



**Seneca Healthcare District  
Seneca Healthcare Facility Expansion Project  
County of Plumas, California**

**Biological Resources Report**

**December 2022**

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### Appendix B. USFWS Draft Information for Planning and Consultation System Report – Seneca Healthcare Facility Expansion



**Appendix C. USFWS Draft Information for Planning and Consultation System Report – Proposed  
Helicopter Flight Path**

## **1.0 INTRODUCTION**

Sequoia Ecological Consulting, Inc. (Sequoia) has prepared this Biological Resources Report for the proposed Seneca Healthcare Facility Expansion Project site (hereafter referred to as “the Project site”) located at latitude 40.307100°, longitude -121.236602° in the unincorporated community of Chester, Plumas County, California (Figures 1 and 2). Our analysis provides a description of existing biological resources on the Project site and identifies constraints that could arise from potentially significant impacts that could occur to sensitive biological resources from the proposed Project.

Biological resources include common plant and animal species, as well as special-status plants and animals as designated by the U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), National Marine Fisheries Service (NMFS), and other resource organizations including the California Native Plant Society (CNPS). Biological resources also include “waters of the United States” and “waters of the state” of California, as regulated by the U.S. Army Corps of Engineers (USACE), California Regional Water Quality Control Board (RWQCB), and CDFW. Please note that this analysis assesses the potential for impacts to regulated waters but does not provide the level of detail required for a formal delineation of Waters of the United States suitable for submittal to USACE as defined by the Clean Water Act.

In accordance with the California Environmental Quality Act (CEQA) checklist, this Biological Resources Report also provides mitigation measures for “potentially significant” impacts that could occur to biological resources pursuant to CEQA (Pub. Resources Code §§ 21000 et seq.; 14 Cal. Code Regs §§ 15000 et seq.). The prescribed mitigation measures would reduce impacts to levels considered “less than significant” pursuant to CEQA. Accordingly, this Biological Resources Report is suitable for review by Seneca Healthcare District (CEQA Lead Agency) and Responsible Agencies for the proposed Project pursuant to CEQA.

## **2.0 LOCATION AND SETTING**

### Healthcare Facility Expansion Project

The property is located adjacent to the existing Seneca Healthcare Facility at 199 Reynolds Road, Chester, CA. The tentative lot line adjustment for the Seneca Healthcare District is provided in Appendix A, showing the proposed configuration of the 11.78-acre resultant parcel. Seneca Healthcare District is planning to annex the property to build an expansion, as referenced in the Facility Master Planning document (Seneca Healthcare District, 2021). Sequoia reviewed data provided by the District to assess potential impacts to sensitive biological resources (Figure 3). The proposed Project consists of developing additional health care facilities on the resultant parcel. The Project site is characterized as predominately a Jeffrey pine forest plantation. The remaining land is developed as existing facilities for the Seneca Healthcare District. The Stover Ditch runs approximately west to east, north of the property, which supports riparian woodland along the watercourse and adjacent to the property.



### Collins Pines Optional Landing Approach

The Collins Pines property is located adjacent to and west of the Proposed Project parcel (Figure 4). This parcel is meant to be an optional flight approach area for the helipad at the western edge of the Proposed Project parcel, as referenced in the Facility Master Planning document (Seneca Healthcare District, 2021), and will be analyzed as an alternative to the Proposed Project (i.e., the Proposed Project plus the helipad and flight path). Sequoia reviewed data provided by the District to assess potential impacts to sensitive biological resources. The additional Project site is characterized as predominately a Jeffrey pine forest plantation. The remaining land is developed as existing facilities for the Seneca Healthcare District. A dried swale runs approximately northeast to southwest through the center of entirety of the proposed flight line.



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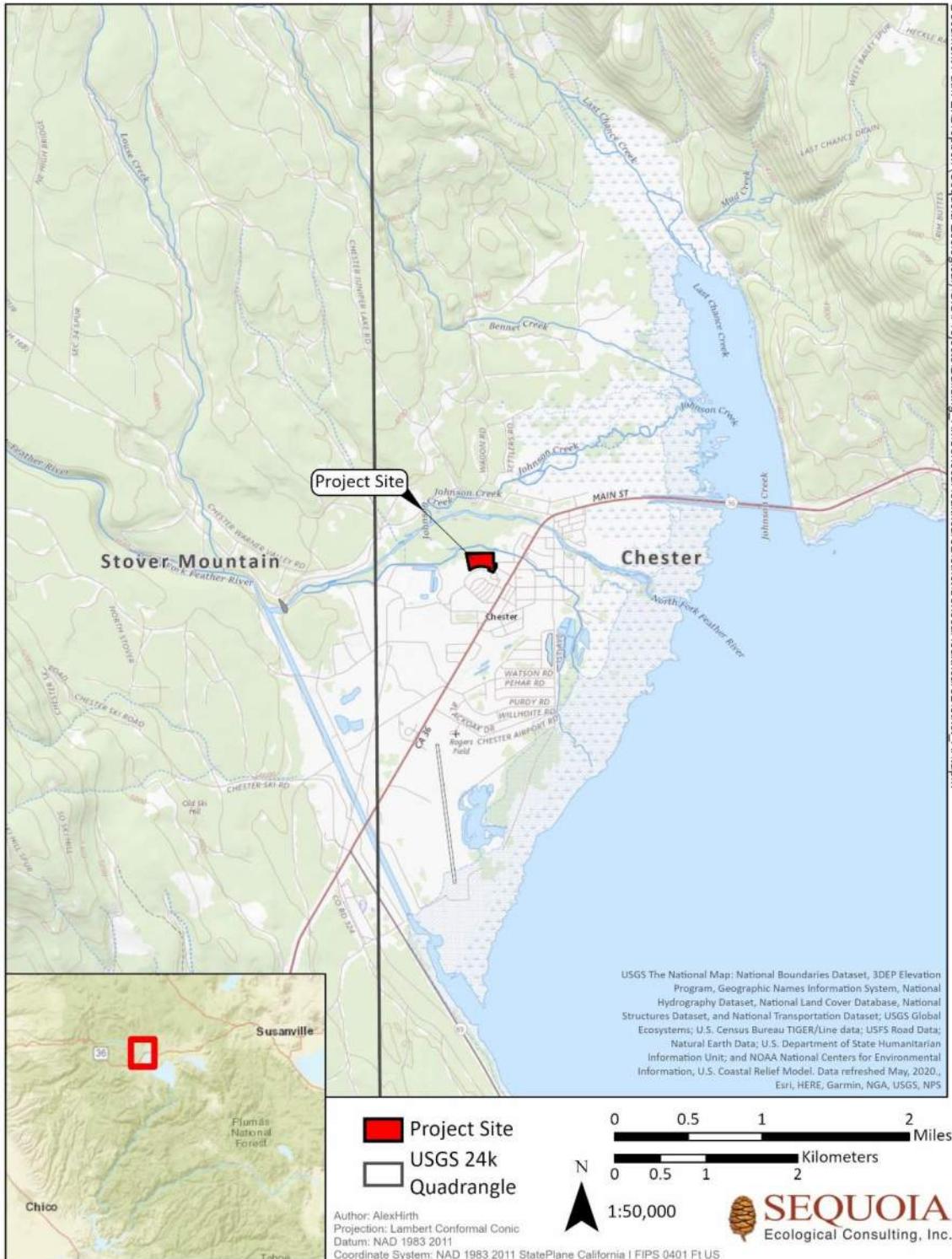
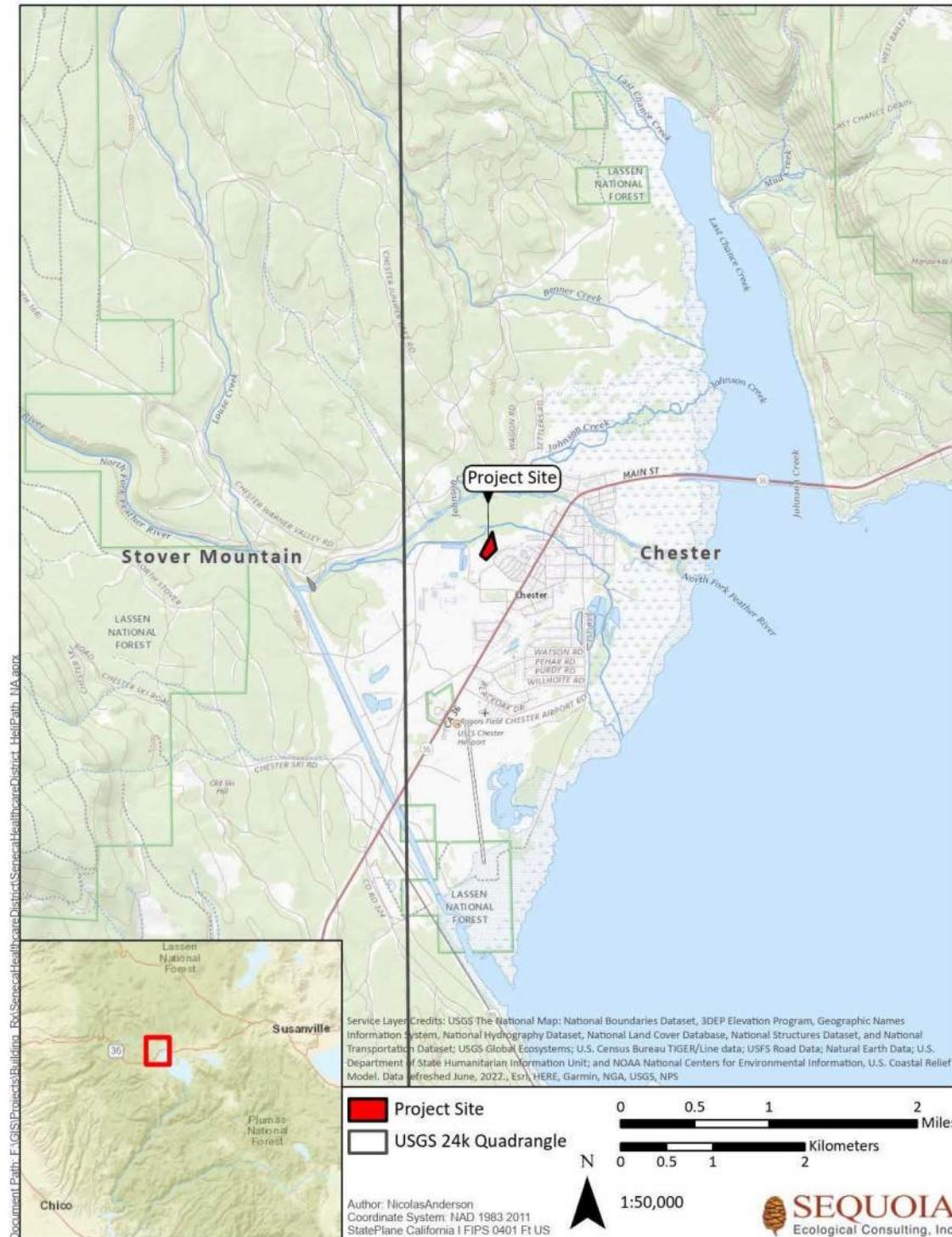
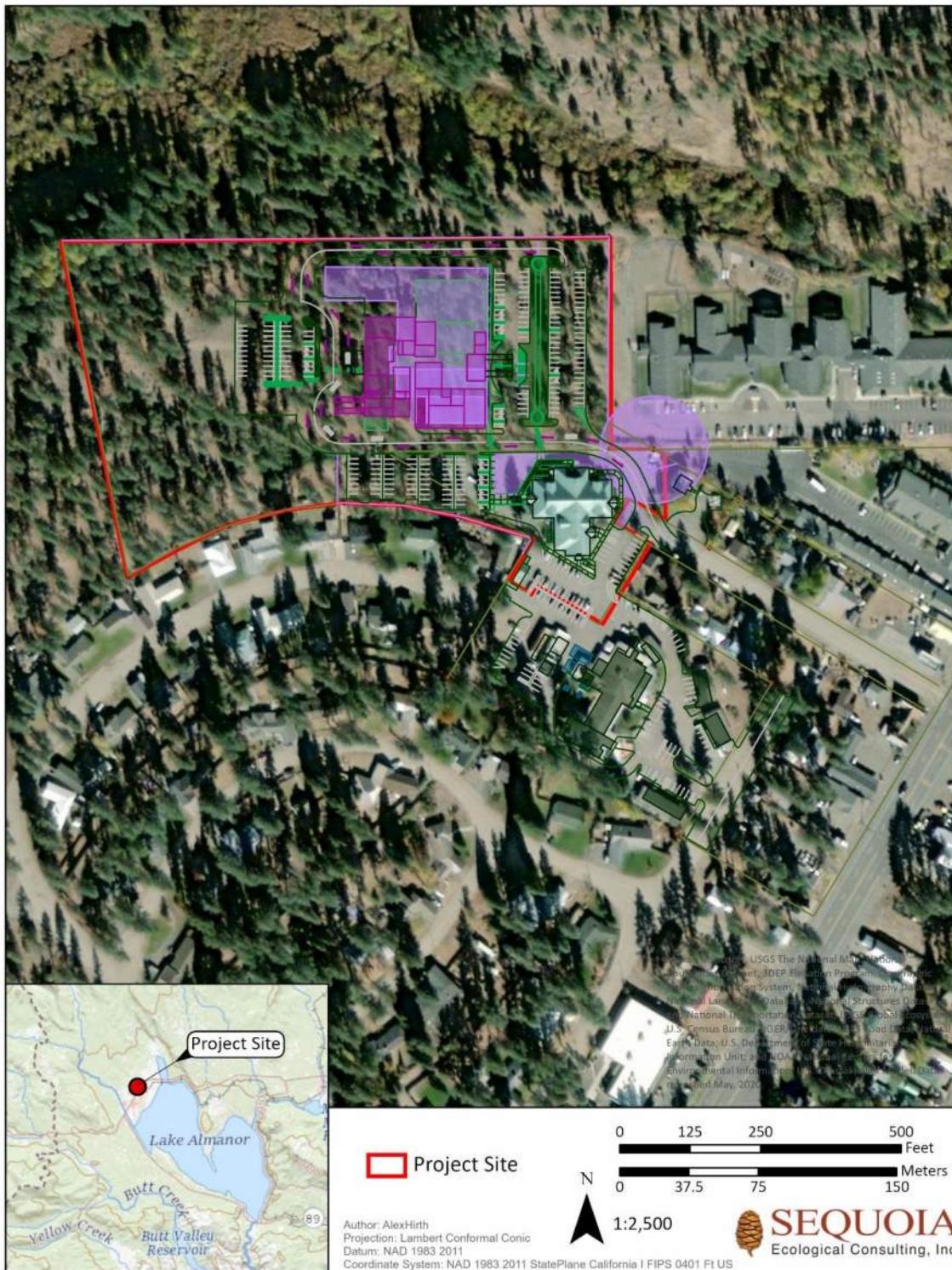


Figure 1. Regional Map of the Seneca Healthcare Facility Expansion Project Site.



**Figure 2.** Regional Map of the Seneca Healthcare Facility Proposed Helicopter Approach.



**Figure 3.** Location Map of the Seneca Healthcare Facility Expansion Project Site.



**Figure 4.** Location Map of the Seneca Healthcare Facility Proposed Helicopter Flight Path.



## 3.0 PROJECT DESCRIPTION

Seneca Healthcare District (SHD; District) proposes to provide for the continuing care of their Plumas County and Chester area community through the construction of a new acute-care hospital, skilled nursing facility, and outpatient services building to replace their existing aged hospital facility. Primarily built in the 1950s and 1970s, SHD's current hospital buildings present a challenge to continued high-quality care in the size, accessibility, and environment of the current facilities. Considering also the financial implications associated with the potential SB-1953 mandated seismic compliance upgrades of the existing buildings, SHD has elected to build new facilities and expand upon the current services offered by SHD.

The proposed facilities would entail three different building types, all under one roof: an acute-care replacement hospital (OSHPD-1), an expanded skilled nursing facility (OSHPD-2), and potentially an outpatient services facility (OSHPD-3). The intent of the design is to provide the units as separate building types with differing functions, but connected with the required seismic and building separations, so that there is seamless flow between each unit, built-in efficiencies for circulation of staff and patients, and shared use of spaces. There is also a proposed non-California Department of Health Care Access and Information (HCAI) support services building, detached, which would support the entire facility.

In anticipation of the proposed Project, SHD has acquired 10 acres of land on parcels adjacent to their existing campus and has completed a lot line adjustment to merge these parcels with their existing clinic parcel, APN 100-110-030. The additional land was purchased from Collins Pine, an adjacent landowner within the timber operations industry. SHD plans to use the surrounding forested habitat to provide restorative and healing views of this scenery for the residents and patients, and to also maintain timber as appropriate in public areas to honor the neighboring industry. An easement to provide a secondary access road may be granted at the northwest corner of the proposed Project area; alternatively, secondary access may be provided via the existing clinic's rear parking lot, through to Brentwood Drive.

SHD's goals are to create a facility that will provide improved healthcare services to the community for another 70 years or more, continue to support the well-being and security of the community, and be able to grow and progress as both healthcare and the community advance into the future.



The region surrounding Chester has recently been dramatically impacted by forest fires, primarily the 2021 Dixie Fire. It is the desire of SHD to create a new facility that responds to the evolving requirements of wildland fire safety, allowing staff to continue to provide care to patients during emergencies. Access, disaster staging, infrastructure resiliency, smoke infiltration control, and fire-resistant building materials are planned to be integrated into the final design.

To fund this construction effort, SHD is pursuing US Department of Agriculture (USDA) funding as well as other funding sources, including a public bond measure (Measure B, passed in the November 8, 2022 election) and philanthropic offerings by the community. USDA funding will require compliance with the National Environmental Policy Act (NEPA), which will be completed as a parallel process.

The new facility is intended to provide current state-of-the-art healthcare technology in a new, clean, modern building. The cumulative square footage of the facilities will total 45,000 square feet, plus up to 3,000 square feet of out/support services structures. The basic functions of the three primary buildings are as follows:

### **OSHPD-1 Building/Hospital**

- Nursing Services/Med-Surg – 8 semi-private and 2 private/isolation, total 10 beds
- Basic Emergency Services – 3 exam rooms, a trauma room that can be converted to 2 exam rooms, and 4 low-acuity waiting areas
- Pharmaceutical Services – a drug room for supply and distribution
- Laboratory Services
- Dietary Services – kitchen and dining
- Imaging Services – X-Ray, CT Scanner, Ultrasound, and mobile MRI
- Ambulatory Surgery
- Retail Pharmaceutical (kiosks in entry Mall)

### **OSHPD-2 Building/Skilled Nursing Facility**

- Skilled Nursing Beds – 24 semi-private and 2 private/isolation, total 26 beds
- Occupational Therapy



## OSHPD-3 Outpatient Services Facility

- Potential future Urgent Care Clinic (Rural Health Clinic)

In addition to the healthcare facilities described above, in the future, SHD plans to construct employee housing in the southwest corner of the site. The conceptual plan includes construction of up to ten (10) 1,000-square-foot residential units that will house up to ten employees of SHD and their families.

The facility will employ a typical staff of 48 at peak hours. An on-site surface parking lot containing 102 parking spaces is proposed to serve the needs of the facility, per Plumas County (County) code. The proposed use of the property as a skilled nursing facility would be complementary to the existing hospital to provide a full spectrum of quality health services for Plumas County residents.

The proposed Project will require the following discretionary decisions by Plumas County, Plumas Local Agency Formation Commissions (LAFCO), the California Department of Forestry and Fire Protection (CAL FIRE), and SHD, respectively:

- A. **Lot Line Adjustment/Rezoning:** The County previously approved a lot line adjustment to merge the two primary parcels into a single parcel. The County will need to approve a General Plan Amendment and Zoning Change for the resultant combined parcel to accommodate the proposed Project.
- B. **LAFCO Annexation:** The proposed Project will require LAFCO annexation into Chester Public Utilities District (for water, sewer, and fire protection).
- C. **Proposed Project:** SHD will need to approve the proposed healthcare facilities Project, including the acute-care hospital, skilled nursing facility, outpatient services facility, support buildings, future employee housing, parking lots, access roads (including a potential easement for main entrance and secondary emergency access across the adjacent Wildwood retirement home parcel), and related items.
- D. **Alternative 1: Helipad and Flight Path:** As an alternative to the proposed Project, SHD will consider approving construction of a helipad to accommodate helicopter ambulance services, including the landing pad, flight path modifications (tree removal), and pathways connecting the pad to the medical buildings. Approval for tree removal at the Collins Pine property is anticipated to be a utility right-of-way exemption. Tree removal on-site is a timberland conversion permit, needing CAL FIRE Harvest Plan approval prior to tree removal permit issuance.



At its discretion, SHD may approve the proposed Project (medical and housing facilities) or Alternative 1 (medical and housing facilities plus heliport and flight pathway). Alternative 1 is dependent upon SHD approval of the proposed Project, but the proposed Project has independent utility and is not dependent upon approval of Alternative 1.



## 4.0 REGULATORY SETTING

Regulatory authority over biological resources is shared by federal, state, and local agencies under a variety of laws, ordinances, regulations, and statutes. Primary authority for biological resources lies within the land use control and planning authority of local jurisdictions (in this instance, County of Plumas). Below we provide a summary of these regulatory authorities and a brief discussion on applicability to the proposed Project. More in-depth analyses are provided in Section 6 (Results) and Section 7 (Discussion and Impact Assessment).

### 4.1 Federal

#### 4.1.1 *Federal Endangered Species Act*

The Federal Endangered Species Act (FESA) provides protection for federally listed endangered and threatened species and their habitats. A project may obtain permission to take federally listed species in one of two ways: a Section 10 Habitat Conservation Plan (HCP) issued to a non-federal entity, or a Section 7 Biological Opinion from the USFWS and/or the National Oceanic and Atmospheric Administration (NOAA) issued to another federal agency that funds or permits an action (e.g., USACE). Under either Section of the FESA, adverse impacts to protected species are avoided, minimized, and mitigated. Both cases require consultation with the USFWS and/or NMFS, which ultimately issues a Biological Opinion determining whether the federally listed species may be incidentally taken pursuant to the proposed action and authorizing incidental take.

Section 7 of FESA requires that federal agencies develop a conservation program for listed species (FESA 7(a)(1)) and that they avoid actions that will jeopardize the continued existence of the species or result in the destruction or adverse modification of the species' designated critical habitat (FESA 7(a)(2)). FESA Section 9 prohibits all persons and agencies from take of threatened and endangered species (though the prohibition on taking listed plants only applies to plants taken from "areas under Federal jurisdiction" or plants taken "in knowing violation of any law or regulation of any State or in the course of any violation of a State criminal trespass law"). Those who violate this mandate face civil and criminal penalties, including civil fines of up to \$25,000 per violation, as well as criminal penalties of up to \$50,000 and imprisonment for one year. Section 10 of FESA regulates a wide range of activities affecting fish and wildlife designated as endangered or threatened and the habitats on which they rely. Section 10 prohibits activities affecting these protected fish and wildlife species and their habitats unless authorized by a permit from USFWS or NMFS. These permits may include incidental take permits, enhancement of survival permits, or recovery and interstate commerce permits. HCPs under Section 10(a)(1)(B) provide for partnerships with non-federal parties to conserve the ecosystems upon which listed species depend.



HCPs are required as part of an application for an incidental take permit under Section 10. They describe the anticipated effects of the proposed take, how those impacts will be minimized or mitigated, and how the HCP will be funded.

#### *4.1.1.1 Applicability to the Proposed Project*

FESA gives regulatory authority to USFWS for federally listed terrestrial species and non-anadromous fish. NMFS has regulatory authority over federally listed marine mammals and anadromous fish.

Sequoia understands that the proposed Project may receive funding from the United States Department of Agriculture, a federal agency, which would subject the Project to review under Section 7 of FESA. The Project area does not appear to provide suitable habitat to plant, wildlife and/or fish species protected by FESA. However, no protocol surveys have been conducted to-date.

#### Healthcare Facility Expansion Project

With implementation of the mitigation measures discussed in Section 3 and listed in the “Impacts Analysis” section below, impacts to federally listed species can be mitigated to a level considered less than significant pursuant to CEQA.

#### Helipad and Flight Path Alternative

With implementation of the mitigation measures discussed in Section 3 and listed in the “Impacts Analysis” section below, impacts to federally listed species can be mitigated to a level considered less than significant pursuant to CEQA.

#### *4.1.2 Migratory Bird Treaty Act of 1918*

The Migratory Bird Treaty Act (MBTA) (16 USC §§ 703–711), as administered by the USFWS, makes it unlawful to “pursue, hunt, take, capture, kill, attempt to take, capture or kill, offer for sale, sell, offer to purchase, purchase, deliver for shipment, ship, cause to be shipped, deliver for transportation, transport, cause to be transported, carry, or cause to be carried by any means whatever, receive for shipment, transportation or carriage, or export at any time, or in any manner, any migratory bird, or any part, nest, or egg of any such bird.” This includes direct and indirect acts, except for harassment and habitat modification, which are not included unless they result in direct loss of birds, nests, or eggs.

#### *4.1.2.1 Applicability to the Proposed Project*

#### Healthcare Facility Expansion Project

The Project site provides suitable nesting habitat for common passerine (songbird) and raptor (bird of prey) species. These birds are protected pursuant to MBTA. Prior to commencement of Project-related activities, a pre-construction survey would be performed, and any active nests detected would be provided with an appropriately sized non-disturbance buffer. See Impacts Analysis section below.



### Helipad and Flight Path Alternative

The Project site provides suitable nesting habitat for common passerine (songbird) and raptor (bird of prey) species. These birds are protected pursuant to MBTA. Prior to commencement of Project-related activities, a pre-construction survey would be performed, and any active nests detected would be provided with an appropriately sized non-disturbance buffer. See Impacts Analysis section below.

#### **4.1.3 Bald and Golden Eagle Protection Act of 1940**

The Bald and Golden Eagle Protection Act (BGEPA; 16 USC. 668-668c) prohibits anyone from taking, possessing, or transporting a bald eagle (*Haliaeetus leucocephalus*) or golden eagle (*Aquila chrysaetos*), or the parts, nests, or eggs of such birds without prior authorization. This includes inactive nests as well as active nests. Take means to pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, destroy, molest, or disturb. Activities that directly or indirectly lead to take are prohibited without a permit.

##### **4.1.3.1 Applicability to the Proposed Project**

###### Healthcare Facility Expansion Project

The Project site does not provide suitable foraging or nesting habitat for bald eagle; however, potentially suitable foraging and nesting habitat for bald eagle occurs in the vicinity of the Project site. This species is protected pursuant to the BGEPA and the MBTA. Prior to commencement of Project-related activities, a pre-construction survey for bald eagle would be performed, and active nests detected would be provided with an appropriately sized non-disturbance buffer. See Impacts Analysis section below.

###### Helipad and Flight Path Alternative

The Project site does not provide suitable foraging or nesting habitat for bald eagle; however, potentially suitable foraging and nesting habitat for bald eagle occurs in the vicinity of the Project site. This species is protected pursuant to the BGEPA and the MBTA. Prior to commencement of Project-related activities, a pre-construction survey for bald eagle would be performed, and active nests detected would be provided with an appropriately sized non-disturbance buffer. See Impacts Analysis section below.

#### **4.1.4 U.S. Army Corps of Engineers – Clean Water Act – Section 404**

USACE regulates activities within "waters of the United States" pursuant to congressional acts: Section 404 of the Clean Water Act (CWA; 1977, as amended) and Section 10 of the Rivers and Harbors Act of 1899. Section 404 of the CWA (1977, as amended) requires a permit for discharge of dredged or fill material into "waters of the United States." Under Section 404, "waters of the United States" are defined as all waters that are used currently, or were used in the past, or may be used in the future for



interstate or foreign commerce, including waters subject to the ebb and flow of the tide up to the high tide line. Additionally, areas such as wetlands, rivers, and streams (including intermittent streams and tributaries) are considered “waters of the United States.” The extent of wetlands is determined by examining the presence of hydrophytic vegetation, hydric soils, and wetland hydrology. Under normal circumstances, all three of these parameters must be satisfied for an area to be considered a jurisdictional wetland under Section 404 of the CWA. Fill within wetlands is regulated under the CWA through a Nationwide Permit Program and an Individual Permit Program.

#### *4.1.4.1 Applicability to the Proposed Project*

##### Healthcare Facility Expansion Project

There is a wetland area, labeled as Forest/Shrub Wetland by NWI, that extends into the extreme northwest corner of the Project area and is likely regulated by the U.S. Army Corps of Engineers. The wetted area itself extends into the Project area by approximately 7 feet at the most. The dominant plant in this area is woolly sedge (*Carex pellita*). A formal wetland delineation was not conducted, but soils were black and there was a pooled area, with slow moving water – likely small tributaries from the riverine system identified on NWI. The wetland is on a low, streamside terrace, with an adjacent Jeffrey pine forest. The woody riparian vegetation (*Salix* sp.) extends into the Project area in three locations along the northern border – at the extreme northwest corner, the extreme northeast corner, and toward the middle of the northern boundary, but are not expected to be impacted by Project activities based on available Site Plans.

A dried swale is located on the extreme western edge of the Project area. Several willows (*Salix* sp.) were located off the Project area, and several black cottonwoods were located just within the Project boundary, but with no other evidence of wetland. The swale itself looked to have been dry for several years and is unlikely to be affected by Project activities based on location.

A constructed ditch/basin is present along the south-eastern boundary of the Project area, adjacent to the paved medical clinic driveway. Although this feature may hold small amounts of water at certain times for the year, it is manmade and likely for stormwater conveyance, and does not possess hydrophytic vegetation, hydric soils, or wetland hydrology and therefore does not meet the definition for “waters of the United States”.

It is not anticipated that work activities will impact the wetted area, the transition zone, or the dried swale, but Sequoia recommends that they be designated as an environmentally sensitive areas to aid in avoidance. If these areas cannot be avoided, additional permitting may be required to satisfy regulatory obligations pursuant to Section 404 of the Clean Water Act and related statutes.



### Helipad and Flight Path Alternative

The dried swale mentioned above continues into the Collins Pines parcel. No wetland-associated vegetation was noted throughout the swale area. No black soils are present—only sand and cobble. The swale itself looked to have been dry for several years and is unlikely to be affected by Project activities.

#### **4.1.5 U.S. Department of Agriculture – Rural Development**

USDA Rural Development is a mission area within the USDA which provides programs intended to improve the economy and quality of life in rural America. One such program is the Community Facilities Direct Loan Program, which provides funding to rural healthcare facilities such as SHD. As a federal agency, the USDA is required to evaluate the impact of projects it authorizes, conducts, or funds under the National Environmental Policy Act (NEPA), which includes preparation of an Environmental Assessment and a determination that the Project will either have a Finding of No Significant Impact (FONSI) or require the preparation of an Environmental Impact Statement (EIS), if the NEPA Action is not categorically excluded. The required level of NEPA analysis for the Project is currently unknown.

##### **4.1.5.1 Applicability to the Proposed Project**

Potential biological impacts of the Project must be taken into consideration by the USDA under NEPA, as indicated in the USDA Rural Development Community Facilities Direct Loan Program guidebook. The environmental review process must be completed before the Project is considered eligible for federal financial assistance. This Biological Resource Report substantially meets the level of information required for biological impact analysis under NEPA.

## **4.2 State**

### **4.2.1 California Environmental Quality Act**

CEQA requires public agencies in California to analyze and disclose potential environmental impacts associated with a proposed discretionary project that the agency will carry out, fund, or approve. Any significant impact must be mitigated to the extent feasible, below the threshold of significance.

##### **4.2.1.1 Applicability to the Proposed Project**

This document is suitable for use by SHD as CEQA lead agency for preparation of any CEQA review document prepared for the proposed Project. This report has been prepared as a Biology Section suitable for incorporation into the Biology Section of an Initial Study/Mitigated Negative Declaration.

### **4.2.2 California Endangered Species Act**

The CDFW is responsible for administering the California Endangered Species Act (CESA). Section 2080 of the California Fish and Wildlife Code prohibits take of any species that the Fish and Wildlife Commission



determines to be an endangered species or a threatened species. However, CESA does allow for take that is incidental to otherwise lawful development projects. Sections 2081(b) and (c) of CESA allow the CDFW to issue an incidental take permit for a state listed threatened and endangered species only if specific criteria are met (i.e., the effects of the authorized take are minimized and fully mitigated). The measures required to meet this obligation shall be roughly proportional in extent to the impact of the authorized taking on the species. Where various measures are available to meet this obligation, the measures required shall maintain the applicant's objectives to the greatest extent possible. All required measures shall be capable of successful implementation.

#### *4.2.2.1 Applicability to the Proposed Project*

##### Healthcare Facility Expansion Project

No state listed plant or animal species would likely be impacted by the proposed Project (Tables 1 and 3). Historically, the Project site has been utilized as timber land subject to periodical harvesting. As a result, the Project area is composed of a younger, uniform stand of trees with limited native habitat present and no suitable habitat for special-status plants and/or wildlife. Furthermore, no special-status plants or wildlife were detected during surveys conducted by Sequoia in June of 2021 or June of 2022. As such, no state listed plant or wildlife species would likely be impacted by the proposed Project and the proposed Project should not be required to obtain authorization under CESA.

##### Helipad and Flight Path Alternative

No state listed plant or animal species would likely be impacted by the proposed Project (Tables 2 and 4). Historically, the Project site has been utilized as timber land. As a result, the Project area comprises a younger, uniform stand of trees with limited native habitat present and no suitable habitat for special-status plants and/or wildlife. Furthermore, no special-status plants or wildlife were detected during surveys conducted by Sequoia in September of 2022. As such, no state listed plant or wildlife species would likely be impacted by the proposed Project and the proposed Project should not be required to obtain authorization under CESA.

#### *4.2.3 California Fish and Game Code – Section 1600 – Lake or Streambed Alteration Agreement*

The CDFW regulates activities within watercourses, lakes, and in-stream reservoirs. Under Section 1602 of the California Fish and Game Code (CFG)–often referred to as the Lake or Streambed Alteration Agreement (LSAA)–the CDFW regulates activities that would alter the flow or change or use any material from the bed, channel, or bank of any perennial, intermittent, or ephemeral river, stream, or lake. Each of these activities requires a Section 1602 permit. Section 1602 requires the CDFW to be notified of any activity that might affect lakes and streams. It also identifies the process through which an applicant can come to an agreement with the state regarding the protection of these resources, both during and following construction.



