project site does not contain suitable nesting or foraging habitat for the bald eagle. No bald eagles or eagle nests were observed during the field survey and the species is not expected to nest in or adjacent to the project area.

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Shasta College Facilities Master Plan Amendment 2
December 2025

COMMON NAME	SCIENTIFIC NAME	STATUS [1]	GENERAL HABITAT DESCRIPTION	HABITAT PRESENT (Y/N)	CRITICAL HABITAT PRESENT (Y/N)	SPECIES PRESENT (Y/N/POT.)	RATIONALE/COMMENTS
California condor	*Gymnogyps californianus*	EXPN-NE	The California condor is a permanent resident of the semi-arid, rugged mountain ranges surrounding the southern San Joaquin Valley, including the Coast Range from Santa Clara County south to Los Angeles County, the Traverse Ranges, Tehachapi Mountains, and southern Sierra Nevada. Condors roost on cliffs, large trees, and snags. Nesting habitat includes caves, crevices, behind rock slabs, or on large ledges on high sandstone cliffs. An experimental population (Pacific Northwest NEP) has recently been established in Humboldt County and is currently designated the status Experimental Population, Non-Essential (EXPN-NE).	No	No	No	No suitable nesting habitat for the California condor is present in the project area. Although California condors could conceivably forage in the general area they would not nest in the area and would not be affected by project implementation.
Northern spotted owl	*Strix occidentalis caurina*	FT, ST	Northern spotted owls inhabit dense, old-growth, multi-layered mixed conifer, redwood, and Douglas-fir forests from sea level to approximately 7,600 feet in elevation. Northern spotted owls typically nest in tree cavities, the broken tops of trees, or in snags. The nesting season is March through June.	No	No	No	The project site does not support dense, old-growth forests. Therefore, northern spotted owls would not be present in the project area.

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Shasta College Facilities Master Plan Amendment 2
December 2025

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REPTILES							
Northwestern pond turtle	*Actinemys marmorata*	FPT, SSSC	Northwestern pond turtles associate with permanent or nearly permanent water in a variety of habitats. This turtle is typically found in quiet water environments. Pond turtles require basking sites such as partially submerged logs, rocks, or open mud banks, and suitable (sandy banks or grassy open fields) upland habitat for egg-laying. Nesting and courtship occur during spring. Nests are generally constructed within 500 feet of a waterbody, but some nests have been found up to 1,200 feet away. Pond turtles leave aquatic sites in the fall and overwinter in uplands nearby. Pond turtles return to aquatic sites in spring.	No	No	No	There are no permanent or nearly permanent waters in or adjacent to the study area that would provide suitable habitat for the pond turtle; thus, the species would not be present.
AMPHIBIANS							
Foothill yellow-legged frog	*Rana boylii* pop.1	SSSC	Foothill yellow-legged frogs are typically found in shallow, partly-shaded, perennial streams in areas with riffles and rocky substrates. This frog needs at least some cobble-sized substrate for egg-laying. Foothill yellow-legged frogs generally prefer low- to moderate-gradient streams, especially for breeding and egg-laying, although juvenile and adult frogs may utilize moderate- to steep-gradient streams during summer and early fall.	No	No	No	There are no perennial streams or other potentially suitable habitats for the foothill yellow-legged frog in or adjacent to the study area; thus, the species would not be present.

TABLE 3
Potential for Special-Status Species to Occur in Study Areas 1 or 2
Shasta College Facilities Master Plan Amendment 2
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Shasta salamander	*Hydromantes shastae*	ST	The Shasta salamander is primarily restricted to limestone outcrops near Lake Shasta. Habitat consists of moist limestone fissures and caves, limestone talus, and under woody debris on the surface near limestone outcrops. Shasta salamanders may be found in all successional stages of valley foothill hardwood-conifer, ponderosa pine, and mixed conifer habitats.	No	No	No	The project site is outside the known range of Shasta salamander and no suitable habitat for the species is present in the study area; thus, the species would not be present.
Western spadefoot	*Spea hammondii*	FPT, SSSC	Western spadefoots occur primarily in grassland habitats. They breed from January through May in shallow, temporary pools that persist for at least three weeks. Breeding pools are generally absent of bullfrogs, fish, and crayfish. After breeding, adults seek shelter underground either by excavating a subterranean burrow or retreating into a small mammal burrow nearby. Tadpoles transform within three weeks. Following transformation, juveniles leave breeding pools and seek shelter underground. Western spadefoots remain underground until breeding pools form the following spring.	No	No	No	The nearest known occurrence of western spadefoot is eight miles south of the project site. No suitable habitat for the western spadefoot is present in the project site; thus, the species would not be present.

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INSECTS							
Monarch butterfly	*Danaus plexippus* pop. 1	FPT	Monarch butterflies are reliant on milkweed species for development and survival. Adults migrate from their overwintering sites on the California Coast and Baja California in February and March and reach the northern limit of their range in California, Oregon, Washington, Idaho, and Nevada, in early to mid-June. Eggs are laid singly on milkweed plants. Once hatched, larva reach the adult stage in 20 to 35 days; adults live 2 to 5 weeks. Several generations can be produced within one season, with the last generation beginning migration to their overwintering range in August and September where they live between 6 and 9 months before migrating north.	No	No	No	Monarch butterflies rely on milkweed plants for reproduction, and on various flowering species for nectar as adults. No milkweeds were observed during the botanical surveys; thus, the species would not be directly impacted by project implementation. Additionally, the project site, which consists primarily of urban habitat and dense oak woodland, does not support an abundance of flowering plants and provides only minimal foraging opportunities for monarchs.
Suckley's cuckoo bumble bee	*Bombus suckleyi*	FPE, SCE	In California, Suckley's cuckoo bumble bees are limited to the Klamath Mountains. The bee is a social parasite that has only been documented to reproduce successfully in colonies of western bumble bees. Females emerge in late May, forage primarily on species of composites, and search for a suitable host bumble bee nest. Upon finding a nest, the invading female kills the queen, "enslaves" the workers, and lays her eggs in the nest. All offspring are reproductive. Males patrol circuits in search of females. Once mated, females seek a place to overwinter. Very little is known about overwintering sites utilized by the species, although generally, bumble bee females overwinter in soft, disturbed soil or under leaf litter or other debris.	No	No	No	The project site is well outside the known range of Suckley's cuckoo bumble bee; thus, the species would not be present.

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Valley elderberry longhorn beetle	*Desmocerus californicus*	FT	The valley elderberry longhorn beetle (VELB) is found only in association with elderberry shrubs (*Sambucus* spp.). The species occurs from approximately Shasta County in the north to Fresno County in the south, including the valley floor and lower foothills. The majority of VELB have been documented below 500 feet in elevation.	No	No	No	No elderberry shrubs were observed during the botanical field surveys. Therefore, VELB would not be present.
FISH							
Chinook salmon - Central Valley spring-run ESU	*Oncorhynchus tshawytscha* pop. 11	FT, ST	Central Valley spring-run Chinook salmon enter the Sacramento-San Joaquin Delta in early January and enter natal streams between mid-March and mid-October. Upon entering fresh water, spring-run are sexually immature and must hold in cold water habitats through summer to mature. Typically, spring-run utilize mid- to high-elevation streams that provide sufficient flow, water temperature, cover, and pool depth to allow over-summering. Spawning occurs between August and mid-October.	No	No	No	Stillwater Creek, which supports anadromous fish spawning grounds, is neither within nor adjacent to the project site and flows ~0.15 miles to the east. Therefore, Chinook salmon would not be affected by project implementation.
Steelhead – Central Valley DPS	*Oncorhynchus mykiss irideus* pop. 11	FE, SSSC	Central Valley steelhead migrate up coastal streams and rivers during spring and soon after the final high flows of April, and the migration continues through June. Adults move into smaller tributary/headwater streams and hold in deep pools during the summer months. Spawning occurs in winter, in cool, clear, well-oxygenated streams. Gravel is the preferred spawning substrate.	No	No	No	Stillwater Creek, which supports anadromous fish spawning grounds, is neither within nor adjacent to the project site and flows ~0.15 miles to the east. Therefore, steelhead would not be affected by project implementation.

[1] Status Codes

Federal:

FE	Federally Listed – Endangered
FT	Federally Listed – Threatened
FC	Federal Candidate Species
FP	Federal Proposed Species
FD	Federal Delisted
FBCC	Federal Bird of Conservation Concern

State:

SFP	State Fully Protected
SR	State Rare
SE	State Listed - Endangered
ST	State Listed - Threatened
SC	State Candidate Species
SCE	State Candidate Endangered
SSSC	State Species of Special Concern
WL	Watch List

Rare Plant Rank

1A	Plants Presumed Extinct in California
1B	Plants Rare, Threatened or Endangered in California and Elsewhere
2A	Presumed Extirpated in California, but More Common Elsewhere
2B	Rare or Endangered in California, but More Common Elsewhere

Rare Plant Threat Rank

0.1	Seriously Threatened in California
0.2	Fairly Threatened in California
0.3	Not Very Threatened in California

VASCULAR PLANT SPECIES OBSERVED

Shasta College Master Plan Update
April 15, 2020 and June 17, 2025

Agavaceae	**Century-plant Family**
Chlorogalum pomeridianum var. *pomeridianum*	Wavy-leaved soap plant
Alismataceae	**Water Plantain Family**
Alisma triviale	Water plantain
Amaranthaceae	**Amaranth Family**
Amaranthus albus	Tumbleweed
Anacardiaceae	**Sumac Family**
Toxicodendron diversilobum	Western poison-oak
Apiaceae	**Carrot Family**
Eryngium articulatum	Jointed coyote thistle
Torilis arvensis	Tall sock-destroyer
Asteraceae	**Sunflower Family**
Anthemis cotula	Mayweed
Carduus pycnocephalus	Italian thistle
Centaurea solstitialis	Yellow star thistle
Centromadia fitchii	Fitch's spikeweed
Cichorium intybus	Chicory
Dittrichia graveolens	Shasta aster
Eriophyllum lanatum	Common woolly sunflower
Hypochaeris glabra	Smooth cat's ear
Lactuca serriola	Prickly lettuce
Leontodon saxatilis	Hairy hawkbit
Madia sp.	Tarweed
Micropus californicus var. *californicus*	Cottontop
Solidago sp.	Goldenrod
Xanthium strumarium	Cocklebur
Brassicaceae	**Mustard Family**
Hirschfeldia incana	Shortpod mustard
Lepidium nitidum	Shining peppergrass
Lepidium strictum	Peppergrass
Raphanus raphanistrum	Jointed charlock
Caprifoliaceae	**Honeysuckle Family**
Lonicera interrupta	Chaparral honeysuckle
Caryophyllaceae	**Pink Family**
Herniaria hirsuta var. *hirsuta*	Gray herniaria
Spergularia rubra	Ruby sand spurry
Chenopodiaceae	**Goosefoot Family**
Dysphania pumilio	Tasmanian goosefoot
Convolvulaceae	**Morning Glory Family**
Convolvulus arvensis	Bindweed
Cyperaceae	**Sedge Family**
Carex barbarae	Barbara sedge
Cyperus eragrostis	Nutsedge
Eleocharis macrostachya	Creeping spikerush
Schoenoplectus acutus	Common tule

VASCULAR PLANT SPECIES OBSERVED

Shasta College Master Plan Update

Euphorbiaceae	**Spurge Family**
Euphorbia maculata	Spotted spurge
Fabaceae	**Legume Family**
Acmispon americanus var. *americanus*	Spanish lotus
Lupinus bicolor	Bicolored lupine
Trifolium hirtum	Rose clover
Trifolium subterraneum	Subterranean clover
Vicia sativa	Garden vetch
Vicia villosa	Hairy vetch
Fagaceae	**Oak Family**
Quercus douglasii	Blue oak
Quercus kelloggii	California black oak
Quercus lobata	Valley oak
Quercus wislizeni	Interior live oak
Quercus Xmorehus	Oracle oak
Gentianaceae	**Gentian Family**
Centaurium tenuiflorum	June centaury
Geraniaceae	**Geranium Family**
Erodium cicutarium	Red-stemmed filaree
Erodium moschatum	White-stemmed filaree
Geranium dissectum	Cut-leaf geranium
Geranium purpureum	Little robin
Heliotropiaceae	**Heliotrope Family**
Heliotropium europaeum	European pulsey
Hypericaceae	**St. John's-wort Family**
Hypericum perforatum	Klamath weed
Juncaceae	**Rush Family**
Juncus acuminatus	Sharp-fruited rush
Juncus bufonius	Toad rush
Juncus oxymeris	Pointed rush
Juncus tenuis	Slender rush
Lamiaceae	**Mint Family**
Marrubium vulgare	Horehound
Mentha pulegium	Pennyroyal
Trichostema lanceolatum	Vinegar weed
Lythraceae	**Loosestrife Family**
Lythrum hyssopifolia	Hyssop loosestrife
Malvaceae	**Mallow Family**
Sidalcea asprella	Checkerbloom
Myrtaceae	**Myrtle Family**
Eucalyptus sp.	Gum tree
Oleaceae	**Olive Family**
Fraxinus latifolia	Oregon ash
Pinaceae	**Pine Family**
Pinus sabiniana	Gray pine

VASCULAR PLANT SPECIES OBSERVED

Shasta College Master Plan Update

Plantaginaceae	**Plantain Family**
Callitriche sp.	Water starwort
Kickxia elatine	Sharp-leaved fluellin
Plantago coronopus	Cut-leaf plantain
Plantago lanceolata	English plantain
Veronica peregrina subsp. *xalapensis*	Purslane speedwell
Poaceae	**Grass Family**
Aira caryophyllea	Silver hairgrass
Anthoxanthum aristatum	Vernal grass
Avena barbata	Slender wild oats
Briza minor	Little quaking grass
Bromus diandrus	Ripgut grass
Bromus hordeaceus	Soft chess
Bromus rubens	Red brome
Cynodon dactylon	Bermuda grass
Cynosurus echinatus	Hedgehog dogtail
Dactylis glomerata	Orchard grass
Deschampsia danthonioides	Annual hairgrass
Elymus caput-medusae	Medusahead
Elymus glaucus	Blue wild rye
Elymus multisetus	Big squirreltail
Festuca myuros	Foxtail fescue
Festuca perennis	Annual ryegrass
Gastridium phleoides	Nit grass
Hordeum marinum subsp. *gussoneanum*	Mediterranean barley
Hordeum murinum	Foxtail barley
Poa annua	Annual bluegrass
Poa bulbosa	Bulbous bluegrass
Polypogon maritimus	Mediterranean beardgrass
Polypogon monspeliensis	Annual beardgrass
Sorghum halepense	Johnson grass
Polemoniaceae	**Phlox Family**
Navarretia intertexta	Needle-leaf navarretia
Polygonaceae	**Buckwheat Family**
Fallopia convolvulus	Black bindweed
Rumex crispus	Curly dock
Rumex pulcher	Fiddle dock
Ranunculaceae	**Buttercup Family**
Ranunculus occidentalis	Western buttercup
Rhamnaceae	**Buckthorn Family**
Frangula californica subsp. *tomentella*	Hoary coffeeberry
Rosaceae	**Rose Family**
Prunus cerasifera	Cherry plum
Pyracantha sp.	Pyracantha
Rubus armeniacus	Himalayan blackberry
Rubiaceae	**Madder Family**
Sherardia arvensis	Field madder
Salicaceae	**Willow Family**
Populus fremontii subsp. *fremontii*	Fremont cottonwood
Salix gooddingii	Goodding's black willow

VASCULAR PLANT SPECIES OBSERVED

Shasta College Master Plan Update

Sapindaceae *Aesculus californica*	**Soapberry Family** California buckeye
Themidaceae *Dichelostemma multiflorum*	**Brodiaea Family** Round-toothed ookow
Valerianaceae *Valerianella locusta*	**Valerian Family** Corn salad
Zygophyllaceae *Tribulus terrestris*	**Caltrop Family** Puncture vine

ENPLAN

141-24
August 22, 2024

Eihnard Diaz
Diaz Associates
4277 Pasatiempo Court
Redding, CA 96002

SUBJECT: Tree Survey Report for Shasta College Apparatus Building Site

In response to your request, ENPLAN has completed a tree survey addressing a ~3.4-acre study area that includes the development footprint for a proposed apparatus building. This report provides the results of our survey.