#### 4.2.3.1 Applicability to the Proposed Project

There are no streams or drainages that would likely be regulated by CDFW and impacted by Project activities. Accordingly, an LSAA with CDFW would not be necessary for the Project.

##### Healthcare Facility Expansion Project

There is a wetland area, labeled as Forest/Shrub Wetland by NWI, that extends into the extreme northwest corner of the Project area. The wetted area itself extends into the Project area by approximately 7 feet at the most. The dominant plant in this area is woolly sedge (*Carex pellita*). A wetland delineation was not performed, however the area possessed black soils, and there was a pooled area, with slow moving water—likely small tributaries from the riverine system identified on NWI. The wetland is located on a low, streamside terrace, with an adjacent Jeffrey pine forest. The woody riparian vegetation (*Salix* sp.) extends into the Project area in three locations along the northern border—at the extreme northwest corner, the extreme northeast corner, and toward the middle of the northern boundary, but none are expected to be impacted by the Project based on current Site Plans.

Also located in the northwest corner is a transitional zone between Jeffrey pine forest and riparian habitat associated with the wetland area, as indicated by the presence of willows and several black cottonwoods that could be included as a regulated riparian feature if a Streambed Alteration Agreement was deemed necessary for the associated wetland area.

A dried swale is located on the extreme western edge of the Project area. Several willows (*Salix* sp.) were located off the Project area, and several black cottonwoods were located just within the Project boundary, but with no other evidence of wetland. The swale itself looked to have been dry for several years and is unlikely to be affected by Project activities based on location.

A constructed ditch/basin is present along the south-eastern boundary of the Project area, adjacent to the paved medical clinic driveway. Although this feature may hold small amounts of water at certain times for the year, it is manmade and likely for stormwater conveyance, does not possess wetland characteristics, does not have connectivity to other waters, is constructed in uplands, and it is not modifying an original drainage feature. Therefore, this feature should be exempt from CFGC Section 1600.

It is not anticipated that work activities will impact the wetted area, the transition zone, or the dried swale, but Sequoia recommends that they be designated as an environmentally sensitive areas to aid in avoidance. If these areas cannot be avoided, additional permitting may be required to satisfy CFGC. The constructed ditch is located within the anticipated construction zone but is not likely to require a 1600 or 1602 permit.



### Helipad and Flight Path Alternative

The dried swale mentioned above continues on into the Collins Pines parcel. No wetland-associated vegetation was noted throughout the swale area. No black soils are present—only sand and cobble. The swale itself looked to have been dry for several years and is unlikely to be affected by Project activities.

#### **4.2.4 California Fish and Game Code – Section 3500 – Nesting Bird Protection**

CFGC Section 3503 states that it is unlawful to take, possess, or needlessly destroy the nests or eggs of any bird, except as otherwise provided by the CFGC or any regulation made pursuant thereto. CFGC Section 3503.5 protects all birds of prey (raptors) and their eggs and nests. Section 3513 states that it is unlawful to take or possess any migratory non-game bird as designated in the MBTA. These regulations could require that elements of a project (specifically vegetation removal or construction near nest trees) be reduced or eliminated during critical phases of the nesting cycle unless surveys by a qualified biologist demonstrate that nests, eggs, or nesting birds will not be disturbed, which may be subject to approval by the CDFW and/or the USFWS.

#### **4.2.5 California Fish and Game Code – Fully Protected Species**

CFGC Sections 3505, 3511, 4700, 5050, and 5515 afford full protection to several specific wildlife species. Fully protected species cannot be taken or possessed under state law, even if federal take authorization is issued, except in connection with a natural communities conservation plan (NCCP) or for the purpose of scientific research and relocation of bird species for the protection of livestock.

##### **4.2.5.1 Applicability to the Proposed Project**

The Project site provides marginally suitable habitat for wildlife protected pursuant to CFGC § 3500 and the MBTA. As such, pre-construction surveys for these species would need to be conducted prior to Project commencement to ensure no direct mortality of these species occurs owing to the proposed Project. See Impacts Analysis section below.

### Healthcare Facility Expansion Project

The Project site provides marginally suitable habitat for wildlife protected pursuant to CFGC § 3500 and the MBTA. As such, pre-construction surveys for these species would need to be conducted prior to Project commencement to ensure no direct mortality of these species occurs owing to the proposed Project. See Impacts Analysis section below.

### Helipad and Flight Path Alternative

The Alternative 1 flight path provides marginally suitable habitat for wildlife protected pursuant to CFGC § 3500 and the MBTA. As such, pre-construction surveys for these species would need to be conducted



prior to Project commencement to ensure no direct mortality of these species occurs owing to the proposed Project. See Impacts Analysis section below.

#### **4.2.6 Regional Water Quality Control Board (RWQCB) – Clean Water Act – Section 401 and Porter-Cologne Water Quality Control Act**

The State Water Resources Control Board (SWRCB) and RWQCB regulate activities in "waters of the state" (which includes wetlands) through two sources of legal authority: Section 401 of the CWA and the Porter-Cologne Water Quality Control Act (Porter-Cologne Act) (Wat. Code, Div. 7, § 13000 et seq.). The Section 401 water quality certification program allows the state to ensure that activities requiring a federal permit or license comply with state water quality standards. Though similar to Section 404 and 401 requirements, the Porter-Cologne Act applies to all "waters of the state" rather than to the portions thereof below ordinary high water mark. "Waters of the state" is defined as any surface water or groundwater, including saline waters, within the boundaries of the state (Water Code § 13050(e)).

The Porter-Cologne Act requires any person discharging waste or proposing to discharge waste in any region that could affect the quality of the "waters of the state" to file a report of waste discharge. Pursuant to the Porter-Cologne Act, the RWQCB also regulates "isolated wetlands." Functionally, the RWQCB typically evaluates whether an additional waste discharge requirement is necessary for the balance between federal and state jurisdictional boundaries during the 401 certification process. The RWQCB issues a permit or waiver that includes implementing water quality control plans that reflect the beneficial uses to be protected. Waters of the State subject to RWQCB regulation extend to the top of bank, as well as isolated water/wetland features.

On April 2, 2019, the SWRCB adopted Resolution 2019-0015, thereby adopting a document entitled, "State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State" ("Procedures") for inclusion in the Water Quality Control Plans for Inland Surface Waters, Enclosed Bays, and Estuaries of California.

In taking this action, the SWRCB noted that under the Porter-Cologne Act, discharges of dredged or fill material to waters of the state are subject to waste discharge requirements or waivers thereof. The SWRCB further explained that "although the state has historically relied primarily on requirements in the CWA to protect wetlands, U.S. Supreme Court rulings reducing the jurisdiction of the CWA over wetland areas by limiting the definition of 'waters of the United States' have necessitated the use of California's independent authorities under the Porter-Cologne Act to protect these vital resources."

The Office of Administrative Law (OAL) approved the Procedures on August 28, 2019. Pursuant to the Procedures, the effective date is nine months upon OAL approval. Accordingly, the Procedures became effective May 28, 2020.

By adopting the Procedures, the SWRCB mandated and standardized the evaluation of impacts and protection of waters of the state from impacts due to dredge and fill activities. The Procedures include: (1) a wetland definition; (2) a jurisdictional framework for determining if a feature that meets the



wetland definition is a water of the state; (3) wetland delineation procedures; and (4) procedures for application submittal, and the review and approval of dredge or fill activities.

The Procedures define an area as a wetland if it meets three criteria: wetland hydrology, wetland soils, and (if vegetated) wetland plants. An area is a wetland if: (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation.

Waters of the state, by definition, includes more aquatic features than waters of the U.S., which defines the jurisdiction of the federal government. Waters of the state are not so limited. In addition, the federal definition of a wetland requires a prevalence of wetland vegetation under normal circumstances. To account for wetlands in arid portions of the state, the SWRCB's definition differs from the federal definition in that an area may be a wetland even if it does not support vegetation. If vegetation is present, however, the SWRCB's definition requires that the vegetation be wetland vegetation. The SWRCB's definition clarifies that vegetated and unvegetated wetlands will be regulated in the same manner.

The Procedures also include a jurisdictional framework that applies to aquatic features that meet the wetland definition. The jurisdictional framework will guide applicants and staff in determining whether an aquatic feature that meets the wetland definition will be regulated as a water of the state. The jurisdictional framework is intended to exclude from regulation any artificially created, temporary features, such as tire ruts or other transient depressions caused by human activity, while still capturing small, naturally occurring features, such as seasonal wetlands and small vernal pools that may be outside of federal jurisdiction. The Procedures do not expand the SWRCB's jurisdiction beyond areas already under SWRCB's jurisdiction.

The Procedures exclude the following agricultural features from the protections accorded to wetlands: (1) ditches with ephemeral flow that are not a relocated water of the state or excavated in a water of the state; (2) ditches with intermittent flow that are not a relocated water of the state or excavated in a water of the state, or that do not drain wetlands other than any wetlands described in (4) or (5) below; (3) ditches that do not flow, either directly or through another water, into another water of the state; (4) artificially irrigated areas that would revert to dry land should application of waters to that area cease; or (5) artificial, constructed lakes and ponds created in dry land such as farm and stock watering ponds, irrigation ponds, and settling basins.

The Procedures clarify what information and analysis the applicant needs to submit to have a complete application. The Procedures standardize when an alternative analysis needs to be conducted and set a minimum mitigation ratio for any permanent impacts to waters of the state resulting from dredge and fill activities.

When an alternatives analysis is required, the applicant must demonstrate that the proposed alternative is the Least Environmentally Damaging Practicable Alternative (LEDPA). The term practicable means



available and capable of being done after taking into consideration cost, existing technology, and other logistics considering the overall project purpose.

#### *4.2.6.1 Applicability to the Proposed Project*

##### Healthcare Facility Expansion Project

A constructed ditch/basin is present along the south-eastern boundary of the Project area, adjacent to the paved medical clinic driveway. Although this feature may hold small amounts of water at certain times for the year, it is manmade and likely for stormwater conveyance, does not possess wetland characteristics, does not have connectivity to other waters, is constructed in uplands, and it is not modifying an original drainage feature. Further, the Procedures include an exemption for ditches with intermittent flow that are not a relocated water of the state or excavated in a water of the state or that do not drain wetlands or artificial, constructed waters. Therefore, this feature should be exempt from Waters of the State Procedures. A full wetland delineation was not conducted for the proposed Project.

A wetland area and riparian transition zone exist at the extreme northwest corner of the Project area. There is also a dried swale located at the extreme western edge of the Project. It is not anticipated that these areas will be directly impacted by the proposed Project, but we recommend that they be designated as an environmentally sensitive area to aid in avoidance. The wetland area or swale may fall under the RWQCB/SWRCB's jurisdiction pursuant to Section 401 of the CWA. Thus, prior authorization from the RWQCB/SWRCB pursuant to Section 401 of the CWA would be required if the proposed Project were to impact these features. Impacts to "waters of the state" would require mitigation to the satisfaction of the RWQCB prior to issuance of a permit for impacts to these features.

To further comply with the Porter-Cologne Act, adequate pre- and post-construction best management practices (BMPs) will be planned and incorporated into Project implementation plans to protect downstream waterways. In addition, the contractor will develop a stormwater pollution prevention plan that will be submitted to the SWRCB as a condition of Project approval demonstrating BMPs that will be installed/implemented prior to Project commencement. Stormwater protection and treatment measures will be implemented to ensure that the proposed Project remains in compliance with the Porter-Cologne Act.

##### Helipad and Flight Path Alternative

The dried swale mentioned above continues into the Collins Pines parcel. No wetland-associated vegetation was noted throughout the swale area. No black soils are present—only sand and cobble. The swale itself looked to have been dry for several years and is unlikely to be affected by Project activities.

To further comply with the Porter-Cologne Act, adequate pre- and post-construction best management practices (BMPs) will be planned and incorporated into Project implementation plans to protect downstream waterways. In addition, the contractor will develop a stormwater pollution prevention plan that will be submitted to the SWRCB as a condition of Project approval demonstrating BMPs that will be



installed/implemented prior to Project commencement. Stormwater protection and treatment measures will be implemented to ensure that the proposed Project remains in compliance with the Porter-Cologne Act.

### 4.3 Local

Sequoia reviewed documents for potential biological constraints, such as the Plumas County General Plan and government code (e.g., for tree ordinances). No biologically constraining or applicable measures were found.

## 5.0 METHODS

Sequoia performed various desktop and in-field assessments. Using those results, Sequoia employed various site assessments to evaluate the presence of and/or likelihood of occurrence of sensitive resources on the Project site.

### 5.1 Definitions

#### 5.1.1 *Special-Status Species*

For the purposes of this document, special-status species include:

- Plant, fish, and wildlife species listed as Threatened or Endangered under FESA (50 CFR 17), and candidates for listing under the statute
- Species protected by the CFGC, including nesting birds and Fully Protected species
- Plant, fish, and wildlife species listed as Threatened or Endangered under CESA; and the laws and regulations for implementing CESA as defined in CFGC §2050 et seq. and the California Code of Regulations (CCR) 14 CCR §670.1 et seq., and candidates for listing under the statute (CFGС §2068)
- Species meeting the definition of ‘Rare’ or ‘Endangered’ under CEQA Guidelines 14 CCR §15125 (c) and/or 14 CCR §15380, including plants listed on CNPS Lists 1A, 1B, 2A, and 2B, 3, and 4. Plants occurring on CNPS Ranks 3 and 4 are “plants about which more information is necessary,” and “plants of limited distribution” (CNPS 2001). These plants may be included as special-status species on a case-by-case basis due to local significance or recent biological information (see additional definition information below)
- USFWS Birds of Conservation Concern
- Fully Protected species, as designated by the CDFW (CFGС 3511, 4700, 5050, and 5515)
- Species of Special Concern, as designated by the CDFW and required by 14 CCR §15380
- Avian species protected under the MBTA of 1918



Additional information regarding these definitions is provided below:

#### *5.1.1.1 Federally Threatened or Endangered Species*

A species listed as Threatened or Endangered under the FESA is protected from unauthorized “take” (that is, harass, harm, pursue, hunt, shoot, trap) of that species. If it is necessary to take a federally listed Threatened or Endangered species as part of an otherwise lawful activity, it would be necessary to receive permission from the USFWS prior to initiating the “take.”

#### *5.1.1.2 State Threatened or Endangered Species*

A species listed as Threatened or Endangered under the CESA is protected from unauthorized “take” (that is, harass, pursue, hunt, shoot, trap) of that species. If it is necessary to “take” a state Threatened or Endangered species as part of an otherwise lawful activity, it would be necessary to receive permission from CDFW prior to initiating the “take.”

#### *5.1.1.3 CDFW Species of Special Concern*

California Species of Special Concern are species in which their California breeding populations are seriously declining and extirpation from all or a portion of their range is possible. This designation affords no legally mandated protection; however, some of these species could be considered “rare” and must therefore be considered in any project that will, or is currently, undergoing CEQA review, and/or that must obtain an environmental permit(s) from a public agency.

#### *5.1.1.4 CNPS Rank Species*

The CNPS maintains an *inventory* of special-status plant species. This inventory has four lists of plants with varying rarity. These lists are: Rank 1, Rank 2, Rank 3, and Rank 4. Although plants on these lists have no formal legal protection (unless they are also state or federally listed species), CDFW requests the inclusion of Rank 1 species in environmental documents. In addition, other state and local agencies may request the inclusion of species on other lists as well. Rank 1 and 2 species are defined below:

- Rank 1A: Presumed extinct in California
- Rank 1B: Rare, threatened, or endangered in California and elsewhere
- Rank 2A: Plants presumed extirpated in California, but more common elsewhere
- Rank 2B: Rare, threatened, or endangered in California, but more common elsewhere

Under the CEQA review process only CNPS Rank 1 and 2 species are considered due to meeting CEQA’s definition of “rare” or “endangered.” However, Rank 3 and 4 species are not regarded as significant pursuant to CEQA.

#### *5.1.1.5 Fully Protected Birds*

Fully Protected birds are protected under CFGC 3511 and may not be “taken” or possessed (i.e., kept in captivity) at any time.



## 5.2 Desktop Review

Sequoia reviewed relevant databases and literature for baseline information regarding biological resources occurring and potentially occurring on the Project site and the immediate vicinity. The review included the following sources:

- USFWS Information for Planning and Consultation (IPaC) search (USFWS 2020), and Critical Habitat Portal (USFWS 2020; Appendix B and C; Figures 7)
- CNPS Online Inventory of Rare and Endangered Plants of California for the Chester, California and eight surrounding USGS 7.5-minute quadrangles (CNPS 2020; Figures 12 and 13)
- USFWS National Wetlands Inventory (NWI) (Figure 6)
- CDFW California Natural Diversity Database (CNDDB) for the Project polygon and a 3-mile buffer (CDFW 2020; Figures 10 and 11)
- Aerial photographs (Google Earth 2020)

## 5.3 Site Assessment

Sequoia biologist Liz Lopez conducted surveys on the Project site on June 3, 2022 and September 30, 2022 to record biological resources and to assess the limits of areas potentially regulated by resource agencies (i.e., preliminary hydrology analysis). Surveys involved searching all habitats on the site and recording all plant and animal species observed. Sequoia cross-referenced the habitats occurring on the Project site with the habitat requirements of regional special-status species to determine if the proposed Project could directly or indirectly impact these species. Any special-status species or suitable habitat was documented. In addition, Sequoia biologists mapped limits of potential jurisdictional features, as shown on Figures 5 and 6.

Tables 1-4 present the potential for occurrence of special-status plant and animal species known to occur in the vicinity of the Project site, along with their habitat requirements, occurrence classification, and basis for occurrence classification.

## 5.4 Wetland Assessment

### Healthcare Facility Expansion Project

There is a wetland area, identified as “Forest/Shrub Wetland” as per NWI, that extends into the extreme northwestern corner of the Project area and is associated with a linear hydrologic feature mapped in the California Streams database labeled as “Stover Ditch” in Appendix A. The wetted area itself extends into the Project area by approximately 7 feet. The dominant plant in this area is woolly sedge (*Carex pellita*). Soils were black, with few faint mottles, and there was a pooled area, with slow moving water—likely small tributaries from the riverine system identified on NWI. The wetland is on a low, streamside terrace, with the adjacent Jeffrey pine forest approximately one foot higher in elevation. The woody



riparian vegetation (*Salix sp.*) extends into the Project area in three locations along the northern border—at the extreme northwest corner, the extreme northeast corner, and toward the middle of the northern boundary.

Also located in the northwest corner is a transitional zone between Jeffrey pine forest and riparian habitat associated with the wetland area, as indicated by the presence of willows and several black cottonwoods that could be included as a regulated riparian feature if a Streambed Alteration Agreement was deemed necessary for the associated wetland area.

A dried swale located on the extreme western edge of the Project area. Several willows were located off the Project area, and several black cottonwoods were located just within the Project boundary, but with no other evidence of wetland. The swale itself looked to have been dry for several years and is unlikely to be affected by Project activities based on location.

A constructed ditch/basin is present along the south-eastern boundary of the Project area, adjacent to the paved medical clinic driveway. This feature does not possess wetland characteristics, but it may hold precipitation or snowmelt at certain times of year, and therefore may meet the RWQCB's definition of surface water.

It is not anticipated that work activities will impact the wetted area, the transition zone, or the dried swale, but Sequoia recommends that they be designated as an environmentally sensitive areas to aid in avoidance. The constructed ditch is in an area where construction is anticipated to occur, but it does not meet the definition of "waters of the State" and is also exempt as per the Procedures and thus should not require additional permitting. If the potentially jurisdictional features (wetted area, transition zone, and dried swale) cannot be avoided, additional permitting may be required to satisfy USACE and CDFW.

These areas are presumed to be under the jurisdictions of USACE, RWQCB and CDFW pursuant to state and federal laws. It is not anticipated that work activities will impact these areas, but if this area cannot be avoided, additional permitting and delineation would be required.

Within the Project area, no additional potentially jurisdictional features were observed during the reconnaissance-level assessment on June 3, 2022 site visit.

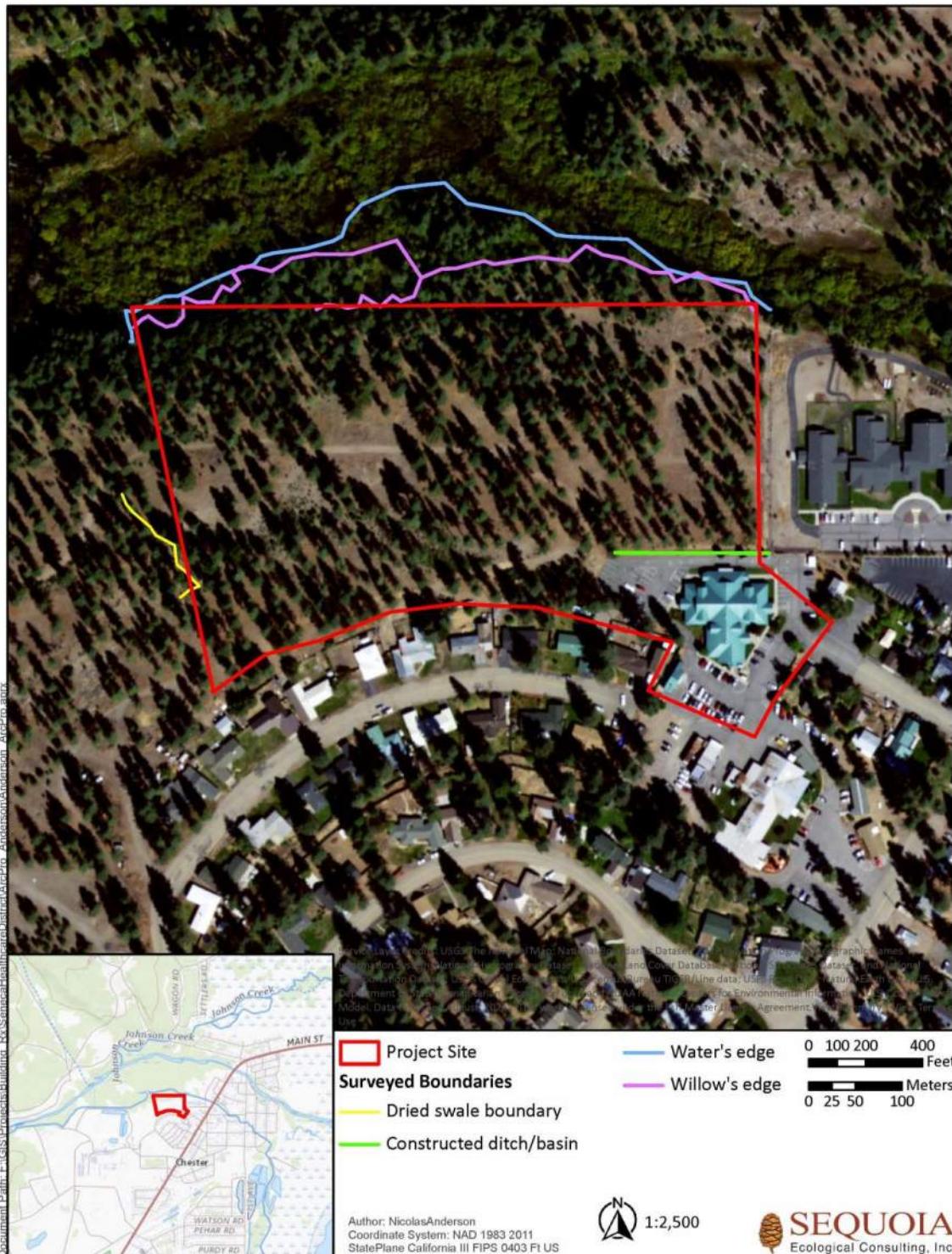
#### Helipad and Flight Path Alternative

A dried swale continues from the original proposed expansion area into the Collins Pines parcel, starting in the middle of the extreme northeast edge of the parcel and continuing throughout the entirety of the property to the southwest, where the swale splits off in two directions—one that continues southwest and one that travels approximately due west. There is also a swale near the northern end of the Project area that may be associated with the larger swale mentioned above—where the swale continues northwest and then splits again in two—one end which continues northwest and the other that continues southwest before abruptly tapering off. No wetland-associated vegetation was noted throughout either swale area. Toward the southern end, the swale began to look more like a seasonal

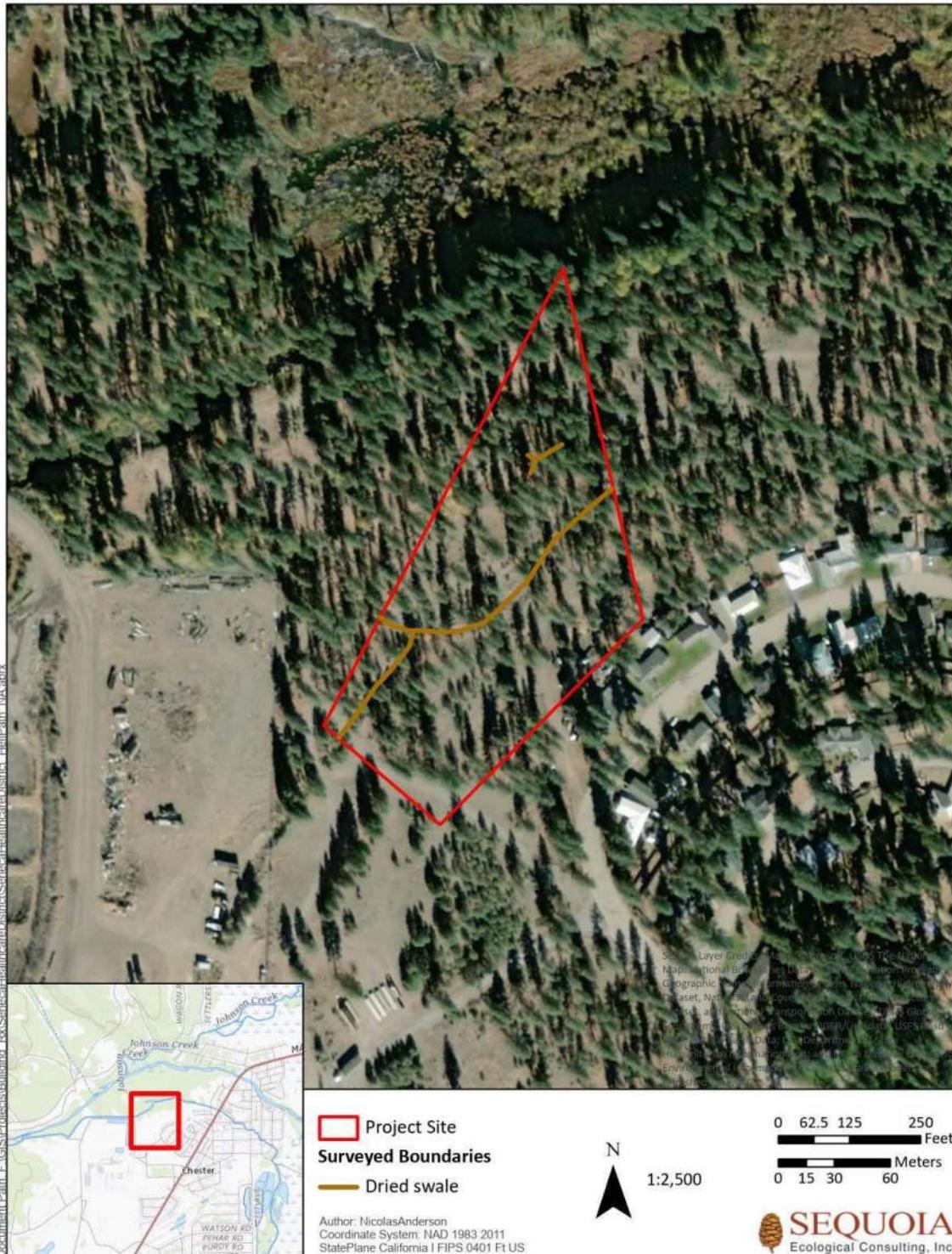


waterway, with some very minor bank cutting in some areas, and medium-sized smoothed cobble at the bottom of the potential waterway. However, piles of cobble are also present throughout the Collins Pines property, likely due to previous mining activities. The swale ultimately runs through a culvert, which is outside the Project area. No black soils are present—only sand and cobble. The swale itself looked to have been dry for several years and is unlikely to be affected by Project activities based on location.

Within the Project area, no additional potentially jurisdictional features were observed during the reconnaissance-level assessment on September 30, 2022 site visit.



**Figure 5. Limits of Potentially Jurisdictional Wetland Features in Proximity to the Seneca Healthcare Facility Expansion Project Site.**



**Figure 6. Limits of Potentially Jurisdictional Wetland Features in Proximity to the Seneca Healthcare Facility Proposed Helicopter Approach.**

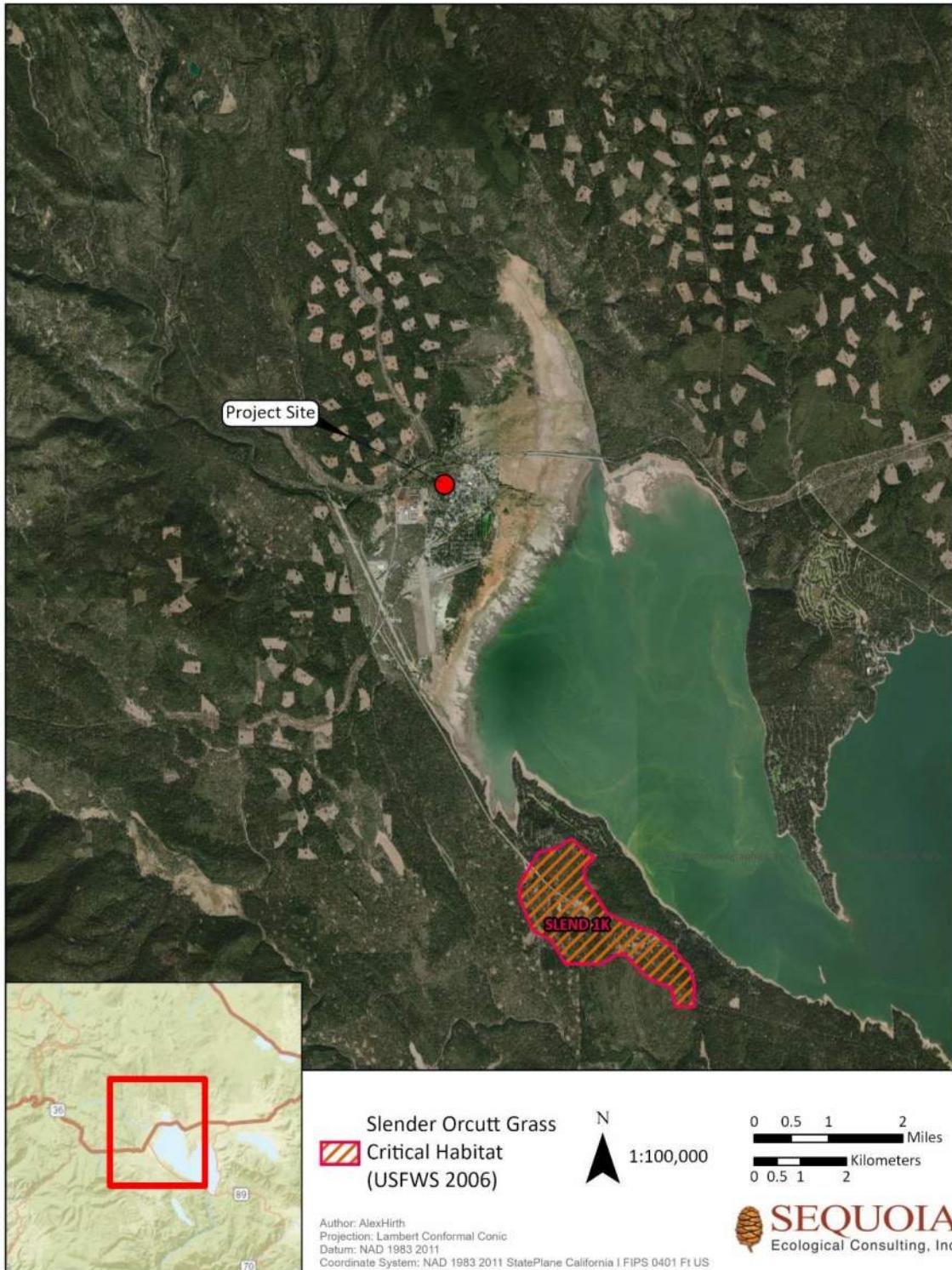


## 5.5 Habitat Assessments

Consecutive transects were traversed at approximately 30-foot intervals throughout the Project site and the Collins Pines property. During the surveys, the biologists scanned for special-status species, including Cascades frog (*Rana cascadae*), Sierra Nevada red fox (*Vulpes vulpes necator*), Sierra Nevada yellow-legged frog (*Rana sierrae*), bald eagle (*Haliaeetus leucocephalus*), greater sandhill crane (*Grus canadensis*), northern goshawk (*Accipiter gentilis*), southern long-toed salamander (*Ambystoma macrodactylum*), and osprey (*Pandion haliaetus*), among others, and/or for suitable habitat for these species, or sign of their presence. Any special-status species or suitable habitat was documented.



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**Figure 7.** USFWS Critical Habitat in the Vicinity of the Seneca Healthcare Facility Expansion Project.



### 5.5.1 Potential to Occur

Following the site assessment, potential for special-status species to occur in the Project site was evaluated according to the following criteria:

- *No Potential.* Habitat on and adjacent to the site is clearly unsuitable for the species' requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).
- *Low Potential.* Few of the habitat components meeting the species' requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to occur on the site.
- *Moderate Potential.* Some of the habitat components meeting the species' requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of occurring on the site.
- *High Potential.* All the habitat components meeting the species' requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of occurring on the site.
- *Present.* Species is observed on the site or has been recorded (i.e., CNDDB, other reports) on the site recently.



## 6.0 RESULTS

The results of the desktop review and site assessment of the proposed healthcare facility expansion Project (conducted on June 3, 2022) and the helipad and flight path alternative (conducted on September 30, 2022) are presented below.

### 6.1 Topography and Hydrology

#### Healthcare Facility Expansion Project

The Project site is relatively flat throughout. A creek flows from west to east, north of the of the proposed Project site and enters the Project boundary at the northwest corner by approximately 7 feet. This creek is identified as “Stover Ditch” in Appendix A and is bordered on both sides by forested/shrub wetland (Figure 10). At the northwest corner, there is also an associated transition zone between Jeffrey pine forest and riparian woodland. Located at the southeastern end of the Project site is a constructed ditch/drainage, bordering the medical facility’s parking area. There is also a dried swale located on the extreme western edge of the Project area.