The study area is located within the Shasta College campus, north of the central parking lot and immediately west of the football field. The study area is characterized by generally flat topography at ~640 feet in elevation, with a small soil stockpile in the northeastern corner rising to ~665 feet. Most trees in the study area are in adequate health, though many of them have dead wood or other forms of damage. **Figure 1** shows the project location and vicinity.

Tree Survey Methodology

The following methodology was used for the tree survey:

- The site was inspected to identify all living trees ≥6-inch diameter at breast height (dbh).
- Species, dbh, and health were determined for all living trees. Health was rated on a scale of 1-5 (Poor-Best). Health factors include tree form and structure; crown diameter; density; amount of foliation on lateral branches; trunk defects; presence of damage, disease, or decay; condition of old and new wood; etc. See Table 1 for a more detailed description of health ratings.
- Using a diameter tape and visual estimations, tree diameters were determined approximately 4½ feet above the ground surface. If a trunk split below this level, each stem was separately measured and recorded.
- All trees were labeled with a numbered metal tree tag.
- Most trees were recorded with a GPS unit capable of sub-meter accuracy. However, the GPS unit malfunctioned during field work on July 25; on that day, trees were recorded with an iPhone GPS capable of 3-to-5-meter accuracy.

Tree Survey Results

The site was surveyed on July 22 and 25, 2024, to inventory trees on site. The survey was conducted by Rico Montenegro, Certified Arborist #WE-6734A, with assistance

from ENPLAN biologist Kathleen Pate. A total of 140 trees representing six species were recorded on the site. The GPS point number, species, size, health rating, and classification of all surveyed trees are listed in **Table 1** (attached). The locations of all tagged trees are depicted in **Figure 2**. A summary of the tree survey results (by size class and health rating) is provided in the following two tables.

Summary of Trees by Species and Size Class

Tree Species	Size Class (dbh):				Total
	6-11 in.	12-18 in.	19-24 in.	25+ in.	
Black Oak	0	1	0	0	1
Blue Oak	3	23	17	9	52
Gray Pine	0	2	1	1	4
Interior Live Oak	18	21	23	13	75
Oracle Oak	0	1	0	0	1
Valley Oak	0	3	2	2	7
Totals:	**21**	**51**	**43**	**25**	**140**

Summary of Trees by Species and Health Rating

Tree Species	Rating (1-5):					Total
	1	2	3	4	5	
Black Oak	0	1	0	0	0	1
Blue Oak	2	9	18	13	10	52
Gray Pine	0	0	0	2	2	4
Interior Live Oak	4	19	30	19	3	75
Oracle Oak	0	0	0	0	1	1
Valley Oak	0	2	1	2	2	7
Totals:	**6**	**31**	**49**	**36**	**18**	**140**

Most trees in the study area have high lateral branching, and many have substantial decay or other damage. A few are understory trees, and a handful of trees are leaning in one direction (often southwest, south, or southeast). Trees were generally evenly spaced throughout the study area, with a few small open patches.

The arborist identified 12 oaks as having exceptional qualities in terms of size and health, and recommends that these trees be retained, if feasible. These trees are identified below, and their locations are depicted in **Figure 3**.

Exceptional Trees Recommended for Retention, if Feasible

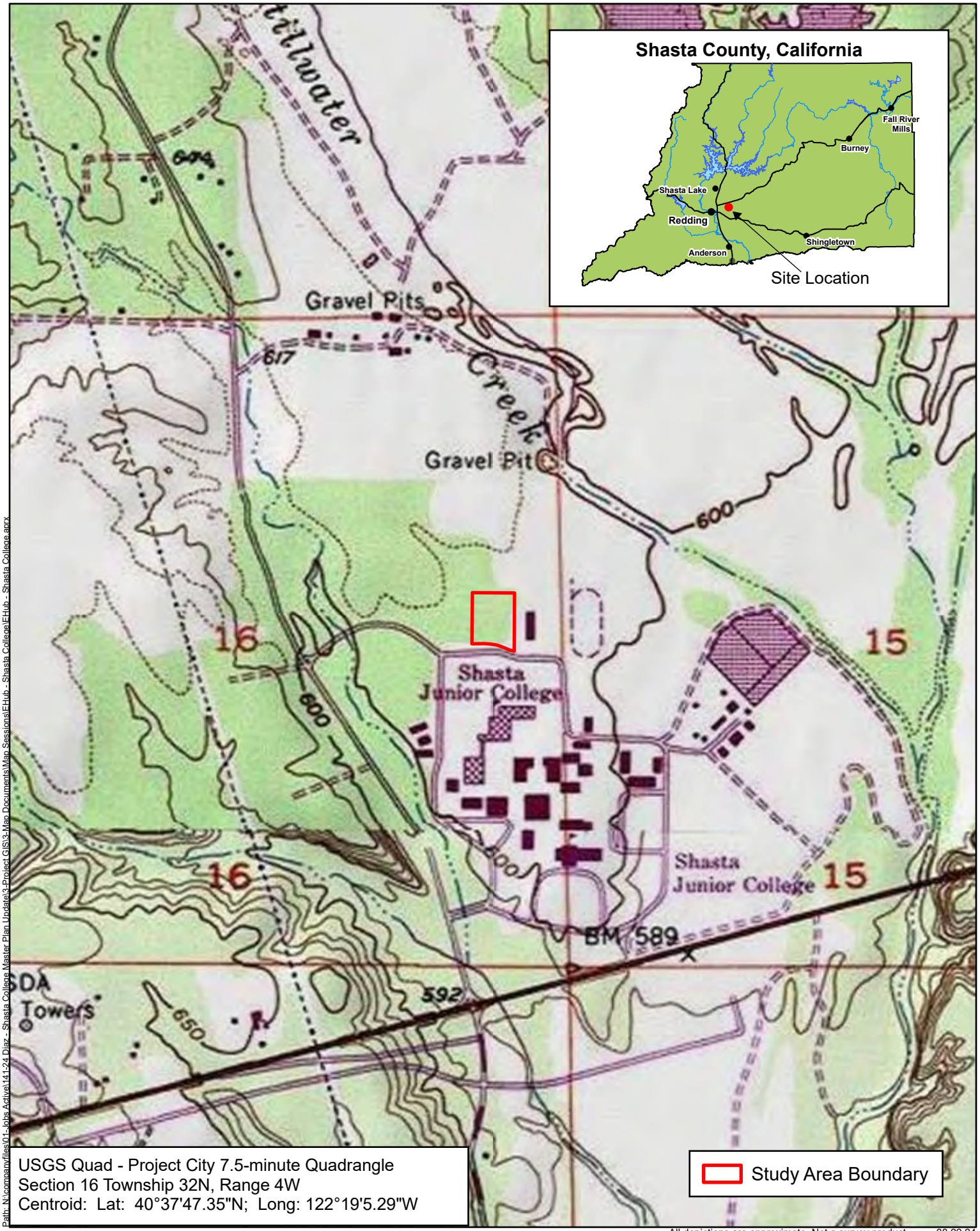
Tree Species	Tag Number	Diameter (dbh, inches)	Health Rating
Interior Live Oak	714	35	5
Blue Oak	718	27	5
Blue Oak	730	24	5
Blue Oak	744	31	5
Blue Oak	747	45	5
Blue Oak	922	25	5
Blue Oak	926	26	5
Interior Live Oak	939	24	5
Interior Live Oak	941	27	5
Valley Oak	982	24	5
Blue Oak	986	29	5
Valley Oak	995	27	5

Please call us if you have any questions regarding the results of our tree survey.

Sincerely,

Donald Burk
Environmental Services Manager

encl. Figure 1. Project Location and Vicinity
Figure 2. Tree Survey Results
Figure 3. Trees Recommended for Retention, if Feasible
Table 1. Surveyed Trees



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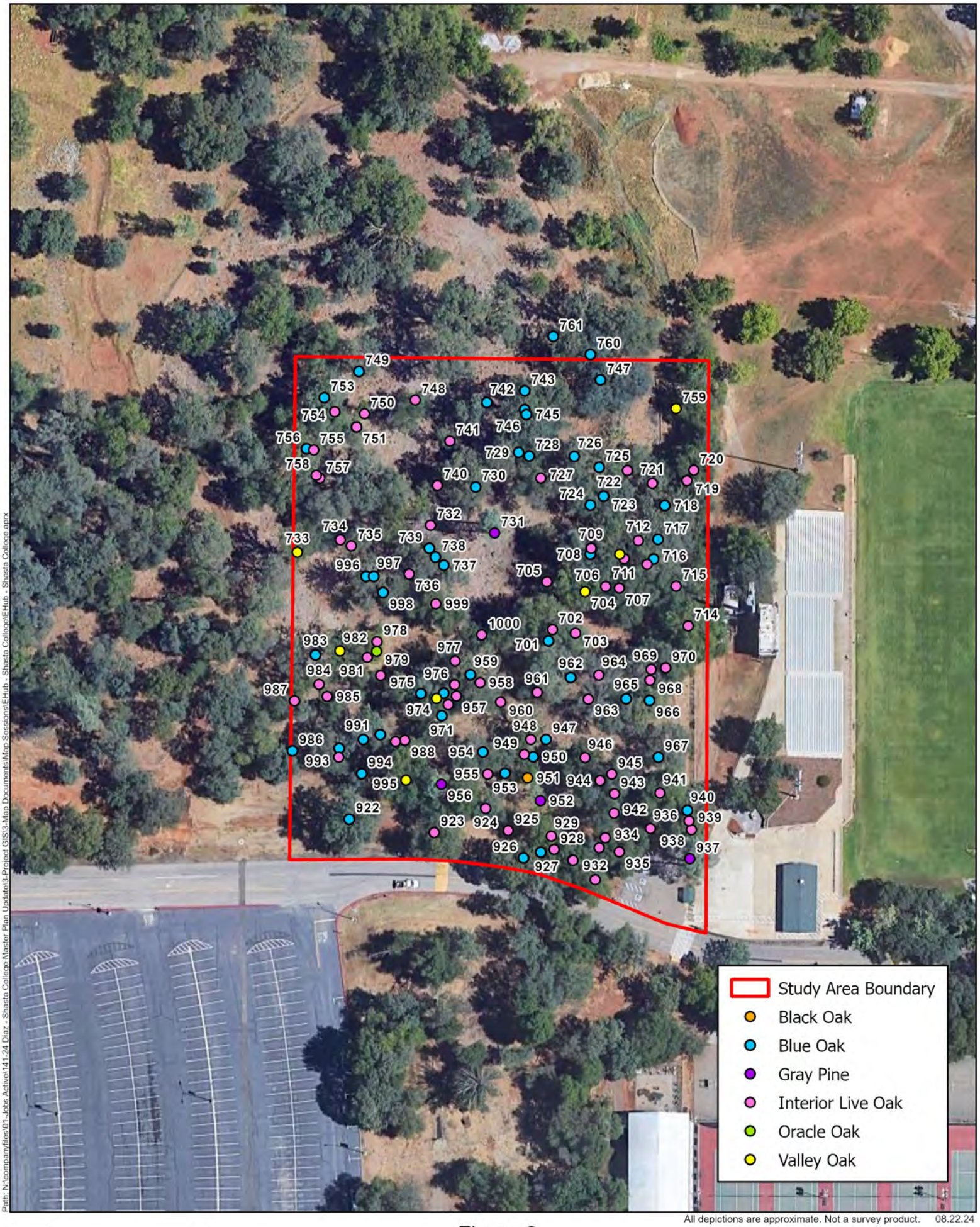
All depictions are approximate. Not a survey product. 08.22.24

Figure 1

Site Location and Vicinity

ENPLAN



Path: N:\companyfiles\01-Jobs Active\141-24 Diaz - Shasta College Master Plan Update\3-Project GIS\3-Map Documents\Map Sessions\EHub - Shasta College\EHub - Shasta College.aprx

All depictions are approximate. Not a survey product. 08.22.24

0 100 Feet

Figure 2

Tree Survey Results

ENPLAN

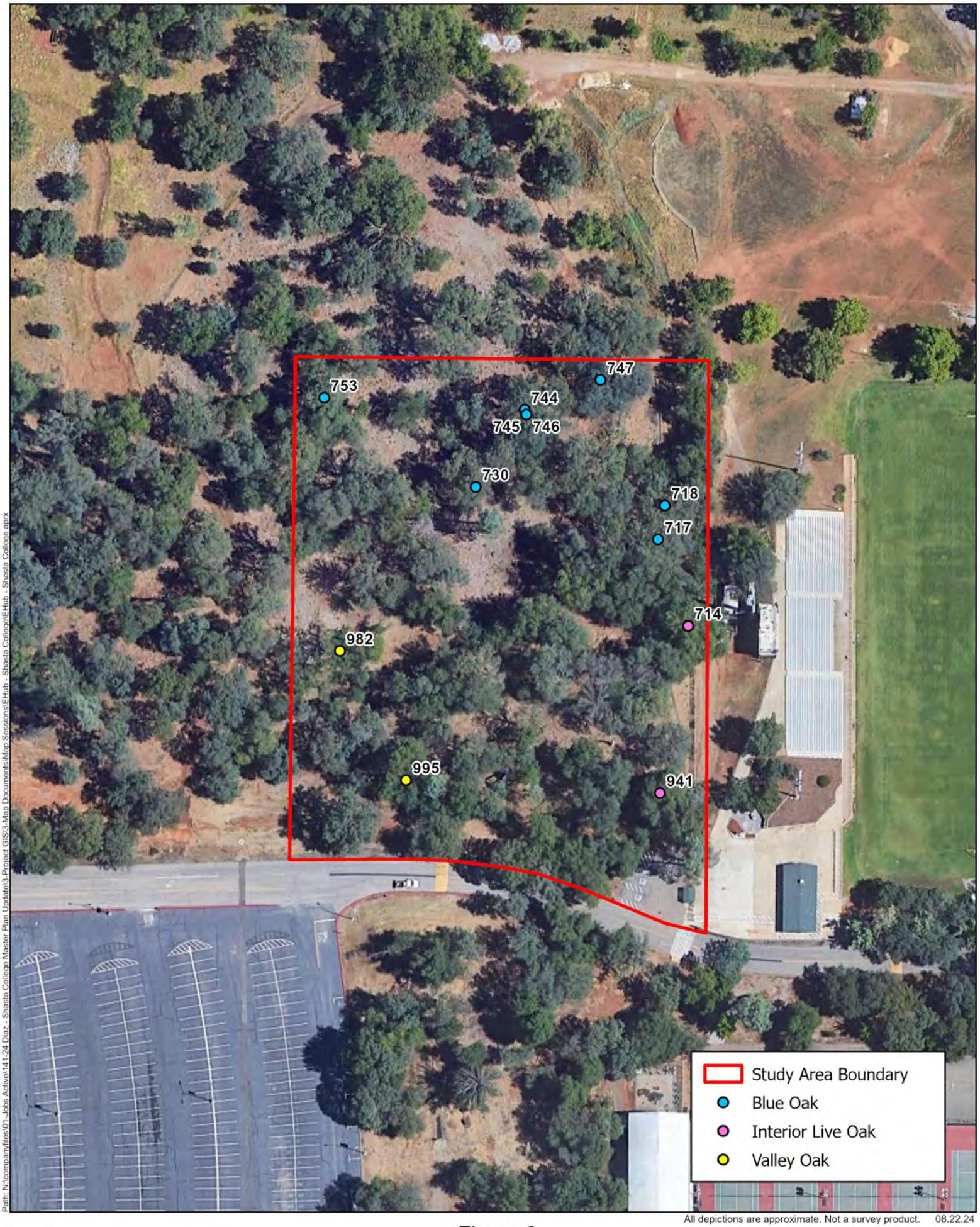


Figure 3

Trees Recommended for Retention if Feasible

ENPLAN

Table 1
Surveyed Trees

Tag Number	Common Name	Scientific Name	Diameter at Breast Height (inches)	Rating
922	**Blue Oak**	***Quercus douglasii***	**25**	**5**
923	Interior Live Oak	*Quercus wislizeni*	35	4
924	Interior Live Oak	*Quercus wislizeni*	24	3
925	Interior Live Oak	*Quercus wislizeni*	10	4
926	**Blue Oak**	***Quercus douglasii***	**26**	**5**
927	Blue Oak	*Quercus douglasii*	21	3
928	Interior Live Oak	*Quercus wislizeni*	14	2
929	Interior Live Oak	*Quercus wislizeni*	19	4
930	Interior Live Oak	*Quercus wislizeni*	16	2
931†	Interior Live Oak	*Quercus wislizeni*	14, 12	3
932	Interior Live Oak	*Quercus wislizeni*	20	3
933	Interior Live Oak	*Quercus wislizeni*	12	2
934	Interior Live Oak	*Quercus wislizeni*	24	2
935	Interior Live Oak	*Quercus wislizeni*	26	4
936	Interior Live Oak	*Quercus wislizeni*	18	2
937†	Gray Pine	*Pinus sabiniana*	28, 28	5
938	Interior Live Oak	*Quercus wislizeni*	8	3
939	**Interior Live Oak**	***Quercus wislizeni***	**24**	**5**
940	Blue Oak	*Quercus douglasii*	18	3
941	**Interior Live Oak**	***Quercus wislizeni***	**27**	**5**
942	Interior Live Oak	*Quercus wislizeni*	23	4
943	Interior Live Oak	*Quercus wislizeni*	16	2
944	Interior Live Oak	*Quercus wislizeni*	16	3
945	Interior Live Oak	*Quercus wislizeni*	23	4
946	Interior Live Oak	*Quercus wislizeni*	22	4
947	Blue Oak	*Quercus douglasii*	14	2
948	Interior Live Oak	*Quercus wislizeni*	14	3
949	Interior Live Oak	*Quercus wislizeni*	26	2
950	Blue Oak	*Quercus douglasii*	25	1
951	Black Oak	*Quercus kelloggii*	14	2
952	Gray Pine	*Pinus sabiniana*	12	4
953	Blue Oak	*Quercus douglasii*	20	3
954	Blue Oak	*Quercus douglasii*	15	3
955	Interior Live Oak	*Quercus wislizeni*	26	3
956	Gray Pine	*Pinus sabiniana*	18	4
957	Interior Live Oak	*Quercus wislizeni*	10	1
958†	Interior Live Oak	*Quercus wislizeni*	19, 12	3
959	Blue Oak	*Quercus douglasii*	20	4
960	Interior Live Oak	*Quercus wislizeni*	21	4
961	Interior Live Oak	*Quercus wislizeni*	13	1
962	Blue Oak	*Quercus douglasii*	26	2
963	Interior Live Oak	*Quercus wislizeni*	18	3
964	Interior Live Oak	*Quercus wislizeni*	24	2
965	Blue Oak	*Quercus douglasii*	19	4
966	Blue Oak	*Quercus douglasii*	19	4

967	Blue Oak	*Quercus douglasii*	20	4
968	Interior Live Oak	*Quercus wislizeni*	20	3
969	Interior Live Oak	*Quercus wislizeni*	25	3
970	Interior Live Oak	*Quercus wislizeni*	21	4
971	Blue Oak	*Quercus douglasii*	16	3
972	Interior Live Oak	*Quercus wislizeni*	24	3
973	Blue Oak	*Quercus douglasii*	13	2
974	Valley Oak	*Quercus lobata*	14	2
975	Blue Oak	*Quercus douglasii*	13	3
976†	Interior Live Oak	*Quercus wislizeni*	13, 13	1
977†	Interior Live Oak	*Quercus wislizeni*	16, 13, 9	3
978	Interior Live Oak	*Quercus wislizeni*	8	4
979†	Oracle Oak	*Quercus x morehus*	12, 6	5
980†	Interior Live Oak	*Quercus wislizeni*	10, 10	2
981	Interior Live Oak	*Quercus wislizeni*	10	3
982	**Valley Oak**	***Quercus lobata***	**24**	**5**
983	Blue Oak	*Quercus douglasii*	15	3
984†	Interior Live Oak	*Quercus wislizeni*	12, 9, 9	4
985	Interior Live Oak	*Quercus wislizeni*	13	4
986	**Blue Oak**	***Quercus douglasii***	**29**	**5**
987	Interior Live Oak	*Quercus wislizeni*	14	4
988	Interior Live Oak	*Quercus wislizeni*	25	4
989	Interior Live Oak	*Quercus wislizeni*	21	1
990	Blue Oak	*Quercus douglasii*	16	3
991	Blue Oak	*Quercus douglasii*	19	4
992	Blue Oak	*Quercus douglasii*	17	4
993†	Interior Live Oak	*Quercus wislizeni*	8, 8, 6, 5	3
994	Blue Oak	*Quercus douglasii*	8	3
995	**Valley Oak**	***Quercus lobata***	**27**	**5**
996	Blue Oak	*Quercus douglasii*	18	4
997	Blue Oak	*Quercus douglasii*	12	2
998	Blue Oak	*Quercus douglasii*	16	3
999†	Interior Live Oak	*Quercus wislizeni*	31, 16	3
1000†	Interior Live Oak	*Quercus wislizeni*	8, 8	3
701†	Blue Oak	*Quercus douglasii*	7, 7	1
702†	Interior Live Oak	*Quercus wislizeni*	23, 20	4
703	Interior Live Oak	*Quercus wislizeni*	23	4
704	Valley Oak	*Quercus lobata*	26	4
705	Interior Live Oak	*Quercus wislizeni*	8	3
706	Interior Live Oak	*Quercus wislizeni*	16	2
707	Interior Live Oak	*Quercus wislizeni*	25	3
708	Blue Oak	*Quercus douglasii*	13	2
709	Interior Live Oak	*Quercus wislizeni*	24	4
710	Valley Oak	*Quercus lobata*	13	2
711	Interior Live Oak	*Quercus wislizeni*	18	2
712	Interior Live Oak	*Quercus wislizeni*	13	2
713	Interior Live Oak	*Quercus wislizeni*	23	3
714	**Interior Live Oak**	***Quercus wislizeni***	**35**	**5**

715	Interior Live Oak	*Quercus wislizeni*	24	4
716	Blue Oak	*Quercus douglasii*	16	2
717	Blue Oak	*Quercus douglasii*	22	5
718	**Blue Oak**	***Quercus douglasii***	**27**	**5**
719	Interior Live Oak	*Quercus wislizeni*	7	3
720	Interior Live Oak	*Quercus wislizeni*	13	3
721†	Interior Live Oak	*Quercus wislizeni*	9, 8	2
722	Interior Live Oak	*Quercus wislizeni*	10	2
723	Blue Oak	*Quercus douglasii*	18	4
724	Blue Oak	*Quercus douglasii*	18	3
725	Blue Oak	*Quercus douglasii*	21	4
726	Blue Oak	*Quercus douglasii*	23	4
727	Interior Live Oak	*Quercus wislizeni*	25	4
728	Blue Oak	*Quercus douglasii*	13	2
729	Blue Oak	*Quercus douglasii*	19	3
730	**Blue Oak**	***Quercus douglasii***	**24**	**5**
731	Gray Pine	*Pinus sabiniana*	23	5
732	Interior Live Oak	*Quercus wislizeni*	24	3
733	Valley Oak	*Quercus lobata*	23	4
734†	Interior Live Oak	*Quercus wislizeni*	8, 7, 5	2
735	Interior Live Oak	*Quercus wislizeni*	25	2
736	Interior Live Oak	*Quercus wislizeni*	6	3
737	Blue Oak	*Quercus douglasii*	18	3
738	Blue Oak	*Quercus douglasii*	19	4
739	Blue Oak	*Quercus douglasii*	13	2
740	Interior Live Oak	*Quercus wislizeni*	7	3
741†	Interior Live Oak	*Quercus wislizeni*	9, 7	3
742	Blue Oak	*Quercus douglasii*	23	3
743	Blue Oak	*Quercus douglasii*	12	3
744	**Blue Oak**	***Quercus douglasii***	**31**	**5**
745	Blue Oak	*Quercus douglasii*	19	4
746	Blue Oak	*Quercus douglasii*	27	4
747	**Blue Oak**	***Quercus douglasii***	**45**	**5**
748†	Interior Live Oak	*Quercus wislizeni*	13, 9, 7	3
749	Blue Oak	*Quercus douglasii*	23	5
750	Interior Live Oak	*Quercus wislizeni*	9	3
751	Interior Live Oak	*Quercus wislizeni*	8	2
752	Blue Oak	*Quercus douglasii*	11	3
753	Blue Oak	*Quercus douglasii*	23	5
754	Interior Live Oak	*Quercus wislizeni*	25	3
755	Interior Live Oak	*Quercus wislizeni*	21	2
756	Blue Oak	*Quercus douglasii*	15	3
757	Interior Live Oak	*Quercus wislizeni*	17	2
758	Interior Live Oak	*Quercus wislizeni*	21	3
759	Valley Oak	*Quercus lobata*	15	3
760	Blue Oak	*Quercus douglasii*	13	2
761	Blue Oak	*Quercus douglasii*	18	3

† *Multi-trunked tree that splits below breast height*
Bold *denotes exceptional trees recommended for retention, if feasible*

* Health rating (Defined by Rico Montenegro Certified Arborist #WE-6734A)
1. Extreme and profound visible evidence of disease, insect damage, decay, or limb loss. Less than 25% of branches are foliated. Trees may contain single or multiple trunks with deteriorated form and structure. Trees are in later stages of senescence.
2. Major and large amounts of visible disease, insect damage, decay, or limb loss. Between 25 and 50% of the branches are foliated. Trees can contain single or multiple trunks, with poor form and structure. Trees are in the early stages of senescence.
3. Moderate amounts of visible disease, insect damage, decay, or limb loss. Between 50 and 80% of the branches are foliated. Trees are generally single trunked, with compromised form and structure, and moderate growth.
4. Minor evidence of disease, insect damage, decay, or limb loss. More than 80 to 90% of the branches are foliated. Trees are generally single trunked, with good form and structure, and good growth.
5. None or very little evidence of disease, insect damage, decay, or limb loss. More than 90% of the branches are foliated. Trees are generally single trunked, with very good form and structure, and vigorous growth

ENPLAN

141-24
August 10, 2025

Eihnard Diaz
Diaz Associates
4277 Pasatiempo Court
Redding, CA 96002

SUBJECT: Tree Survey Report for Shasta College Master Plan Update – Additional Study Area

In response to your request, ENPLAN has completed a tree survey addressing a ~18-acre study area as shown in **Figure 1**. This report provides the results of our survey.

Tree Survey Methodology

The following methodology was used for the tree survey:

- The site was inspected to identify all living trees ≥5-inch diameter at breast height (dbh).
- Species, dbh, and health were determined for all living trees. Health was rated on a scale of 1-5 (Poor-Best). Health factors include tree form and structure; crown diameter; density; amount of foliation on lateral branches; trunk defects; presence of damage, disease, or decay; condition of old and new wood; etc. See Table 1 for a more detailed description of health ratings.
- Using a diameter tape and visual estimations, tree diameters were determined approximately 4½ feet above the ground surface. If a trunk split below this level, each stem was separately measured and recorded.
- All trees were labeled with a numbered metal tree tag.
- Trees were recorded with a GPS unit capable of sub-meter accuracy.

Tree Survey Results

The site was surveyed on August 4, 2025, to inventory trees on site. The survey was conducted by Rico Montenegro, Certified Arborist #WE-6734A, with assistance from ENPLAN biological technician, Oceanna Boudway. A total of 146 trees representing three species were recorded on the site. The GPS point number, species, size, health rating, and classification of all surveyed trees are listed in **Table 1** (attached). The locations of all tagged trees are depicted in **Figures 2 and 3**. A summary of the tree survey results (by size class and health rating) is provided in the following two tables.

Summary of Trees by Species and Size Class

Tree Species	Size Class (dbh):				Total
	5-11 in.	12-18 in.	19-24 in.	25+ in.	
Blue Oak	11	9	7	9	36
Interior Live Oak	21	50	24	12	107
Valley Oak	0	0	0	3	3
Totals:	**32**	**59**	**31**	**24**	**146**

Summary of Trees by Species and Health Rating

Tree Species	Rating (1-5):					Total
	1	2	3	4	5	
Blue Oak	0	7	9	11	9	36
Interior Live Oak	2	26	56	18	5	107
Valley Oak	0	0	1	1	1	3
Totals:	**2**	**33**	**65**	**30**	**15**	**146**

Most trees are in moderate to good health with very few having substantial damage. and many are multi-trunk. A few are understory trees, and a handful of trees are leaning in one direction (often southwest, south, or southeast). Trees were generally evenly spaced throughout the study area, with a few small open patches.

The arborist identified six oaks as having exceptional qualities in terms of size and health, and recommends that these trees be retained, if feasible. These trees are identified below, and their locations are depicted in **Figure 4**.

Exceptional Trees Recommended for Retention, if Feasible

Tree Species	Tag Number	Diameter (dbh, inches)	Health Rating
Blue Oak	55	63	5
Blue Oak	63	35	5
Valley Oak	74	40	5
Blue Oak	83	24.5	5
Interior Live Oak	525	26, 30.5	5
Interior Live Oak	556	39	5

Please call us if you have any questions regarding the results of our tree survey.