Elevation on the Project site ranges from 4,535 feet in the southeast corner to 4,550 feet above mean sea level (AMSL) in the northwest corner. Two soil types are present in the Project site, and both are well-drained gravel-dominant alluvium consistent with floodplain benches (Figure 8).

The climate of the Project site is transitional *Csb/Dsb* (Warm-summer Mediterranean climate/Mediterranean-influenced warm-summer humid continental climate). Summers are warm, with average highs in the 80s (Fahrenheit); winters are cool and wet, with average highs in the 40s and average lows in the 20s. The average annual precipitation is approximately 34.35 inches, falling primarily between November and March, with an average annual snowfall of 127 inches (U.S. Climate Data 2021).

#### Helipad and Flight Path Alternative

The flight path alternative site is relatively flat throughout. Elevation within the flight path alternative site ranges between 4,540 and 4,550 feet AMSL. There is a dried swale running the length of the alternative site. Two soil types are present in the Project site, and both are well-drained gravel-dominant alluvium consistent with floodplain benches (Figure 9).

The climate of the flight path alternative site is identical to that of the proposed Project site.



## 6.2 Plant Communities and Wildlife Habitats

### Healthcare Facility Expansion Project

On June 10, 2021, Sequoia staff conducted a survey of the Project site and characterized the vegetation present. During the survey, the biologists also documented plant and wildlife species observed on the Project site. Nomenclature used for plant names follows *The Jepson Manual, Second Edition* (Baldwin et al. 2012), while nomenclature used for wildlife follows CDFW's *Complete list of amphibian, reptile, bird, and mammal species in California* (2016).

#### 6.2.1.1 Jeffrey Pine Forest and Woodland Alliance

The Project site is dominated by a young stand of assumed planted Jeffrey pines (*Pinus jeffreyi*) managed by a local timber company. The habitat meets the criteria for Jeffrey Pine Forest and Woodland Alliance, but it is a semi-natural stand, as it appears to be a plantation with relatively uniform species composition and age. Jeffrey pines dominate the Project area and are accompanied by a shrubby and herbaceous understory, consisting of Sierra gooseberry (*Ribes montigenum*), big sagebrush (*Artemisia tridentata*), tarragon (*Artemisia dracunculus*), dwarf lupine (*Lupinus lapidicola*), yellow rabbitbrush (*Chrysothamnus viscidiflorus* ssp. *puberulus*), pinewoods horkelia (*Horkelia fusca*), silverleaf phacelia (*Phacelia hastata*), California helianthella (*Helianthella californica*), woolly mule's ears (*Wyethia mollis*), and Oregon grape (*Berberis aquifolium*).

Common wildlife species observed within ruderal communities on the Project site include American robin (*Turdus migratorius*), Steller's jay (*Cyanocitta stelleri*), dark-eyed junco (*Junco hyemalis*), house finch (*Haemorhous mexicanus*), common raven (*Corvus corax*), downy woodpecker (*Picoides pubescens*), mountain chickadee (*Poecile gambeli*), northern flicker (*Colaptes auratus*) and western fence lizard (*Sceloporus occidentalis*).

The planted Jeffrey Pine Forest and Woodland Alliance accounts for approximately 10 acres on the 11.87-acre Project site.

#### 6.2.1.2 Riparian Woodland

Riparian woodlands are diverse habitats that support numerous plant species, including grasses, annual and perennial forbs, vines, shrubs, and trees. A variety of plants creates a complex layering of understory and overstory which in turn provides habitat to numerous wildlife species. When found within the bed, channel, or bank of any river, stream, or lake, riparian vegetation is also protected under CFGC § 1602, and the CDFW has included riparian communities in the CNDDDB.

Dominant plant species observed within riparian woodland communities on the Project site include woolly sedge (*Carex pellita*), hound's-tongue (*Cynoglossum officinale*), cattails (*Typha sp.*), California mugwort (*Artemisia douglasiana*), panicle bulrush (*Scirpus microcarpus*), sweetberry honeysuckle (*Lonicera caerulea*), willows (*Salix spp.*), and black cottonwoods (*Populus trichocarpa*).



The riparian woodland community extends into the Project site to a small extent in the northwestern corner and provides habitat for special status species with potential to occur, such as nesting birds.

#### **6.2.1.3 Developed**

The southeastern corner of Project site is comprised of developed habitat, consisting of parking lots and the current Seneca Healthcare District facility. This area is highly disturbed and consists entirely of concrete and ornamental landscaping.

Common wildlife species observed within developed communities on the Project site include dark-eyed junco, house finch, and common raven.

The developed habitat accounts for approximately 1.86 acres on the 11.87-acre Project site.

#### **Helipad and Flight Path Alternative**

On September 30, 2022, Sequoia staff conducted a survey of the Helipad Flight Path Alternative site and characterized the vegetation present. During the survey, the biologist also documented plant and wildlife species observed on the Project site. Nomenclature used for plant names follows *The Jepson Manual, Second Edition* (Baldwin et al. 2012), while nomenclature used for wildlife follows CDFW's *Complete list of amphibian, reptile, bird, and mammal species in California* (2016).

#### **6.2.1.4 Jeffrey Pine Forest and Woodland Alliance**

The flight path area is dominated by a young stand of assumed planted Jeffrey pines (*Pinus jeffreyi*) managed by a local timber company. The habitat meets the criteria for Jeffrey Pine Forest and Woodland Alliance, but it is a semi-natural stand, as it appears to be a plantation with relatively uniform species composition and age. Jeffrey pines dominate the Project area and are accompanied by a shrubby and herbaceous understory, consisting of Sierra gooseberry (*Ribes montigenum*), big sagebrush (*Artemisia tridentata*), tarragon (*Artemisia dracunculus*), dwarf lupine (*Lupinus lapidicola*), yellow rabbitbrush (*Chrysothamnus viscidiflorus* ssp. *puberulus*), pinewoods horkelia (*Horkelia fusca*), silverleaf phacelia (*Phacelia hastata*), California helianthella (*Helianthella californica*), woolly mule's ears (*Wyethia mollis*), and Oregon grape (*Berberis aquifolium*).

Common wildlife species observed within ruderal communities on the Project site include American robin (*Turdus migratorius*), Steller's jay (*Cyanocitta stelleri*), dark-eyed junco (*Junco hyemalis*), house finch (*Haemorhous mexicanus*), common raven (*Corvus corax*), downy woodpecker (*Picoides pubescens*), mountain chickadee (*Poecile gambeli*), northern flicker (*Colaptes auratus*) and western fence lizard (*Sceloporus occidentalis*).

The planted Jeffrey Pine Forest and Woodland Alliance accounts for virtually all of the 5.82-acre site.



Document Path: E:\Dropbox (Sequoia Ecological)\GIS\Projects\Building\_Rx\SenecaHealthcareDistrict\SenecaHealthcareDistrict\_AH.aprx

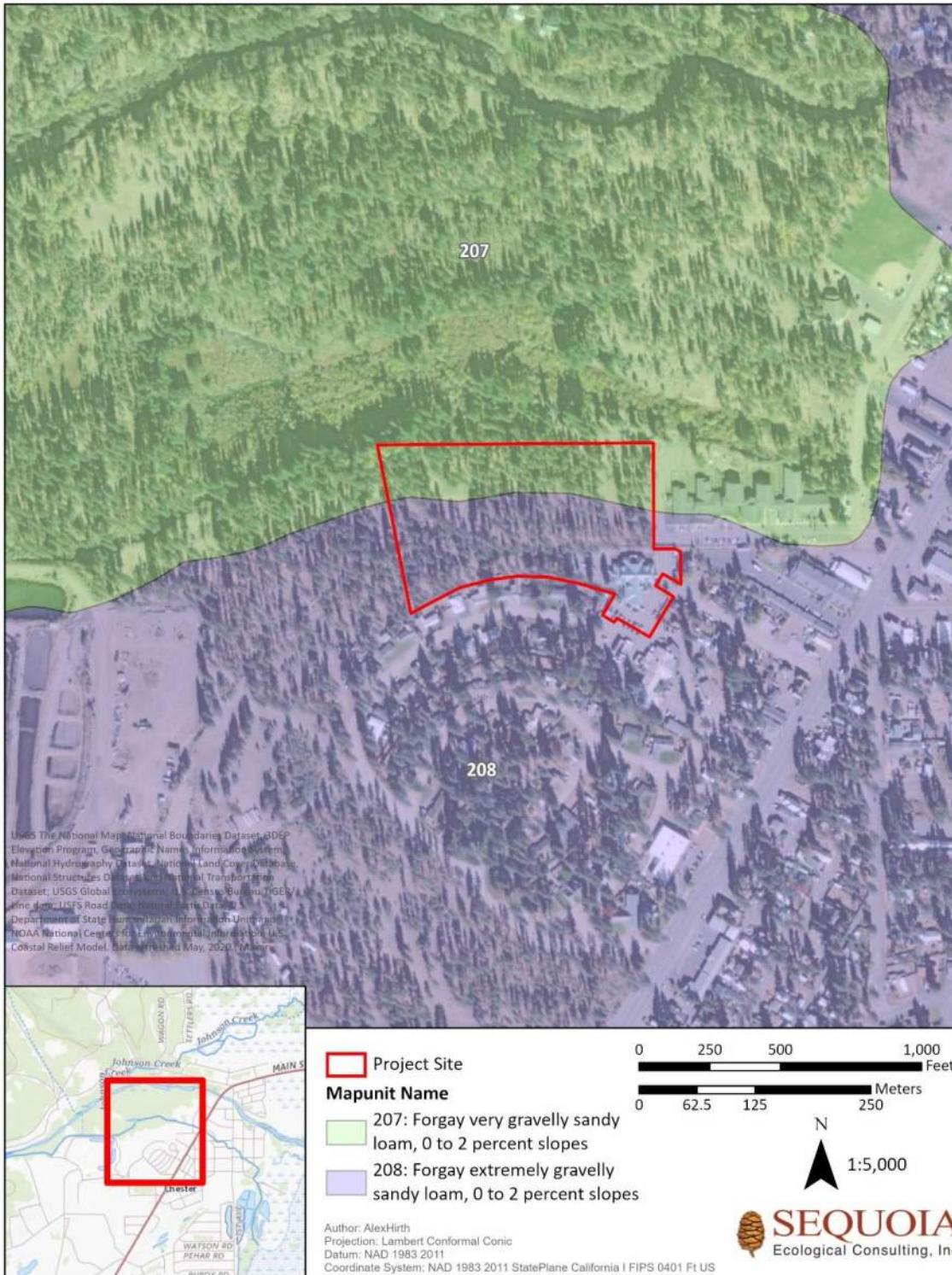
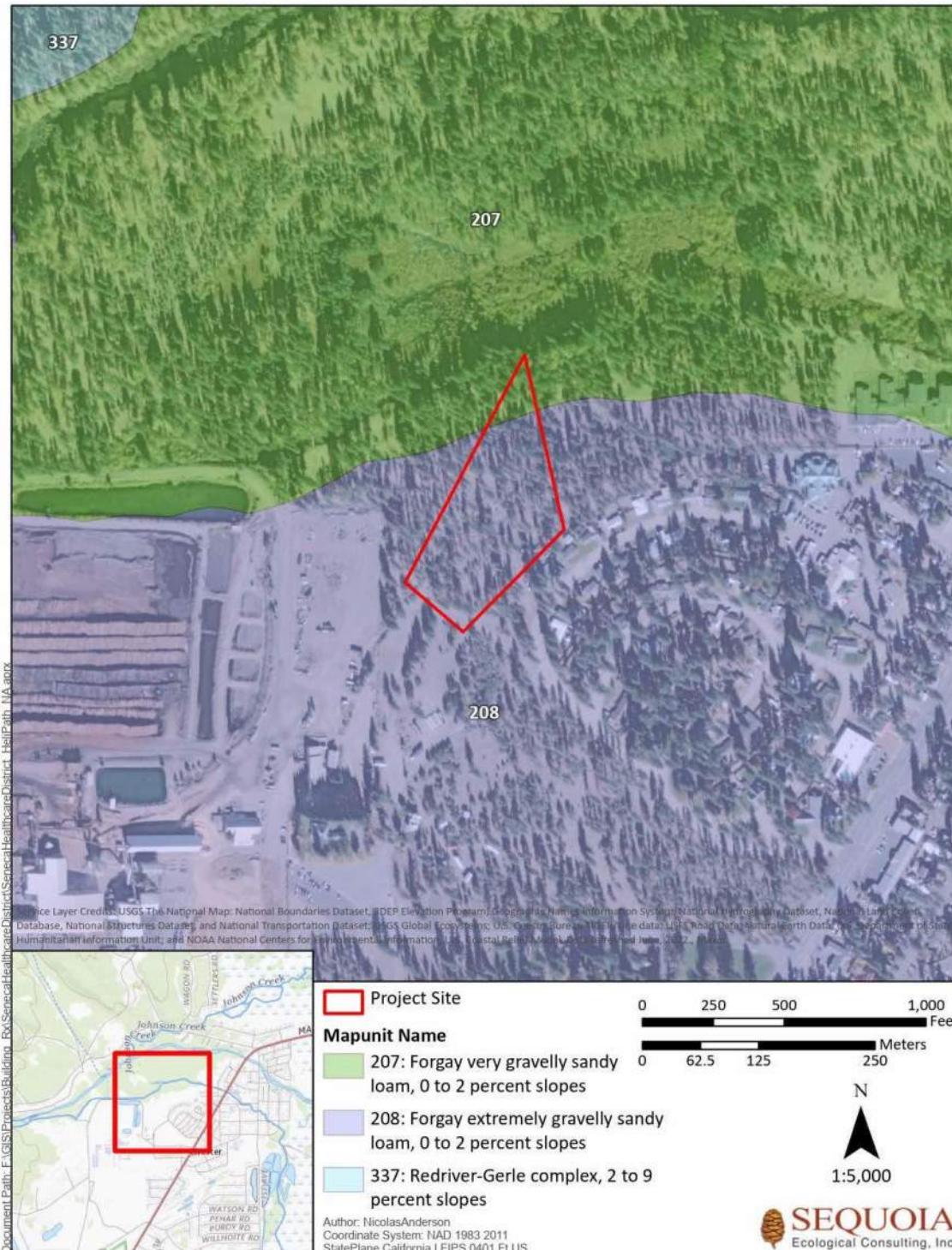
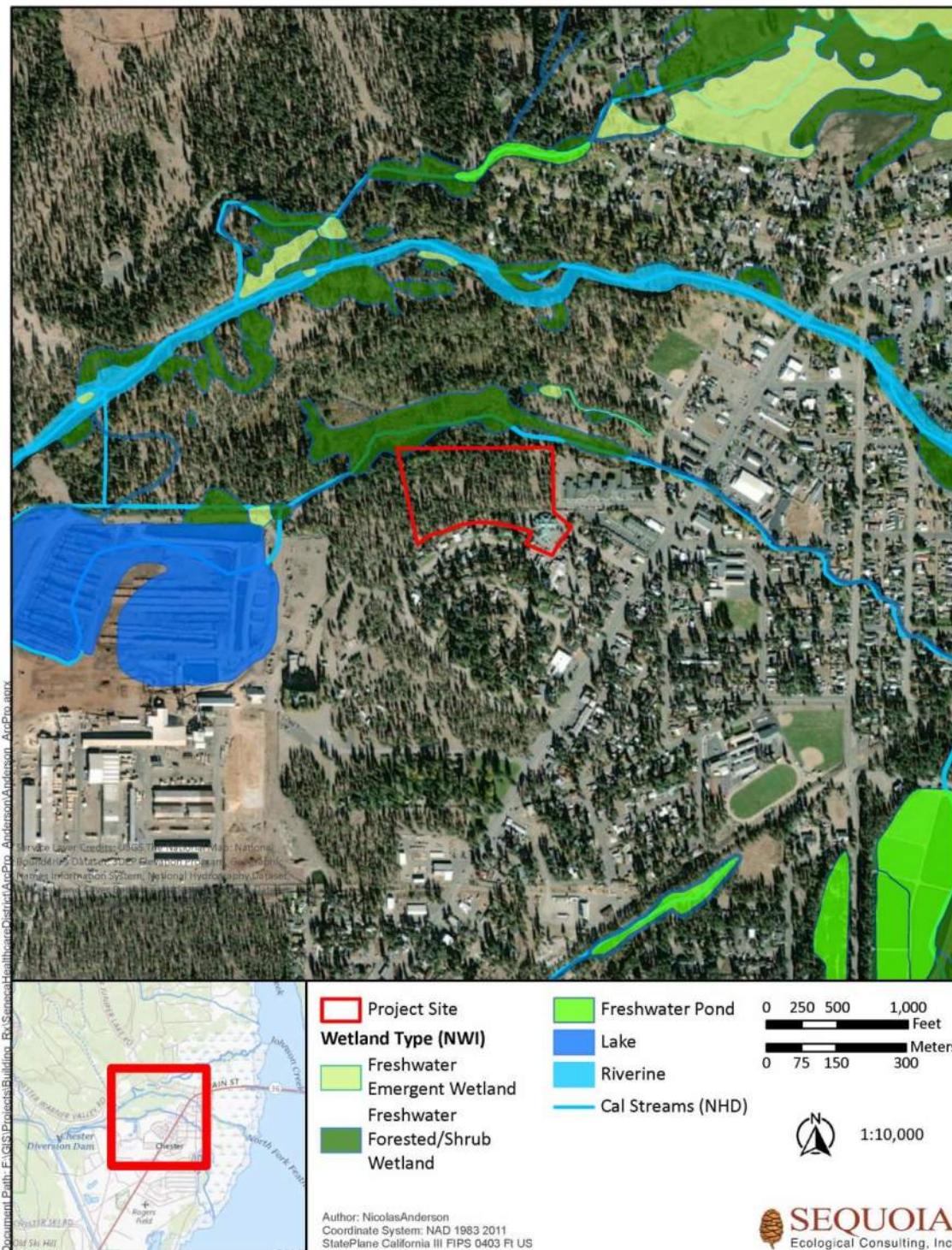


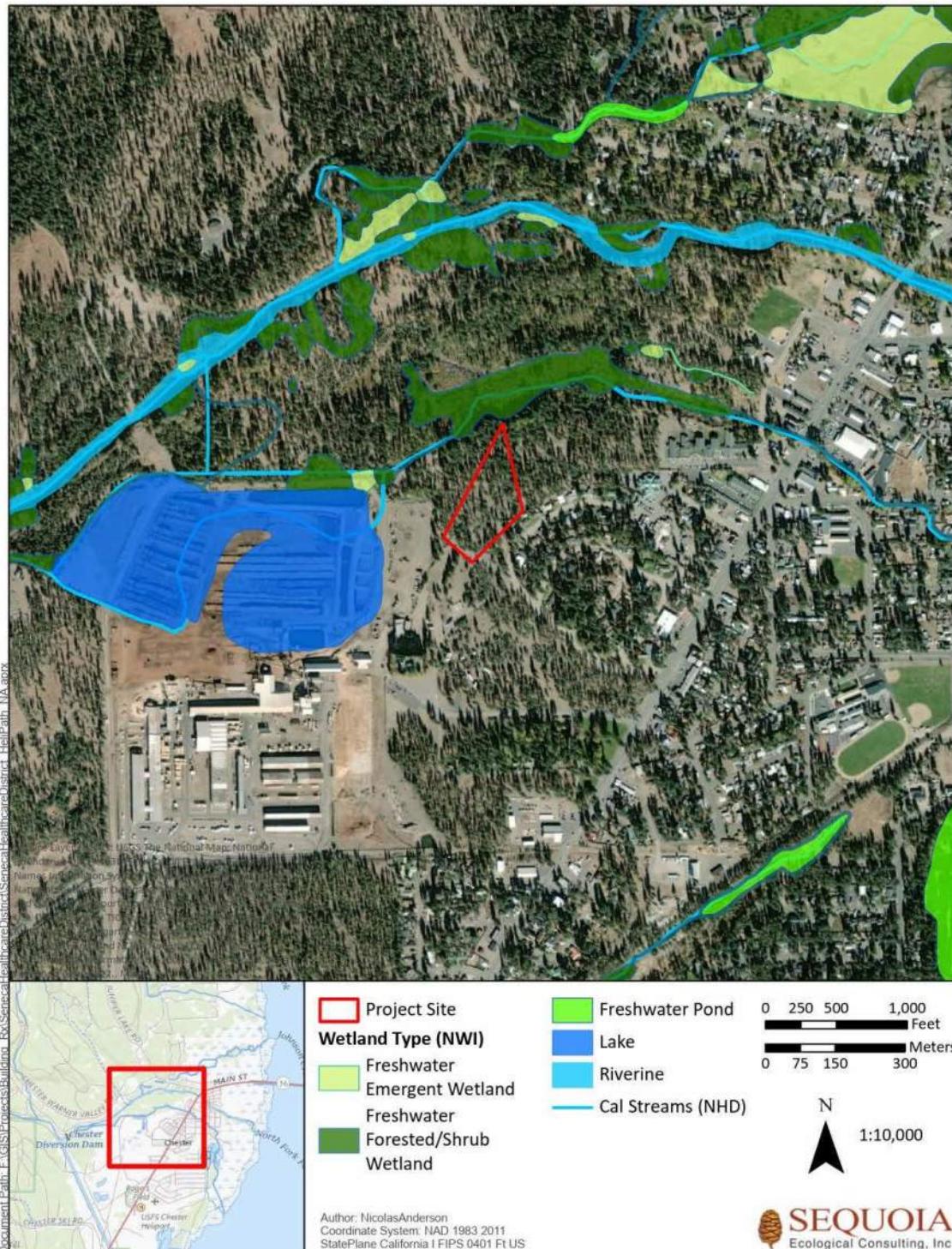
Figure 8. Soil Types on the Seneca Healthcare Facility Expansion Project Site.



**Figure 9.** Soil Types on the Seneca Healthcare Facility Proposed Helicopter Approach.



**Figure 10.** USFWS National Wetlands Inventory (NWI) on the Seneca Healthcare Facility Expansion Project Site.



**Figure 11.** USFWS National Wetlands Inventory (NWI) on the Seneca Healthcare Facility Proposed Helicopter Approach.



### ***6.2.2 Wildlife Corridors***

Wildlife corridors are habitats that provide connectivity between natural communities otherwise separated by urbanization and other development. Wildlife corridors provide access for animals to travel between these communities for seasonal migration, access to overwintering/summering habitat, and breeding, etc. They also allow animals to move away from natural disasters and other forms of habitat loss, as well as to recolonize habitats previously extirpated. Wildlife corridors provide opportunities to breed, forage, migrate/emigrate, disperse, and forage (Beier and Loe 1992).

#### **Healthcare Facility Expansion Project**

Overall, the Project site shows signs of regular disturbance due to historic and present use for logging. Active construction may temporarily interfere with the movement of native wildlife within this wildlife corridor; however, no permanent structures or barriers to movement along the river channel will occur owing to the proposed Project. In addition, as currently planned, the proposed Project will have no adverse effects on fish movement along this river.

#### **Helipad and Flight Path Alternative**

Overall, the flight path site shows signs of regular disturbance due to historic and present use for logging and mining. Active construction may temporarily interfere with the movement of native wildlife within this wildlife corridor; however, no permanent structures or barriers to movement will occur as the result of the proposed Project.

### ***6.2.3 Special-Status Plants***

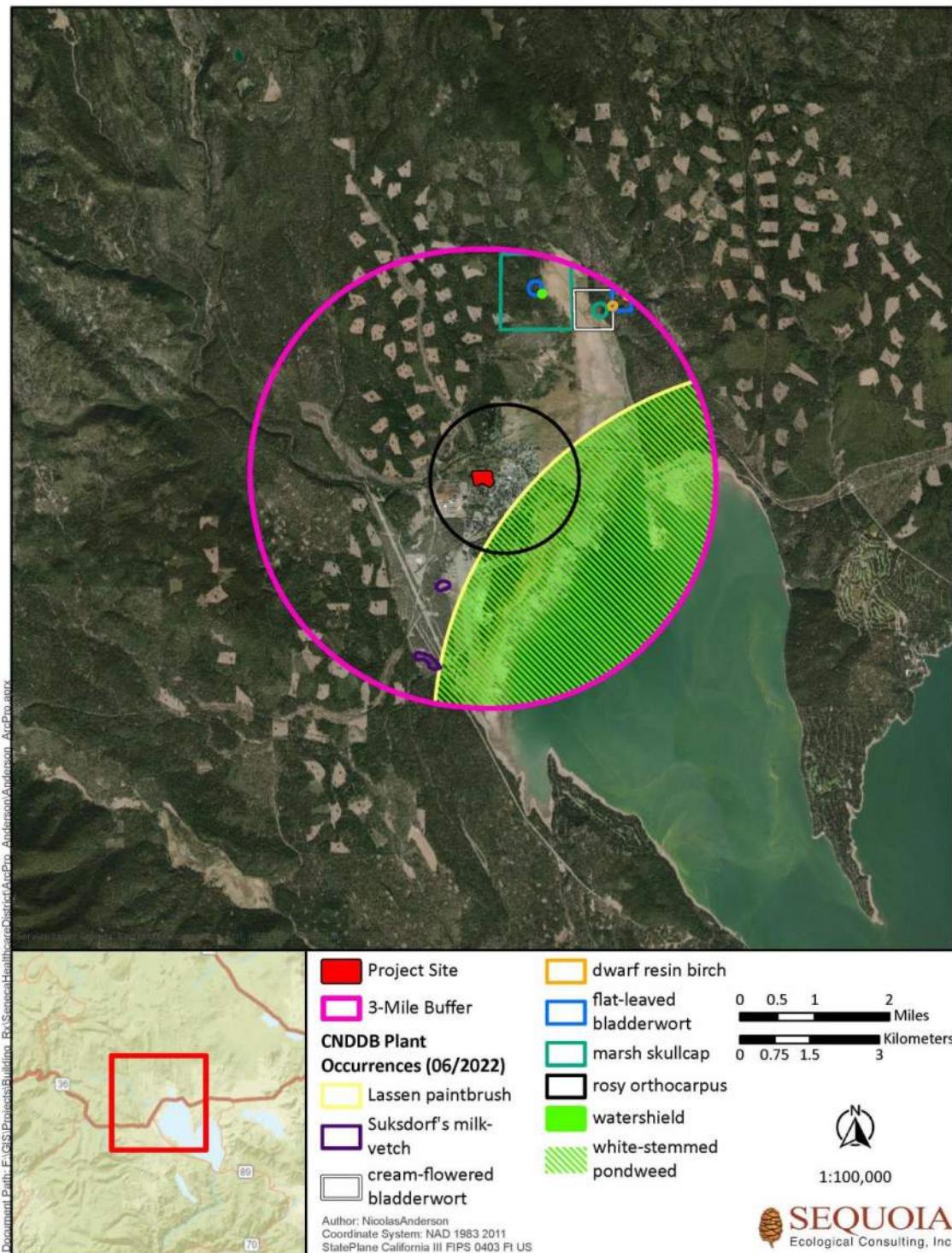
#### **Healthcare Facility Expansion Project**

Figure 12 provides a graphical illustration of special-status plant species occurrences within 3 miles of the Project site. Table 1 provides an assessment of special-status plant species' potential to occur on the Project site. Thirty-nine (39) special-status plants have been previously documented within 3 miles of the Project site; however, no special-status plants have been observed or mapped there. Sequoia analyzed the potential to occur for these plant species, as well as species included in CNPS and IPaC resource lists during the desktop review. A number of these species require specialized habitats such as natural upper and lower montane coniferous forests, chaparral, scrub, meadows, seeps, vernal pools, bogs and fens, and marshes and swamps that are not found on the Project site. Due to anthropogenic disturbance, lack of suitable habitat and soil types, and/or lack of known/recent occurrences in the Project vicinity, none of the 39 special-status plant species are expected to occur on the Project site. However, **floristic surveys are recommended during appropriate blooming periods to prove absence.**

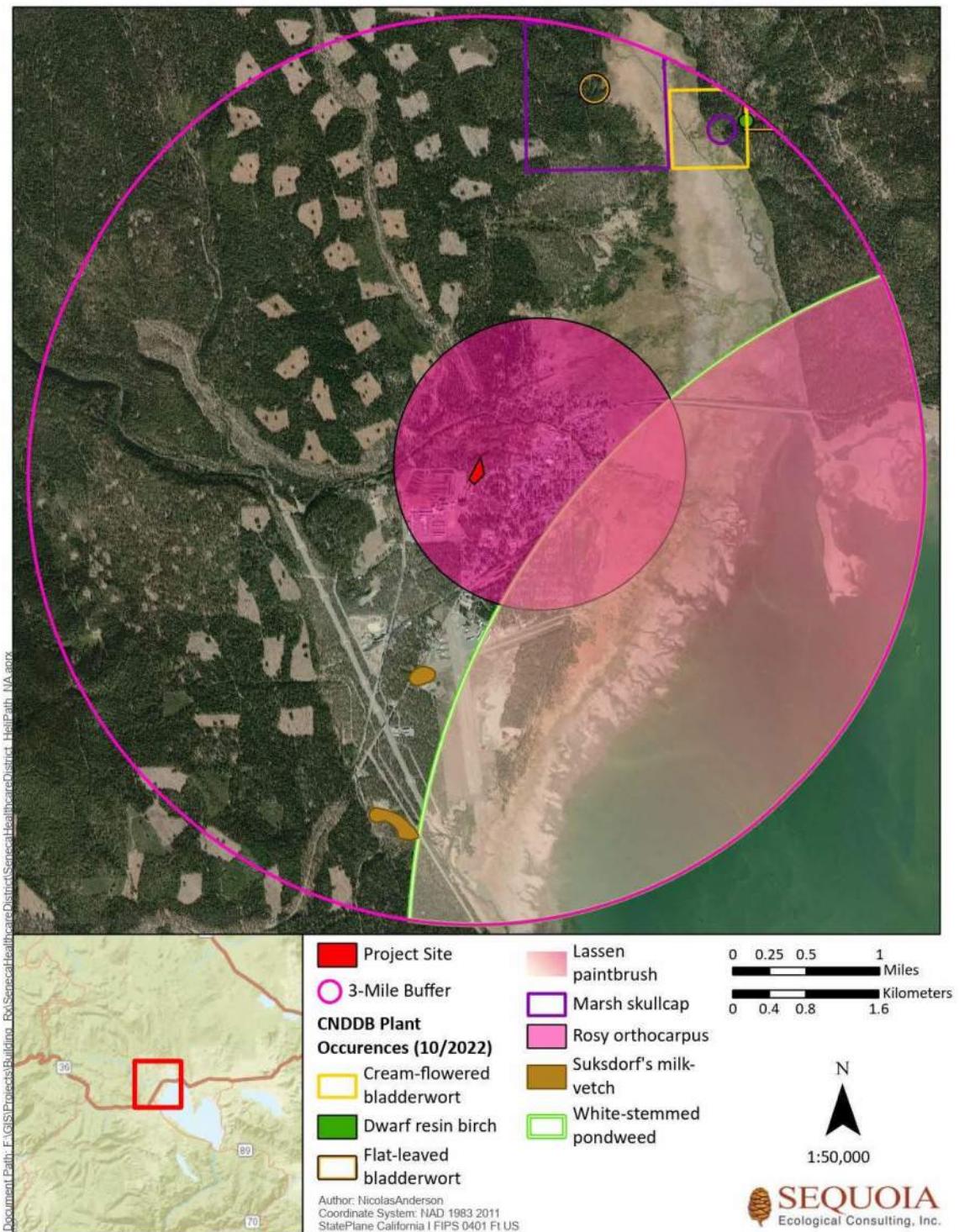


### Helipad and Flight Path Alternative

Figure 13 provides a graphical illustration of special-status plant species occurrences within 3 miles of the flight path alternative. Table 2 provides an assessment of special-status plant species' potential to occur on the alternative site. Thirty-nine (39) special-status plants have been previously documented within 3 miles of the site; however, no special-status plants have been observed or mapped there. Sequoia analyzed the potential to occur for these plant species, as well as species included in CNPS and IPaC resource lists during the desktop review. A number of these species require specialized habitats such as natural upper and lower montane coniferous forests, chaparral, scrub, meadows, seeps, vernal pools, bogs and fens, and marshes and swamps that are not found on the Project site. Due to anthropogenic disturbance, lack of suitable habitat and soil types, and/or lack of known/recent occurrences in the Project vicinity, none of the 39 special-status plant species are expected to occur on the Project site. However, **floristic surveys are recommended during appropriate blooming periods to prove absence.**



**Figure 12.** Closest Known Records for Special-Status Plant Species Within 3 Miles of the Seneca Healthcare Facility Expansion Project Site.



**Figure 13.** Closest Known Records for Special-Status Plant Species Within 3 Miles of the Seneca Healthcare Facility Proposed Helicopter Approach.



**Table 1.** Special-Status Plant Species with Potential to Occur on the Seneca Healthcare Facility Expansion Project Site.

Scientific Name	Common Name	Listed Status	Habitat Requirements	Potential for Occurrence
<i>Boechera constancei</i>	Constance's rockcress	1B.1	Occurs in chaparral and lower and upper montane coniferous forests at elevations of 3,200 to 6,645 feet MSL. Blooms from May through July.	Unlikely. Only marginally suitable habitat occurs on the Project site.
<i>Eriogonum spectabile</i>	Barron's buckwheat	1B.1	Occurs in upper montane coniferous forest at elevations of 6,595 to 6,725 feet MSL. Blooms from July to September.	None. No suitable habitat occurs on the Project site.
<i>Orcuttia tenuis</i>	slender Orcutt grass	1B.1, FT, CE	Occurs in vernal pools at elevations of 115 to 5,775 feet. Blooms from May through October.	None. No suitable habitat occurs on the Project site.
<i>Astragalus pulsiferae</i> var. <i>suksdorffii</i>	Suksdorf's milk-vetch	1B.2	Occurs in Great Basin scrub, lower montane coniferous forest, and in pinyon and juniper woodland at elevations of 4,265 to 6,560 feet MSL. Blooms from May through August.	None. No suitable habitat occurs on the Project site.
<i>Oreostemma elatum</i>	tall alpine-aster	1B.2	Occurs in bogs and fens, meadows and seeps, and upper montane coniferous forests at elevations of 3,295 to 6,890 feet MSL. Blooms from June through August.	None. No suitable habitat occurs on the Project site.
<i>Penstemon personatus</i>	closed-throated beardtongue	1B.2	Occurs in chaparral and in lower and upper montane coniferous forests at elevations of 3,495 to 6,955 feet MSL. Blooms from June through October.	Unlikely. Only marginally suitable habitat occurs on the Project site.
<i>Pyrrocoma lucida</i>	sticky pyrrocoma	1B.2	Occurs in great basin scrub, lower montane coniferous forest, and in meadows and seeps at elevations of 2,295 to 6,400 feet MSL. Blooms from July through October.	None. No suitable habitat occurs on the Project site.
<i>Sedum albomarginatum</i>	Feather River stonecrop	1B.2	Occurs in chaparral and lower montane coniferous forest at elevations of 885 to 6,400 feet MSL. Blooms from May through June.	Unlikely. Only marginally suitable habitat occurs on the Project site.
<i>Silene occidentalis</i> ssp. <i>longistipitata</i>	long-stiped campion	1B.2	Occurs in chaparral and lower and upper coniferous forests at elevations of 3,280 to 6,560 feet MSL. Blooms from June through August.	Unlikely. Only marginally suitable habitat occurs on the Project site.
<i>Carex davyi</i>	Davy's sedge	1B.3	Occurs in subalpine coniferous forest and upper montane coniferous forests at elevations of 4,920 to 10,500 feet MSL. Blooms from May through August.	None. No suitable habitat occurs on the Project site.



Scientific Name	Common Name	Listed Status	Habitat Requirements	Potential for Occurrence
<i>Castilleja lassenensis</i>	Lassen paintbrush	1B.3	Occurs in meadows and seeps, and in subalpine coniferous forests at elevations of 3,135 to 10,235 feet. Blooms from June through September.	None. No suitable habitat occurs on the Project site.
<i>Erigeron lassenianus</i> var. <i>deficiens</i>	Plumas rayless daisy	1B.3	Occurs in lower montane coniferous forests at elevations of 4,460 to 6,495 feet MSL. Blooms from June through September.	Unlikely. Only marginally suitable habitat occurs on the Project site.
<i>Botrychium montanum</i>	western goblin	2B.1	Occurs in lower and upper montane coniferous forest, and in meadows and seeps at elevations of 4,805 to 7,155 feet MSL. Blooms from July to September.	None. No suitable habitat occurs on the Project site. Project site is out of elevation range for species.
<i>Scheuchzeria palustris</i>	American scheuchzeria	2B.1	Occurs in bogs and fens, and in marshes and swamps at elevations of 4,495 to 6,560 feet MSL. Blooms from July through August.	None. No suitable habitat occurs on the Project site.
<i>Betula glandulosa</i>	dwarf resin birch	2B.2	Occurs in bogs and fens, lower montane coniferous forest, marshes and swamps, meadows and seeps, and in subalpine coniferous forest at elevations of 4,265 to 7,545 feet MSL. Blooms from May through July.	None. Only marginally suitable habitat occurs on the Project site, and Project site is out of range of elevation for species.
<i>Botrychium crenulatum</i>	scalloped moonwort	2B.2	Occurs in bogs and fens, lower montane coniferous forest, marshes and swamps, meadows and seeps, and in upper montane coniferous forests at elevations of 4,160 to 10,760 feet MSL. Blooms from June through September.	Unlikely. Only marginally suitable habitat occurs on the Project site.
<i>Botrychium minganense</i>	Mingan moonwort	2B.2	Occurs in bogs and fens, lower and upper montane coniferous forest, and in meadows and seeps at elevations of 4,775 to 7,155 feet MSL. Blooms from July to September.	None. No suitable habitat occurs on the Project site. Project site is out of elevation range for species.
<i>Carex limosa</i>	mud sedge	2B.2	Occurs in bogs and fens, lower and upper montane coniferous forest, marshes and swamps, and in meadows and seeps at elevations of 3,935 to 8,860 feet MSL. Blooms from June through August.	Unlikely. Project site can be considered lower montane coniferous forest; however, marshes, swamps, meadows, and seeps are absent.
<i>Meesia uliginosa</i>	broad-nerved hump moss	2B.2	Occurs in bogs and fens, meadows and seeps, subalpine coniferous forest, and in upper montane coniferous forest at elevations of 3,970 to 9,200 feet MSL. Blooms from July through October.	None. No suitable habitat occurs on the Project site.



Scientific Name	Common Name	Listed Status	Habitat Requirements	Potential for Occurrence
<i>Orthocarpus bracteosus</i>	rosy orthocarpus	2B.2	Occurs in meadows and seeps at elevations of 3,380 to 6,070 feet MSL. Blooms from June through September.	None. No suitable habitat occurs on the Project site.
<i>Rhamnus alnifolia</i>	alder buckthorn	2B.2	Occurs in lower and upper montane coniferous forest, meadows and seeps, and in riparian scrub at elevations of 4,495 to 6,990 feet MSL. Blooms from May through July.	None. No suitable habitat occurs on the Project site. Project site is out of elevation range for species.
<i>Rhynchospora alba</i>	white beaked-rush	2B.2	Occurs in bogs and fens, marshes and swamps, and meadows and seeps at elevations of 195 to 6,695 feet MSL. Blooms from June through August.	None. No suitable habitat occurs on the Project site.
<i>Scutellaria galericulata</i>	marsh skullcap	2B.2	Occurs in lower montane coniferous forest, marshes and swamps, and in meadows and seeps at elevations of 0 to 6,890 feet MSL. Blooms from June through September.	Unlikely. Project site can be considered lower montane coniferous forest; however, meadows and seeps are absent.
<i>Stellaria longifolia</i>	long-leaved starwort	2B.2	Occurs in bogs and fens, meadows and seeps, riparian woodland, and in upper montane coniferous forest at elevations of 2,955 to 6,005 feet MSL. Blooms from May through August.	Unlikely. Marginally suitable habitat occurs at the northwest corner of the Project site, but no individuals of this species were observed.
<i>Utricularia intermedia</i>	flat-leaved bladderwort	2B.2	Occurs in bogs and fens, marshes and swamps, meadows and seeps, and in vernal pools at elevations of 3,935 to 8,860 feet MSL. Blooms from July through August.	None. No suitable habitat occurs on the Project site.
<i>Utricularia ochroleuca</i>	cream-flowered bladderwort	2B.2	Occurs in marshes and swamps, and in meadows and seeps at elevations of 4,710 to 4,725 feet MSL. Blooms from June through August.	None. No suitable habitat occurs on the Project site.
<i>Botrychium ascendens</i>	upswept moonwort	2B.3	Occurs in lower montane coniferous forest, and inn meadows and seeps at elevations of 3,660 to 9,990 feet MSL. Blooms from June to August.	Unlikely. No meadows or seeps occur on the Project site.
<i>Botrychium pinnatum</i>	northwestern moonwort	2B.3	Occurs in lower and upper montane coniferous forest, and in meadows and seeps at elevations of 5,805 to 6,695 feet MSL. Blooms from July to October.	None. No suitable habitat occurs on the Project site. Project site is out of elevation range for species.
<i>Brasenia schreberi</i>	watershield	2B.3	Occurs in marshes and swamps at elevations of 0 to 7,220 feet MSL. Blooms from June through September.	None. No suitable habitat occurs on the Project site.
<i>Carex lasiocarpa</i>	woolly-fruited sedge	2B.3	Occurs in bogs and fens, and marshes and swamps at elevations of 5,580 to 6,890 feet MSL. Blooms from June through July.	None. No suitable habitat occurs on the Project site.



Scientific Name	Common Name	Listed Status	Habitat Requirements	Potential for Occurrence
<i>Carex petasata</i>	Liddon's sedge	2B.3	Occurs in broad-leaved upland forest, lower montane coniferous forest, meadows and seeps, and pinyon and juniper woodland at elevations of 1,970 to 10,895 feet MSL. Blooms from May through July.	None. No suitable habitat occurs on the Project site.
<i>Drosera anglica</i>	English sundew	2B.3	Occurs in bogs and fens, and meadows and seeps at elevations of 4,265 to 7,400 feet MSL. Blooms from June through September.	None. No suitable habitat occurs on the Project site.
<i>Epilobium palustre</i>	marsh willowherb	2B.3	Occurs in bogs and fens, and in meadows and seeps at an elevation range of 6,400-7,875 feet MSL. Blooms July to August.	None. No suitable habitat occurs on the Project site.
<i>Erigeron nivalis</i>	snow fleabane daisy	2B.3	Occurs in alpine boulder and rock fields, meadows and seeps, and subalpine coniferous forest at elevations of 5,695 to 9,515 feet MSL. Blooms from July through August.	None. No suitable habitat occurs on the Project site.
<i>Eriogonum pyrolifolium</i> var. <i>pyrolifolium</i>	pyrola-leaved buckwheat	2B.3	Occurs in alpine boulder and rock fields at elevations of 5,495 to 10,500 feet MSL. Blooms from July through September.	None. No suitable habitat occurs on the Project site.
<i>Juncus dudleyi</i>	Dudley's rush	2B.3	Occurs in lower montane coniferous forests at elevations of 1,495 to 6,560 feet MSL. Blooms from July through August.	Moderate. Habitat on-site could be classified as lower montane coniferous forest and falls within the elevation range.
<i>Lysimachia thyrsiflora</i>	tufted loosestrife	2B.3	Occurs in marshes and swamps, meadows and seeps, and in upper montane coniferous forest at elevations of 3,200 to 5,495 feet MSL. Blooms from May through August.	None. No suitable habitat occurs on the Project site.
<i>Potamogeton praelongus</i>	white-stemmed pondweed	2B.3	Occurs in marshes and swamps at elevations of 5,905 to 9,845 feet MSL. Blooms from July through August.	None. No suitable habitat occurs on the Project site.
<i>Schoenoplectus subterminalis</i>	water bulrush	2B.3	Occurs in bogs and fens, and in marshes and swamps at elevations of 2,460 to 7,380 feet MSL. Blooms from June through September.	None. No suitable habitat occurs on the Project site.

*Key to status:*

FT=Federally listed as threatened species

CE=California listed as endangered species

CR=California rare

CNPS Rare Plant Rank

1A=Plants presumed extirpated in California, and either rare or extinct elsewhere

1B=Plants rare, threatened, or endangered in California, or elsewhere

2A=Plants presumed extirpated in California but common elsewhere

2B=Plants rare, threatened, or endangered in California but more common elsewhere



**Table 2.** Special-Status Plant Species with Potential to Occur on the Collins Pines Proposed Flight Path.

Scientific Name	Common Name	Listed Status	Habitat Requirements	Potential for Occurrence
<i>Boechera constancei</i>	Constance's rockcress	1B.1	Occurs in chaparral and lower and upper montane coniferous forests at elevations of 3,200 to 6,645 feet MSL. Blooms from May through July.	Unlikely. Only marginally suitable habitat occurs on the Project site.
<i>Eriogonum spectabile</i>	Barron's buckwheat	1B.1	Occurs in upper montane coniferous forest at elevations of 6,595 to 6,725 feet MSL. Blooms from July to September.	None. No suitable habitat occurs on the Project site.
<i>Orcuttia tenuis</i>	slender Orcutt grass	1B.1, FT, CE	Occurs in vernal pools at elevations of 115 to 5,775 feet. Blooms from May through October.	None. No suitable habitat occurs on the Project site.
<i>Astragalus pulcherrae</i> var. <i>suksdorfii</i>	Suksdorf's milk-vetch	1B.2	Occurs in Great Basin scrub, lower montane coniferous forest, and in pinyon and juniper woodland at elevations of 4,265 to 6,560 feet MSL. Blooms from May through August.	None. No suitable habitat occurs on the Project site.
<i>Oreostemma elatum</i>	tall alpine-aster	1B.2	Occurs in bogs and fens, meadows and seeps, and upper montane coniferous forests at elevations of 3,295 to 6,890 feet MSL. Blooms from June through August.	None. No suitable habitat occurs on the Project site.
<i>Penstemon personatus</i>	closed-throated beardtongue	1B.2	Occurs in chaparral and in lower and upper montane coniferous forests at elevations of 3,495 to 6,955 feet MSL. Blooms from June through October.	Unlikely. Only marginally suitable habitat occurs on the Project site.
<i>Pyrrocoma lucida</i>	sticky pyrrocoma	1B.2	Occurs in great basin scrub, lower montane coniferous forest, and in meadows and seeps at elevations of 2,295 to 6,400 feet MSL. Blooms from July through October.	None. No suitable habitat occurs on the Project site.
<i>Sedum albomarginatum</i>	Feather River stonecrop	1B.2	Occurs in chaparral and lower montane coniferous forest at elevations of 885 to 6,400 feet MSL. Blooms from May through June.	Unlikely. Only marginally suitable habitat occurs on the Project site.
<i>Silene occidentalis</i> ssp. <i>longistipitata</i>	long-stiped campion	1B.2	Occurs in chaparral and lower and upper coniferous forests at elevations of 3,280 to 6,560 feet MSL. Blooms from June through August.	Unlikely. Only marginally suitable habitat occurs on the Project site.
<i>Carex davyi</i>	Davy's sedge	1B.3	Occurs in subalpine coniferous forest and upper montane coniferous forests at elevations of 4,920 to 10,500 feet MSL. Blooms from May through August.	None. No suitable habitat occurs on the Project site.



Scientific Name	Common Name	Listed Status	Habitat Requirements	Potential for Occurrence
<i>Castilleja lassenensis</i>	Lassen paintbrush	1B.3	Occurs in meadows and seeps, and in subalpine coniferous forests at elevations of 3,135 to 10,235 feet. Blooms from June through September.	None. No suitable habitat occurs on the Project site.
<i>Erigeron lassenianus</i> var. <i>deficiens</i>	Plumas rayless daisy	1B.3	Occurs in lower montane coniferous forests at elevations of 4,460 to 6,495 feet MSL. Blooms from June through September.	Unlikely. Only marginally suitable habitat occurs on the Project site.
<i>Botrychium montanum</i>	western goblin	2B.1	Occurs in lower and upper montane coniferous forest, and in meadows and seeps at elevations of 4,805 to 7,155 feet MSL. Blooms from July to September.	None. No suitable habitat occurs on the Project site. Project site is out of elevation range for species.
<i>Scheuchzeria palustris</i>	American scheuchzeria	2B.1	Occurs in bogs and fens, and in marshes and swamps at elevations of 4,495 to 6,560 feet MSL. Blooms from July through August.	None. No suitable habitat occurs on the Project site.
<i>Betula glandulosa</i>	dwarf resin birch	2B.2	Occurs in bogs and fens, lower montane coniferous forest, marshes and swamps, meadows and seeps, and in subalpine coniferous forest at elevations of 4,265 to 7,545 feet MSL. Blooms from May through July.	None. Only marginally suitable habitat occurs on the Project site, and Project site is out of range of elevation for species.
<i>Botrychium crenulatum</i>	scalloped moonwort	2B.2	Occurs in bogs and fens, lower montane coniferous forest, marshes and swamps, meadows and seeps, and in upper montane coniferous forests at elevations of 4,160 to 10,760 feet MSL. Blooms from June through September.	Unlikely. Only marginally suitable habitat occurs on the Project site.
<i>Botrychium minganense</i>	Mingan moonwort	2B.2	Occurs in bogs and fens, lower and upper montane coniferous forest, and in meadows and seeps at elevations of 4,775 to 7,155 feet MSL. Blooms from July to September.	None. No suitable habitat occurs on the Project site. Project site is out of elevation range for species.
<i>Carex limosa</i>	mud sedge	2B.2	Occurs in bogs and fens, lower and upper montane coniferous forest, marshes and swamps, and in meadows and seeps at elevations of 3,935 to 8,860 feet MSL. Blooms from June through August.	Unlikely. Project site can be considered lower montane coniferous forest; however, marshes, swamps, meadows, and seeps are absent.
<i>Meesia uliginosa</i>	broad-nerved hump moss	2B.2	Occurs in bogs and fens, meadows and seeps, subalpine coniferous forest, and in upper montane coniferous forest at elevations of 3,970 to 9,200 feet MSL. Blooms from July through October.	None. No suitable habitat occurs on the Project site.



Scientific Name	Common Name	Listed Status	Habitat Requirements	Potential for Occurrence
<i>Orthocarpus bracteosus</i>	rosy orthocarpus	2B.2	Occurs in meadows and seeps at elevations of 3,380 to 6,070 feet MSL. Blooms from June through September.	None. No suitable habitat occurs on the Project site.
<i>Rhamnus alnifolia</i>	alder buckthorn	2B.2	Occurs in lower and upper montane coniferous forest, meadows and seeps, and in riparian scrub at elevations of 4,495 to 6,990 feet MSL. Blooms from May through July.	None. No suitable habitat occurs on the Project site. Project site is out of elevation range for species.
<i>Rhynchospora alba</i>	white beaked-rush	2B.2	Occurs in bogs and fens, marshes and swamps, and meadows and seeps at elevations of 195 to 6,695 feet MSL. Blooms from June through August.	None. No suitable habitat occurs on the Project site.
<i>Scutellaria galericulata</i>	marsh skullcap	2B.2	Occurs in lower montane coniferous forest, marshes and swamps, and in meadows and seeps at elevations of 0 to 6,890 feet MSL. Blooms from June through September.	Unlikely. Project site can be considered lower montane coniferous forest; however, meadows and seeps are absent.
<i>Stellaria longifolia</i>	long-leaved starwort	2B.2	Occurs in bogs and fens, meadows and seeps, riparian woodland, and in upper montane coniferous forest at elevations of 2,955 to 6,005 feet MSL. Blooms from May through August.	Unlikely. Marginally suitable habitat occurs at the northwest corner of the Project site, but no individuals of this species were observed.
<i>Utricularia intermedia</i>	flat-leaved bladderwort	2B.2	Occurs in bogs and fens, marshes and swamps, meadows and seeps, and in vernal pools at elevations of 3,935 to 8,860 feet MSL. Blooms from July through August.	None. No suitable habitat occurs on the Project site.
<i>Utricularia ochroleuca</i>	cream-flowered bladderwort	2B.2	Occurs in marshes and swamps, and in meadows and seeps at elevations of 4,710 to 4,725 feet MSL. Blooms from June through August.	None. No suitable habitat occurs on the Project site.
<i>Botrychium ascendens</i>	upswept moonwort	2B.3	Occurs in lower montane coniferous forest, and inn meadows and seeps at elevations of 3,660 to 9,990 feet MSL. Blooms from June to August.	Unlikely. No meadows or seeps occur on the Project site.
<i>Botrychium pinnatum</i>	northwestern moonwort	2B.3	Occurs in lower and upper montane coniferous forest, and in meadows and seeps at elevations of 5,805 to 6,695 feet MSL. Blooms from July to October.	None. No suitable habitat occurs on the Project site. Project site is out of elevation range for species.
<i>Brasenia schreberi</i>	watershield	2B.3	Occurs in marshes and swamps at elevations of 0 to 7,220 feet MSL. Blooms from June through September.	None. No suitable habitat occurs on the Project site.
<i>Carex lasiocarpa</i>	woolly-fruited sedge	2B.3	Occurs in bogs and fens, and marshes and swamps at elevations of 5,580 to 6,890 feet MSL. Blooms from June through July.	None. No suitable habitat occurs on the Project site.



Scientific Name	Common Name	Listed Status	Habitat Requirements	Potential for Occurrence
<i>Carex petasata</i>	Liddon's sedge	2B.3	Occurs in broad-leaved upland forest, lower montane coniferous forest, meadows and seeps, and pinyon and juniper woodland at elevations of 1,970 to 10,895 feet MSL. Blooms from May through July.	None. No suitable habitat occurs on the Project site.
<i>Drosera anglica</i>	English sundew	2B.3	Occurs in bogs and fens, and meadows and seeps at elevations of 4,265 to 7,400 feet MSL. Blooms from June through September.	None. No suitable habitat occurs on the Project site.
<i>Epilobium palustre</i>	marsh willowherb	2B.3	Occurs in bogs and fens, and in meadows and seeps at an elevation range of 6,400-7,875 feet MSL. Blooms July to August.	None. No suitable habitat occurs on the Project site.
<i>Erigeron nivalis</i>	snow fleabane daisy	2B.3	Occurs in alpine boulder and rock fields, meadows and seeps, and subalpine coniferous forest at elevations of 5,695 to 9,515 feet MSL. Blooms from July through August.	None. No suitable habitat occurs on the Project site.
<i>Eriogonum pyrolifolium</i> var. <i>pyrolifolium</i>	pyrola-leaved buckwheat	2B.3	Occurs in alpine boulder and rock fields at elevations of 5,495 to 10,500 feet MSL. Blooms from July through September.	None. No suitable habitat occurs on the Project site.
<i>Juncus dudleyi</i>	Dudley's rush	2B.3	Occurs in lower montane coniferous forests at elevations of 1,495 to 6,560 feet MSL. Blooms from July through August.	Moderate. Habitat on-site could be classified as lower montane coniferous forest and falls within the elevation range.
<i>Lysimachia thyrsiflora</i>	tufted loosestrife	2B.3	Occurs in marshes and swamps, meadows and seeps, and in upper montane coniferous forest at elevations of 3,200 to 5,495 feet MSL. Blooms from May through August.	None. No suitable habitat occurs on the Project site.
<i>Potamogeton praelongus</i>	white-stemmed pondweed	2B.3	Occurs in marshes and swamps at elevations of 5,905 to 9,845 feet MSL. Blooms from July through August.	None. No suitable habitat occurs on the Project site.
<i>Schoenoplectus subterminalis</i>	water bulrush	2B.3	Occurs in bogs and fens, and in marshes and swamps at elevations of 2,460 to 7,380 feet MSL. Blooms from June through September.	None. No suitable habitat occurs on the Project site.

**Key to status:**

FT=Federally listed as threatened species

CE=California listed as endangered species

CR=California rare

CNPS Rare Plant Rank

1A=Plants presumed extirpated in California, and either rare or extinct elsewhere

1B=Plants rare, threatened, or endangered in California, or elsewhere

2A=Plants presumed extirpated in California but common elsewhere



2B=Plants rare, threatened, or endangered in California but more common elsewhere

*Note: CNPS ranks 3 and 4 were excluded from this analysis.*

#### **6.2.4 Special-Status Wildlife**

##### Healthcare Facility Expansion Project

Figure 14 provides a graphical illustration of special-status wildlife species occurrences within 3 miles of the Project site. Table 3 provides an assessment of potential to occur for special-status wildlife species on the Project site. Twelve (12) special-status wildlife species have been previously documented (CNDDDB occurrences) within 3 miles. Sequoia analyzed the potential to occur for these wildlife species, as well as species included in Calfish, Pisces, NMFS, and IPaC resource lists during the desktop review. A number of these species require specialized habitat such as lakes, pools, ponds, meadows, grassland, and older growth forests that are not found on the Project site. Due to lack of suitable habitat and/or lack of recent occurrences in the Project vicinity, ten (10) special-status wildlife species are not expected to occur and are therefore not discussed further in this analysis. These ten (10) species are: Sierra Nevada red fox, northern goshawk, greater sandhill crane, southern long-toed salamander, Sierra Nevada yellow-legged frog, California red-legged frog (*Rana draytonii*), Cascades frog, delta smelt (*Hypomesus transpacificus*), western bumblebee (*Bombus occidentalis*), and obscure bumblebee (*Bombus caliginosus*). Descriptions and potential for occurrence of the remaining two (2) special-status wildlife species, bald eagle and osprey, are provided in more detail below.

##### Helipad and Flight Path Alternative

Figure 15 provides a graphical illustration of special-status wildlife species occurrences within 3 miles of the Helipad Flight Path Alternative site. Table 4 provides an assessment of potential to occur for special-status wildlife species on the site. Eleven (11) special-status wildlife species have been previously documented (CNDDDB occurrences) within 3 miles. Sequoia analyzed the potential to occur for these wildlife species, as well as species included in Calfish, Pisces, NMFS, and IPaC resource lists during the desktop review. A number of these species require specialized habitat such as lakes, pools, ponds, meadows, grassland, and older growth forests that are not found on the Project site. Due to lack of suitable habitat and/or lack of recent occurrences in the Project vicinity, nine (9) special-status wildlife species are not expected to occur and are therefore not discussed further in this analysis. These ten (10) species are: Sierra Nevada red fox, northern goshawk, greater sandhill crane, southern long-toed salamander, Sierra Nevada yellow-legged frog, Cascades frog, delta smelt (*Hypomesus transpacificus*), western bumblebee (*Bombus occidentalis*), and obscure bumblebee (*Bombus caliginosus*). Descriptions and potential for occurrence of the remaining two (2) special-status wildlife species, bald eagle and osprey, are provided in more detail below.



#### 6.2.4.1 Bald Eagle

The bald eagle (nesting and nonbreeding/wintering) was delisted from the federal Endangered Species Act on August 8, 2007, in the lower 48 states (72 FR 37345). Effective May 1, 2008, the Sonoran Desert area of central Arizona (Sonoran Desert DPS) was federally listed as threatened. This DPS covers: (1) Yavapai in northern Mexico; Gila, Graham, Pinal, and Maricopa counties in Arizona; and (2) Southern Mohave County (that portion south and east of the center of Interstate Highway 40 and east of Arizona Highway 95), eastern LaPaz County (that portion east of the centerline of U.S. and Arizona Highways 95), and north of the centerline of Interstate Highway 8 (73 FR 23966). The bald eagle is state listed as endangered and designated as fully protected by CFGC § 3511 (CDFW 2018). Bald eagles are also protected under the Migratory Bird Treaty Act (16 U.S.C. 703-712; MBTA), the Migratory Bird Treaty Reform Act (Division E, Title I, § 143 of the Consolidated Appropriations Act, 2005, PL 108-447; MBTRA), and the Bald Eagle Protection Act (16 U.S.C. 668-668d, 54 Stat. 250).

Bald eagles inhabit forested areas adjacent to large bodies of water, including lakes, reservoirs, rivers, estuaries, and the coastline (Buehler 2000). They are opportunistic and will feed on carrion, but actively prey on a variety of fish, mammals, and birds (Buehler 2000). Breeding begins in early spring in the north and are single-brooded (Baicich and Harrison 2005). Nests are built from sticks and branches in a large tree or a rocky outcrop; bald eagles have also been known to nest on the ground on islands (Baicich and Harrison 2005). Bald eagles winter in temperate areas typically below 1,640 feet in elevation (Baicich and Harrison 2005) throughout California. Roost sites are often located in large conifers in the west near aquatic foraging areas (Baicich and Harrison 2005). Most breeding territories for bald eagles are in northern California, mainly in mountain and foothill forests and woodlands near reservoirs, lakes, and rivers. Bald eagles have also been observed to nest in scattered locations in the central and southern Sierra Nevada mountains and foothills, in several locations from the central Coast Range to inland southern California, and on Santa Catalina Island.

#### Healthcare Facility Expansion Project

The Project site comprises a younger stand of Jeffrey pine with tree sizes only marginally suitable for bald eagle nesting. According to the CNDDDB, there was an occurrence within approximately 0.5 miles of the Project area, but no nest was observed in the vicinity of this occurrence during the June 3, 2022 surveys. With the implementation of a nesting bird survey directly prior to work, **no impacts to bald eagle are anticipated from the proposed Project.**

#### Helipad and Flight Path Alternative

The Helipad Flight Path Alternative site comprises a younger stand of Jeffrey pine with tree sizes only marginally suitable for bald eagle nesting. According to the CNDDDB, there was an occurrence within approximately 0.5 miles of the Project area, but no nest was observed in the vicinity of this occurrence during the September 30, 2022 surveys. With the implementation of a nesting bird survey directly prior to work, **no impacts to bald eagle are anticipated from the proposed Alternative.**



#### 6.2.4.2 Osprey

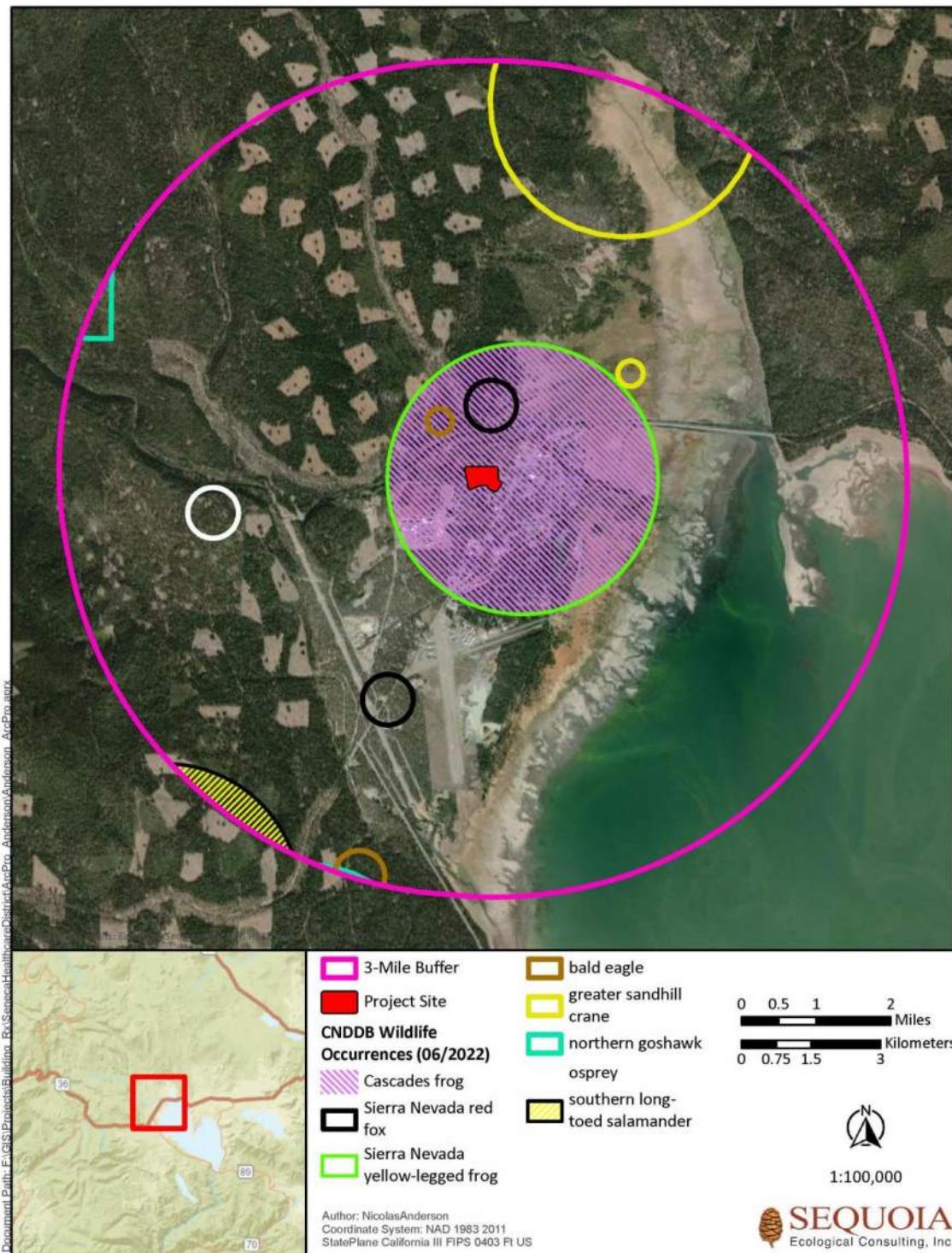
Osprey (*Pandion haliaetus*) nest sites are considered sensitive by the CDFW. Formerly distributed throughout California, this species has declined significantly since the 1940s and is now mainly found in the northern half of the state (Remsen 1978; Roberson and Tenney 1993). Ospreys breed along the coast, in estuaries, freshwater lakes, reservoirs, and large rivers. Nesting habitat usually requires the presence of snags adjacent to or over open water. The large platform nests are built on snags and sometimes on artificial structures (e.g., poles). Ospreys feed primarily on fish (dead or alive), but rodents, birds, and other small vertebrates are also consumed (Ehrlich et al. 1988). Removal of nesting trees, pesticide contamination, and human disturbances (e.g., boating activities) have contributed to this species' decline in California (Remsen 1978).