Sincerely,

Donald Burk
Environmental Services Manager

Enclosures:

Figure 1. Project Location and Vicinity
Figures 2 and 3. Tree Survey Results
Figure 4. Trees Recommended for Retention
Feasible Table 1. Surveyed Trees

Path: N:\companyfiles\01-Jobs Active\141-24 Diaz - Shasta College Master Plan Update\3-Project GIS\3-Map Documents\Map Sessions\EHub - Shasta College\EHub - Shasta College.aprx

All depictions are approximate. Not a survey product. 02.12.26

0 250 Feet

Figure 1

Tree Survey Coverage

Catalyst ENVIRONMENTAL SOLUTIONS

Study Area Boundary
Blue Oak
Interior Live Oak
Valley Oak

0 60 Feet

All depictions are approximate. Not a survey product. 02.11.26

Figure 2

Tree Survey Results

Catalyst ENVIRONMENTAL SOLUTIONS

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Path: N:\companyfiles\01-Jobs Active\141-24 Diaz - Shasta College Master Plan Update\3-Project GIS\3-Map Documents\Map Sessions\Trees\Trees.aprx

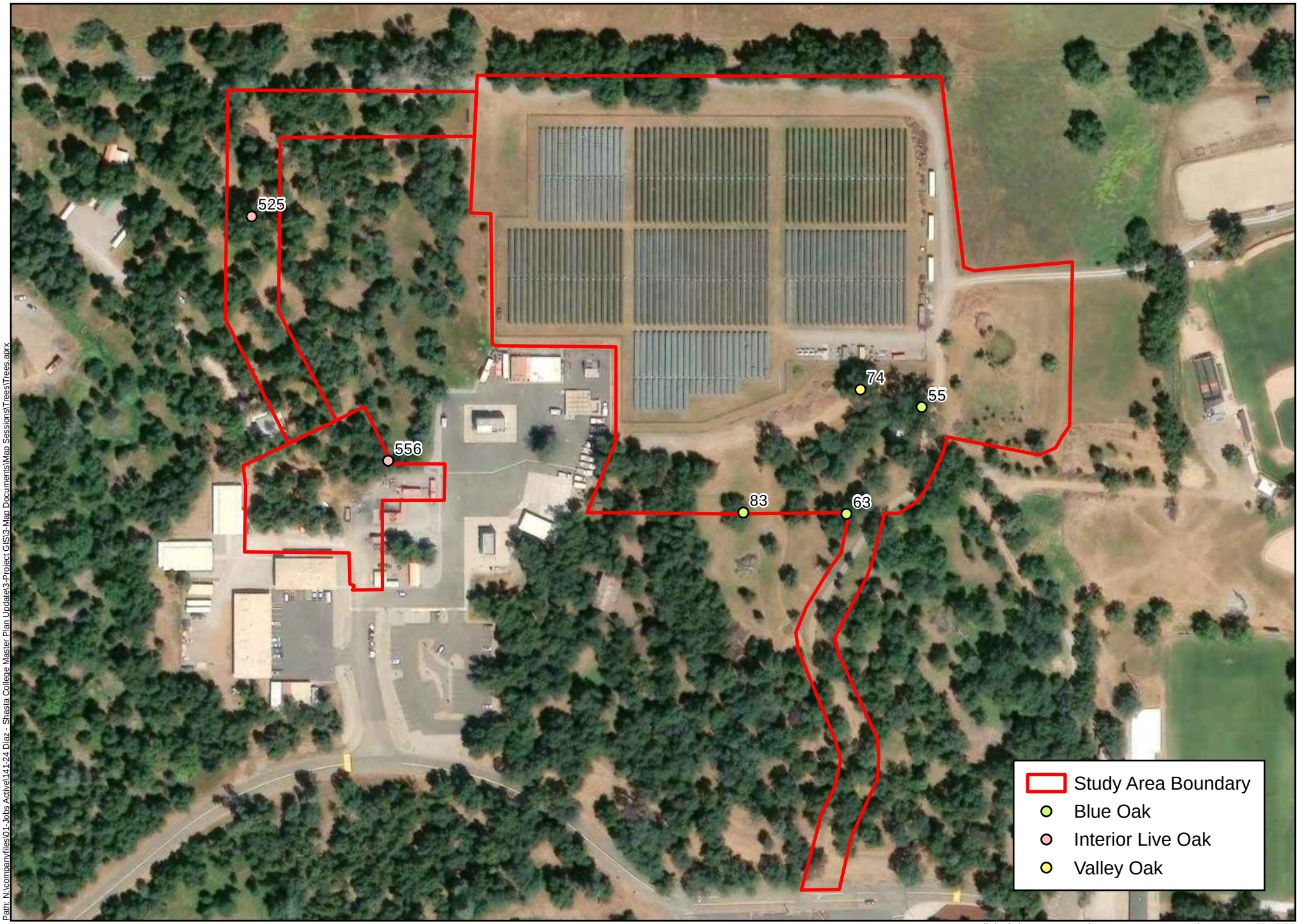
All depictions are approximate. Not a survey product. 02.11.26

0 60 Feet

Figure 3

Tree Survey Results

Catalyst ENVIRONMENTAL SOLUTIONS



Path: N:\companyfiles\01-Jobs Active\141-24 Diaz - Shasta College Master Plan Update\3-Project GIS\3-Map Documents\Map Sessions\Trees\Trees.aprx

All depictions are approximate. Not a survey product. 02.12.26

0 200 Feet

Figure 4

Exceptional Trees Recommended for Retention

Catalyst ENVIRONMENTAL SOLUTIONS

Table 1
Surveyed Trees

Tag ID	Common Name	Scientific Name	Health Rating	DBH
45	Blue Oak	*Quercus douglasii*	4	17
47	Blue Oak	*Quercus douglasii*	5	23
49	Blue Oak	*Quercus douglasii*	5	26
51	Blue Oak	*Quercus douglasii*	5	9
53	Blue Oak	*Quercus douglasii*	5	6
54	Blue Oak	*Quercus douglasii*	5	9
56	Blue Oak	*Quercus douglasii*	2	26
62	Blue Oak	*Quercus douglasii*	4	23
63	**Blue Oak**	***Quercus douglasii***	**5**	**35**
65	Blue Oak	*Quercus douglasii*	2	18
69	Blue Oak	*Quercus douglasii*	3	28
70	Blue Oak	*Quercus douglasii*	3	32
75	Blue Oak	*Quercus douglasii*	3	19
76	Blue Oak	*Quercus douglasii*	3	28
79	Blue Oak	*Quercus douglasii*	4	39
84	Blue Oak	*Quercus douglasii*	4	19
335	Blue Oak	*Quercus douglasii*	2	8
523	Blue Oak	*Quercus douglasii*	4	12
507	Blue Oak	*Quercus douglasii*	3	11
511	Blue Oak	*Quercus douglasii*	3	12
519	Blue Oak	*Quercus douglasii*	2	8
520	Blue Oak	*Quercus douglasii*	2	24
756	Blue Oak	*Quercus douglasii*	4	10
57	Interior Live Oak	*Quercus wislizeni*	2	23
59	Interior Live Oak	*Quercus wislizeni*	5	28
60	Interior Live Oak	*Quercus wislizeni*	4	8
64	Interior Live Oak	*Quercus wislizeni*	3	10
66	Interior Live Oak	*Quercus wislizeni*	3	9
67	Interior Live Oak	*Quercus wislizeni*	1	7
68	Interior Live Oak	*Quercus wislizeni*	4	27
73	Interior Live Oak	*Quercus wislizeni*	2	28
77	Interior Live Oak	*Quercus wislizeni*	4	8
80	Interior Live Oak	*Quercus wislizeni*	3	15, 11.5, 13, 12
86	Interior Live Oak	*Quercus wislizeni*	5	24, 18, 17, 6.5
89	Interior Live Oak	*Quercus wislizeni*	4	16
90	Interior Live Oak	*Quercus wislizeni*	4	15
94	Interior Live Oak	*Quercus wislizeni*	4	18
97	Interior Live Oak	*Quercus wislizeni*	3	9
98	Interior Live Oak	*Quercus wislizeni*	3	10.5, 13, 18
219	Interior Live Oak	*Quercus wislizeni*	1	16
220	Interior Live Oak	*Quercus wislizeni*	3	8.5, 22, 24
230	Interior Live Oak	*Quercus wislizeni*	2	9
501	Interior Live Oak	*Quercus wislizeni*	3	21, 18, 20
502	Interior Live Oak	*Quercus wislizeni*	4	19, 17, 20, 22.5

Tag ID	Common Name	Scientific Name	Health Rating	DBH
505	Interior Live Oak	*Quercus wislizeni*	3	14, 18, 16.5, 13
506	Interior Live Oak	*Quercus wislizeni*	3	13, 12.5, 12
508	Interior Live Oak	*Quercus wislizeni*	3	21
510	Interior Live Oak	*Quercus wislizeni*	3	15,16
513	Interior Live Oak	*Quercus wislizeni*	3	17
514	Interior Live Oak	*Quercus wislizeni*	2	21
516	Interior Live Oak	*Quercus wislizeni*	3	17, 12.5
517	Interior Live Oak	*Quercus wislizeni*	3	17, 17
521	Interior Live Oak	*Quercus wislizeni*	4	30
522	Interior Live Oak	*Quercus wislizeni*	2	13
523	Interior Live Oak	*Quercus wislizeni*	4	26
524	Interior Live Oak	*Quercus wislizeni*	2	14.5, 16
529	Interior Live Oak	*Quercus wislizeni*	3	22
531	Interior Live Oak	*Quercus wislizeni*	3	19
532	Interior Live Oak	*Quercus wislizeni*	2	14
533	Interior Live Oak	*Quercus wislizeni*	3	22
534	Interior Live Oak	*Quercus wislizeni*	3	16
335	Interior Live Oak	*Quercus wislizeni*	3	25
538	Interior Live Oak	*Quercus wislizeni*	3	14
539	Interior Live Oak	*Quercus wislizeni*	3	16
540	Interior Live Oak	*Quercus wislizeni*	3	9
541	Interior Live Oak	*Quercus wislizeni*	3	8, 21
542	Interior Live Oak	*Quercus wislizeni*	3	23
543	Interior Live Oak	*Quercus wislizeni*	2	12
44	Interior Live Oak	*Quercus wislizeni*	4	23, 16
545	Interior Live Oak	*Quercus wislizeni*	2	9
546	Interior Live Oak	*Quercus wislizeni*	2	13
547	Interior Live Oak	*Quercus wislizeni*	3	13
548	Interior Live Oak	*Quercus wislizeni*	4	16
549	Interior Live Oak	*Quercus wislizeni*	2	10
550	Interior Live Oak	*Quercus wislizeni*	2	9
551	Interior Live Oak	*Quercus wislizeni*	2	16
553	Interior Live Oak	*Quercus wislizeni*	3	14
554	Interior Live Oak	*Quercus wislizeni*	3	16
555	Interior Live Oak	*Quercus wislizeni*	3	13, 8.5
556	**Interior Live Oak**	***Quercus wislizeni***	**5**	**39**
557	Interior Live Oak	*Quercus wislizeni*	4	14.5, 17, 13.5
560	Interior Live Oak	*Quercus wislizeni*	2	11
563	Interior Live Oak	*Quercus wislizeni*	3	11.5, 15, 13
564	Interior Live Oak	*Quercus wislizeni*	3	18
565	Interior Live Oak	*Quercus wislizeni*	2	13, 9.5
567	Interior Live Oak	*Quercus wislizeni*	2	10
568	Interior Live Oak	*Quercus wislizeni*	3	19, 16.5
573	Interior Live Oak	*Quercus wislizeni*	3	11.5, 23
577	Interior Live Oak	*Quercus wislizeni*	3	15.5, 11.5, 16

Tag ID	Common Name	Scientific Name	Health Rating	DBH
578	Interior Live Oak	*Quercus wislizeni*	3	18
580	Interior Live Oak	*Quercus wislizeni*	2	18
582	Interior Live Oak	*Quercus wislizeni*	3	14
71	Valley Oak	*Quercus lobata*	3	28
72	Valley Oak	*Quercus lobata*	4	32
74	**Valley Oak**	***Quercus lobata***	**5**	**40**
46	Blue Oak	*Quercus douglasii*	4	17.5
52	Blue Oak	*Quercus douglasii*	5	8.5
58	Blue Oak	*Quercus douglasii*	2	15.5
61	Blue Oak	*Quercus douglasii*	4	20.5
81	Blue Oak	*Quercus douglasii*	2	34.5
83	**Blue Oak**	***Quercus douglasii***	**5**	**24.5**
65	Blue Oak	*Quercus douglasii*	3	14
99	Blue Oak	*Quercus douglasii*	3	9.5
503	Blue Oak	*Quercus douglasii*	4	15
512	Blue Oak	*Quercus douglasii*	3	11.5
536	Blue Oak	*Quercus douglasii*	4	18.5
575	Blue Oak	*Quercus douglasii*	4	11.5, 8, 9
48	Interior Live Oak	*Quercus wislizeni*	4	23.5
78	Interior Live Oak	*Quercus wislizeni*	5	11.5
87	Interior Live Oak	*Quercus wislizeni*	4	18
91	Interior Live Oak	*Quercus wislizeni*	3	12.5
92	Interior Live Oak	*Quercus wislizeni*	2	15
93	Interior Live Oak	*Quercus wislizeni*	3	13.5
95	Interior Live Oak	*Quercus wislizeni*	2	7.5
96	Interior Live Oak	*Quercus wislizeni*	3	9.5
221	Interior Live Oak	*Quercus wislizeni*	3	21.5, 14
222	Interior Live Oak	*Quercus wislizeni*	3	12.5
223	Interior Live Oak	*Quercus wislizeni*	2	12.5
236	Interior Live Oak	*Quercus wislizeni*	3	17.5
235	Interior Live Oak	*Quercus wislizeni*	3	9.5
504	Interior Live Oak	*Quercus wislizeni*	4	16, 11.5, 19.5, 12.5, 13
509	Interior Live Oak	*Quercus wislizeni*	3	14.5
515	Interior Live Oak	*Quercus wislizeni*	3	15.5, 12.5, 15.5, 12.5
518	Interior Live Oak	*Quercus wislizeni*	3	13.5
525	**Interior Live Oak**	***Quercus wislizeni***	**5**	**26, 30.5**
526	Interior Live Oak	*Quercus wislizeni*	2	20.5
527	Interior Live Oak	*Quercus wislizeni*	3	18.5
528	Interior Live Oak	*Quercus wislizeni*	2	22.5
537	Interior Live Oak	*Quercus wislizeni*	2	14.5
552	Interior Live Oak	*Quercus wislizeni*	3	14, 15.5, 9
558	Interior Live Oak	*Quercus wislizeni*	3	20.5
561	Interior Live Oak	*Quercus wislizeni*	3	14.5, 11
562	Interior Live Oak	*Quercus wislizeni*	3	9.5, 11, 5
566	Interior Live Oak	*Quercus wislizeni*	2	10.5

Tag ID	Common Name	Scientific Name	Health Rating	DBH
569	Interior Live Oak	*Quercus wislizeni*	4	27.5
570	Interior Live Oak	*Quercus wislizeni*	4	25.5
571	Interior Live Oak	*Quercus wislizeni*	3	25.5
572	Interior Live Oak	*Quercus wislizeni*	3	20.5, 10.5
574	Interior Live Oak	*Quercus wislizeni*	2	10.5
579	Interior Live Oak	*Quercus wislizeni*	3	9, 11.5
581	Interior Live Oak	*Quercus wislizeni*	3	9, 14.5
583	Interior Live Oak	*Quercus wislizeni*	2	13.5, 12
82	Interior Live Oak	*Quercus wislizeni*	3	14
50	Interior Live Oak	*Quercus wislizeni*	4	68
559	Interior Live Oak	*Quercus wislizeni*	3	24
55	**Blue Oak**	***Quercus douglasii***	**5**	**63**

† *Multi-trunked tree that splits below breast height*

Bold *denotes exceptional trees recommended for retention, if feasible*

*** Health rating (Defined by Rico Montenegro Certified Arborist #WE-6734A)**

1. Extreme and profound visible evidence of disease, insect damage, decay, or limb loss. Less than 25% of branches are foliated. Trees may contain single or multiple trunks with deteriorated form and structure. Trees are in later stages of senescence.
2. Major and large amounts of visible disease, insect damage, decay, or limb loss. Between 25 and 50% of the branches are foliated. Trees can contain single or multiple trunks, with poor form and structure. Trees are in the early stages of senescence.
3. Moderate amounts of visible disease, insect damage, decay, or limb loss. Between 50 and 80% of the branches are foliated. Trees are generally single trunked, with compromised form and structure, and moderate growth.
4. Minor evidence of disease, insect damage, decay, or limb loss. More than 80 to 90% of the branches are foliated. Trees are generally single trunked, with good form and structure, and good growth.
5. None or very little evidence of disease, insect damage, decay, or limb loss. More than 90% of the branches are foliated. Trees are generally single trunked, with very good form and structure, and vigorous growth

APPENDIX C
SHASTA COLLEGE EMERGENCY VEHICLE OPERATOR COURSE PROJECT ENVIRONMENTAL NOISE ASSESSMENT

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Environmental Noise Assessment

Shasta College Emergency Vehicle Obstacle Course (EVOC) Project

Shasta County, California

BAC Job # 2024-078

Prepared For:

Diaz Associates

Attn: Mr. Eihnard Diaz
4277 Pasatiempo Court
Redding, CA 96002

Prepared By:

Bollard Acoustical Consultants, Inc.