##### Healthcare Facility Expansion Project

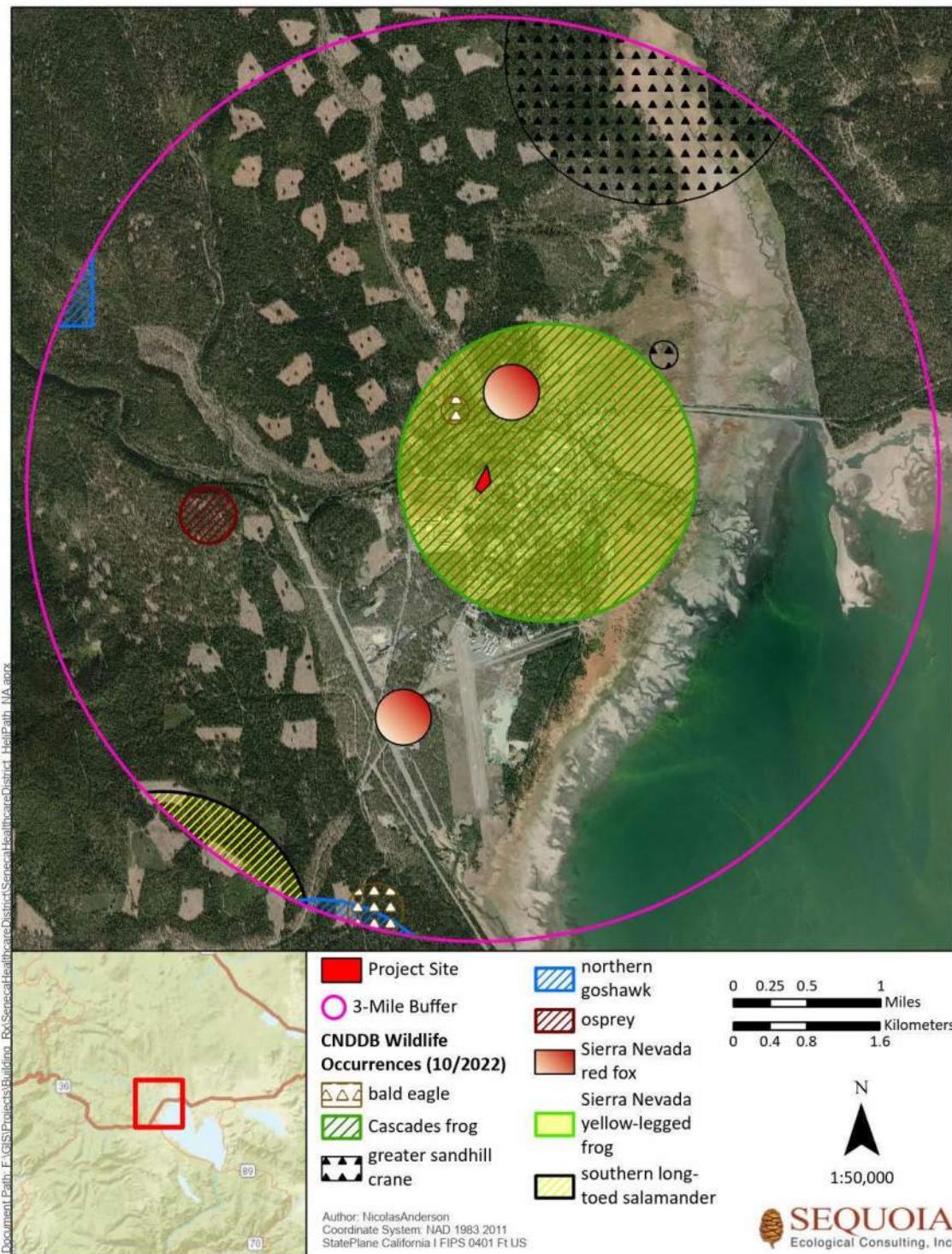
The Project site comprises a younger stand of Jeffrey pine with tree sizes only marginally suitable for osprey nesting. Osprey individuals were observed within the regional context of the Project, but no nests were observed in the vicinity of the Project area during the June 3, 2022 surveys. With the implementation of a nesting bird survey directly prior to work, **no impacts to osprey are anticipated from the proposed Project.**

##### Helipad and Flight Path Alternative

The Flight Path Alternative site comprises a younger stand of Jeffrey pine with tree sizes only marginally suitable for osprey nesting. Osprey individuals were observed within the regional context of the Project, but no nests were observed in the vicinity of the Project area during the September 30, 2022 surveys. With the implementation of a nesting bird survey directly prior to work, **no impacts to osprey are anticipated from the proposed Project.**



**Figure 14.** Closest Known Records for Special-Status Wildlife Species Within 3 Miles of the Seneca Healthcare Expansion Project Site.



**Figure 15.** Closest Known Records for Special-Status Wildlife Species Within 3 Miles of the Seneca Healthcare Expansion Proposed Helicopter Approach.



**Table 3.** Special-Status Wildlife Species with Potential to Occur on the Seneca Healthcare Expansion Project Site.

Scientific Name	Common Name	Listed Status	Habitat Requirements	Potential for Occurrence
<b>Mammals</b>				
<i>Vulpes vulpes necator</i> pop. 1	Sierra Nevada red fox (southern Cascades DPS)	FE (proposed), CT	Occurs in annual grasslands or open stages with scattered shrubby vegetation. Requires loose sandy textured soils for burrowing.	None. No suitable habitat occurs on the Project site.
<b>Birds</b>				
<i>Haliaeetus leucocephalus</i>	bald eagle	CE, FP, BAGEPA	Inhabits forests adjacent to large bodies of water. Nest sites require large trees or rock outcrops.	Moderate potential. Eagle sighted on drive to Project site around 20 miles away. Marginal suitable habitat occurs on the Project site.
<i>Accipiter gentilis</i>	northern goshawk	SSC	Occurs in coniferous forests from 2,500 – 10,000 feet MSL.	Unlikely. No suitable habitat occurs on the Project site.
<i>Grus (=Antigone) canadensis tabida</i>	greater sandhill crane	CT, FP	Occurs in large wetland or dry meadow complexes.	Unlikely. No suitable habitat occurs on the Project site.
<i>Pandion haliaetus</i>	osprey	WL	Occurs near shallow, fish-filled waters, including rivers, lakes, lagoons, swamps, and marshes.	Moderate potential. Species sighted a couple of miles away from the Project site.
<b>Amphibians/Reptiles</b>				
<i>Ambystoma macrodactylum sigillatum</i>	southern long-toed salamander	SSC	Occurs in alpine meadows and high mountain ponds and lakes up to 10,000 feet MSL. Found along northeast Sierra Nevada to Garner Meadows.	None. No suitable habitat occurs on the Project site.
<i>Rana sierrae</i>	Sierra Nevada yellow-legged frog	FE, CT	Occurs between 3,500 – 12,000 feet MSL in Sierra Nevada streams, lakes, and ponds in montane, riparian, lodgepole pine, subalpine conifer, and wet meadow habitats. Breeding habitat requires permanent lakes or ponds that do not freeze to the bottom in winter or dry out in summer.	Unlikely. No suitable breeding habitat occurs on the Project site.
<i>Rana draytonii</i>	California red-legged frog	FT, SSC	Occurs in semi-permanent or permanent water at least 2 feet deep, bordered by emergent or riparian vegetation, and upland grassland, forest, or scrub habitats for aestivation and dispersal.	Unlikely. No suitable breeding, over-summering, or migration/dispersal habitat occurs on the Project site.



Scientific Name	Common Name	Listed Status	Habitat Requirements	Potential for Occurrence
<i>Rana cascadae</i>	Cascades frog	CE (candidate), SSC	Occurs in lakes, ponds, wet meadows, and streams in the Cascades Range. Inhabits moderate to high elevations.	None. No suitable habitat occurs on the Project site.
<b>Fishes</b>				
<i>Hypomesus transpacificus</i>	delta smelt	FT, CE	Endemic to Sacramento-San Joaquin Delta and its tributaries extending west to Suisun and San Pablo bays.	None. No suitable habitat occurs on the Project site.
<b>Invertebrates</b>				
<i>Bombus occidentalis</i>	western bumble bee	SSC, CE (candidate)	Occurs in natural, agricultural, urban, and rural areas that provide suitable nesting sites, overwintering sites for the queens, and nectar and pollen resources throughout the spring, summer, and fall.	Unlikely. Marginal suitable habitat occurs on the Project site.
<i>Bombus caliginosus</i>	obscure bumblebee	S3	Occurs in open, grassy, coastal prairies and Coast Range meadows. Nesting occurs underground and above ground in abandoned bird nests.	None. No suitable habitat occurs on the Project site.
<i>Danaus plexippus</i>	monarch butterfly	S2/S3	Overwintering, roosting monarchs can be found on basswoods, elms, sumacs, locusts, oaks, osage-oranges, mulberries, pecans, willows, cottonwoods, and mesquites. Breeding takes place in agricultural fields, pastureland, prairie remnants, urban and suburban residential areas, gardens, trees, and roadsides – anywhere where there is access to larval host plants.	None. Out of range for overwintering habitat and no larval host plants located in the Project area.

*Key to status:*

FE=Federally listed as endangered species

FT=Federally listed as threatened species

FC=Federally listed as a candidate species for listing

CE=California listed as endangered species

CT=California listed as threatened species

FP=California listed as fully protected

SSC=California species of special concern

S2 = Imperiled

S3 = Vulnerable

BAGEPA=Bald and Golden Eagle Protection Act

WL=CDFW watch list



**Table 4.** Special-Status Wildlife Species with Potential to Occur on the Seneca Healthcare Collins Pines Proposed Flight Path.

Scientific Name	Common Name	Listed Status	Habitat Requirements	Potential for Occurrence
<b>Mammals</b>				
<i>Vulpes vulpes necator</i> pop. 1	Sierra Nevada red fox (southern Cascades DPS)	FE (proposed), CT	Occurs in annual grasslands or open stages with scattered shrubby vegetation. Requires loose sandy textured soils for burrowing.	None. No suitable habitat occurs on the Project site.
<b>Birds</b>				
<i>Haliaeetus leucocephalus</i>	bald eagle	CE, FP, BAGEPA	Inhabits forests adjacent to large bodies of water. Nest sites require large trees or rock outcrops.	Moderate potential. Eagle sighted on drive to Project site around 20 miles away. Marginal suitable habitat occurs on the Project site.
<i>Accipiter gentilis</i>	northern goshawk	SSC	Occurs in coniferous forests from 2,500 – 10,000 feet MSL.	Unlikely. No suitable habitat occurs on the Project site.
<i>Grus (=Antigone) canadensis tabida</i>	greater sandhill crane	CT, FP	Occurs in large wetland or dry meadow complexes.	Unlikely. No suitable habitat occurs on the Project site.
<i>Pandion haliaetus</i>	osprey	WL	Occurs near shallow, fish-filled waters, including rivers, lakes, lagoons, swamps, and marshes.	Moderate potential. Species sighted a couple of miles away from the Project site.
<b>Amphibians/Reptiles</b>				
<i>Ambystoma macrodactylum sigillatum</i>	southern long-toed salamander	SSC	Occurs in alpine meadows and high mountain ponds and lakes up to 10,000 feet MSL. Found along northeast Sierra Nevada to Garner Meadows.	None. No suitable habitat occurs on the Project site.
<i>Rana sierrae</i>	Sierra Nevada yellow-legged frog	FE, CT	Occurs between 3,500 – 12,000 feet MSL in Sierra Nevada streams, lakes, and ponds in montane, riparian, lodgepole pine, subalpine conifer, and wet meadow habitats. Breeding habitat requires permanent lakes or ponds that do not freeze to the bottom in winter or dry out in summer.	Unlikely. No suitable breeding habitat occurs on the Project site.
<i>Rana cascadae</i>	Cascades frog	CE (candidate), SSC	Occurs in lakes, ponds, wet meadows, and streams in the Cascades Range. Inhabits moderate to high elevations.	None. No suitable habitat occurs on the Project site.



Scientific Name	Common Name	Listed Status	Habitat Requirements	Potential for Occurrence
<b>Fishes</b>				
<i>Hypomesus transpacificus</i>	delta smelt	FT, CE	Endemic to Sacramento-San Joaquin Delta and its tributaries extending west to Suisun and San Pablo bays.	None. No suitable habitat occurs on the Project site.
<b>Invertebrates</b>				
<i>Bombus occidentalis</i>	western bumble bee	SSC, CE (candidate)	Occurs in natural, agricultural, urban, and rural areas that provide suitable nesting sites, overwintering sites for the queens, and nectar and pollen resources throughout the spring, summer, and fall.	Unlikely. Marginal suitable habitat occurs on the Project site.
<i>Bombus caliginosus</i>	obscure bumblebee	VU	Occurs in open, grassy, coastal prairies and Coast Range meadows. Nesting occurs underground and above ground in abandoned bird nests.	None. No suitable habitat occurs on the Project site.
<i>Danaus plexippus</i>	monarch butterfly	NA	Overwintering, roosting monarchs can be found on basswoods, elms, sumacs, locusts, oaks, osage-oranges, mulberries, pecans, willows, cottonwoods, and mesquites. Breeding takes place in agricultural fields, pasture land, prairie remnants, urban and suburban residential areas, gardens, trees, and roadsides – anywhere where there is access to larval host plants.	None. Out of range for overwintering habitat and no larval host plants located in the Project area.

*Key to status:*

FE=Federally listed as endangered species

FT=Federally listed as threatened species

FC=Federally listed as a candidate species for listing

CE=California listed as endangered species

CT=California listed as threatened species

FP=California listed as fully protected

SSC=California species of special concern

VU=Vulnerable

BAGEPA=Bald and Golden Eagle Protection Act

WL=CDFW watch list

## 7.0 DISCUSSION AND IMPACT ASSESSMENT

### 7.1 Significance Criteria

Pursuant to CEQA and CEQA Guidelines, direct and indirect adverse impacts to biological resources are classified as less than significant, potentially significant, or significant. According to CEQA Guideline § 21068, a significant effect on the environment means a substantial, or potentially substantial, adverse change in the environment. According to CEQA Guideline § 15382, a significant effect on the



environment is further defined as a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the Project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historical or aesthetic significance. State, federal, and local jurisdictions and regulations are considered in the evaluation of significance of proposed actions.

#### Healthcare Facility Expansion Project

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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 CDFW or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFW or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>



	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Collins Pines Optional Heliport and Landing Approach

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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 CDFW or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFW or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>



	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
sites?				
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>



## 7.2 Impacts Analysis

### Healthcare Facility Expansion Project

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

#### **7.2.1 Impact BIO-1. Special-Status Plants**

No special-status plant species are expected to occur on the Project site due to marginally suitable habitat, anthropogenic disturbance, or the lack of specialized habitats and/or substrates such species require. However, without a formal survey, the absence of special-status plant species cannot be confirmed. Impacting special-status plant species would be considered a significant impact. In order to confirm absence of the listed special-status plant species, pre-construction floristic surveys will be conducted prior to initiation of work activities.

**Level of Significance before Mitigation:** Potentially Significant

#### **Mitigation Measures:**

##### BIO-1: Floristic Surveys

Appropriately timed surveys for special-status plants shall be conducted in compliance with all CDFW (2018), USFWS (1996), and CNPS (2001) published survey guidelines prior to initiation of work activities. Project commencement shall not be initiated until special-status plant pre-construction surveys are completed and subsequent mitigation, if necessary, is implemented. If no special-status plant species are found to inhabit the site, no further mitigation measures would be necessary.

If special-status plant species are detected, individuals shall be clearly marked and avoided. If special-status plants detected during focused surveys cannot be avoided, consultation with CDFW and/or USFWS (depending on listing status) shall occur. As part of this consultation, a mitigation plan shall be developed and approved by the appropriate agencies to avoid all adverse impacts. The mitigation plan will include methodology of transplanting and/or on-site replanting at a 1:1 (mitigation to impacts) ratio, five-year monitoring program, success criteria (e.g., 70% survivorship threshold), and annual reporting requirements. In addition, this plan shall include worker education and development of appropriate avoidance and minimization measures.

**Level of Significance after Mitigation:** Less than Significant



**7.2.2 Impact BIO-2. Nesting Birds (Including Osprey and Bald Eagle) and Special-Status Wildlife:  
Osprey, bald eagle, Sierra Nevada red fox, northern goshawk, greater sandhill crane, southern long-toed salamander, Sierra Nevada yellow-legged frog, California red-legged frog, Cascades frog, delta smelt, western bumblebee, obscure bumblebee, and monarch butterfly**

Based on the database and literature review conducted during the desktop review for the proposed Project, thirteen (13) special-status wildlife species have been previously documented in the vicinity of the Project site (see Table 3, Figure 14). Due to lack of suitable habitat and/or lack of recent occurrences in the vicinity of the Project site, eleven (11) special-status wildlife species are not expected to occur and are not discussed further in this Biological Resources Report. These eleven species are: Sierra Nevada red fox, northern goshawk, greater sandhill crane, southern long-toed salamander, Sierra Nevada yellow-legged frog, California red-legged frog, Cascades frog, delta smelt, western bumblebee, obscure bumblebee, and monarch butterfly.

Project activities without implemented Avoidance and Mitigation Measures do have the potential to impact nests of both migratory birds and special-status raptor species –osprey and bald eagle. Potential constraints associated with each remaining resource with potential to occur on-site are provided below.

**Level of Significance before Mitigation:** Potentially Significant

**Mitigation Measures:**

**BIO-2a: Environmental Training**

Each year prior to the commencement of Project-related activities, a qualified biologist will provide an environmental awareness training program to educate Project personnel on relevant special-status species and their habitats, sensitive/regulated habitats, and applicable environmental laws and permits. The training shall include a description of the species and their habitats, importance of preserving species and habitats, penalties for unauthorized take, and the Project limits.

**BIO-2b: Migratory Birds and Raptors (osprey and bald eagle)/Nest Avoidance**

Tree and vegetation clearing (removal, pruning, trimming, and mowing) shall be scheduled to occur outside of the migratory bird nesting season (February 1 through August 31). However, if clearing and/or construction activities will occur during the migratory bird nesting season, then pre-construction surveys to identify active migratory bird and/or raptor nests shall be conducted by a qualified biologist within 14 days of construction initiation on the Project site and within 300 feet (i.e., zone of influence) of Project-related activities. The zone of influence includes areas outside of the Project site where birds could be disturbed by construction-related noise or earth-moving vibrations.



If active nest, roost, or burrow sites are identified within the Project site, a no-disturbance buffer shall be established for all active nest sites prior to commencement of any proposed Project-related activities to avoid construction or access-related disturbances to migratory bird nesting activities. A no-disturbance buffer constitutes a zone in which proposed Project-related activities (e.g., vegetation removal, earth moving, and construction) cannot occur. A minimum buffer size of 50 feet for passerines and 300 feet for raptors will be implemented; sizes of the buffers shall be determined by a qualified biologist based on the species, activities proposed near the nest, and topographic and other visual barriers. Buffers shall remain in place until the young have departed the area or fledged and/or the nest is inactive, as determined by the qualified biologist. If work is required within a buffer zone of an active bird nest, work may occur under the supervision of a qualified avian biologist. The qualified avian biologist monitoring the construction work will have the authority to stop work and adjust buffers if any disturbance to nesting activity is observed.

**BIO-2c: Bald Eagle and Golden Eagle**

In accordance with the BGEPA (USFWS, last amended 1978), pre-construction surveys for eagles shall be conducted on the Project site and within 0.5 miles of Project site boundaries. If an active eagle nest is detected within this survey area, the Project proponent shall implement a 0.5-mile no-disturbance buffer around the nest until a qualified biologist determines the nest is no longer active.

**Level of Significance after Mitigation:** Less than Significant

- b. *Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*
- c. *Would the Project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

**Level of Significance before Mitigation:** Potentially Significant

**7.2.3 Impact BIO-3. Riparian Habitat and Waters of the United States/State**

The bed, bank, and channel and associated riparian vegetation of Stover's Ditch to the north of the Project site are potentially subject to CDFW jurisdiction under Section 1600 of CFGC. Stover Ditch may also be considered waters of the United States by USACE and the RWQCB, respectively, pursuant to the CWA. In addition, other signs of aquatic features, namely a swale and constructed ditch were located within the Project area. Prior to Project impacts, these areas should be designated as environmentally sensitive areas



(ESAs) and monitored. If impacts to these features are anticipated, verification by USACE will need to occur, in addition to authorization from the CDFW, USACE, and RWQCB prior to any impact.

**Level of Significance before Mitigation:** Potentially Significant

**Mitigation Measures:**

BIO-3a: Implementation of ESAs and Monitoring for Waters of the United States and Associated Riparian Zones

Prior to Project implementation, any waters of the United States, potential waters of the United States, and associated riparian zones shall be established as ESAs and marked off with fencing as directed by a qualified biologist. Monitoring by a qualified biologist should occur for any work within close proximity to the ESAs.

BIO-3b: Obtain CDFW Section 1600 Lake or Streambed Alteration Agreement

If Project activities encroach on the riparian zone of Stover's Ditch, the Project proponent shall submit a Section 1600 Notification of Lake or Streambed Alteration application to CDFW. The Notification will include a description of impacts, including quantification of impacts to bed, bank, and channel, as well as individual trees, area and linear footage of riparian vegetation, and proposed mitigation for impacts. Any mitigation measures required to reduce impacts below significance levels would be defined as part of the permit requirements.

BIO-3c: Obtain USACE/RWQCB Section 404/401 Clean Water Act and Porter-Cologne Authorization

If Project activities encroach on the riparian zone of Stover's Ditch, the Project proponent shall obtain the appropriate CWA Section 404 permit from USACE and Section 401 Water Quality Certification and Porter-Cologne Waste Discharge Requirement approval from the RWQCB prior to the discharge of any dredged or fill material within jurisdictional waters of the United States/State. Any mitigation measures required to reduce impacts below significance levels would be defined as part of the permit requirements.

**Level of Significance after Mitigation:** Less than Significant

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

**Level of Significance before Mitigation:** No impact

- e. *Would the Project conflict with any local policies or ordinances protecting biological resources,*



such as a tree preservation policy or ordinance?

**Level of Significance before Mitigation:** No Impact

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

**Level of Significance before Mitigation:** No Impact

Collins Pines Optional Heliport and Landing Approach

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

**7.2.4 Impact BIO-1. Special-Status Plants**

No special-status plant species are expected to occur on the Project site due to marginally suitable habitat, anthropogenic disturbance, or the lack of specialized habitats and/or substrates such species require. However, without a formal survey, the absence of special-status plant species cannot be confirmed. Impacting special-status plant species would be considered a significant impact. In order to confirm absence of the listed special-status plant species, pre-construction floristic surveys will be conducted prior to initiation of work activities.

**Level of Significance before Mitigation:** Potentially Significant

**Mitigation Measures:**

BIO-1: Floristic Surveys

Appropriately timed surveys for special-status plants shall be conducted in compliance with all CDFW (2018), USFWS (1996), and CNPS (2001) published survey guidelines prior to initiation of work activities. Project commencement shall not be initiated until special-status plant pre-construction surveys are completed and subsequent mitigation, if necessary, is implemented. If no special-status plant species are found to inhabit the site, no further mitigation measures would be necessary.

If special-status plant species are detected, individuals shall be clearly marked and avoided. If special-status plants detected during focused surveys cannot be avoided, consultation with CDFW and/or USFWS (depending on listing status) shall occur. As part of this



consultation, a mitigation plan shall be developed and approved by the appropriate agencies to avoid all adverse impacts. The mitigation plan will include methodology of transplanting and/or on-site replanting at a 1:1 (mitigation to impacts) ratio, five-year monitoring program, success criteria (e.g., 70% survivorship threshold), and annual reporting requirements. In addition, this plan shall include worker education and development of appropriate avoidance and minimization measures.

**Level of Significance after Mitigation:** Less than Significant

**7.2.5 *Impact BIO-2. Nesting Birds (Including Osprey and Bald Eagle) and Special-Status Wildlife: Osprey, bald eagle, Sierra Nevada red fox, northern goshawk, greater sandhill crane, southern long-toed salamander, Sierra Nevada yellow-legged frog, California red-legged frog, Cascades frog, delta smelt, western bumblebee, obscure bumblebee, and monarch butterfly***

Based on the database and literature review conducted during the desktop review for the proposed Project, twelve (12) special-status wildlife species have been previously documented in the vicinity of the Project site (see Table 4, Figure 15). Due to lack of suitable habitat and/or lack of recent occurrences in the vicinity of the Project site, ten (10) special-status wildlife species are not expected to occur and are not discussed further in this Biological Resources Report. These ten species are: Sierra Nevada red fox, northern goshawk, greater sandhill crane, southern long-toed salamander, Sierra Nevada yellow-legged frog, Cascades frog, delta smelt, western bumblebee, obscure bumblebee, and monarch butterfly.

Project activities without implemented Avoidance and Mitigation Measures do have the potential to impact nests of both migratory birds and special-status raptor species –osprey and bald eagle. Potential constraints associated with each remaining resource with potential to occur on-site are provided below.

**Level of Significance before Mitigation:** Potentially Significant

**Mitigation Measures:**

**BIO-2a: Environmental Training**

Each year prior to the commencement of Project-related activities, a qualified biologist will provide an environmental awareness training program to educate Project personnel on relevant special-status species and their habitats, sensitive/regulated habitats, and applicable environmental laws and permits. The training shall include a description of the species and their habitats, importance of preserving species and habitats, penalties for unauthorized take, and the Project limits.

**BIO-2b: Migratory Birds and Raptors (osprey and bald eagle)/Nest Avoidance**



Tree and vegetation clearing (removal, pruning, trimming, and mowing) shall be scheduled to occur outside of the migratory bird nesting season (February 1 through August 31). However, if clearing and/or construction activities will occur during the migratory bird nesting season, then pre-construction surveys to identify active migratory bird and/or raptor nests shall be conducted by a qualified biologist within 14 days of construction initiation on the Project site and within 300 feet (i.e., zone of influence) of Project-related activities. The zone of influence includes areas outside of the Project site where birds could be disturbed by construction-related noise or earth-moving vibrations.

If active nest, roost, or burrow sites are identified within the Project site, a no-disturbance buffer shall be established for all active nest sites prior to commencement of any proposed Project-related activities to avoid construction or access-related disturbances to migratory bird nesting activities. A no-disturbance buffer constitutes a zone in which proposed Project-related activities (e.g., vegetation removal, earth moving, and construction) cannot occur. A minimum buffer size of 50 feet for passerines and 300 feet for raptors will be implemented; sizes of the buffers shall be determined by a qualified biologist based on the species, activities proposed near the nest, and topographic and other visual barriers. Buffers shall remain in place until the young have departed the area or fledged and/or the nest is inactive, as determined by the qualified biologist. If work is required within a buffer zone of an active bird nest, work may occur under the supervision of a qualified avian biologist. The qualified avian biologist monitoring the construction work will have the authority to stop work and adjust buffers if any disturbance to nesting activity is observed.

#### BIO-2c: Bald Eagle and Golden Eagle

In accordance with the BGEPA (USFWS, last amended 1978), pre-construction surveys for eagles shall be conducted on the Project site and within 0.5 miles of Project site boundaries. If an active eagle nest is detected within this survey area, the Project proponent shall implement a 0.5-mile no-disturbance buffer around the nest until a qualified biologist determines the nest is no longer active.

#### **Level of Significance after Mitigation:** Less than Significant

- b. Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*
  
- c. Would the Project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*



**Level of Significance before Mitigation:** No Impact.

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

**Level of Significance before Mitigation:** No impact

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

**Level of Significance before Mitigation:** No Impact

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

**Level of Significance before Mitigation:** No Impact



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**Table 5.** Plant Species Observed on the Seneca Healthcare Expansion Project Site.

Scientific Name	Common Name	Family Name	Native?
<i>Ribes montigenum</i>	Sierra gooseberry	Grossulariaceae	Yes
<i>Artemisia tridentata</i>	big sagebrush	Asteraceae	Yes
<i>Artemisia dracunculus</i>	tarragon	Asteraceae	Yes
<i>Lupinus lapidicola</i>	dwarf lupine	Fabaceae	Yes
<i>Chrysothamnus viscidiflorus</i> ssp. <i>puberulus</i>	yellow rabbitbrush	Asteraceae	Yes
<i>Horkelia fusca</i>	pinewoods horkelia	Rosaceae	Yes
<i>Phacelia hastata</i>	silverleaf phacelia	Boraginaceae	Yes
<i>Helianthella californica</i>	California helianthella	Asteraceae	Yes
<i>Wyethia mollis</i>	woolly mule's ears	Asteraceae	Yes
<i>Berberis aquifolium</i>	Oregon grape	Berberidaceae	Yes
<i>Cynoglossum officinale</i>	hound's-tongue	Boraginaceae	No
<i>Scirpus microcarpus</i>	panicked bulrush	Cyperaceae	Yes
<i>Lonicera cauriana</i>	sweetberry honeysuckle	Caprifoliaceae	Yes
<i>Salix</i> spp.	willows	Salicaceae	Yes
<i>Populus trichocarpa</i>	black cottonwoods	Salicaceae	Yes
<i>Pinus jeffreyi</i>	Jeffrey pine	Pinaceae	Yes
<i>Carex pellita</i>	woolly sedge	Cyperaceae	Yes
<i>Typha</i> spp.	cattails	Typhaceae	NA
<i>Artemisia douglasiana</i>	California mugwort	Asteraceae	Yes
<i>Galium</i> spp.	bedstraw	Rubiaceae	Yes



**Table 6.** Wildlife Species Observed on the Seneca Healthcare Expansion Project Site.

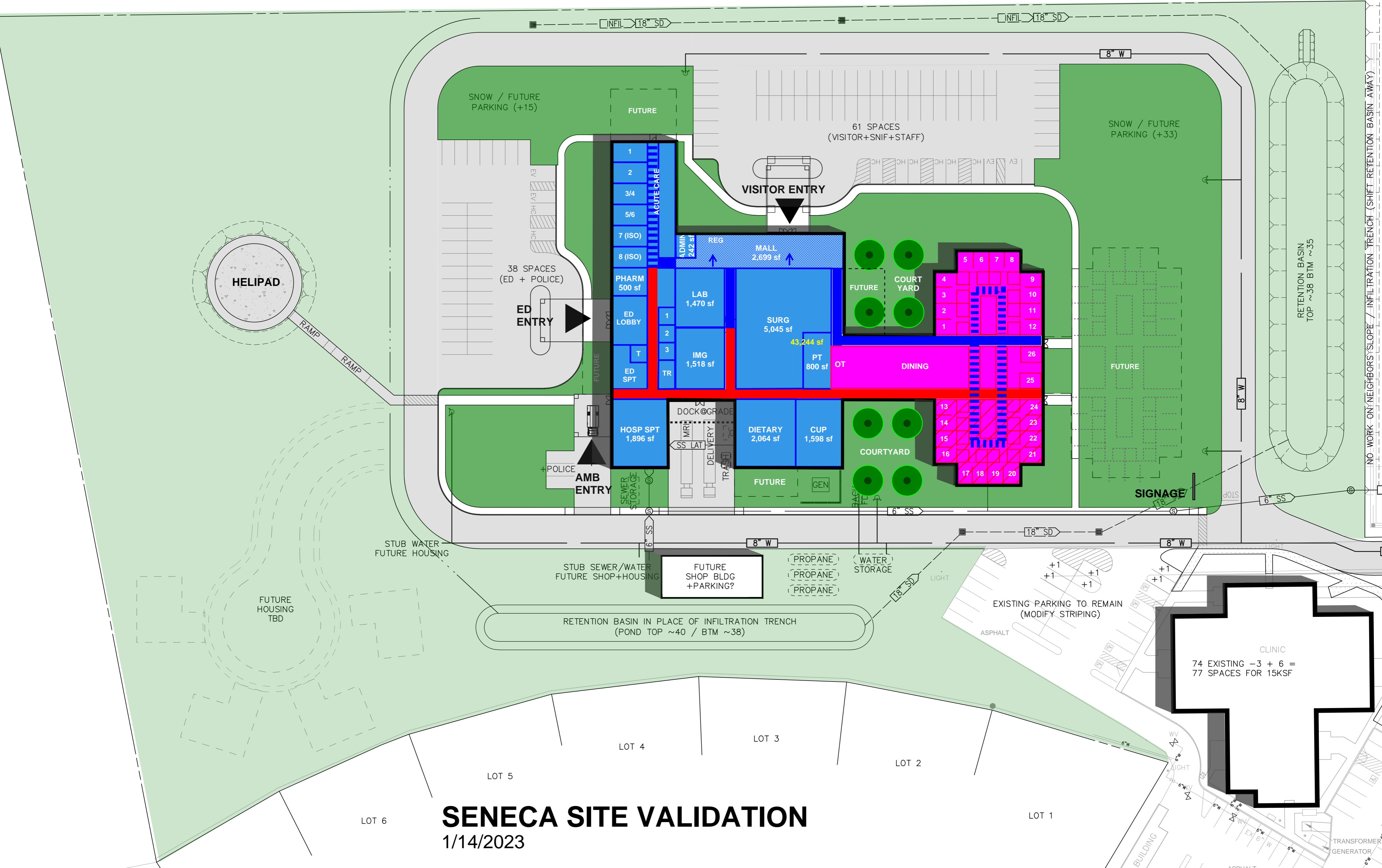
Scientific Name	Common Name
<b>Birds</b>	
<i>Turdus migratorius</i>	American robin
<i>Cyanocitta stelleri</i>	Steller's jay
<i>Junco hyemalis</i>	dark-eyed junco
<i>Haemorhous mexicanus</i>	house finch
<i>Corvus corax</i>	common raven
<i>Picoides oubescens</i>	downy woodpecker
<i>Poecile gambeli</i>	mountain chickadee
<i>Colaptes auratus</i>	Northern flicker
<b>Reptiles</b>	
<i>Sceloporus occidentalis</i>	western fence lizard

## **Appendix A**

### **Site Plans**

# SENECA SITE VALIDATION

1/14/2023



## **Appendix B**

### **USFWS Draft Information for Planning and Consultation System Report – Seneca Healthcare Expansion Project**

# IPaC resource list

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

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

## Location

Plumas County, California



## Local office

Sacramento Fish And Wildlife Office

📞 (916) 414-6600

📠 (916) 414-6713

Federal Building

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

NOT FOR CONSULTATION

# Endangered species

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

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

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

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

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

Listed species<sup>1</sup> and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries<sup>2</sup>).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

- 
1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. [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.

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

## Fishes

NAME	STATUS
Delta Smelt Hypomesus transpacificus Wherever found  There is <b>final</b> critical habitat for this species. The location of the critical habitat is not available. <a href="https://ecos.fws.gov/ecp/species/321">https://ecos.fws.gov/ecp/species/321</a>	Threatened

## Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found  No critical habitat has been designated for this species. <a href="https://ecos.fws.gov/ecp/species/9743">https://ecos.fws.gov/ecp/species/9743</a>	Candidate

## Critical habitats

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

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

## Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds  
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds  
<https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

**Bald Eagle** *Haliaeetus leucocephalus*

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

Breeds Jan 1 to Aug 31

**Black-throated Gray Warbler** *Dendroica nigrescens*

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Breeds May 1 to Jul 20

**Cassin's Finch** *Carpodacus cassini*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9462>

Breeds May 15 to Jul 15

**Clark's Grebe** *Aechmophorus clarkii*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds Jun 1 to Aug 31

**Evening Grosbeak** *Coccothraustes vespertinus*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds May 15 to Aug 10

**Golden Eagle** *Aquila chrysaetos*

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<https://ecos.fws.gov/ecp/species/1680>

Breeds Dec 1 to Aug 31

**Lawrence's Goldfinch** *Carduelis lawrencei*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9464>

Breeds Mar 20 to Sep 20

**Lewis's Woodpecker** *Melanerpes lewis*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9408>

Breeds Apr 20 to Sep 30

**Olive-sided Flycatcher** *Contopus cooperi*

Breeds May 20 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3914>

**Willet** *Tringa semipalmata*

Breeds Apr 20 to Aug 5

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

**Wrentit** *Chamaea fasciata*

Breeds Mar 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

## Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

### Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is  $0.25/0.25 = 1$ ; at week 20 it is  $0.05/0.25 = 0.2$ .

3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

## Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

## Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

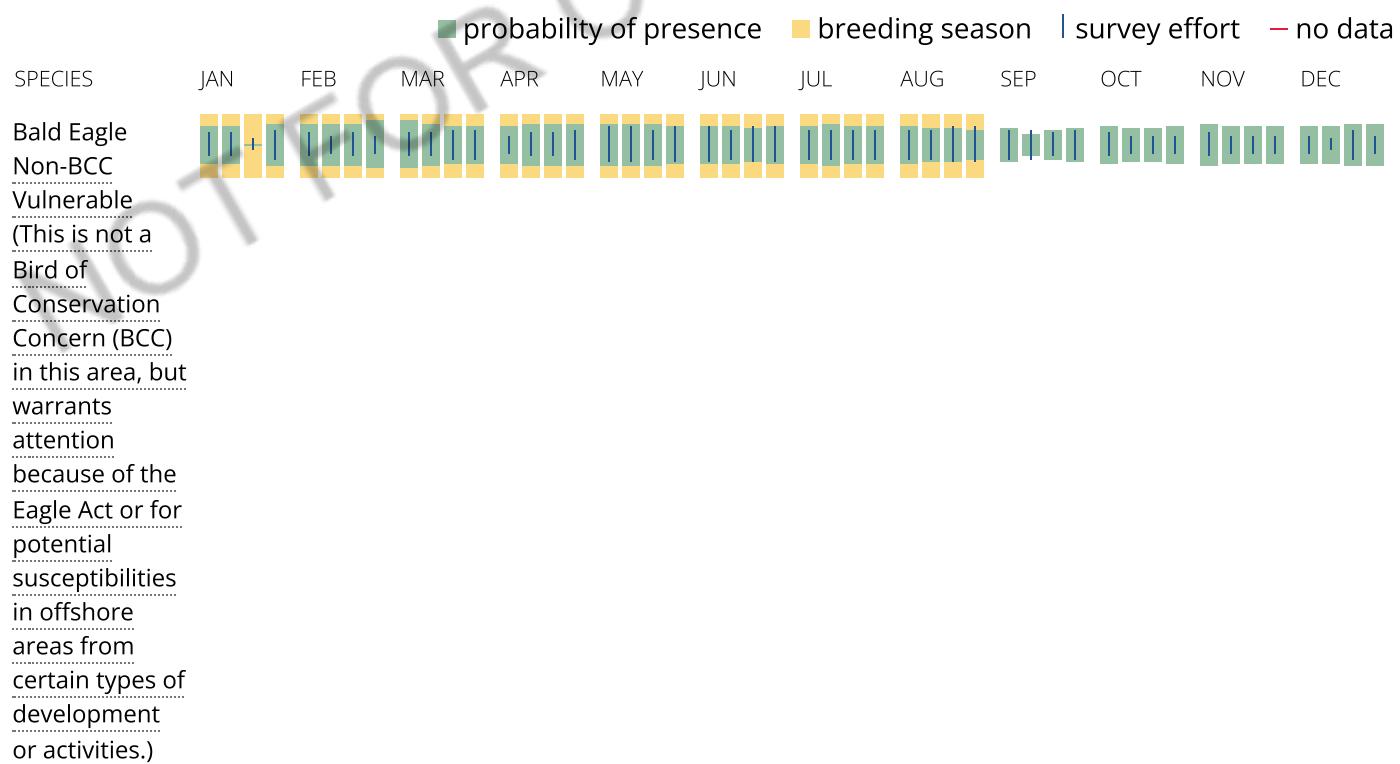
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

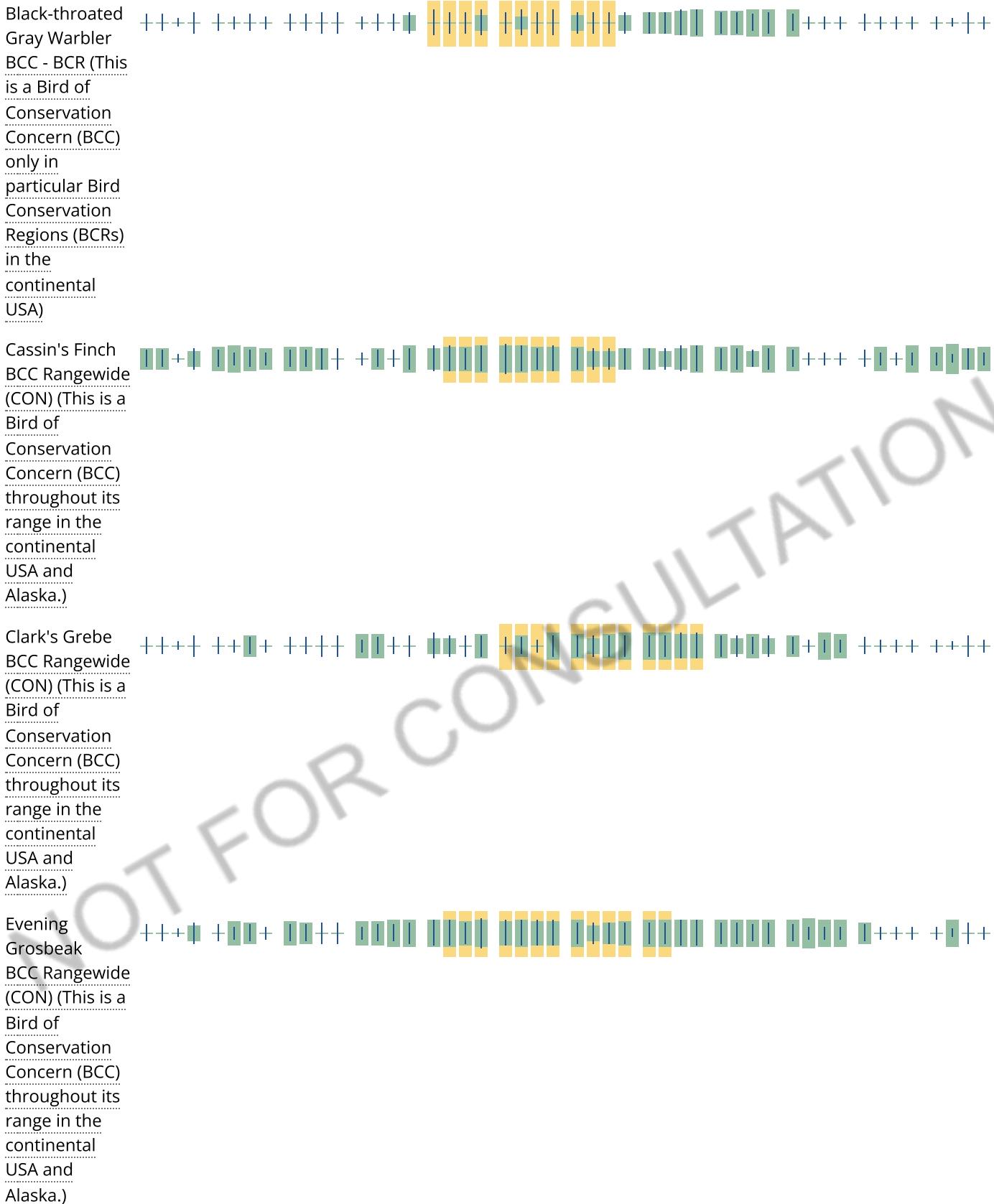
No Data (-)

A week is marked as having no data if there were no survey events for that week.

## **Survey Timeframe**

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Golden Eagle

Non-BCC

Vulnerable

(This is not a

Bird of

Conservation

Concern (BCC)

in this area, but

warrants

attention

because of the

Eagle Act or for

potential

susceptibilities

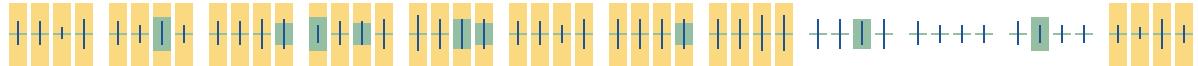
in offshore

areas from

certain types of

development

or activities.)



Lawrence's

Goldfinch

BCC Rangewide

(CON) (This is a

Bird of

Conservation

Concern (BCC)

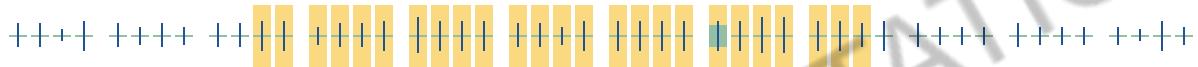
throughout its

range in the

continental

USA and

Alaska.)



Lewis's

Woodpecker

BCC Rangewide

(CON) (This is a

Bird of

Conservation

Concern (BCC)

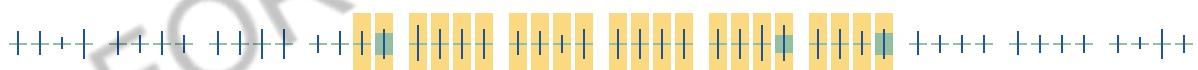
throughout its

range in the

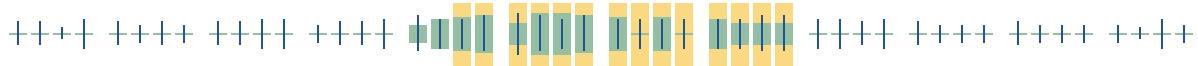
continental

USA and

Alaska.)



Olive-sided Flycatcher



BCC Rangewide  
(CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Willet

BCC Rangewide  
(CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Wrentit

BCC Rangewide  
(CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

**Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.**

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

**What does IPaC use to generate the migratory birds potentially occurring in my specified location?**

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

### What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

### How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

### What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

## Details about birds that are potentially affected by offshore projects

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

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

### What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

## Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

## Coastal Barrier Resources System

Projects within the [John H. Chafee Coastal Barrier Resources System](#) (CBRS) may be subject to the restrictions on federal expenditures and financial assistance and the consultation requirements of the Coastal Barrier Resources Act (CBRA) (16 U.S.C. 3501 et seq.). For more information, please contact the local [Ecological Services Field Office](#) or visit the [CBRA](#)

[Consultations website](#). The CBRA website provides tools such as a flow chart to help determine whether consultation is required and a template to facilitate the consultation process.

THERE ARE NO KNOWN COASTAL BARRIERS AT THIS LOCATION.

#### Data limitations

The CBRS boundaries used in IPaC are representations of the controlling boundaries, which are depicted on the [official CBRS maps](#). The boundaries depicted in this layer are not to be considered authoritative for in/out determinations close to a CBRS boundary (i.e., within the "CBRS Buffer Zone" that appears as a hatched area on either side of the boundary). For projects that are very close to a CBRS boundary but do not clearly intersect a unit, you may contact the Service for an official determination by following the instructions here: <https://www.fws.gov/service/coastal-barrier-resources-system-property-documentation>

#### Data exclusions

CBRS units extend seaward out to either the 20- or 30-foot bathymetric contour (depending on the location of the unit). The true seaward extent of the units is not shown in the CBRS data, therefore projects in the offshore areas of units (e.g., dredging, breakwaters, offshore wind energy or oil and gas projects) may be subject to CBRA even if they do not intersect the CBRS data. For additional information, please contact [CBRA@fws.gov](mailto:CBRA@fws.gov).

## Facilities

### National Wildlife Refuge lands

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

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

## Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

# Wetlands in the National Wetlands Inventory

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

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

WETLAND INFORMATION IS NOT AVAILABLE AT THIS TIME

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the [NWI map](#) to view wetlands at this location.

## Data limitations

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

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

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

## Data exclusions

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

## Data precautions

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

seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION



## Appendix C

# USFWS Draft Information for Planning and Consultation System Report – Proposed Helicopter Flight Path

# IPaC resource list

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

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

## Location

Plumas County, California



## Local office

Sacramento Fish And Wildlife Office

📞 (916) 414-6600

📠 (916) 414-6713

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

NOT FOR CONSULTATION

# Endangered species

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

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

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

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

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

Listed species<sup>1</sup> and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries<sup>2</sup>).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. [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.

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

## Fishes

NAME	STATUS
Delta Smelt Hypomesus transpacificus Wherever found  There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat. <a href="https://ecos.fws.gov/ecp/species/321">https://ecos.fws.gov/ecp/species/321</a>	Threatened

## Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found  No critical habitat has been designated for this species. <a href="https://ecos.fws.gov/ecp/species/9743">https://ecos.fws.gov/ecp/species/9743</a>	Candidate

## Critical habitats

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

There are no critical habitats at this location.

## Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds  
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds  
<https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i>  This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Jan 1 to Aug 31
Black-throated Gray Warbler <i>Dendroica nigrescens</i>  This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 1 to Jul 20
Cassin's Finch <i>Carpodacus cassini</i>  This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9462">https://ecos.fws.gov/ecp/species/9462</a>	Breeds May 15 to Jul 15

Evening Grosbeak <i>Coccothraustes vespertinus</i>	Breeds May 15 to Aug 10
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	
Olive-sided Flycatcher <i>Contopus cooperi</i>	Breeds May 20 to Aug 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/3914">https://ecos.fws.gov/ecp/species/3914</a>	

## Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

### Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is  $0.25/0.25 = 1$ ; at week 20 it is  $0.05/0.25 = 0.2$ .
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

## Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

## Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

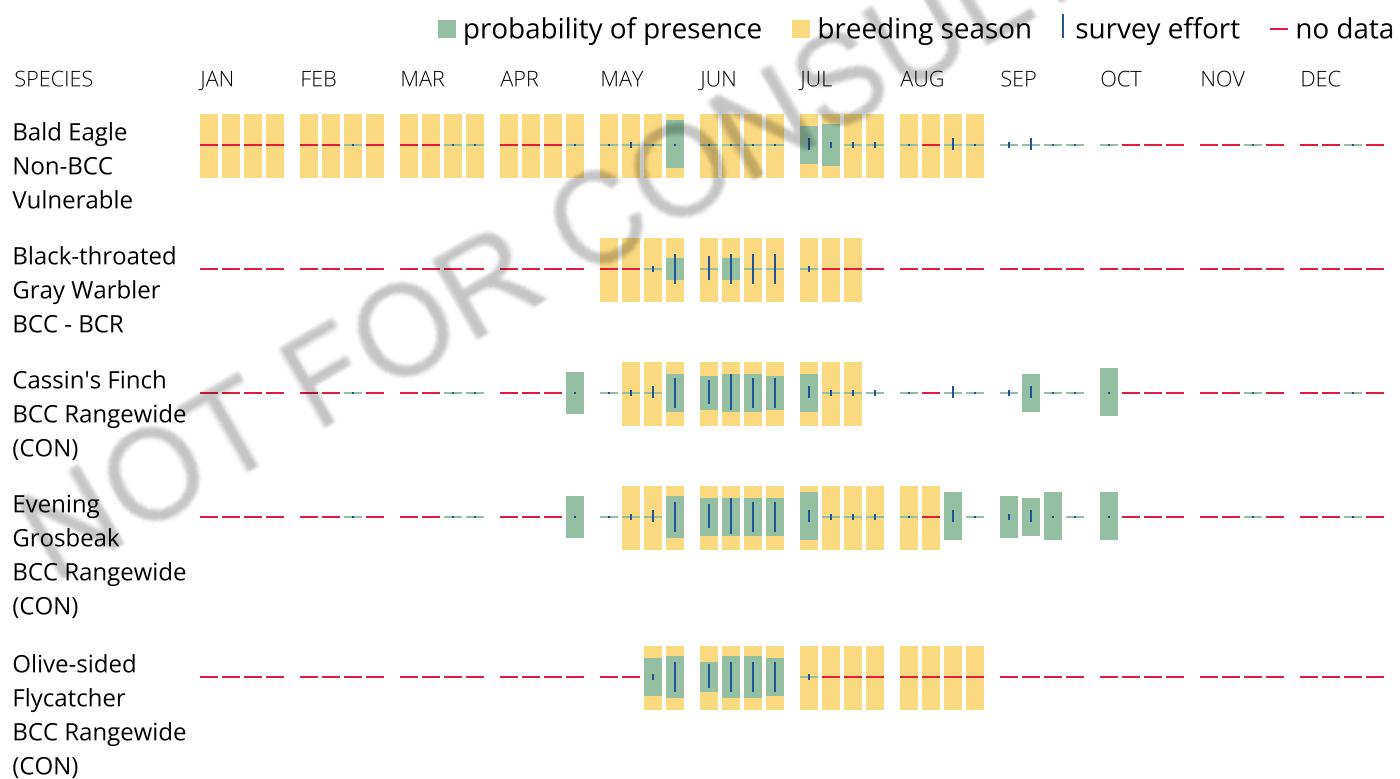
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

## No Data (-)

A week is marked as having no data if there were no survey events for that week.

## Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



**Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.**

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure.

To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

### What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

### What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

### How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

### What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern \(BCC\)](#) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
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3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

### Details about birds that are potentially affected by offshore projects

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

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

### What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

### Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

# Coastal Barrier Resources System

Projects within the [John H. Chafee Coastal Barrier Resources System](#) (CBRS) may be subject to the restrictions on federal expenditures and financial assistance and the consultation requirements of the Coastal Barrier Resources Act (CBRA) (16 U.S.C. 3501 et seq.). For more information, please contact the local [Ecological Services Field Office](#) or visit the [CBRA Consultations website](#). The CBRA website provides tools such as a flow chart to help determine whether consultation is required and a template to facilitate the consultation process.

There are no known coastal barriers at this location.

## Data limitations

The CBRS boundaries used in IPaC are representations of the controlling boundaries, which are depicted on the [official CBRS maps](#). The boundaries depicted in this layer are not to be considered authoritative for in/out determinations close to a CBRS boundary (i.e., within the "CBRS Buffer Zone" that appears as a hatched area on either side of the boundary). For projects that are very close to a CBRS boundary but do not clearly intersect a unit, you may contact the Service for an official determination by following the instructions here: <https://www.fws.gov/service/coastal-barrier-resources-system-property-documentation>

## Data exclusions

CBRS units extend seaward out to either the 20- or 30-foot bathymetric contour (depending on the location of the unit). The true seaward extent of the units is not shown in the CBRS data, therefore projects in the offshore areas of units (e.g., dredging, breakwaters, offshore wind energy or oil and gas projects) may be subject to CBRA even if they do not intersect the CBRS data. For additional information, please contact [CBRA@fws.gov](mailto:CBRA@fws.gov).

## Facilities

## National Wildlife Refuge lands

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

There are no refuge lands at this location.

## Fish hatcheries

There are no fish hatcheries at this location.

## Wetlands in the National Wetlands Inventory (NWI)

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

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Wetland information is not available at this time

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the [NWI map](#) to view wetlands at this location.

### Data limitations

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

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

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

### Data exclusions

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

been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

### Data precautions

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

NOT FOR CONSULTATION

## Exhibit T4. Cultural Technical Report



# CULTURAL RESOURCE TECHNICAL REPORT FOR THE SENECA HEALTHCARE DISTRICT REDEVELOPMENT PROJECT, CHESTER, PLUMAS COUNTY, CALIFORNIA

Draft

January 17, 2023





# CULTURAL RESOURCE TECHNICAL REPORT FOR THE SENECA HEALTHCARE DISTRICT REDEVELOPMENT PROJECT, CHESTER, PLUMAS COUNTY, CALIFORNIA

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Section 106 of the National Historic Preservation Act (NHPA), California Environmental Quality  
Act (CEQA), California Register of Historical Resources (CRHR)



## MANAGEMENT SUMMARY

The Seneca Healthcare District (SHD) proposes to construct a new medical building northwest of the extant SHD medical buildings (Project) north of Maywood Drive on Assessor's Parcel Number (APN) 100-230-028 and a portion of APN 100-470-003 in Chester, Plumas County, California. SHD contracted PaleoWest, LLC (PaleoWest) to assess whether the Project may affect historic properties/historical resources, pursuant to Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended (54 USC 300101), and the California Environmental Quality Act (CEQA). The NHPA defines "historic properties" as cultural resources listed in or eligible for listing in the National Register of Historic Places (NRHP), while CEQA defines "historical resources" as "any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California." This definition includes historical resources listed or identified as eligible for listing in the California Register of Historical Resources (CRHR) and National Register of Historic Places (NRHP).

In compliance with CEQA and Section 106 of the NHPA, PaleoWest completed architectural history and archaeological surveys and evaluated identified archaeological and historic-era resources for NRHP and CRHR eligibility. Per Section 106, the Area of Potential Effects (APE) is defined by the geographic area where the Project may directly or indirectly alter the character or use of historic properties. This report presents findings of the eligibility evaluations of the historic-era cultural resources in the APE. This assessment was conducted in conformance with National Park Service (NPS) National Register Bulletin 15 *How to Apply the National Register Criteria for Evaluation* (2016), the California Office of Historic Preservation (OHP) Technical Assistance Series #7 *How to Nominate a Resource to the California Register of Historical Resources*, and OHP's *Instructions for Recording Historical Resources*. Investigations and evaluations were performed by architectural historians and archaeologists who meet or exceed the Secretary of the Interior's (SOI's) Professional Qualification Standards (PQS) for Architectural History, History, and Archaeology.

The APE includes the existing Seneca Hospital Campus on APN 100-230-028, which consists of a clinic building, historic-era hospital (Main Hospital Building), and nine associated ancillary medical buildings (APN 100-110-029), 17.5 acres of undeveloped land proposed for new development (APN 100-230-028, owned by SHD, and a portion of APN 100-470-003, owned by the Collins Pine Lumber Company), and a one-parcel buffer where indirect effects (such as visual or vibration effects) could be reasonably anticipated. The vertical limits of the APE extend from a maximum of 5 feet (ft) below ground surface to a maximum height of 35 ft above ground surface. The width and height of the buffer for indirect effects are proportionate to the proposed height of the new building, the landscape, and planned subterranean activities.

On June 3, 2022, PaleoWest completed an architectural history survey of the APE which involved the identification and documentation of 36 buildings in two potential historic districts requiring evaluation for NRHP/CRHR eligibility. The Maywood Drive Residences district contains 20 single-family residences built during the 1950s–1970s, and the Seneca Hospital Campus district contains 16 buildings, three of which date to the original construction of the hospital (1950). All built environment and archaeological resources were documented in

California Department of Parks and Recreation (DPR) 523 forms and evaluated for historical significance and eligibility under NRHP and CRHR criteria.

PaleoWest recommends the Maywood Drive Residences not eligible as a district, and no evidence was found to suggest the residences individually possess historical significance under any NRHP or CRHR criteria. PaleoWest also recommends the Seneca Hospital Campus not eligible for listing in the NRHP or CRHR as a district, nor are any of its buildings or structures individually recommended eligible. While the Seneca Hospital Campus and Main Hospital Building do possess historical significance under Criterion A/1 for their association with the early development of the California Local Hospital (later Health Care) Districts, they do not retain sufficient historical integrity to convey this significance.

Archaeological survey of the undeveloped portion of the APE identified multicomponent site 21-415-KH-001/H, which contains historic-era remains of logging activities and a Pre-contact locus consisting of obsidian flakes and cobble tools. To determine if the locus contains subsurface deposits, PaleoWest excavated test units throughout the site. Results of testing did not identify a substantial subsurface component, and due to the lack of significant or diagnostic data identified within the site, PaleoWest recommends site 21-415-KH-001/H not eligible for listing on the NRHP or CRHR under any criteria.

In summary, the cultural resource investigation did not identify any built-environment or archaeological resources within the APE that are considered historic properties or historical resources for the purposes of CEQA or the NHPA. As such, the Project, as proposed, will have No Impact to historical resources in accordance with accordance with CEQA Section 15064.5(b).

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# 1 INTRODUCTION

The Seneca Healthcare District (SHD) proposes to construct a new medical facility northwest of the existing hospital campus (Assessor's Parcel Numbers [APNs] 100-230-029 and 100-110-029) and north of Maywood Drive (APN 100-230-028 and portions of APNs 100-230-026 and 100-470-003) in Chester, Plumas County, California (Project). On behalf of SHD and under subcontract to Sequoia Ecological Consulting (Sequoia), PaleoWest, LLC (PaleoWest) completed an architectural field survey, archaeological survey and testing, and evaluations of National Register of Historic Places (NRHP) and/or California Register of Historical Resources (CRHR) eligibility for cultural resources identified during research, desktop survey, and field survey. PaleoWest also completed an assessment of potential impacts to historic properties, pursuant to the definitions and processes established under Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended (54 USC 300101), and the California Environmental Quality Act (CEQA) of 1970 (Sections 21000 et seq. of the Public Resources Code [PRC]).

Section 15064 of CEQA requires lead agencies to consider whether a project may significantly impact the environment, and CEQA establishes historical resources as part of the environment. For the purposes of CEQA, historical resources are cultural resources listed or determined eligible for CRHR-listing. For the purposes of Section 106, historic properties are defined as cultural resources listed or determined eligible for NRHP-listing. The CRHR includes historic properties eligible for listing or listed in the NRHP. Similarly, Section 106 requires federal agencies to consider the effects of federal undertakings on historic properties, which includes projects that use federal funding or require federal assistance through permitting. As the U.S. Department of Agriculture (USDA) was identified as a likely avenue of funding for the proposed Project, this report conforms with the regulations put forth by Section 106. These definitions and regulatory processes include both archaeological and built-environment resources.

In compliance with Section 106 and CEQA, PaleoWest defined the Area of Potential Effects (APE) for the Project and identified 36 historic-era properties and one multicomponent archaeological site within the APE requiring NRHP/CRHR-eligibility evaluations to determine whether they may be affected by the undertaking, as proposed. As defined by the NHPA, the APE includes all areas of potential direct and indirect effects to historic properties. Of these 36 documented historic-era buildings and structures, PaleoWest identified two that possess historical significance under NRHP/CRHR criteria: the Seneca Hospital Campus and Main Hospital Building. However, neither resource is recommended eligible for listing because they lack the integrity to convey their historical significance. Since no properties in the APE are recommended NRHP/CRHR-eligible, the Project, as proposed, will have No Impact on historical resources in accordance with CEQA Section 15064.5(b).

This assessment was completed in conformance with regulations found in Title 54, Chapter 3061 of the United States Code (54 USC 3061) and Title 14, Chapter 3, Section 1500 et seq. of the California Code of Regulations (14 CCR 1500 et seq.); guided by National Park Service (NPS) National Register Bulletin 15 *How to Apply the National Register Criteria for Evaluation* (2016), California Office of Historic Preservation (OHP) Technical Assistance Series #7 *How to Nominate a Resource to the California Register of Historical Resources* (2001a), and OHP's *Instructions for Recording Historical Resources* (2001b). The historic and thematic contexts, built-environment survey, and architectural eligibility assessments were completed by

architectural historians who meet or exceed the Secretary of the Interior's (SOI's) Professional Qualification Standards (PQS) for Architectural History and History. The archaeological survey and portions of this report were completed by archaeologists who meet or exceed the SOI's PQS for Archaeology.

## 1.1 PROJECT DESCRIPTION

SHD is a rural California Critical Access Hospital (CAH) serving a community on the northern edge of Plumas County in the Sierra Nevada. The hospital campus is in the town of Chester and consists of the Main Hospital Building with attached additions and detached ancillary buildings, including a Skilled Nursing Facility, a modular CT Scan building, central plant and pump building, manufactured physical therapy building, manufactured doctor's sleeping quarters, health education and respiratory therapy building, and the Lake Almanor Clinic Building. As northwestern Plumas County's only healthcare facility, the parcel is fully developed and lacks adequate space for growth. Additionally, the Main Hospital Building was constructed in 1950 and does not meet operational size requirements, accessibility (ADA) standards, or California structural seismic requirements outlined in SB-1953. That seismic mandate limits the current use of the hospital as an acute care building to January 1, 2030, after which the building must be upgraded to newer codes or services relocated to compliant buildings. SHD determined that proceeding with the upgrades necessary for the hospital's continued use in the current building would have too great an impact to patient care and exorbitant financial cost, and ultimately would still not result in improvements to patient care, aesthetics, or efficiency.

SHD is considering land owned by SHD (APNs 100-110-028 and 100-110-029), and 5.9 acres of land donated by the Collins Pine Lumber Company (APN 100-470-003) as the site of a new hospital facility. The new planned structure will be approximately 43,000 square feet ( $\text{ft}^2$ ) in the area northwesterly adjacent to the existing campus. Additional improvements will consist of exterior concrete flatwork, other hardscaping for parking areas, lighting, and underground utilities as well as an ambulance carport at the existing facility to the south.

## 1.2 PROJECT LOCATION

The APE is in Plumas County, in the town of Chester, 0.2 miles (mi) west of Highway 36 (Figure 1-1) and is depicted on the 1979 U.S. Geological Survey (USGS) Chester, California 7.5-minute topographic quadrangle. The APE is in Section 28, Township 28 North, Range 7 East of the Mount Diablo Base Meridian (MDBM; Figure 1-2 and Figure 1-3). The City of Chester is in the Lake Almanor Basin, at the intersection of the Sierra Nevada and Cascade Mountain ranges in northeastern California.

## 1.3 AREA OF POTENTIAL EFFECTS

Per 36 CFR 800.16[d], the APE is defined as "the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if any such properties exist." The term "historic properties" refers to all potential cultural resources, including archaeological sites, both historic and Pre-contact in association.

The APE is defined as areas occupied by the existing hospital campus, including the clinic building, hospital, and all associated outbuildings (APN 100-110-029), in addition to the 17.5-acres of undeveloped land, including APN 100-230-028, owned by SHD, and a portion of lots

100-470-003 and 100-230-026, owned by the Collins Pine Lumber Company. The belowground vertical extent of the APE includes a maximum of 5 ft below ground surface for utilities excavation. Grading is expected to be minor because the site is flat. The aboveground extent of the APE is defined by the highest point on the proposed development. Building plan estimates show that the top of the mansard around the building is approximately 24 ft tall, and the clerestory mall area down the spine is approximately of 35 ft above ground surface.

Due to the proposed construction of new above-ground buildings to a maximum height of 35 ft, the horizontal extent of the APE was expanded to neighboring developed parcels to account for potential indirect effects resulting from the undertaking. This includes the following 20 privately-owned parcels adjacent to the SHD property: APNs 100-282-001, 100-282-002, 100-282-003, 100-282-004, 100-282-005, 100-282-006, 100-282-007, 100-282-008, 100-282-009, 100-282-010, 100-281-010, 100-281-009, 100-281-008, 100-281-007, 100-281-006, 100-281-005, 100-281-004, 100-281-003, 100-281-002, and 100-281-001.

## 1.4 KEY PERSONNEL

Technical personnel involved in this study included Staff Architectural Historian Hannah Goldman, M.A., Associate Architectural Historian Lisa Demarais, M.H.P., and Senior Architectural Historian Carlos van Onna, M.A. Van Onna, Goldman, and Demarais each meet or exceed the SOI's PQS for Architectural History and History (36 CFR § 61). Demarais defined the APE, performed the built environment field survey, reviewed the NRHP/CRHR evaluations, and completed the impacts analysis while Goldman conducted research, developed the historic and thematic contexts, and performed the NRHP/CRHR evaluations. Van Onna, as Senior Architectural Historian, reviewed the built-environment aspects of this report. PaleoWest Senior Archaeologist Evan Tudor Elliot completed an intensive archaeological pedestrian survey of the APE on June 15, 2022. Associate Archaeologists Katie Holst and Josh Noyer completed a supplemental archaeological pedestrian survey on October 3, 2022. Katherine Sinsky, M.A., RPA, served as the Project Manager and evaluated the archaeological site in the APE, and John Eddy, M.A., RPA, served as the Principal Investigator, providing technical oversight and a review of the study during each phase. All archaeologists for the project meet or exceed the SOI's PQS for Archaeology (36 CFR § 61).

## 1.5 REPORT ORGANIZATION

This section has introduced the purpose and scope of this study, APE location and setting, and key personnel. The next section provides the regulatory context for this study and outlines the NRHP and CRHR criteria used to evaluate properties for CEQA and NHPA compliance. The study methods are then outlined, followed by the historic and thematic contexts, property descriptions, and a discussion of historical significance and eligibility. The report concludes with an assessment of potential impacts posed to historical resources by the proposed Project and recommendations. California Department of Parks and Recreation (DPR) 523 Series forms are included in Appendix A.

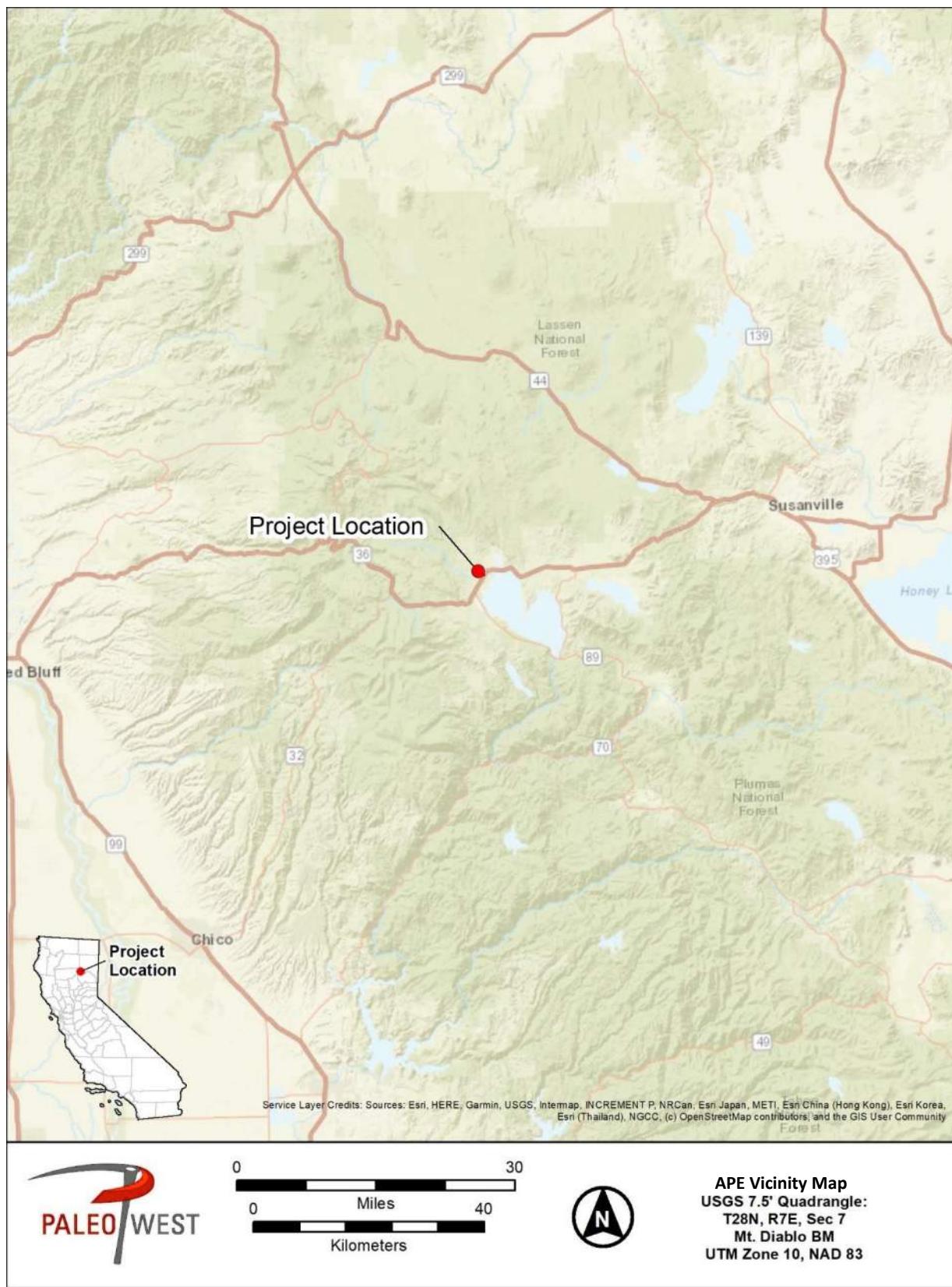


Figure 1-1. APE vicinity map.