Paul Bollard, President

January 10, 2025

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Introduction

The acoustical consulting firm of Bollard Acoustical Consultants, Inc. (BAC) has been retained by Diaz Associates to assess potential noise impacts associated with the proposed Shasta College Emergency Vehicle Obstacle Course Project (EVOC project) in in Shasta County, California.

The EVOC is a crucial training program for first responders, particularly firefighters, as it equips them with the skills to operate their vehicles safely in challenging conditions. The program's focus on defensive driving principles for both emergency and non-emergency situations and its coverage of topics such as emergency driving, intersection hazards, and backing apparatus and vehicles are all designed to enhance vehicle safety operations for firefighters. Currently, the EVOC training takes place in the large Pine Parking Lot west of the CDF CAL FIRE building and northwest of the gymnasium, accessed from the north entrance to the College. During EVOC training activities that parking lot is rendered largely unusable for safety reasons.

The proposed project would creating a new, dedicated EVOC training training area on the Shasta College Campus in an area not currently used for campus activities. Figure 1 shows the locations of the existing and proposed EVOC training areas.

Because the project would result in training activities being located in closer proximity to existing residences located on the east side of Old Oregon Trail, this analysis has been prepared to assess potential noise impacts of the Project. This analysis specifically assesses the Project's compliance with applicable Shasta County and California Environmental Quality Act (CEQA) noise criteria and recommends mitigation measures where noise impacts are identified.

Legend

Proposed EVOC Training Area (Approximate)

Current Cal Fire EVOC Training Area

Ambient Noise Survey Locations

N

Scale (Feet)

0 200 400

Project Area

Shasta College Emergency Vehicle Obstacle Course (EVOC)
Shasta County, California

Figure 1

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Objectives of this Analysis

The objectives of this analysis are as follows:

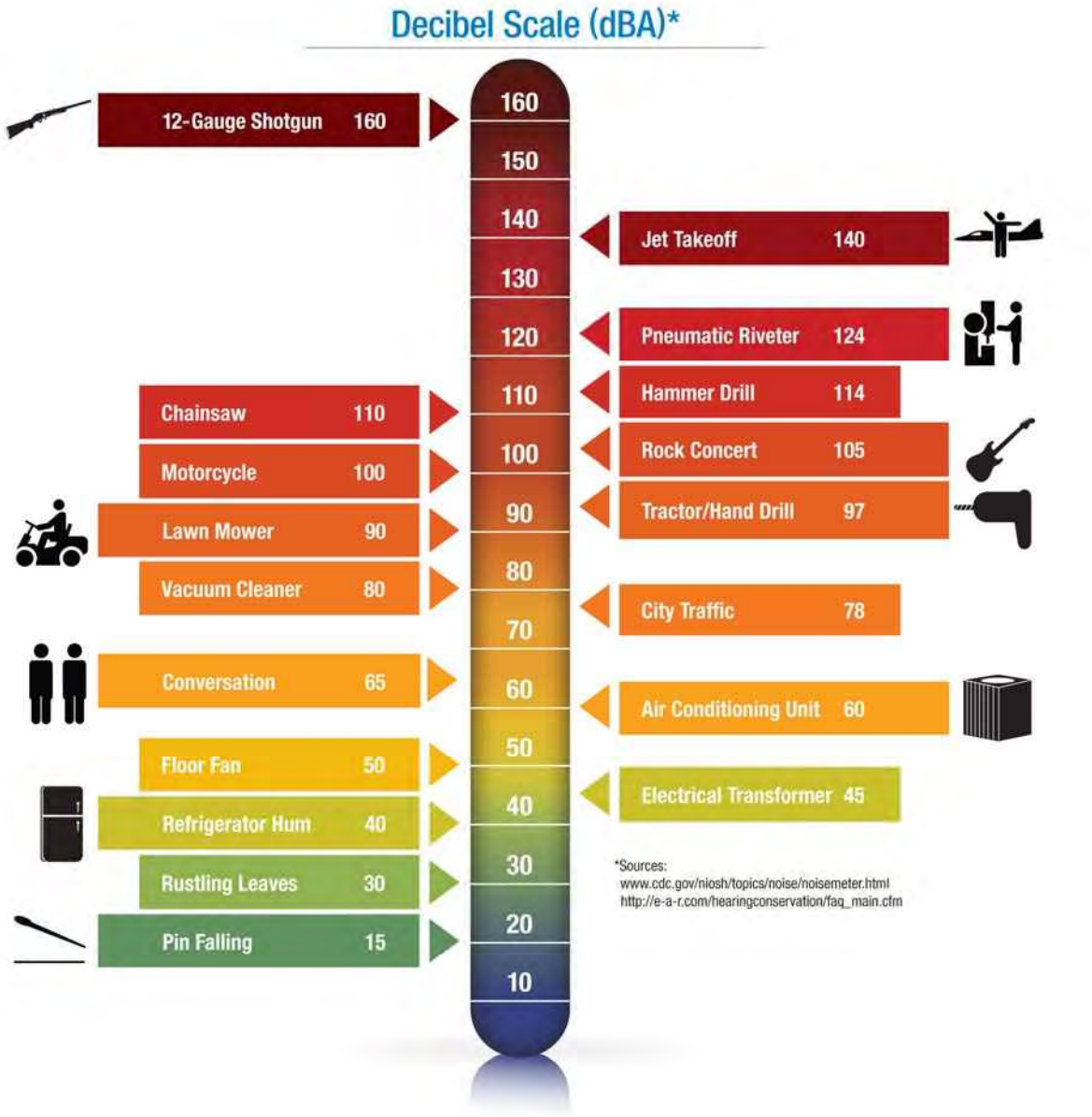
- To provide background information pertaining to the effects of noise.
- To identify existing noise-sensitive land uses in the immediate project vicinity.
- To describe baseline ambient noise levels at those nearest noise-sensitive land uses.
- To provide applicable thresholds of significance by using the California Environmental Quality Act (CEQA) Guidelines in concert with Shasta County noise standards.
- To predict project-related noise levels at the nearest noise-sensitive areas, and to compare those levels against the applicable thresholds of significance.
- To evaluate noise mitigation options where significant project-related impacts are identified.

Noise Fundamentals and Terminology

Noise is often described as unwanted sound. Sound is defined as any pressure variation in air that human hearing can detect. If the pressure variations occur frequently enough (i.e., at least 20 times per second) they can be identified as sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second or Hertz (Hz). Please see Appendix A for definitions of terminology used in this report.

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale utilizes the hearing threshold (20 micropascals of pressure) as a point of reference, defined as 0 dB. Other sound pressures are then compared to the reference pressure, and the logarithm is taken to keep the numbers within a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB. Another useful aspect of the decibel scale is that changes in decibel levels correspond closely to human perception of relative loudness. Figure 2 illustrates common noise levels associated with various sources.

Figure 2
Examples of Noise Levels Associated with Common Noise Sources



The perceived loudness of sound is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by weighting the frequency response of a sound level meter by means of the standardized A-weighting network. There is a strong correlation between A-weighted sound levels (expressed as dBA) and community response to noise. All noise levels reported in this section are A-weighted.

Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given noise environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level (L_{eq}) over a given time period (usually one hour). The L_{eq} is the foundation of the Day-Night Average Level noise descriptor, L_{dn}, and shows very good correlation with community response to noise.

The Day-Night Average Level (L_{dn}) is based upon the average noise level over a 24-hour day, with a +10 decibel weighing applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because L_{dn} represents a 24-hour average, it tends to disguise short-term variations in the noise environment. L_{dn} based noise standards are commonly used to assess noise impacts associated with traffic, railroad and aircraft noise sources.

It should be noted that audibility is not a test of significance according to the California Environmental Quality Act (CEQA). If this were the case, any project which added any audible amount of noise to the environment would be considered significant according to CEQA. Because every physical process creates noise, the use of audibility alone as significance criteria would be unworkable. CEQA requires a substantial increase in noise levels before noise impacts are identified, not simply an audible change. The discussion of what constitutes a substantial change in noise environments, both existing and cumulative, is provided in the Regulatory Setting section of this report.

Baseline Noise Environment at Sensitive Receptors

Identification of Existing Sensitive Receptor Locations (Residences)

BAC utilized aerial imagery and site inspections to identify the locations of the nearest representative potentially-affected sensitive receptors (residences) to the Project area. It is important to note that it is not necessary to evaluate impacts at every residence or sensitive receptor in the project vicinity. Rather, sensitive receptors with similar noise exposure are typically grouped, with one or more representative receptor(s) selected to be applicable to the larger group. This approach was applied to this analysis.

Because sound decreases with distance, it is also normally unnecessary to model receptors at considerable distances from the project area, particularly if there are closer receptors in the same general direction which are to be analyzed. If no noise impacts are identified at closer receptors, it can normally be concluded that a similar finding would occur at the more distant receptors. Conversely, if impacts are identified at closer receptors, typically mitigation implemented for those closer receptors would benefit the more distant receptors as well, depending on the type of mitigation. For this project, three (3) receptor locations were selected to represent noise-sensitive uses in the immediate and general project vicinity. Those receptor locations are identified on Figure 1.

It should also be noted that the identification of sensitive receptors was limited to areas beyond the Shasta College campus boundaries. This is because the proposed EVOC training area would be located further from existing campus buildings and the project would result in a net decrease in noise levels at the noise-sensitive areas of the campus.

Measurement of Ambient Noise Environment at Sensitive Receptors

The existing ambient noise environment in the immediate project vicinity is defined primarily by local traffic on Old Oregon trail, and to a lesser extent by distant traffic from Highway 299. Natural sounds (wind, birds, insects, etc.) also contribute to the existing ambient noise environment at the nearest residences located on the west side of Old Oregon Trail.

To quantify the existing ambient noise environment in the project area at representative residential receivers nearest to the project site, continuous ambient noise level measurements were conducted at three (3) locations shown on Figure 1 on May 9-10 (Sites LT-1 and LT-2), and May 20-22 (Site LT-3). Larson Davis Laboratories (LDL) precision (Type I) integrating sound level meters were used to complete the ambient noise level measurement surveys. The meters were calibrated before and after use 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 (Precision) sound measurement equipment (ANSI S1.4). Appendix B-1 shows photographs of the noise measurement sites.

Numerical summaries of the ambient noise level measurement results are provided in Table 1. The Table 1 data include average noise levels recorded for both daytime and nighttime hours (L_{max}, L_{eq}, L_{50}, L_{90}). Appendices C & D show complete tabular and graphical representations of the results, respectively.

Table 1
Ambient Noise Survey Results[1]
Nearest Residences to the Shasta College EVOC Project Area

		Daytime[3]		Nighttime[3]		
Site[2]	Date	Leq[4]	Lmax[5]	Leq[4]	Lmax[5]	Ldn[6]
1	5/9/2024	51	67	46	63	53
	5/10/2024	51	68	45	61	53
2	5/9/2024	52	69	45	62	53
	5/10/2024	51	63	48	61	55
3	5/20/2024	53	68	46	64	54
	5/21/2024	54	66	48	65	56
	5/22/2024	53	67	47	63	55

1. All noise measurement results are A-weighted sound pressure levels (dBA)
2. Noise measurement locations are identified on Figure 1.
3. Daytime hours are 7 AM – 10 PM. Nighttime hours are 10 PM – 7 AM.
4. Leq = Average noise level for the period.
5. Lmax = Average of the highest measured noise levels in each hour of the period.
6. Ldn = Day/Night Average Level. See definition in Appendix A.

The Table 1 data indicate that baseline ambient noise levels present during the ambient noise measurement period were relatively low, with L_{dn} values ranging from 53-56 dBA at the measurement sites. Daytime average and maximum noise levels typically averaged between 51 to 54 dBA Leq and 63-69 dBA Lmax.

Criteria for Acceptable Noise Exposure

In California, cities and counties are required to adopt a noise element as part of their general plan. Cities and counties can also adopt noise control requirements within their zoning ordinances or as a separate noise ordinance. The project site is located in Shasta County, which has an adopted Noise Element. Applicable noise-level criteria for Shasta County are discussed below.

Shasta County General Plan Noise Element

For residential uses affected by transportation noise sources (i.e. off-site traffic), the County's Noise Element identifies 60 dB L_{dn} as an acceptable noise exposure limit. For residential uses affected by non-transportation noise sources (stationary or mobile sources on private property such as the fire engines operating at the proposed EVOC site), the Shasta County General Plan establishes performance standards as presented in Table 2.

For this project, the evaluation period is considered to be the worst-case hours during which on-site equipment would be operating. Each of the noise level standards specified in Table 2 are reduced by five (5) dBA for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises. The County can impose noise level standards which are more restrictive than the Table 2 standards based upon determination of existing low ambient noise levels. In addition, in rural areas where large lots exist, the exterior noise level standard shall be applied at a point 100' away from the residence.

Table 2
Noise Level Performance Standards for New Projects Affected by or Including Non-Transportation Sources

	Noise Level, dB	
Noise Level Descriptor	**Daytime (7 a.m.-10 p.m.)**	**Nighttime (10 p.m.-7 a.m.)**
Hourly Leq, dB	55	50

Source: Shasta County Noise Element

Criteria for Determining Significance of Project-Related Noise Increases

CEQA guidelines require assessment of a project's noise impacts relative to both established local noise standards and existing noise conditions present without the project. The local noise standards of Shasta County were described in the previous section. This section pertains to criteria for assessing the significance of project-related increases in existing ambient noise conditions.

While CEQA requires that noise impacts be assessed relative to ambient noise levels which are present without the project, CEQA does not provide guidance as to numeric thresholds which should be employed to evaluate impacts. Shasta County General Plan Policy N-g identifies thresholds for findings of significant noise increases related to roadway improvement projects, but that policy doesn't specifically pertain to increases in off-site traffic noise levels resulting from increased traffic resulting from a non-roadway improvement project, such as the CCA Project. That said, the Shasta County thresholds for finding of significant noise increases in General Plan Policy N-g are consistent with recommendations made by the Federal Interagency Commission on Noise (FICON), which are described below.