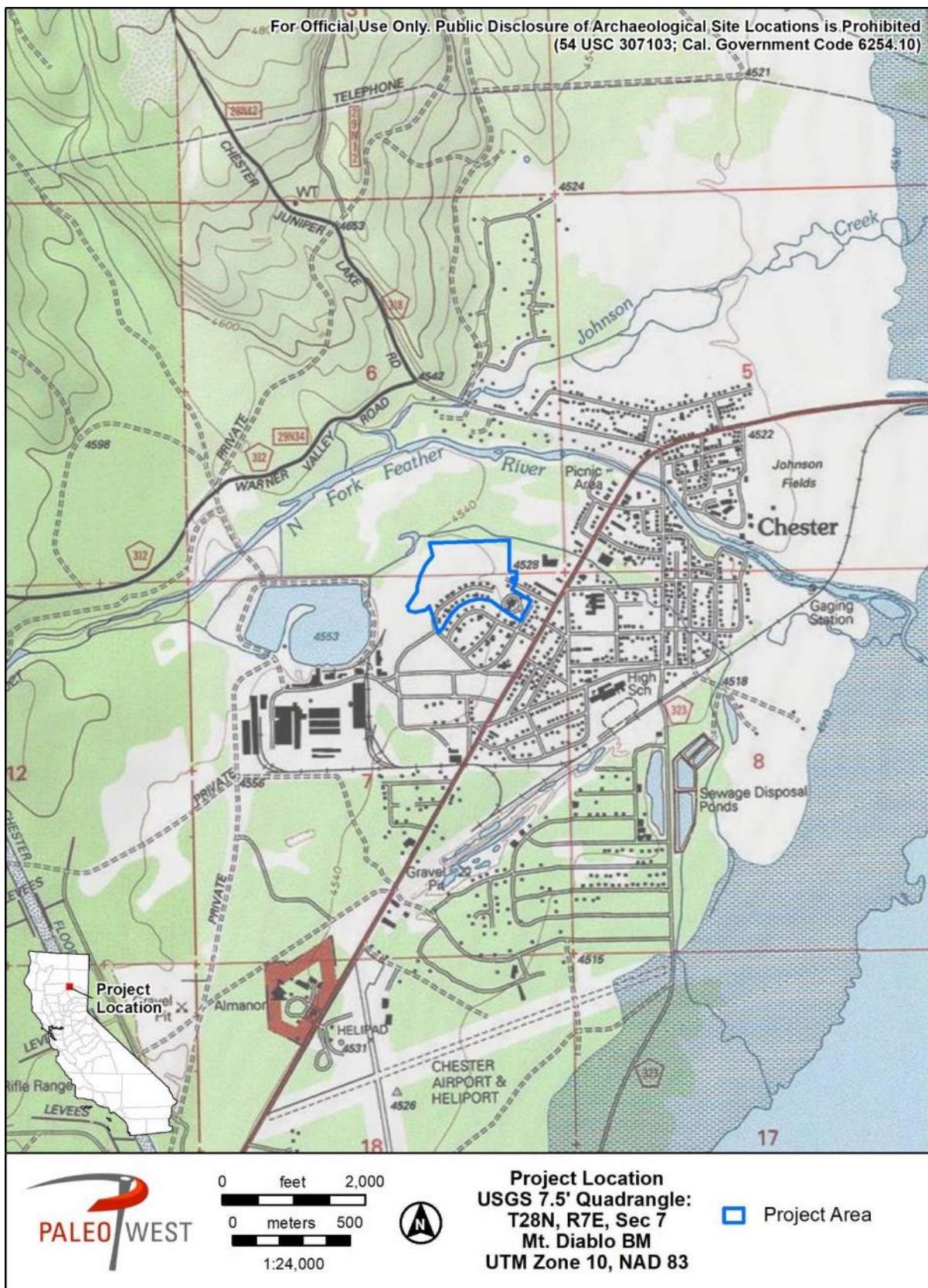


Figure 1-2. APE location map.

For Official Use Only. Public Disclosure of Archaeological Site Locations is Prohibited  
(54 USC 307103; Cal. Government Code 6254.10)

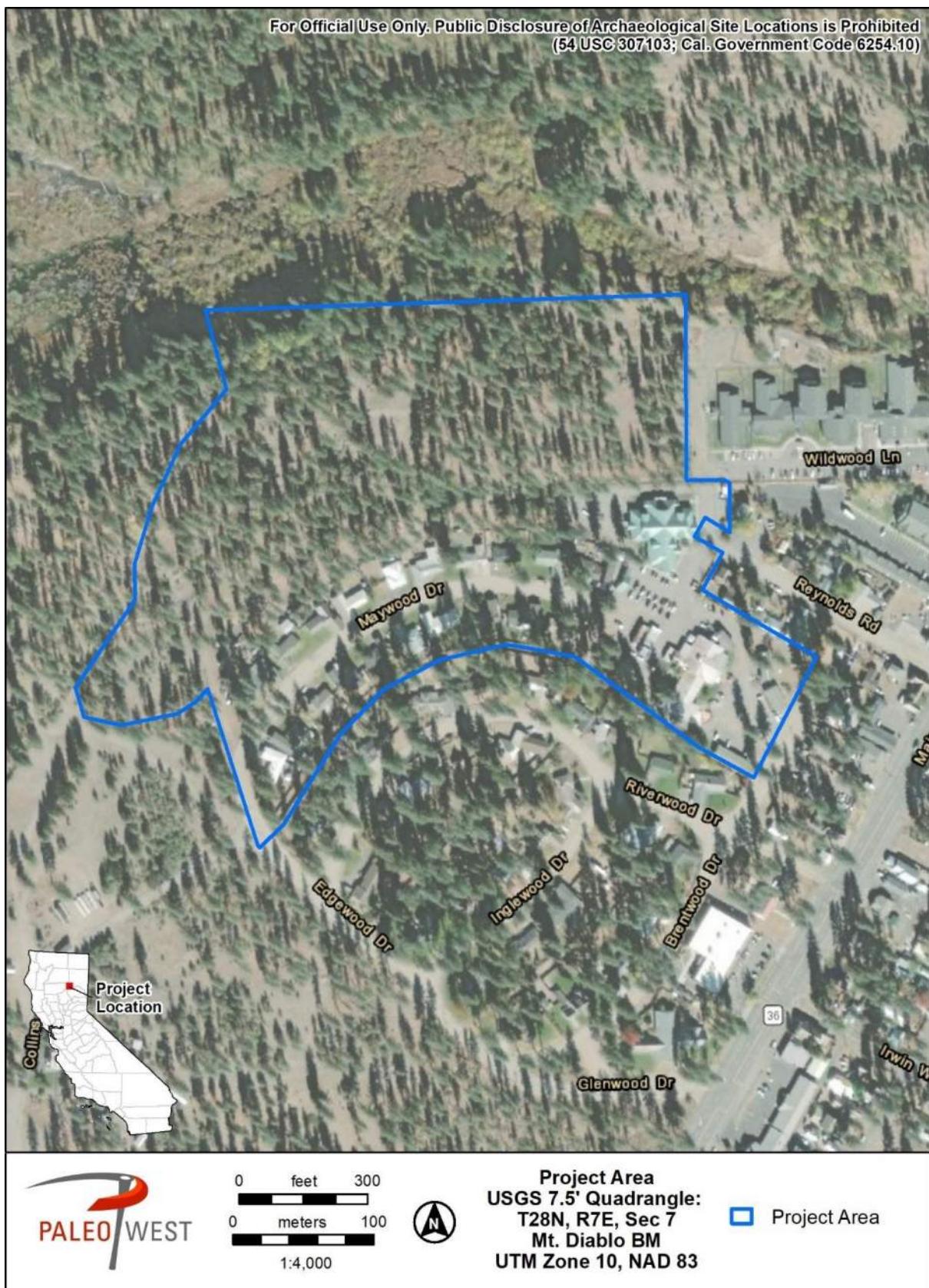


Figure 1-3. APE detail map.

## 2 REGULATORY CONTEXT

### 2.1 FEDERAL

#### 2.1.1 National Historic Preservation Act (NHPA)

The NHPA of 1966 (54 USC 300101) created a national policy for historic preservation and instituted a multifaceted regulatory program administered by the SOI to encourage the achievement of preservation goals at the federal, state, and local levels. The NHPA requires federal agencies to consider the effects of their undertakings on "historic properties." The NHPA defines a historic property as any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the NRHP. This requirement also extends to undertakings with a federal component, such as funding or permitting from a federal agency.

#### Assessment of Adverse Effects

If historic properties are identified, Section 106 requires an assessment of adverse effects to these properties. Section 106 defines an adverse effect as an effect that alters, directly or indirectly, the qualities that make a resource eligible for listing in the NRHP (36 CFR 800.5[a][1]). Consideration must be given to the property's location, design, setting, materials, workmanship, feeling, and association, to the extent that these qualities contribute to the integrity and significance of the resource. Adverse effects may be direct and reasonably foreseeable or may be more remote in time or distance (36 CFR 8010.5[a][1]). Adverse effects to a historic property may include, but are not limited to:

1. Physical destruction of or damage to all or part of the property;
2. Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access that is not consistent with the Secretary's standards for the treatment of historic properties (36 CFR part 68) and applicable guidelines;
3. Removal of the property from its historic location;
4. Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance;
5. Introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features;
6. Neglect of a property which causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization; and
7. Transfer, lease, or sale of property out of Federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance (36 CFR 8010.5[a][2]).

If the impacts assessment finds adverse effects, Section 106 (36 CFR 800.6) calls for agencies to consult with State Historic Preservation Office(s) (SHPO), Tribal Historic Preservation Officer(s) (THPO), and other consulting parties to evaluate project alternatives or modifications that "avoid, minimize, or mitigate adverse effects on historic properties." Investigation of

project alternatives may often involve public input and consultation with the National Council on Historic Preservation (NCHP).

### 2.1.2 National Register of Historic Places (NRHP)

Authorized by the NHPA and administrated by the NPS, the NRHP is the official list of the nation's historic places deemed worthy of preservation, and includes districts, sites, buildings, structures, and objects that are significant in American history, prehistory, architecture, archaeology, engineering, and culture. To be eligible for listing in the NRHP, a property must retain sufficient integrity to convey its significance and meet at least one of the following evaluation Criteria:

- A. Is associated with events that have made a significant contribution to the broad patterns of our history; or
- B. Is associated with the lives of significant persons in our past; or
- C. Embodies the distinctive characteristics of a type, period, or method of construction, or that represents the work of a master, or that possesses high artistic values, or that represents a significant and distinguishable entity whose components may lack individual distinction; or
- D. Has yielded, or may be likely to yield, information important in history or prehistory.

Should a cultural resource be determined eligible for NRHP-listing, it is considered a "historic property" under (36 CFR 60.4).

The NPS publication, *How to Apply the National Register Criteria for Evaluation*, National Register Bulletin 15, establishes how to evaluate the integrity of a historic property and defines integrity as "the ability of a property to convey its significance" (NPS 2016). The evaluation of integrity must be grounded in an understanding of a historic property's physical features and how they relate to the aspects of integrity. Determining which of these aspects are most important to a property requires knowing why and at what level (local, state, or national) it is significant and its period of significance. Although "rarity" of property type is not an aspect of significance, it is considered when assessing integrity.

To retain historic integrity, a property must possess several, and usually most, aspects of integrity: location, design, setting, materials, workmanship, feeling, and association. These seven aspects of integrity are defined as follows,

1. Location is the place where the historic property was constructed or the place where the historic event occurred.
2. Design is the combination of elements that create the form, plan, space, structure, and style of a property.
3. Setting is the physical environment of a historic property and refers to the character of the site and the relationship to surrounding features and open space. Setting often refers to the basic physical conditions under which a property was built and the functions it was intended to serve. These features can be either natural or manmade, including vegetation, paths, fences, and relationships between other features or open space.

4. Materials are the physical elements that were combined or deposited during a particular period or time, and in a particular pattern or configuration to form a historic property.
5. Workmanship is the physical evidence of crafts of a particular culture or people during any given period of history or prehistory and can be applied to the property as a whole or to individual components.
6. Feeling is a property's expression of the aesthetic or historic sense of a particular period. It results from the presence of physical features that, when taken together, convey the property's historic character.
7. Association is the direct link between the important historic event or person and a historic property.

## 2.2 STATE

### 2.2.1 California Environmental Quality Act (CEQA)

The proposed Project is subject to compliance with CEQA, as amended. Compliance with CEQA statutes and guidelines requires both public and private projects with financing or approval from a public agency to assess the project's impact on cultural resources (Public Resources Code Section 21082, 21083.2, and 21084 and California Code of Regulations 10564.5). The first step in the process is to identify cultural resources that may be impacted by the Project and then determine whether the resources are "historically significant" resources.

The CRHR is used in consideration of historical resources relative to significance for purposes of CEQA. The CRHR includes resources listed in, or formally determined eligible for listing in, the NRHP, as well as some California State Landmarks and Points of Historical Interest. Properties of local significance that have been designated under a local preservation ordinance (local landmarks or landmark districts) or that have been identified in a local historical resources inventory may be eligible for listing in the CRHR and are presumed to be significant resources for purposes of CEQA unless a preponderance of evidence indicates otherwise (Public Resources Code Section 5024.1). Historical resources are buildings, sites, humanly modified landscapes, traditional cultural properties, structures, or objects that may have historical, architectural, cultural, or scientific importance.

Generally, a resource shall be considered by the lead agency to be a "historical resource" if it:

1. Is listed in, or is determined to be eligible by the State Historical Resources Commission (HRC) for listing in the CRHR (Public Resources Code Section 5024.1, Title 14 CCR, Section 4850 et seq.).
2. Is included in a local register of historical resources or is identified as significant in a historical resource survey meeting the requirements of Section 5024.1(g) of the Public Resources Code (PRC).
3. Is a building or structure determined to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California.

## Assessment of Impacts

CEQA states that if a project will have a significant impact on important cultural resources, deemed "historically significant," then project alternatives and mitigation measures must be considered. Additionally, any proposed project that may affect historically significant cultural resources must be submitted to the State Historic Preservation Officer (SHPO) for review and comment prior to project approval by the responsible agency and prior to construction (14 CCR § 15064.5(b)). CEQA Section 21084.1 states that significant impacts may occur if "a project may cause a substantial adverse change in the significance of an historical resource." Section §15064.5(b)(1) defines adverse impacts as a substantial adverse change to a historic resource, encompassing "demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired."

CEQA defines impacts, or effects, as follows:

1. Direct, or primary, effects are direct physical changes which are caused by and immediately related to the project. Direct effects occur at the same time and place as a project.
2. Indirect, or secondary, are physical changes in the environment which are not immediately related to the project but are caused indirectly by the project. Indirect effects are reasonably foreseeable to be caused by a project but occur at a different time or place (14 CCR § 15064).
3. Cumulative effects are two or more individual effects which, when considered together, are considerable or will compound or increase other impacts (14 CCR § 15130).

Mitigation measures must be enforceable through permit conditions, agreements, or other legal means and are proportional to the expected impacts. The measures seek to reduce impacts entirely or to a level considered not significant (14 CCR § 15126.4). As such, the examples of mitigation measures provided may not satisfy CEQA requirements in every circumstance. Mitigation measures for historical resources may include:

1. Altering a proposed project to avoid damaging effects on any historical resource in a significant manner, such as by not taking a certain action or parts of an action.
2. Rectifying impacts through maintenance, repair, stabilization, rehabilitation, restoration, preservation, conservation, or reconstruction of the historical resource in a manner consistent with the SOI's Standards for the Treatment of Historic Properties.
3. Documentation of the historical resource by way of historic narrative, photographs, or architectural drawings meeting California Office of Historic Preservation (OHP) recommendations prior to demolition.
4. Deeding the site into a permanent conservation easement.
5. Abandonment of the proposed project.

CEQA Section 15064.5(b)(3) states that a project that follows the *Secretary of the Interior's Standards for the Treatment of Historic Properties (SOI Standards)* shall be considered as mitigated to a level of less than a significant impact on the historical resource.

## 2.2.2 California Register of Historical Resources (CRHR)

The CRHR program encourages public recognition and protection of resources of architectural, historical, archaeological, and cultural significance; identifies historical resources for state and local planning purposes; determines eligibility for state historic preservation grant funding; and affords certain protections under CEQA. The criteria established for eligibility for the CRHR are directly comparable to the national criteria established for the NRHP.

To be eligible for listing in the CRHR, a property must meet at least one of the following four criteria:

1. It is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States; or
2. It is associated with the lives of persons important to local, California, or national history; or
3. It embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values; or
4. It has yielded, or is likely to yield, information important to the prehistory or history of the local area, California, or the nation.

For a property to qualify under the CRHR's Criteria for Evaluation, it must also retain enough of its historic character or appearance (integrity) to be recognizable as a historical resource and to convey the reasons for its significance. For the purposes of eligibility for the CRHR, integrity is defined as "the authenticity of a historical resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance" (California Office of Historic Preservation 2001a). To determine if a property retains the physical characteristics corresponding to its historic context, the National Register of Historic Places (NRHP) has identified seven aspects of integrity, which the CRHR closely follows.

1. Location is the place where the historic property was constructed or the place where the historic event occurred.
2. Design is the combination of elements that create the form, plan, space, structure, and style of a property.
3. Setting is the physical environment of a historic property.
4. Materials are the physical elements that were combined or deposited during a particular period and in a particular pattern or configuration to form a historic property.
5. Workmanship is the physical evidence of the crafts of a particular cultural or people during any given period in history or prehistory.
6. Feeling is the property's expression of the aesthetic or historic sense of a particular period.
7. Association is the direct link between an important historic event or person and a historic property.

Because integrity is based on a property's significance in a specific historic context, evaluations of integrity can only be completed after historic significance has been established.

### 2.2.3 California Assembly Bill 52

Signed into law in September 2014, California Assembly Bill 52 (AB 52) created a new class of resources—tribal cultural resources (TCRs)—for consideration under CEQA. TCRs may include sites, features, places, cultural landscapes, sacred places, or objects with cultural value to a California Native American tribe that are listed or determined to be eligible for listing in the California Register, included in a local register of historical resources, or a resource determined by the lead CEQA agency, in its discretion and supported by substantial evidence, to be significant and eligible for listing on the California Register.

AB 52 requires that the lead CEQA agency consults with California Native American tribes that have requested consultation for projects that may affect tribal cultural resources. The lead CEQA agency shall begin consultation with participating Native American tribes before releasing a negative declaration, mitigated negative declaration, or Environmental Impact Report. Under AB 52, a project that has the potential to cause a substantial adverse change to a tribal cultural resource constitutes a significant effect on the environment unless mitigation reduces such effects to a less-than-significant level. The lead CEQA agency (SHD) is responsible for AB 52 consultation for the Project.

## 3 METHODS

### 3.1 RESEARCH AND LITERATURE REVIEW

PaleoWest completed original, secondary, and archival research to establish an appropriate historic context from which to evaluate historical and archaeological resources in the APE for NRHP/CRHR eligibility in support of Section 106 and CEQA compliance. Research was conducted to develop an overview of the history of early settlement of Chester, the development of the SHD, and patterns of land use near the SHD.

PaleoWest consulted the following USGS quadrangle topographic maps: *Lassen Peak, California* (1886, 1892, 1894); *Westwood, California* (1955); *Susanville, California* (1962, 1968); and *Chester, California* (1979). Aerial images examined include historical aerial photographs from the Eastman Collection (Eastman 1946a, 1946b, 1955), aerial survey images dated 1973, 1981, 1993, 1998, 2005, and 2018 (NETROnline 2022), and the University of California, Santa Barbara (UCSB) aerial image collection (UCSB 1962).

In addition to this research, PaleoWest reviewed search results from the California Historical Resources Information System (CHRIS) at the Northeast Information Center (NEIC) at California State University, Chico. The records search included a review of cultural resource studies and existing cultural resources within the APE and a 0.25-mile (mi) radius. PaleoWest also reviewed the Office of Historic Preservation (OHP) Historic Properties Directory, which includes information regarding properties listed in the NRHP, CRHR, California State Historical Landmarks, California State Points of Historical Interest, and pertinent historic building surveys. Records search results indicated that no cultural resources have been previously documented within the APE or the 0.25-mi buffer around the APE. The 2021 Master Plan for the Seneca

Health Care District (Aspen Street Architects, Inc. [ASA] 2021), which includes architectural drawings, building construction information, and a historical overview, was also referenced for this report.

## 3.2 FIELD SURVEYS

PaleoWest Architectural Historian Lisa Demarais completed a built environment field survey of the APE on June 3, 2022. During the survey, Demarais recorded high resolution photographs, field notes, and GIS data to document the existing built environment resources and their settings. Data was recorded using Theodolite HD and ArcGIS Field Maps. The built environment survey covered extant resources in the direct APE (APN 100-230-028) and a right-of-way (ROW) survey of private residential properties within the indirect APE. Specific attention was paid to the setting, levels of architectural cohesion, and historic integrity of the subject properties to determine whether the Seneca Hospital Campus and Maywood Drive Residences are NRHP/CRHR-eligible and if buildings within the districts are individually eligible and/or contributors to eligible historic districts. Viewsheds to and from the area of proposed construction were also analyzed and documented to ensure the correct extent of the APE and to inform impacts assessments pursuant to Section 106 and CEQA should any resources be recommended NRHP/CRHR-eligible. DPR 523 forms were completed after returning from the field survey.

PaleoWest Senior Archaeologist Evan Tudor Elliot completed an intensive archaeological pedestrian survey of the APE on June 15, 2022. Katie Holst and Josh Noyer completed a supplemental archaeological pedestrian survey on October 3, 2022. Surveys were completed by walking the APE using transects spaced no more than 10 ft (3 m) apart. The purpose of the archaeological surveys was to observe and note the conditions of the APE, including the extent of the hardscape, the overall degree of ground disturbance, and the character and nature of the APE and cultural resources that have yet to be identified in the APE. Archaeologists inspected areas likely to contain or exhibit archaeologically or historically sensitive cultural resources to ensure that if any visible, potentially significant archaeological resources were discovered, they were documented. Photographs and notes documenting conditions of the APE were recorded on FileMaker software, and ArcGIS Collector was used to navigate and collect spatial information. New sites were recorded on DPR 523 forms using iPads. Site documentation involved the collection of photographic and spatial data, including site boundary polygons, sketch maps, and location maps.

## 3.3 ARCHAEOLOGICAL TESTING

Testing for new prehistoric loci within Site 21-415-KH-001/H identified in 2022 was completed from November 29 to 30, 2022. PaleoWest archaeologist Katherine Holst acted as Field Director and was supported by archaeologist Maria Hawley. The work was monitored by tribal representatives from the Susanville Indian Rancheria and the Greenville Rancheria. Excavations consisted of 10 shovel test pits (STPs) and one 0.5 x 0.5 m control excavation unit.

### 3.3.1 Shovel Test Pit Methods

PaleoWest excavated ten circular shovel test pits (STPs), including six within and four outside of the locus boundary. STPs outside of the boundary were excavated within two meters of the

locus in each cardinal direction. Figure 3-1 displays testing locations established prior to excavation fieldwork.



Figure 3-1. Locations of test units for Pre-contact locus within site 21-415-KH-001/H.

STPs measured 30 cm in diameter and were excavated in 10 cm increments. Sediments from the test units were screened with 1/8-inch mesh screens. STPs were excavated to a minimum of two sterile levels, after which an auger was used to excavate to 50 cmbs, or until a restrictive layer was reached.

### 3.3.2 Excavation Control Unit Methods

One 0.5 x 0.5 cm excavation control unit was also excavated near the center of the site. The target depth was one meter below ground surface, excavated in 10-cm increments. The unit was excavated to a maximum depth of 65 cmbs, at which point it was terminated when large cobbles were encountered at the final two levels (40 – 60 cmbs). One small (>3 cm in size) black banded obsidian flake was found in Level 04 (30 – 40 cm). No other cultural materials were observed, and the artifact was reburied when the unit was backfilled.

## 4 HISTORICAL SETTING AND CONTEXT

### 4.1 HISTORICAL BACKGROUND

Peter Lassen and Isadore Meyerwitz were among the first Euroamericans to enter Plumas County in the 1840s. Lassen established a ranch on the lower reaches of Deer Creek in 1844 and pioneered a new wagon trail in 1848. The trail passed from the headwaters of the Pit River near Goose Lake, heading south to Lassen Peak, west across Mountain Meadows and Big Meadows, and ending at the lower end of Deer Creek (Farris and Smith 1988:144). After Lassen's Road was established, hundreds of immigrants passed through Big Meadows during the 1849 gold rush. With reports of a gold-bearing lake in the area, hundreds of gold seekers started working the streams of Plumas County (Frickstad 1955).

In 1874, Plumas County was divided into eight townships: Seneca, Rich Bar, Mineral, Goodwin, Quartz, Beckwourth, Indian, and Plumas. Prattville, the first town established, was near the center of Big Meadows. William Pratt constructed a residence and hotel in 1867 and a post office in 1868 (Frickstad 1955). The Pratt Hotel drew visitors during the summer months, and by the 1880s, a small community had been developed at Prattville. During this period, dairying was the chief industry of the Big Meadows area (Fariss and Smith 1988).

Chester is near the northern shoreline of Lake Almanor, at the inlet of the North Fork Feather River. The 1878 U.S. Army survey map shows "Martins" at the location of the modern-day town of Chester (Wheeler 1878; Figure 4-1). In the early 1900s, the town was named reportedly in honor of Chester, Vermont (Gudde 1969:62). However, government records indicate that a post office established in the area in April 1894 was officially given the name "Chester" (Frickstad 1955:123).

In 1914, after Great Western Power completed the construction of a hydroelectric dam across the North Fork Feather River, the town of Prattville and the surrounding lands within Big Meadows were abandoned to create Lake Almanor (Figure 4-2 and Figure 4-3). Lake Almanor is fed primarily by both the North Fork and Hamilton branches of the Feather River and covers an area of approximately 26,000 acres (Kowta 1980). To establish the lake, a dam was built to flood the meadow-filled valley and a longstanding Yawani Maidu village site, displacing Maidu families residing in the area (Dixon 1905).

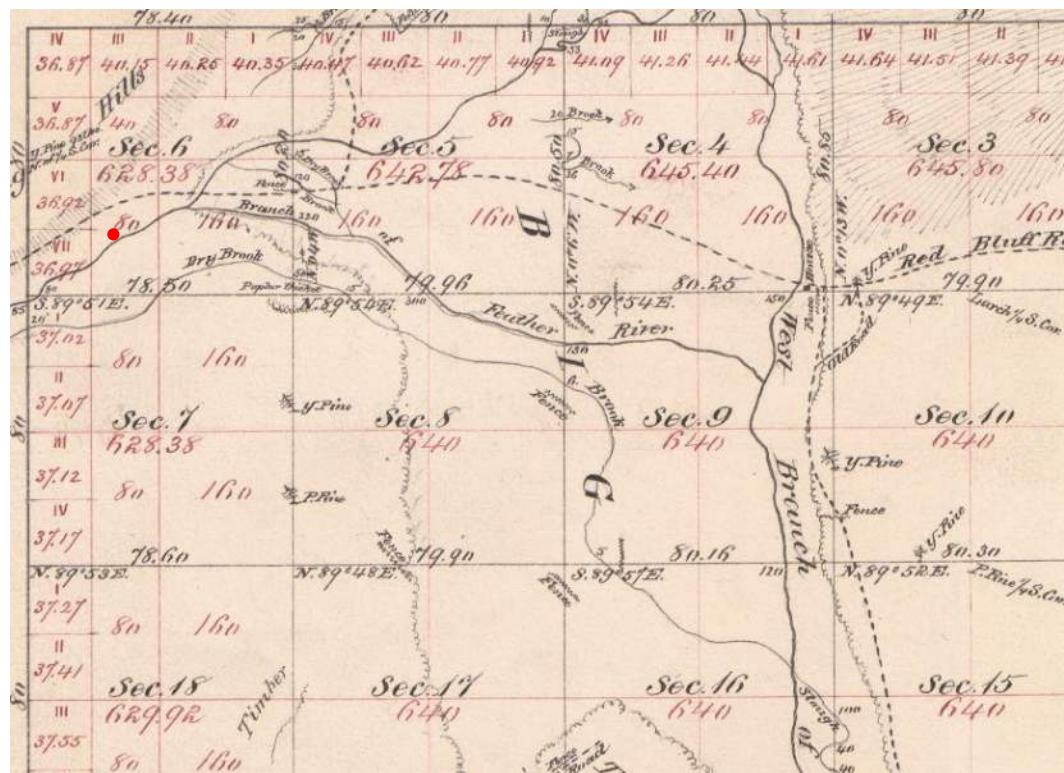


Figure 4-1. 1867 U.S. General Land Office (GLO) Plat Map (Upson 1867).

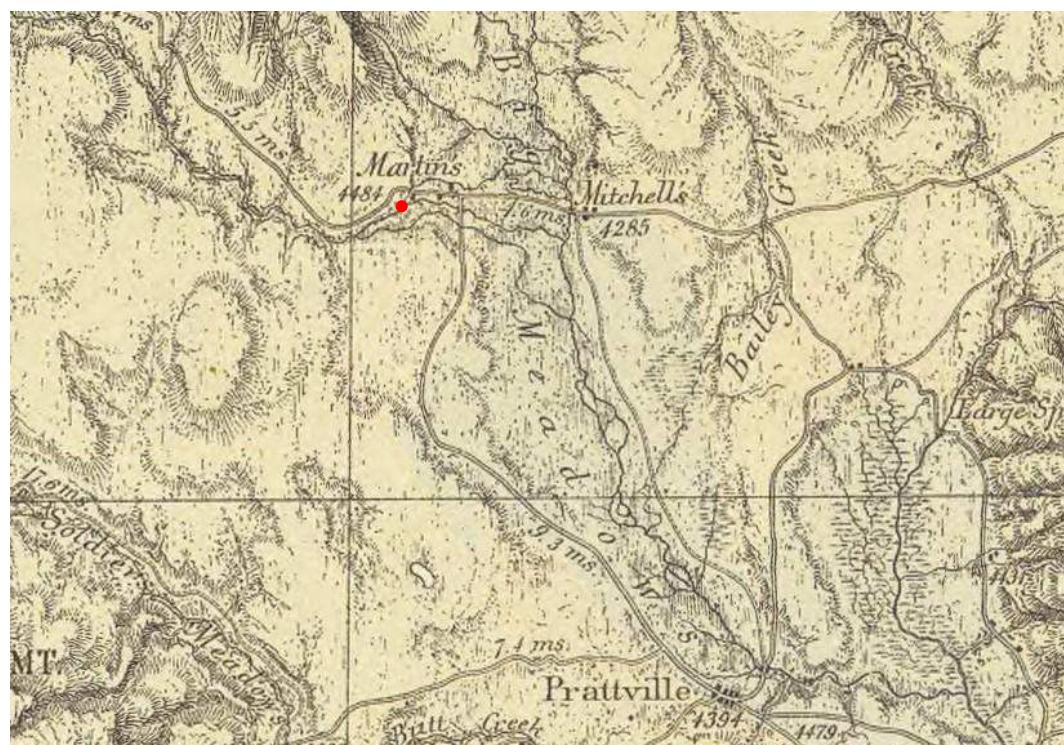


Figure 4-2. 1878 map showing the Chester area (labeled "Martin's") and Big Meadows before it was flooded (Wheeler 1878).



Figure 4-3. 1989 topographic map showing Lake Almanor, created after construction of the dam and flooding of Big Meadows in 1914 (USGS 1989).

#### 4.1.1 Euro-American Logging History

In 1910, the Great Western Power Company started buying land in the Chester area for the creation of Lake Almanor and a hydroelectric dam. One of the challenges that Great Western Power Company faced during dam construction was the removal of pine timber. Between Almanor and the other reservoir site of Butt Valley, there was an estimated 200 million board-feet of timber (Purdy 2007). In 1913, Great Western contracted the Red River Lumber Company to remove the timber at a rate of one dollar per thousand board-feet of pine removed.

In the spring of 1914, Red River using a gasoline launch boat, floated the timber to the east side of the newly created Lake Almanor via Big Springs. From there, the logs were reloaded onto railroad cars and shipped to Westwood for milling (Figure 4-4). Red River would repeat a similar procedure in 1924 at Butt Valley, and again in 1926 when Lake Almanor was enlarged (Purdy 2007).

In the early 1900s, the founders of Collins Pine Company amassed about 60,000 acres of timberland in the greater Lake Almanor Basin. Forty years later, Red River Lumber Company offered Collins Pine the site adjacent to Chester (and the APE) where a mill would be constructed. The \$80,000 purchase also included 13 mi of its main line railroad from Chester to Clear Creek Junction, where it connected with the Western Pacific Railroad (Purdy 2007). Thus, the Almanor Railroad was born (Figure 4-5). Collins Pine changed the newly purchased rail line from a private line to a common carrier and started working on upgrades to the line.



Figure 4-4. Loading logs at Camp 14 in Lake Almanor, 1914 (Quadrio 2014).



Figure 4-5. The Almanor Railroad's No. 106 (Purdy 2007).