FICON has developed a graduated scale for guidance in the identification of the significance of project-related noise level increases. Table 3 was developed by FICON as a means of establishing thresholds for impact identification for project-related noise level increases. The rationale for the graduated scale is that test subject's reactions to increases in noise levels varied depending on the starting ambient noise level prior to introducing the increase. Specifically, with lower ambient noise environments, such as those below 60 dB L_{dn}, a larger increase in noise levels was determined to be required to achieve a negative reaction than was necessary in more elevated noise environments.

Table 3
Significance of Changes in Cumulative Noise Exposure

Ambient Noise Level (No Project), dB L_{dn}	Increase Required for Finding of Significance, dB
<60	+5 or more
60-65	+3 or more
>65	+1.5 or more

Source: Federal Interagency Committee on Noise (FICON)

Based on the FICON research, a 5 dB increase in noise levels due to a project is required for a finding of significant noise impact where ambient noise levels without the project are less than 60 dB L_{dn}. Where pre-project ambient conditions are between 60 and 65 dB L_{dn}, a 3 dB increase is applied as the standard of significance. Finally, in areas already exposed to higher noise levels – specifically pre-project noise levels in excess of 65 dB L_{dn} – a 1.5 dB increase is considered by FICON as the threshold of significance. These thresholds are identical to those established in General Plan Policy N-g for assessing impacts related to roadway improvement projects. As a result, the Table 3 criteria are applied to this project for the evaluation of increases in noise levels resulting from the project.

Summary of Noise Criteria Applied to this Study

Because the measured ambient noise levels at the nearest residences (see Table 1) were found to be within 5 dBA of the County noise standards shown in Table 2, satisfaction with the County noise standards shown in Table 2 at the nearest residences would ensure that those residences are not exposed to a significant noise increase due to the project.

Noise Generation of the Proposed Project

Reference Noise Levels of EVOC Training Operations

The primary noise-generating components of the project will consist of fire engines maneuvering within the proposed EVOC area shown on Figure 1. To quantify the noise generation of EVOC training operations, BAC conducted short-term noise level measurements of EVOC training activities at the current training area (also identified on Figure 1), on May 9, 2024. The measurements were conducted from multiple locations (see Figure 3) while the fire engines conducted a variety of maneuvers.

Larson Davis Laboratories (LDL) precision (Type I) integrating sound level meters were used to complete the ambient noise level measurement surveys. The meters were calibrated before and after use 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 (Precision) sound measurement equipment (ANSI S1.4). Appendix B-2 shows photographs of the EVOC training operation noise measurement sites.

The results of the reference noise surveys indicated that the various operations generated average and maximum noise levels of 63 dBA Leq and 80 dBA Lmax at a reference distance of 100 feet from the training activities.

Prediction of Project-Related Noise Levels at Nearest Residences

Because fire engine operational training will occur throughout the proposed EVOC training area the effective noise source location for the purposes of predicting project noise exposure at the nearest residences was assumed to be the approximate center of the EVOC site. For the prediction of maximum noise exposure, the nearest location within the EVOC site to the existing residences to the west was used for computation purposes.

Legend

Fire Engine Training Area During Noise Survey (Approximate)

Short-Term Noise Survey Locations during Fire Engine Training

N

Scale (Feet)

0 75 150

Project Area

Shasta College Emergency Vehicle Obstacle Course (EVOC)
Shasta County, California

Figure 3

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The nearest residences to the west are approximately 700 feet from the nearest operational point within the proposed EVOC site, and approximately 1,000 feet from the effective noise center of the proposed EVOC site. Using the reference levels of 63 dBA Leq and 80 dBA Lmax at a distance of 100 feet and a sound attenuation rate of 6 dBA per doubling of distance from the noise source, project noise exposure at the nearest residences was calculated. The results of those calculations indicate that EVOC training operations would generate noise levels of approximately and 63 dBA Lmax 43 dBA Leq at the nearest residences to the west. These predictions do not account for atmospheric absorption of sound or absorption provided by intervening ground cover, both of which would further reduce noise levels at the nearest residences.

Evaluation of Project Noise Impacts and Mitigation Measures at Nearest Residences

The predicted noise levels of 43 dBA Leq and 63 dBA Lmax at the nearest residences resulting from proposed EVOC training operations are below both the Shasta County noise standards shown in Table 2 and below existing ambient noise conditions at those residences shown in Table 1. As a result, the existing residences to the west are not predicted to be exposed to project noise levels which would result in significant adverse noise impacts. Therefore, the noise impacts of the project are predicted to be ***less than significant***. As a result, no noise mitigation measures are warranted for this project.

Conclusions

This analysis concludes that noise generated by EVOC training operations at the location on the Shasta College campus identified on Figure 1 would be below both the Shasta County noise standards shown in Table 2 and below existing ambient noise conditions at those residences shown in Table 1. As a result, no noise impacts are identified for this project and no noise mitigation measures would be warranted.

These conclusions are based on the ambient noise survey results and measurements of existing EVOC training activities described in this report, as well as the proposed EVOC location shown on Figure 1. Deviation from these or modification to the location of the proposed EVOC training area could cause noise levels at the nearest residences to differ from those presented in this analysis. Please contact BAC by phone at (530) 537-2328 or via email at PaulB@bacnoise.com with any questions regarding this evaluation.

Appendix A
Acoustical Terminology

Acoustics The science of sound.

Ambient Noise The distinctive acoustical characteristics of a given space consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.

Attenuation The reduction of an acoustic signal.

A-Weighting A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.

Decibel or dB Fundamental unit of sound. A Bell is defined as the logarithm of the ratio of the sound pressure squared over the reference pressure squared. A Decibel is one-tenth of a Bell.

CNEL Community Noise Equivalent Level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by a factor of three and nighttime hours weighted by a factor of 10 prior to averaging.

Frequency The measure of the rapidity of alterations of a periodic signal, expressed in cycles per second or hertz.

IIC Impact Insulation Class (IIC): A single-number representation of a floor/ceiling partition's impact generated noise insulation performance. The field-measured version of this number is the FIIC.

L_{dn} Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.

L_{eq} Equivalent or energy-averaged sound level.

L_{max} The highest root-mean-square (RMS) sound level measured over a given period of time.

Loudness A subjective term for the sensation of the magnitude of sound.

Masking The amount (or the process) by which the threshold of audibility is for one sound is raised by the presence of another (masking) sound.

Noise Unwanted sound.

Peak Noise The level corresponding to the highest (not RMS) sound pressure measured over a given period of time. This term is often confused with the "Maximum" level, which is the highest RMS level.

RT_{60} The time it takes reverberant sound to decay by 60 dB once the source has been removed.

STC Sound Transmission Class (STC): A single-number representation of a partition's noise insulation performance. This number is based on laboratory-measured, 16-band (1/3-octave) transmission loss (TL) data of the subject partition. The field-measured version of this number is the FSTC.

Legend

A Site LT-1 Ambient Noise Measurement Location

B Site LT-2 Ambient Noise Measurement Location

C Site LT-3 Ambient Noise Measurement Location

Ambient Noise Survey
Photographs

Shasta College EVOC Project

Appendix B-1

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Legend

A Site 1 Noise Measurement Locations

B Site 1 Noise Measurement Locations

C Site 1 Noise Measurement Locations

D Site 1 Noise Measurement Locations

Noise Survey Photographs

Current Shasta College Emergency Vehicle Obstacle Course (EVOC)

Appendix B-2

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Appendix C-1
Long-Term Ambient Noise Monitoring Results, LT-1
Shasta College Emergency Vehicle Obstacle Course (EVOC) - Shasta County, California
Thursday, May 9, 2024

Hour	Leq	Lmax	L50	L90
12:00 AM				
1:00 AM				
2:00 AM				
3:00 AM				
4:00 AM				
5:00 AM				
6:00 AM				
7:00 AM				
8:00 AM				
9:00 AM				
10:00 AM				
11:00 AM				
12:00 PM				
1:00 PM	51	70	48	42
2:00 PM	50	63	48	41
3:00 PM	54	80	48	41
4:00 PM	51	65	48	40
5:00 PM	51	72	47	38
6:00 PM	50	62	46	36
7:00 PM	50	65	46	35
8:00 PM	48	59	44	34
9:00 PM	50	69	44	37
10:00 PM	47	62	39	34
11:00 PM	44	64	36	32

	Statistical Summary					
	Daytime (7 a.m. - 10 p.m.)			Nighttime (10 p.m. - 7 a.m.)		
	High	Low	Average	High	Low	Average
Leq (Average)	54	48	51	47	44	46
Lmax (Maximum)	80	59	67	64	62	63
L50 (Median)	48	44	47	39	36	38
L90 (Background)	42	34	38	34	32	33

Computed DNL, dB	53
% Daytime Energy	85%
% Nighttime Energy	15%

GPS Coordinates
40°37'51.79"N
122°19'33.16"W

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Appendix C-2
Long-Term Ambient Noise Monitoring Results, LT-1
Shasta College Emergency Vehicle Obstacle Course (EVOC) - Shasta County, California
Friday, May 10, 2024

Hour	Leq	Lmax	L50	L90
12:00 AM	42	60	35	33
1:00 AM	38	58	32	30
2:00 AM	38	58	33	31
3:00 AM	40	62	32	29
4:00 AM	47	63	32	29
5:00 AM	48	64	42	34
6:00 AM	49	63	43	35
7:00 AM	52	61	50	43
8:00 AM	51	64	48	40
9:00 AM	51	66	49	42
10:00 AM	50	68	48	41
11:00 AM	52	83	47	41
12:00 PM	49	66	46	37
1:00 PM				
2:00 PM				
3:00 PM				
4:00 PM				
5:00 PM				
6:00 PM				
7:00 PM				
8:00 PM				
9:00 PM				
10:00 PM				
11:00 PM				

	Statistical Summary					
	Daytime (7 a.m. - 10 p.m.)			Nighttime (10 p.m. - 7 a.m.)		
	High	Low	Average	High	Low	Average
Leq (Average)	52	49	51	49	38	45
Lmax (Maximum)	83	61	68	64	58	61
L50 (Median)	50	46	48	43	32	36
L90 (Background)	43	37	40	35	29	31

Computed DNL, dB	53
% Daytime Energy	86%
% Nighttime Energy	14%

GPS Coordinates
40°37'51.79"N
122°19'33.16"W

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Appendix C-3
Long-Term Ambient Noise Monitoring Results, LT-2
Shasta College Emergency Vehicle Obstacle Course (EVOC) - Shasta County, California
Thursday, May 9, 2024

Hour	Leq	Lmax	L50	L90
12:00 AM				
1:00 AM				
2:00 AM				
3:00 AM				
4:00 AM				
5:00 AM				
6:00 AM				
7:00 AM				
8:00 AM				
9:00 AM				
10:00 AM				
11:00 AM				
12:00 PM				
1:00 PM	52	75	49	44
2:00 PM	51	66	50	44
3:00 PM	57	82	50	43
4:00 PM	52	65	50	44
5:00 PM	52	74	49	41
6:00 PM	50	60	47	39
7:00 PM	50	66	46	35
8:00 PM	48	63	44	34
9:00 PM	50	70	45	37
10:00 PM	46	60	39	34
11:00 PM	44	64	35	30

	Statistical Summary					
	Daytime (7 a.m. - 10 p.m.)			Nighttime (10 p.m. - 7 a.m.)		
	High	Low	Average	High	Low	Average
Leq (Average)	57	48	52	46	44	45
Lmax (Maximum)	82	60	69	64	60	62
L50 (Median)	50	44	48	39	35	37
L90 (Background)	44	34	40	34	30	32

Computed DNL, dB	53
% Daytime Energy	89%
% Nighttime Energy	11%

GPS Coordinates
40°37'49.29"N
122°19'35.14"W

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Appendix C-4
Long-Term Ambient Noise Monitoring Results, LT-2
Shasta College Emergency Vehicle Obstacle Course (EVOC) - Shasta County, California
Friday, May 10, 2024

Hour	Leq	Lmax	L50	L90
12:00 AM	41	57	33	30
1:00 AM	42	58	36	32
2:00 AM	53	63	52	37
3:00 AM	51	65	49	38
4:00 AM	44	60	31	28
5:00 AM	46	61	38	33
6:00 AM	49	63	44	36
7:00 AM	52	62	51	44
8:00 AM	51	63	49	41
9:00 AM	52	69	50	43
10:00 AM	50	61	48	42
11:00 AM	50	61	48	42
12:00 PM	49	59	47	39
1:00 PM				
2:00 PM				
3:00 PM				
4:00 PM				
5:00 PM				
6:00 PM				
7:00 PM				
8:00 PM				
9:00 PM				
10:00 PM				
11:00 PM				

	Statistical Summary					
	Daytime (7 a.m. - 10 p.m.)			Nighttime (10 p.m. - 7 a.m.)		
	High	Low	Average	High	Low	Average
Leq (Average)	52	49	51	53	41	48
Lmax (Maximum)	69	59	63	65	57	61
L50 (Median)	51	47	49	52	31	40
L90 (Background)	44	39	42	38	28	33

Computed DNL, dB	55
% Daytime Energy	75%
% Nighttime Energy	25%

GPS Coordinates
40°37'49.29"N
122°19'35.14"W

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Appendix C-5
Long-Term Ambient Noise Monitoring Results, LT-3
Shasta College Emergency Vehicle Obstacle Course (EVOC) - Shasta County, California
Monday, May 20, 2024

Hour	Leq	Lmax	L50	L90
12:00 AM				
1:00 AM				
2:00 AM				
3:00 AM				
4:00 AM				
5:00 AM				
6:00 AM				
7:00 AM				
8:00 AM				
9:00 AM				
10:00 AM				
11:00 AM				
12:00 PM				
1:00 PM	54	70	52	44
2:00 PM	54	66	51	42
3:00 PM	54	65	52	44
4:00 PM	55	73	52	44
5:00 PM	54	65	51	42
6:00 PM	53	68	49	39
7:00 PM	52	74	45	34
8:00 PM	50	66	43	31
9:00 PM	47	62	35	28
10:00 PM	48	65	33	27
11:00 PM	42	64	28	27

	Statistical Summary					
	Daytime (7 a.m. - 10 p.m.)			Nighttime (10 p.m. - 7 a.m.)		
	High	Low	Average	High	Low	Average
Leq (Average)	55	47	53	48	42	46
Lmax (Maximum)	74	62	68	65	64	64
L50 (Median)	52	35	48	33	28	31
L90 (Background)	44	28	39	27	27	27

Computed DNL, dB	54
% Daytime Energy	89%
% Nighttime Energy	11%

GPS Coordinates
40°37'52.70"N
122°19'33.32"W

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Appendix C-6
Long-Term Ambient Noise Monitoring Results, LT-3
Shasta College Emergency Vehicle Obstacle Course (EVOC) - Shasta County, California
Tuesday, May 21, 2024

Hour	Leq	Lmax	L50	L90
12:00 AM	47	76	34	30
1:00 AM	43	62	36	33
2:00 AM	44	60	39	36
3:00 AM	43	63	36	33
4:00 AM	47	64	36	33
5:00 AM	50	64	44	36
6:00 AM	51	67	45	36
7:00 AM	55	70	52	42
8:00 AM	54	69	52	42
9:00 AM	54	66	51	41
10:00 AM	54	64	51	48
11:00 AM	54	64	52	48
12:00 PM	53	64	51	48
1:00 PM	54	67	52	48
2:00 PM	55	65	53	49
3:00 PM	55	65	52	49
4:00 PM	54	65	51	48
5:00 PM	55	73	52	49
6:00 PM	54	65	51	49
7:00 PM	54	68	50	42
8:00 PM	52	66	47	37
9:00 PM	48	64	37	32
10:00 PM	47	64	33	30
11:00 PM	49	67	34	29

	Statistical Summary					
	Daytime (7 a.m. - 10 p.m.)			Nighttime (10 p.m. - 7 a.m.)		
	High	Low	Average	High	Low	Average
Leq (Average)	55	48	54	51	43	48
Lmax (Maximum)	73	64	66	76	60	65
L50 (Median)	53	37	50	45	33	38
L90 (Background)	49	32	45	36	29	33

Computed DNL, dB	56
% Daytime Energy	88%
% Nighttime Energy	12%

GPS Coordinates
40°37'52.70"N
122°19'33.32"W

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Appendix C-7
Long-Term Ambient Noise Monitoring Results, LT-3
Shasta College Emergency Vehicle Obstacle Course (EVOC) - Shasta County, California
Wednesday, May 22, 2024

Hour	Leq	Lmax	L50	L90
12:00 AM	45	68	30	29
1:00 AM	41	64	32	30
2:00 AM	40	62	33	31
3:00 AM	38	58	32	30
4:00 AM	46	62	32	29
5:00 AM	50	65	44	40
6:00 AM	52	64	47	41
7:00 AM	54	67	51	43
8:00 AM	53	66	49	40
9:00 AM	53	70	50	48
10:00 AM	54	67	51	48
11:00 AM				
12:00 PM				
1:00 PM				
2:00 PM				
3:00 PM				
4:00 PM				
5:00 PM				
6:00 PM				
7:00 PM				
8:00 PM				
9:00 PM				
10:00 PM				
11:00 PM				

	Statistical Summary					
	Daytime (7 a.m. - 10 p.m.)			Nighttime (10 p.m. - 7 a.m.)		
	High	Low	Average	High	Low	Average
Leq (Average)	54	53	53	52	38	47
Lmax (Maximum)	70	66	67	68	58	63
L50 (Median)	51	49	50	47	30	36
L90 (Background)	48	40	45	41	29	33

Computed DNL, dB	55
% Daytime Energy	88%
% Nighttime Energy	12%

GPS Coordinates
40°37'52.70"N
122°19'33.32"W

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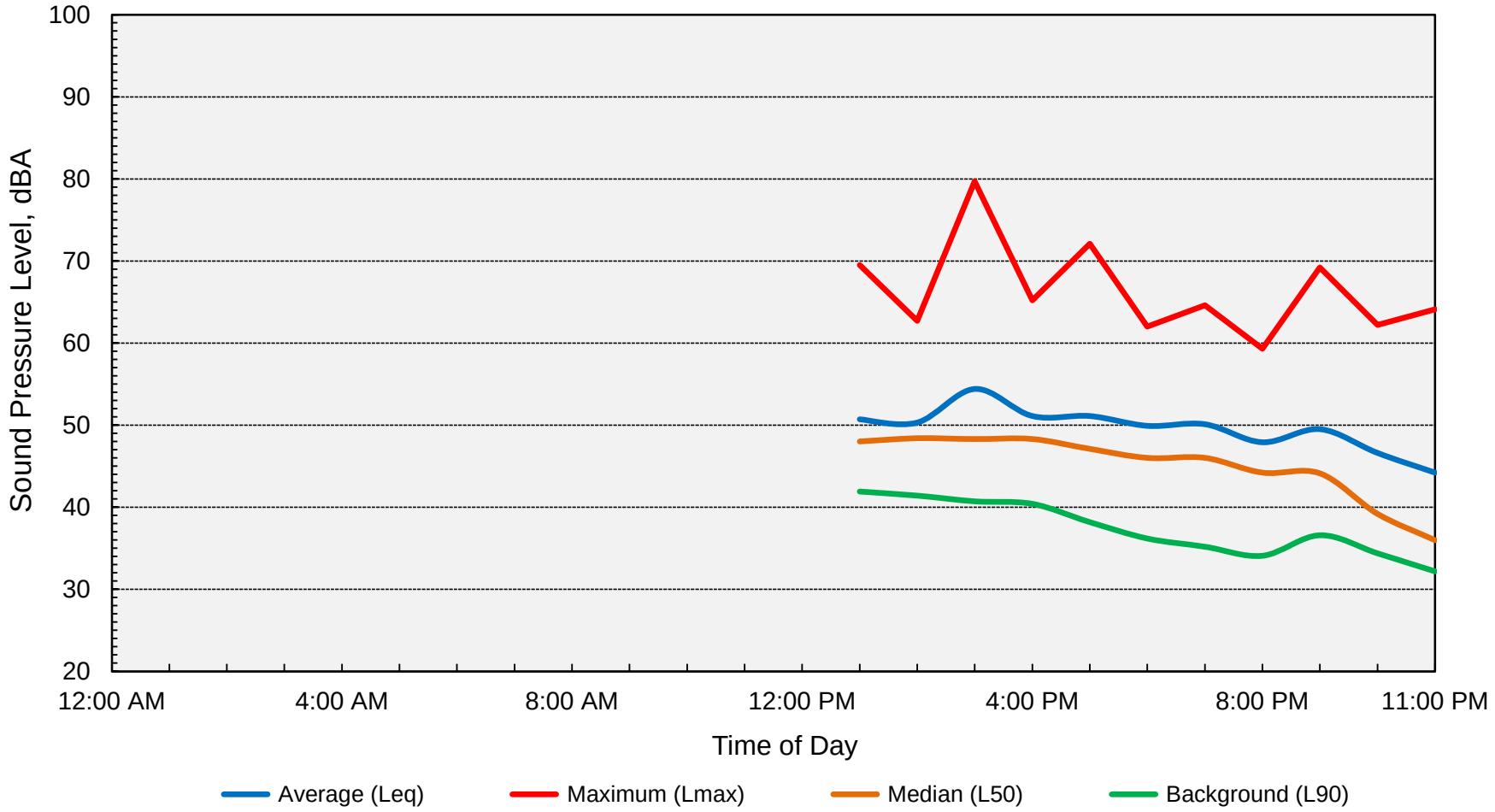
Appendix D-1
Long-Term Ambient Noise Monitoring Results, LT-1
Shasta College Emergency Vehicle Obstacle Course (EVOC) - Shasta County, California
Thursday, May 9, 2024



Computed DNL = 53 dB

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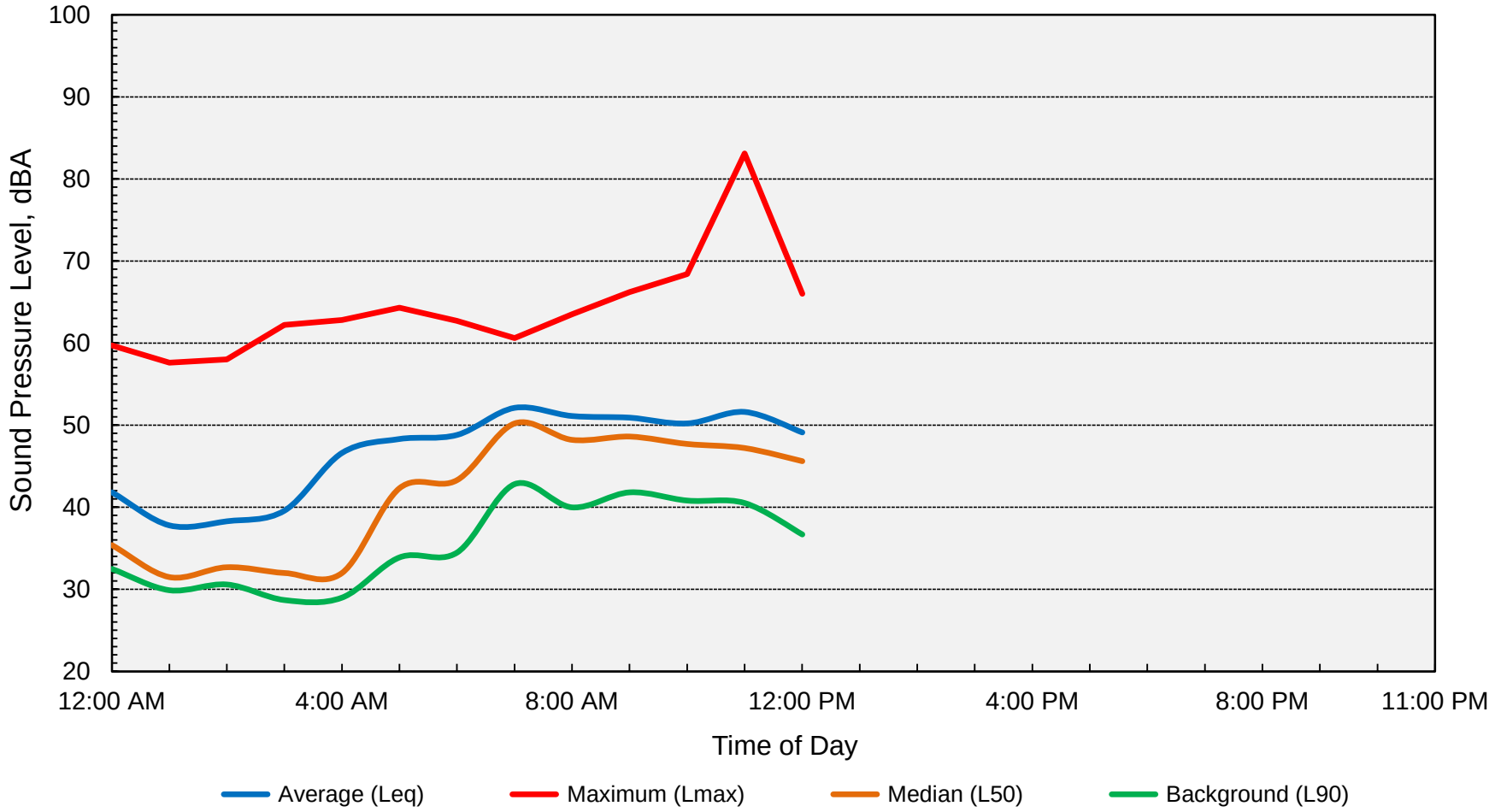
Appendix D-2
Long-Term Ambient Noise Monitoring Results, LT-1
Shasta College Emergency Vehicle Obstacle Course (EVOC) - Shasta County, California
Friday, May 10, 2024



Computed DNL = 53 dB

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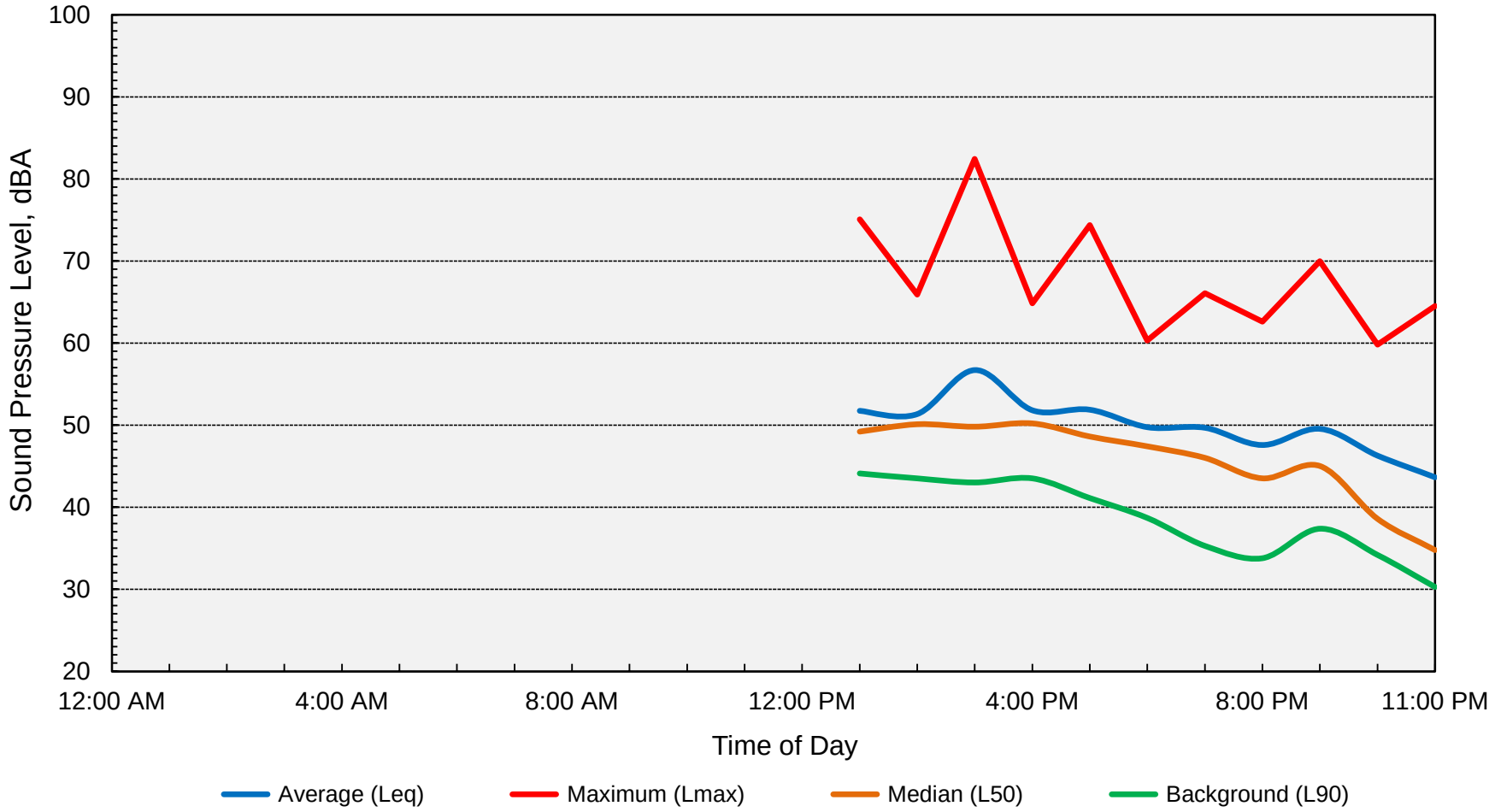
Appendix D-3
Long-Term Ambient Noise Monitoring Results, LT-2
Shasta College Emergency Vehicle Obstacle Course (EVOC) - Shasta County, California
Thursday, May 9, 2024



Computed DNL = 53 dB

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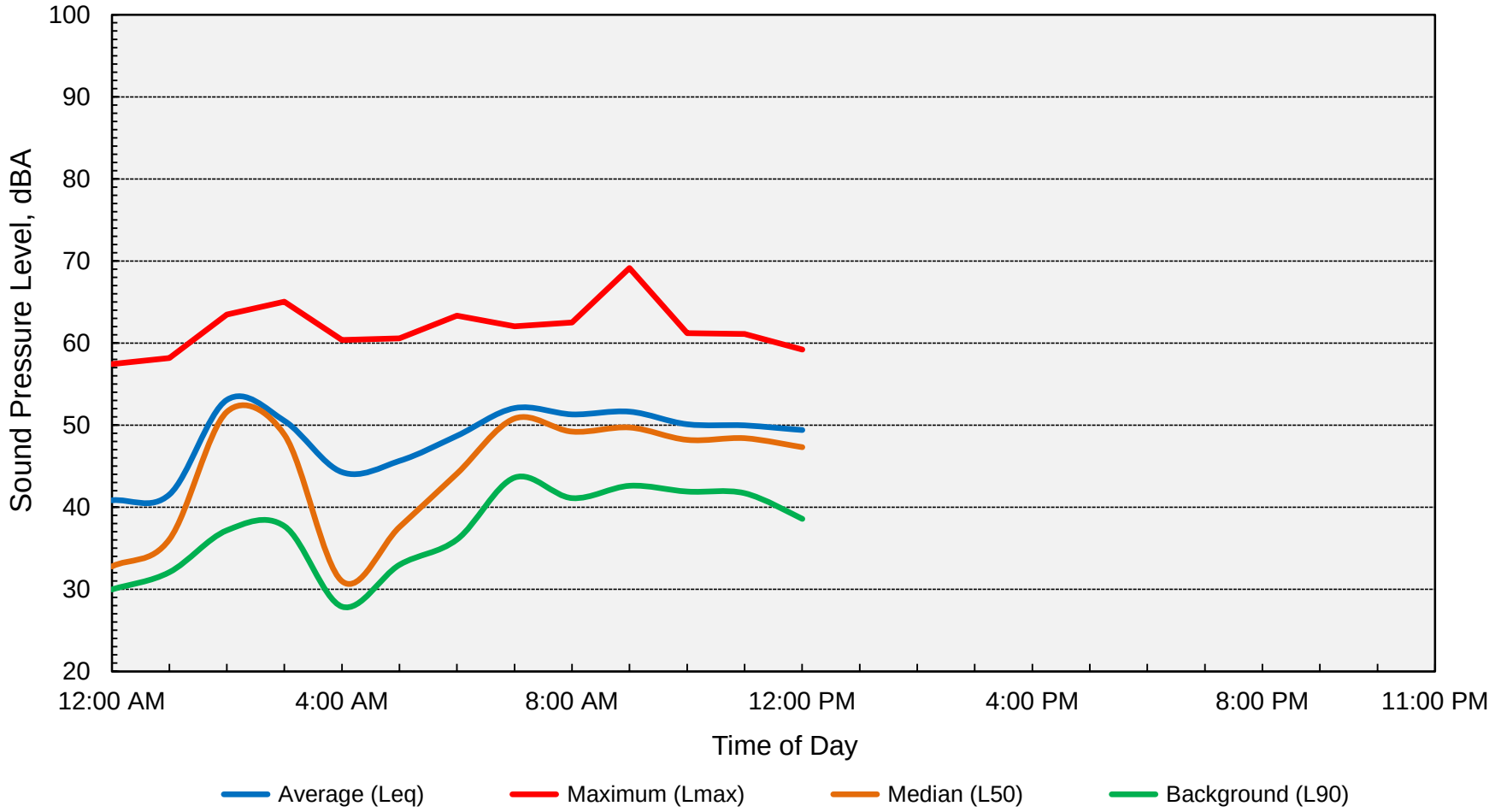
Appendix D-4
Long-Term Ambient Noise Monitoring Results, LT-2
Shasta College Emergency Vehicle Obstacle Course (EVOC) - Shasta County, California
Friday, May 10, 2024



Computed DNL = 55 dB

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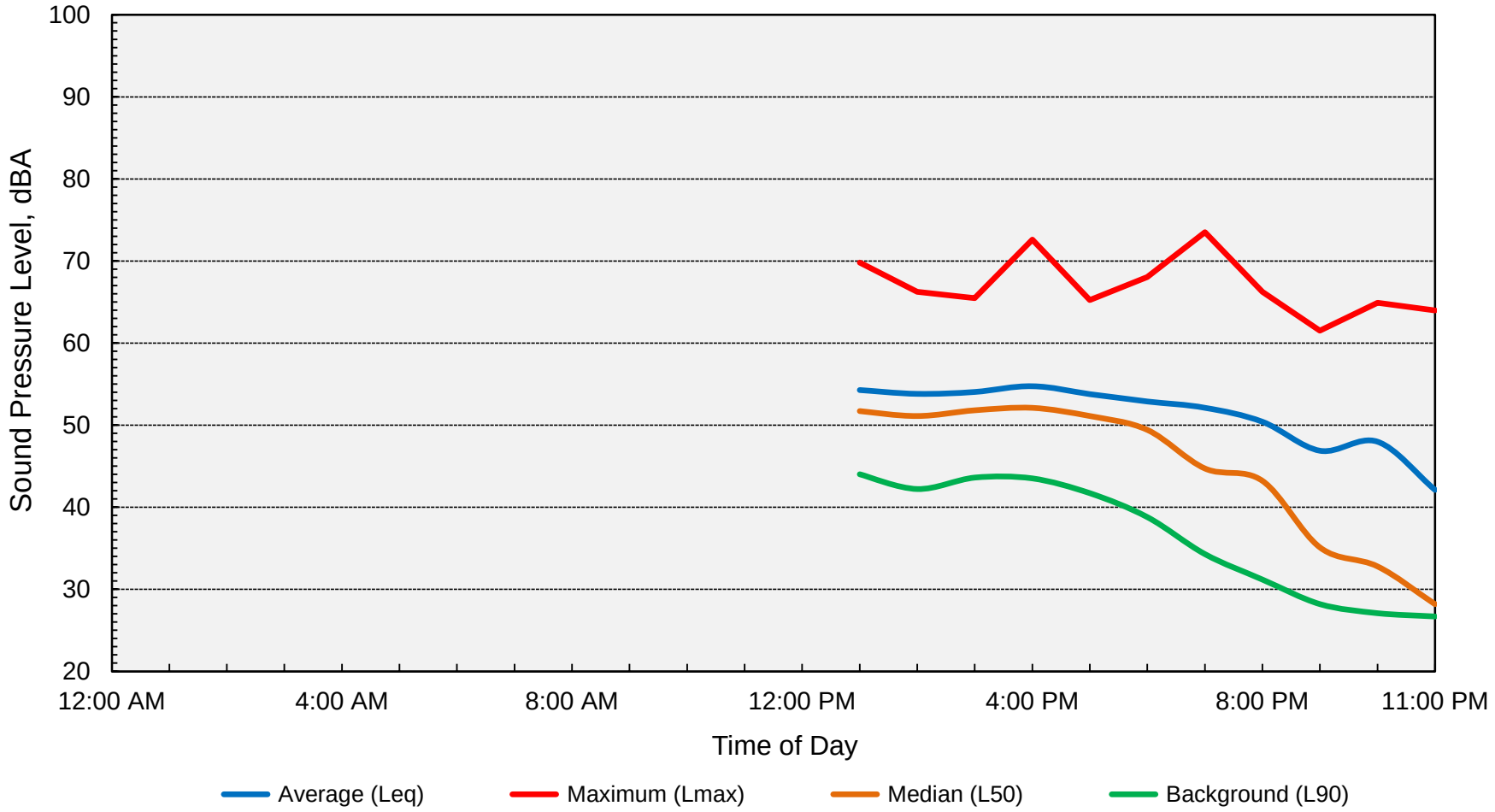
Appendix D-5
Long-Term Ambient Noise Monitoring Results, LT-3
Shasta College Emergency Vehicle Obstacle Course (EVOC) - Shasta County, California
Monday, May 20, 2024



Computed DNL = 54 dB

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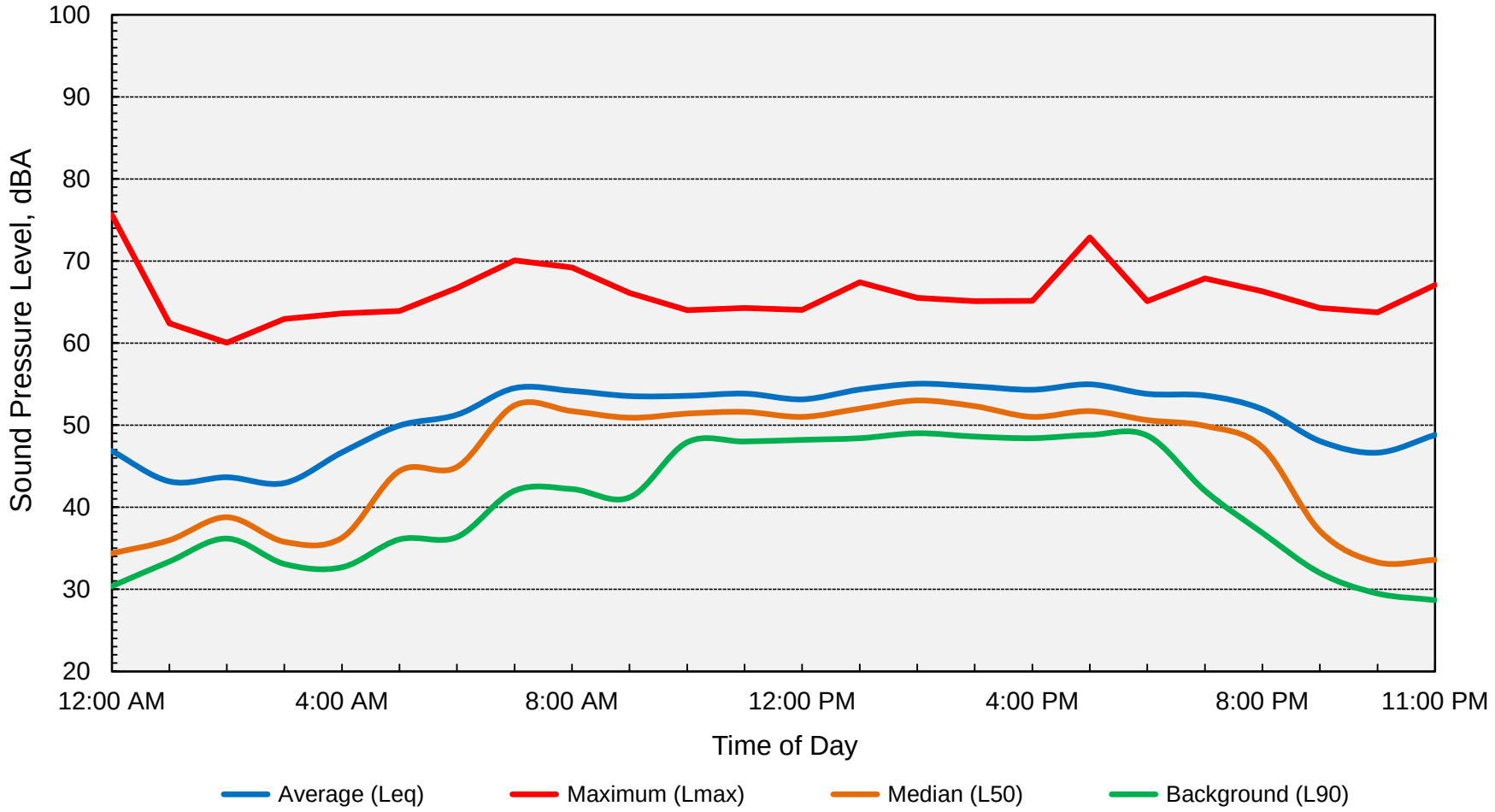
Appendix D-6
Long-Term Ambient Noise Monitoring Results, LT-3
Shasta College Emergency Vehicle Obstacle Course (EVOC) - Shasta County, California
Tuesday, May 21, 2024



Computed DNL = 56 dB

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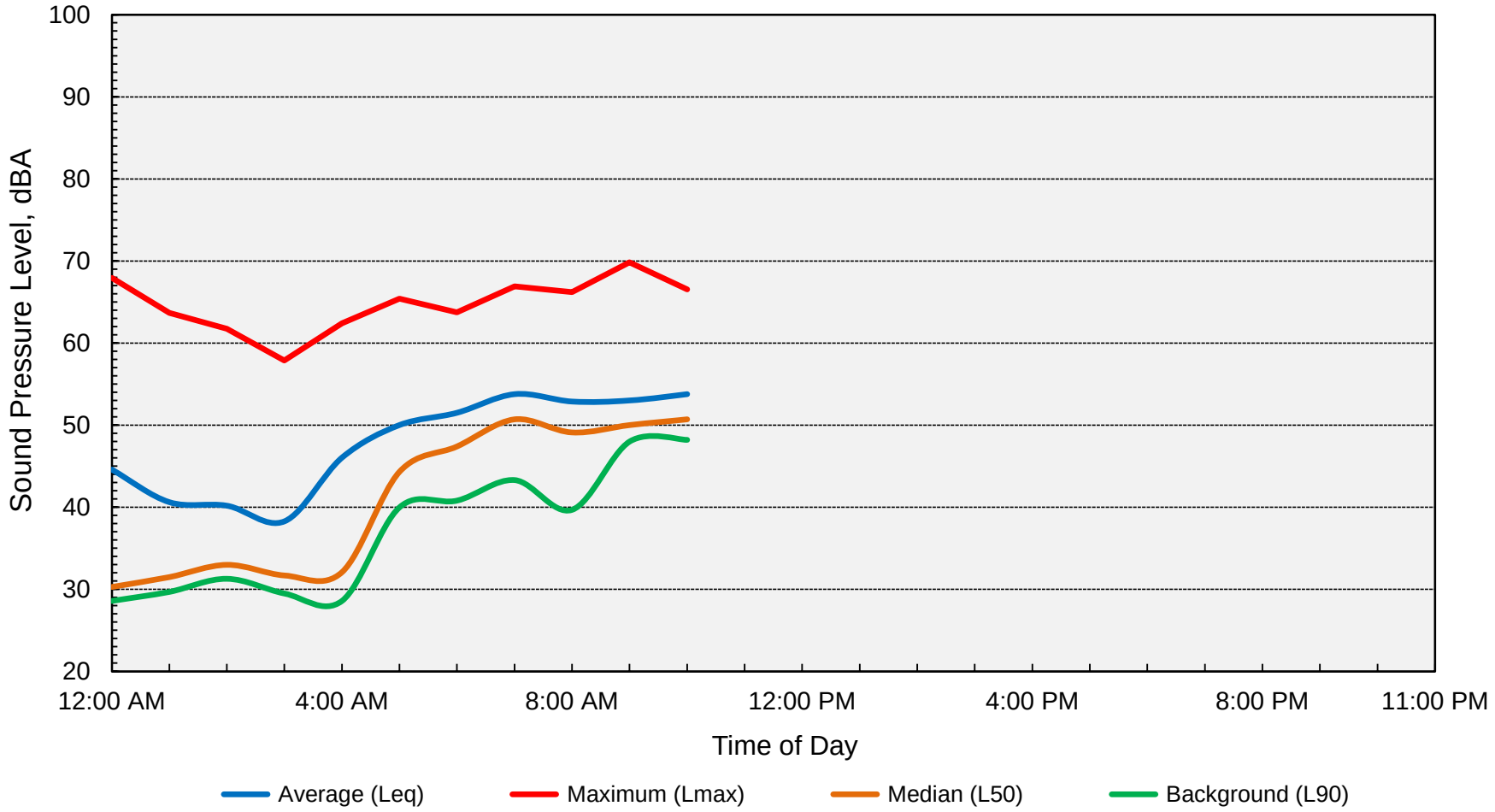
Appendix D-7
Long-Term Ambient Noise Monitoring Results, LT-3
Shasta College Emergency Vehicle Obstacle Course (EVOC) - Shasta County, California
Wednesday, May 22, 2024



Computed DNL = 55 dB

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