In 1943, manufacturing began at the Collins Pine Company sawmill in Chester (Figure 4-6), adjacent to the 94,000-acre Collins Almanor Forests, which the company had acquired in 1902 (Purdy 2007). The Collins Pine Museum in Chester was opened to the public in May 2007. The museum building was constructed to look like the sawmill that operated in Chester from 1943 to 2001, when it was replaced by a new sawmill (Collins Pine 2015).



Figure 4-6. The Collins Pine Lumber Company Chester sawmill in 1945 (Eastman 1945).

Today, Lake Almanor has developed as a vacation and tourist destination for fishing, boating, swimming, and camping. Serving as the retail center for the surrounding community and visitors to Lake Almanor, Chester has continued to grow into the twenty-first century. Surrounded by deer hunting country and trout fishing streams and lakes, the community has also continued to benefit from its own recreation offerings.

## 4.2 THEMATIC CONTEXTS

### 4.2.1 Post-war Housing

In America's post-war years, servicemembers returned from Europe and the Pacific to a period of unprecedented economic prosperity, resulting in a renewed sense of the American Dream that included a family, a home near schools and parks, a stable job, and a car. Between 1940 and 1970, the population of California grew from about 6.9 million residents to over 20 million people, a more than 80 percent increase (Hope 2011:15). Western states grew faster than the rest of the country, and by 1962, one in 12 Americans lived in California, making it the most populous state in the nation (Hope 2011:ii,15-16).

As a result of California's rapid post-war growth, adequate housing was not available to meet the needs of Americans and their growing families (Hope 2011). In July 1945, the State Reconstruction and Reemployment Commission called for the creation of 625,000 new single-family homes throughout the state, including 300,000 in Northern California alone (Starr 2002:204). The Commission, chaired by prominent homebuilders, further recommended that homes should be obtainable for hardworking Americans, which meant taking advantage of reasonable land values at the fringes of existing cities and using existing easy to build home designs, namely the popular California Ranch style. This style, the Committee argued, "offered

the best possibilities of California expressed through and nurtured by housing," by breaking down the division between indoor and outdoor living (Starr 2002:204–205).

This post-war economic prosperity and population growth fueled the development of suburbs across the U.S. Suburban expansion is apparent in the residential developments pioneered by developers William, Alfred, and Abraham Levitt (Levitt and Sons) during and after World War II. By 1946, the Levitts had devised a 27-step method for suburban home development and house construction on the East Coast (Jackson 1985). Developers bulldozed entire parcels upon which the houses were to be constructed and poured concrete slabs for each building. Trucks then deposited materials, many of which were prefabricated, at each construction site, and workers, each with a specific job, moved through the neighborhood, completing their tasks. In essence, the homes were assembled as much as built, using the process common for assembly lines in various industries. Levitt and Sons was able to complete up to 30 houses per day during peak production (Jackson 1985). Other builders took note and adopted Levitt's techniques to meet housing demands across the U.S.

In the thirty years following World War II, more than 30 million single-family homes were built in the United States, including 3.5 million in California (Hope 2011:ii,15-16; Jackson 1985:234-5). In California, Levitt and Sons' construction methods were replicated in new mass developments in Westlake and San Lorenzo Village in the San Francisco Bay area. In Southern California's San Fernando Valley, developers Burns and Kaiser replaced the area's largest dairy farm with neighborhoods of prefabricated and mass produced rows of homes (Jackson 1985). The San Francisco equivalent was Westlake, where Henry Doelger developed 600 acres of swamp and sand dunes west of Daly City. Doelger initial investment was in 1945, and by 1962 his residential empire had migrated west and south down the California coast to Pacifica (Starr 2009:11,13). Developers like Burns, Kaiser, and Doelger represented a new type of large-scale builder known as merchant builders, who acquired large tracts of land where hundreds of homes were built at a time (Hope 2011:57–60). Many of these housing developments were built on land once used for agriculture and ranching. Typically, roads, shops, and other services were also built to support the increase in residential development and growing population, further transforming rural areas (Jackson 1985:265-6).

Aerial images from the Eastman Collection (Figure 4-7 and Figure 4-8) show the 1946 layout of the neighborhood and surface streets adjacent to the Collins Pine sawmill and the expanding town of Chester. Topographic maps show the continued expansion of the Maywood Drive District between 1956 (Figure 4-9) and 1979 (Figure 4-10). Aerial photography from 1962 (Figure 4-11) shows the earlier layout of the SHD hospital campus and older homes along the west of Maywood Drive, with empty parcels to their east towards the hospital.



Figure 4-7. 1946 aerial photograph showing the Collins-Pine Sawmill and Maywood Drive in the foreground (Eastman 1946a).



Figure 4-8. 1946 aerial photograph showing the Collins-Pine Sawmill and Maywood Drive in the background (Eastman 1946b).



Figure 4-9. 1956 topographic map showing structures within and adjacent to the Maywood Drive District and Seneca Hospital District (USGS 1956).

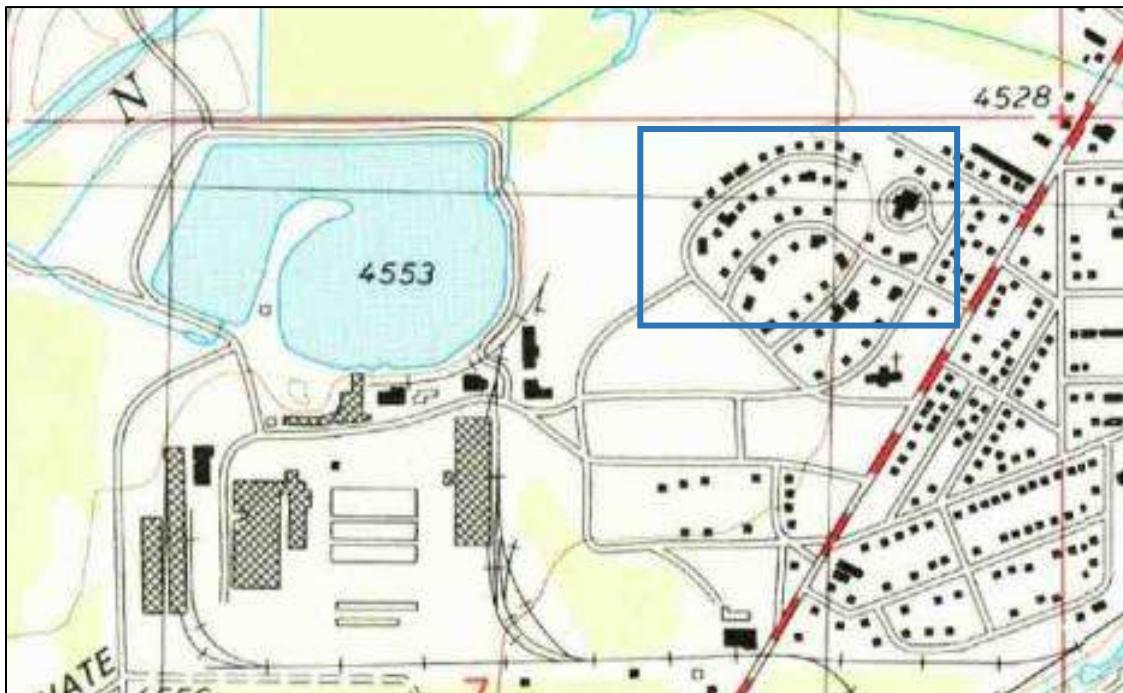


Figure 4-10. 1979 topographic map showing structures within and adjacent to the Maywood Drive District and Seneca Hospital District (USGS 1979).

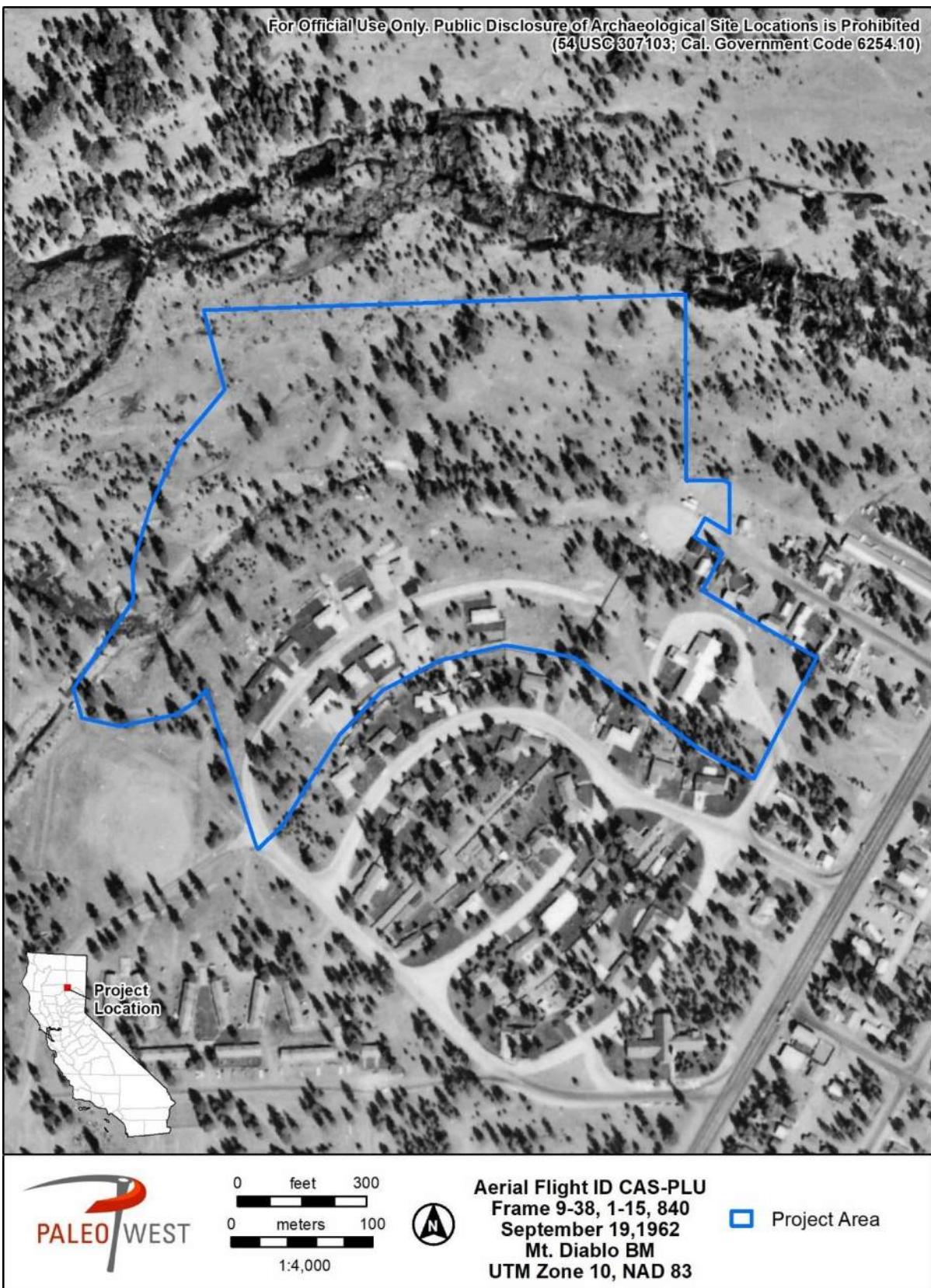


Figure 4-11. 1962 aerial image showing APE in blue (UCSB 1962).

#### 4.2.2 Independent Hospital Districts

During the post-war years, improved medical procedures and improved facilities prompted changes to healthcare systems in California. The state did not have enough hospital beds to care for the rapidly increasing population. Residents in rural areas often suffered without convenient access to hospitals and healthcare. Public rural county hospitals also often lacked the materials, staff, and other necessities to provide quality care equal to suburban and urban areas (Taylor 2006:6–7).

The Local Hospital District Law was enacted in 1945 to expand acute care services in non-urban parts of the state. Governed by an elected board of directors independent from city and county governments, these Districts would construct and operate community hospitals and recruit physicians to rural and underserved areas. Districts were established by grassroots campaigns that gathered local support for acute care facilities. The first was the Sequoia Hospital District in Redwood City, which was founded in 1946 and opened its first hospital in 1950. In 1951, the Association of California Healthcare Districts (ACHD) was established as a new trade organization, which educated new hospital board members and served as legislative advocacy for the hospital districts at the state-level (Taylor 2006:5–6).

Since 1945, 85 healthcare and hospital districts have been established in California. Since their creation, districts have expanded their original goals of building and managing hospitals in rural areas to support more community-based health and wellness facilities through grants and real estate holdings (Taylor 2006:5). Most districts were created between 1956 and 1971, with the most recent dating to the early 2000s. Broader patterns in healthcare in the last fifty years have led to the closure or privatization of around 33 percent of the districts, while others have expanded community health services (Taylor 2006:7).

Through the early 1960s, acute hospital care was funded by tax proceeds and fees. Funding sources shifted during the 1970s, and by the early 1980s, health insurance companies shifted hospital income streams from direct payments to contractual relationships. In response, Medicare and MediCal started developing ways to cut costs of public programs. In this period, an emphasis on earlier discharge and outpatient care, aided by medical advancements and evolving medical knowledge, led to higher rates of patient turnover, causing empty beds and increased budget deficits in many hospitals. Smaller hospitals struggled to adopt early discharge and outpatient programs, as they could not afford to expand those services or invest in new technologies and training that would allow the implementation of this approach to medicine (Taylor 2006:6–8). Reflecting the shift away from acute care to managed, lower-cost care (e.g., chronic care and ambulatory care), the districts were changed from “Hospital Districts” to “Healthcare Districts” in 1994 (Taylor 2006:8).

Based on a survey of the existing hospital districts conducted in 2006 by the California Healthcare Foundation, of the 85 California Healthcare Districts, only 52 operate their own hospitals today (Taylor 2006: 8). This includes 16 that have closed or sold their hospital facilities but retain some public health services to their communities. Districts that still support their own hospital typically do so with the help of external local health systems. For example, the Sequoia Hospital District now operates under a long-term lease to a local non-profit healthcare system (Taylor 2006:9). Seneca Hospital District remains under the SHD’s jurisdiction (Taylor 2006:16), one of the remaining 36 hospitals still managed by their own districts.

## 4.3 ARCHITECTURE AND ENGINEERING

### 4.3.1 Tract Housing as a Historical Development Style

Post-war residential development, especially in suburban areas, was often expanded in tracts to offset the cost of providing utilities to the area. Post-war development is often trademarked by automobile-dependent spaces, curved streets, single-family residences, and garages. The Federal Housing Administration (FHA), which helped fund post-war housing construction, employed design guidelines that encouraged curvilinear street plans for aesthetic purposes and limited the number of four-way intersections to improve increased automobile traffic with long, uninterrupted streets. Tract developers also tended to build around existing facilities, like shopping districts, schools, or hospitals. The desperate need for post-war housing was met by the easy-to-build small Post-war Minimal House type, which pioneered the Minimal Traditional style. Houses rapidly began to increase in size and include more luxurious features like extra bathrooms and attached garages. With these housing trends, the Ranch style grew prominent nationwide, and developers began to adopt the style and form for tract housing. Ranch houses tend to be low to the ground and have low front porches with minimally covered entries. The horizontality is emphasized by continuous lines in the eaves and wainscots, and low-pitch roofs with broad overhangs. Homes were often designed with an emphasis on privacy and the automobile, with views oriented toward private rear yards and attached garages or carports. Typical entryways of the style often feature narrow porches and fenestration to promote feelings of privacy despite dense development; although it is not uncommon to see a large central picture window on the primary façade of a Ranch house to retain picturesque views and connection with the surrounding landscape.

Later iterations of the Ranch style in the 1960s included multi-level homes that maintained the horizontality and massing of the original iteration of the style, allowing for more interior space without compromising yard space. These two-story ranches appeared to be only one-story from public view. The one-story illusion was achieved with a lower level built partially or fully underground with a walk-out entrance to a rear yard. The split-level residential form also developed as a natural evolution of two-story Ranch style homes.

### 4.3.2 Post-World War II Hospitals as a Building Type

In the nineteenth century, medical care was split between public hospitals and private home care. Public hospitals were charity operations, providing free or low-cost care to the sick and poor. These charity hospitals were usually designed as “Pavilion Wards,” with isolated wards to limit transmission of illness, connected by covered corridors (Russell Museum 2022). This style in both urban and rural areas across the country, but since distance frequently influenced hospital operation and building types, two distinct types of hospitals emerged by the early twentieth century. Hospitals farther from their intended communities began offering more features like ambulance services to attract outpatient care and create a more diverse patient base, while hospitals closer to their communities tended to deal with more acute emergencies and were more beholden to their immediate communities (Kisacky 2019:288–289). As a result, hospitals that were farther from their communities started to emphasize specific features including accommodations, size, or new medical specialties.

In the early twentieth century, hospitals became places to practice scientific medicine rather than to provide charity or palliative care, creating what was termed the “medicalized hospital.”

Medicalized hospitals ranged from large teaching hospitals to smaller, more specialized hospitals. Part of the shift away from the charity hospitals of the nineteenth century included the addition of specialized technologies to aid operations of larger hospitals. These expanded technologies and support spaces facilitated treatment, but increased the cost of medical care, creating additional socioeconomic barriers to treatment. With expanded services and improved accommodations, new medical hospitals in suburban and urban areas were largely inaccessible to rural communities due to higher costs and physical distance. Rural areas remained reliant on turn-of-the-century models of palliative care hospitals, which, in comparison to newer medicalized hospitals, experienced economic barriers to medical advancement that limited rural hospitals to older technologies and care approaches (Kisacky 2019: 290-291).

With the post-war population expansion, increased homeownership rates, and continued sprawling rural development, the need for higher standards in healthcare became increasingly apparent in the mid-twentieth century. In 1946, Congress passed the Hospital Survey and Construction Act (also known as the Hill-Burton Act), which was signed into law by President Harry S. Truman that same year. The Hill-Burton Act allocated federal funds to establish hospitals and other medical care facilities in underserved areas such as small towns, rural areas, and poorer urban neighborhoods, with the goal of 4.5 beds per 1,000 residents. Federal funding, the desire for better community integration, and a shift toward more personalized medical care influenced and mandated how hospitals were designed to meet federal standards of care. The U.S. Public Health Service imposed minimum design and equipment standards if federal funds were used, but local customs and styles were still applied to these new facilities (Kisacky 2019:292–293). This new federal funding avenue also prompted the adoption of new building codes to improve fire safety in public buildings (Architect and Engineer 1951a:11). By the mid-1960s, the War on Poverty promoted the transfer of funding away from acute care and large hospitals and towards construction of smaller outpatient medical facilities.

#### 4.3.3 Stone, Mulloy, and Marraccini

Architects Douglas Dacre Stone (1897-1969), Louis Belden Mulloy (1910-1963), and Silvio Peter Marraccini (1918-1970) formed the Stone, Mulloy, and Marraccini firm in 1953, which primarily designed community, public, and federally funded hospitals in California, including the Seneca Hospital. Stone and Mulloy had previously partnered and formed their own firm in 1928, and in the 1950s were joined by Marraccini. Their medical facility designs reflected the needs of clients while also presenting clean, modern buildings to house the new medical institutions. Stone and Mulloy also designed schools, libraries, hotels, and private residences, though these non-medical buildings were primarily constructed before World War II (Pacific Coast Architecture Database [PCAD] 2005a-g; Marino n.d.).

Architect Norman William Patterson (1917-1990) originally joined the firm as a draftsman and became a partner in 1951. Together, these four architects designed the Sequoia Hospital, the first in California to be awarded Local Hospital District funding and subject to federal hospital regulations setting minimum building code requirements for fire safety in public buildings (American Institute of Architects [AIA] 1956:366, 395, 539; Architect and Engineer 1951:11, 34; PCAD 2005h). There was no evidence found to suggest Patterson's involvement in the design of the Seneca Hospital. The design for the Sequoia Hospital District was featured on the January 1951 cover of the Trade Publication *Architect and Engineer* (1951b).

In addition to the Sequoia and Seneca Hospital Districts, PCAD entries for Stone, Mulloy, and Marraccini list the architects' involvement with various well-known hospital buildings throughout California. However, additional research revealed most of these instances only involved the design of additions and other alterations during the 1950s. For instance, PCAD lists the United States Public Health Hospital as a 1953 work from the trio, but the hospital was originally designed in 1932 by James Wetmore. The only architectural work recorded for the structure during the 1950s was the addition of two front wings that increased the number of hospital beds but severely compromised the integrity of the original design. The wings were removed during restoration and seismic upgrading circa 2020 (Alley et al. 1992:7-60; PCAD 2005a, c-g; OHP n.d.). Of the works on record with PCAD, Stone, Mulloy, and Marraccini appear to have only been involved in the original design of buildings constructed circa 1945-1960 and the redesign of two upper stories of the Hotel Empire, transforming two large units into a bar known as the Sky Room during the 1950s (Stone et al. 1938:20-23).

D.D. Stone is the only architect of the three to have his own collection hosted by the University of California. The collection includes architectural drawings for two San Francisco buildings, the 1936 Neil B. Brown Mortuary Building and a 1934 addition to the Society for the Prevention of Cruelty to Animals Building (Marino n.d.). Stone also was a prolific writer, with articles appearing in *Architect and Engineer*, *Journal of the American Institute of Architects*, *Architectural Record*, and *Architectural Forum*. His writings include an article reviewing Public Law 725 and its anticipated effects to the field of architecture, and his desire to improve American medical care through architecture (Stone 1947:12-14).

Stone, Mulloy, Marraccini, and Patterson, designed additions to many hospitals and other medical buildings in the post-war era, including:

- Alexian Brothers Hospital, San Jose, 1963 (altered)
- Bakersfield Memorial Hospital, Bakersfield, 1956 (altered)
- Brookside Hospital (Doctors Medical Center), San Pablo, 1952-1954 (demolished)
- Eden Township Hospital (Sutter Medical Center), Castro Valley, 1954 (demolished)
- El Camino Hospital, Mountain View, 1958 (demolished)
- Peninsula Blood Bank, San Mateo, 1954 (demolished)
- Peninsula Hospital, Burlingame, 1954 (demolished)
- Peralta Hospital (Peralta Pavilion), Oakland, 1954 (altered)
- Pittsburg Community Hospital, Pittsburg, 1946 (demolished)
- Sequoia Hospital, Redwood City, 1952 (altered)
- Sharp Memorial Hospital, San Diego, 1955 (altered)
- Tuberculosis Hospital, Redwood City, 1954 (demolished)
- Vallejo General Hospital (Sutter Solano Medical Center), Vallejo, 1969 (altered)



Figure 4-12. *Architect and Engineer* cover featuring the Sequoia Hospital, January 1951 edition.

The firm's work in designing additions to existing hospitals caused some confusion in previous evaluations of Stone's portfolio. For example, the 2009 documentation of Sutter Medical Center

in Castro Valley lists Stone as the architect of various hospitals which were constructed by other architects, including the United States Public Health Hospital, Children's Hospital of the East Bay, Santa Clara County Hospital, and Letterman Army Medical Center. Instead, Stone (often working with Mulloy) designed major additions to those four and other facilities. Of the hospital designs that could be reliably contributed to Stone, Mulloy, and Marraccini (as partners or individuals), most were built in urban and suburban areas and have since been demolished or substantially altered since original construction. The Sequoia Hospital is representative of the firm's typical hospital designs, though substantial additions have since altered the building's floorplan and overall appearance.

## 5 PROPERTY DESCRIPTIONS

### 5.1 MAYWOOD DRIVE RESIDENCES

The Maywood Drive Residences district includes 20 one-story tract homes built between 1958 and 1973, located southeast of the Seneca Hospital campus. The residences were recorded and evaluated as a potential historic district. Many homes in the neighborhood have direct views of and pedestrian access to the hospital and were constructed during the same period as the expansion of the SHD campus and post-war expansion in Chester.

The residences are single-story Ranch style homes with similar lot sizes, building footprints, square footage, massing, and building heights, though some homes have augmented square footage with additions and outbuildings. The homes are generally rectangular in plan and feature cross-gabled roofs that accommodate covered carports, centrally located masonry chimneys, and picture windows.

The district boundary is limited to the residential parcels along Maywood Drive and is bounded by the undeveloped Collins Pine property on the north and west, Riverwood Drive Residences to the south, and the Seneca Hospital Campus to the east. The road is paved and ends in a rounded cul-de-sac, which does have an open gate to access the Healthcare District. There are no sidewalks, and most front lawns have grass. The nearby forest is dense and many trees are visible from the road. Additional survey photos are in site forms included in Appendix A. Table 5-1 presents key residence data, and descriptions of each building follow.

**Table 5-1. Summary of the Maywood Drive Residences**

Address	APN	Year Built	Lot Size	ft <sup>2</sup>
116 Maywood Drive	100-281-010	1966	0.24	1316
121 Maywood Drive	100-282-010	1972	0.27	1938
132 Maywood Drive	100-281-009	1972	0.22	1288
145 Maywood Drive	100-282-009	1973	0.22	1456
148 Maywood Drive	100-281-008	1972	0.22	1288
163 Maywood Drive	100-282-008	1960	0.22	1866
164 Maywood Drive	100-281-007	1964	0.22	936
179 Maywood Drive	100-282-007	1972	0.22	1624

<b>Address</b>	<b>APN</b>	<b>Year Built</b>	<b>Lot Size</b>	<b>ft<sup>2</sup></b>
180 Maywood Drive	100-281-006	1966	0.22	1962
196 Maywood Drive	100-281-005	1964	0.22	1404
207 Maywood Drive	100-282-006	1964	0.19	1128
218 Maywood Drive	100-281-004	1961	0.22	1128
229 Maywood Drive	100-282-005	1964	0.19	1416
240 Maywood Drive	100-281-003	1961	0.22	1518
251 Maywood Drive	100-282-004	1964	0.19	1896
262 Maywood Drive	100-281-002	1964	0.22	1944
273 Maywood Drive	100-282-003	1959	0.19	1902
282 Maywood Drive	100-281-001	1958	0.3	2822
285 Maywood Drive	100-282-002	1972	0.25	1932
297 Maywood Drive	100-282-001	1963	0.22	1460

### 5.1.1 Residence 116 (116 Maywood Drive)

Residence 116 is the easternmost house on the north side of Maywood Drive, adjacent to the Seneca Hospital campus. The single-story Ranch home was built in 1966 and features an attached two-car garage with roll-up fiberglass doors, poured concrete main driveway, and a concrete slab foundation. Other architectural features include asphalt-shingle hipped roof, overhanging eaves, a concrete slab porch on the west (primary) façade, wood clapboard and brick veneer cladding, aluminum horizontal-sliding and fixed windows, and a standard-size wood entrance door with an inset window. The porch is covered by a small extension of the roof, which is supported by open iron columns with decorative scrollwork. The roof also partially extends on the south façade, creating a porte-cochere. An asphalt driveway leads from the end of Maywood Drive to the east side of the house. The house has a small flat grassed front yard along the west side. The yard includes small plantings, laid stone edgings, and a mature pine tree (Figure 5-1).



Figure 5-1. West, primary façade of Residence 116, view east-northeast.

### 5.1.2 Residence 121 (121 Maywood Drive)

Residence 121 is the easternmost house on the south side of Maywood Drive, adjacent to the Seneca Hospital Campus. The Residence is a single-story ranch home built in 1972, featuring a cross-gable roof of composite shingle, aluminum horizontal-sliding windows, a poured concrete driveway, and horizontal wood plank cladding. There are three garage bays across two garages, accessed via aluminum one roll-up doors— a two-car-wide door and a separate one-car-wide door. A thin metal chimney vent extends upward from the roof near the primary entrance, which is on the north façade. The front-facing gable caps the double-bay garage, extends beyond the extent of the floorplan, and is supported by simple wood columns. The roofline across most of the north façade also extends beyond the floorplan, creating a narrow portico with wood columns that begins from the front-facing gable (Figure 5-2).



Figure 5-2. North, primary façade of 121 Maywood Drive, camera facing northwest.

### 5.1.3 Residence 132 (132 Maywood Drive)

Residence 132 is a cross gabled, rustic ranch home near the eastern terminus of Maywood Drive. The residence was built in 1972 and features rusticated vertical wood siding, a green corrugated metal roof, overhanging eaves, a two-car garage, and two-bay-wide carport, and vinyl horizontal-sliding windows. The front-facing gable covers the garage and extends over the carport. The driveway is primarily poured concrete with an asphalt section near to the street. A narrow poured-concrete portico is along the south (primary) façade under a roof extension, and the primary entrance is accessed via the porch (Figure 5-3).



Figure 5-3. South, primary façade of 132 Maywood Drive, view north.

### 5.1.4 Residence 145 (145 Maywood Drive)

Residence 145 is a single-story ranch home built in 1973. The residence has a cross-gable roof of gray composite shingle, a two-car garage, a two-bay-wide carport, vinyl horizontal-sliding windows, non-operable wood shutters, wood overhanging eaves, stucco siding, and a narrow portico covered by an extension of the roof. The front-facing gable caps the garage and extends north to create the carport. Both the carport and portico are supported by simple wood columns. The windows include faux-divided lites (Figure 5-4).



Figure 5-4. North, primary façade of 145 Maywood Drive, view southeast.

### 5.1.5 Residence 148 (148 Maywood Drive)

Residence 148 is a small single-story Ranch style home near the eastern terminus of Maywood Drive built in 1972. The residence features an attached single-car garage, a side gable roof of gray composite shingle, overhanging eaves, vinyl horizontal-sliding windows with wood trim, and wood board cladding. The garage has a roll-up door, and the cladding is painted a pale blue color. The south (primary) façade entrance has a glass and screen door with a steel frame over a fiberglass door. The fiberglass door has an inset glass window with faux-divided lites. The front yard is flat, grassed, and has a large mature conifer tree. The rear yard is forested and enclosed with a wood fence (Figure 5-5).



Figure 5-5. South, primary façade of 148 Maywood Drive, view northwest.

### 5.1.6 Residence 163 (163 Maywood Drive)

Residence 163 is midway along the north side of Maywood Drive. The home, built in 1960, is a single-story Ranch style with rustic elements and an attached carport. It has aluminum

horizontal-sliding windows, one large picture window, tan wood board siding, a cross-gabled roof of brown composite shingles, and slightly overhanging eaves. A brick chimney extends slightly above the roof near its center. The primary entrance, located on the north façade, has a paneled door with two long and narrow glass lites. The carport is supported by wood Y-shaped columns and has a section of pony wall on its east side at its boundary with the front yard. The trim of the residences is painted brown and there is decorative scalloped wood siding applied beneath the east and west gables (Figure 5-6).



Figure 5-6. North, primary façade of 121 Maywood Drive, view southwest.

### 5.1.7 Residence 164 (164 Maywood Drive)

Residence 164 is a single-story Ranch home built in 1964 and situated midway along Maywood Drive. The building has rustic features, including brackets, a brick chimney stack, wood cladding and trim, simple wood shutters with cut-out tree motifs, and wood Y-shaped columns. The residence also features a cross-gable roof and a two-car garage with two separate roll-up garage doors—one metal and one wood. Extending from the garage is carport covered by a front-facing gable. Additional architectural features include black steel sash and fixed windows, an aluminum screen entry door over an obscured primary entry door, and sheet metal roofing. The home was built in 1964 and has an aluminum sash with double paned windows, vertical siding, and a cross-gabled roof. The wide roof narrowly overhangs the front façade and features a centrally located masonry chimney. A storage unit on the east side of the building is taller than the house and other structures in the neighborhood. The carport and overhanging eaves have exposed bracketed columns and a corrugated metal roof. There are two picture windows with shutters on the south façade and two smaller aluminum windows on the east façade. The home is clad in vertical wood siding, horizontal siding, and a darker blue horizontal siding on the primary façade. The garage underneath the portico has fiberglass rolling garage doors (Figure 5-7).



Figure 5-7. South, primary façade of 164 Maywood Drive, view northeast.

### 5.1.8 Residence 179 (179 Maywood Drive)

Residence 179 is midway along the south side of Maywood Drive, facing 180 Maywood Drive. It is an irregular plan single-story Ranch home built in 1972, featuring two attached two-carports, aluminum horizontal-sliding windows, wood board siding, wood eaves, and a cross-gabled roof. The roof has a moderate overhang and extends slightly further along the north (primary) façade to create a narrow portico with a wood panel pony wall and wood columns. The eastern carport is an addition, added at an unknown date; its roof is bisected by the original eastern side gable of the house. The roof is clad with corrugated sheet metal and a brick chimney extends up from the room near the western end of the building. Each carport is partially enclosed with wood panel pony walls and wood lattice. The original (western) carport is supported by wood Y-columns while the addition carport has simple wood post columns (Figure 5-8).



Figure 5-8. North, primary façade of 179 Maywood Drive, view southwest.

### 5.1.9 Residence 180 (180 Maywood Drive)

Residence 180 is a single-story home located midway along the north side of Maywood Drive, built in 1966. The building features has aluminum and vinyl horizontal-sliding windows, horizontal wood plank siding (of varying widths), a single-car garage with a roll-up door, and a corrugated metal cross-gabled roof with exposed wood rafters and narrowly overhanging eaves. The cladding is painted a light blue and fascia and trim around the windows and doors

are painted red. The carport is set beneath a front-facing gable and is supported by wood columns with wood pony walls. Based on the irregular roofline and small footprint of the home, Residence 180 was originally a hipped-roof rural vernacular residence without a carport, but the carport appears to have been an early alteration (Figure 5-9).



Figure 5-9. South, primary façade of 180 Maywood Drive, view northwest.

### 5.1.10 Residence 196 (196 Maywood Drive)

Residence 196 is a small vernacular residence built in 1964. The residence is situated midway along the north side of Maywood Drive, facing Residence 207. Though not a Rustic style residence, the home has some features of the style such as its brick chimney and sawn log cladding. Other features include an attached one-bay carport, a brick chimney, a corrugated sheet metal hipped roof, aluminum sliding and picture windows, wide overhanging wood eaves, and wood window and door trim. The cladding of the residence is painted red, and the trim is white. The carport is enclosed partially by the exterior walls of the house itself and an open wood pony wall. The openings of the pony wall are about 1/3 of the height of the full wall and covered by corrugated sheet metal (Figure 5-10).



Figure 5-10. South, primary façade of 196 Maywood Drive, view north.

### 5.1.11 Residence 207 (207 Maywood Drive)

Residence 207 is a small Minimal Traditional home built in 1964 and situated midway along the south side of Maywood Drive, facing 196 Maywood Drive. The home features a large rectangular carport addition to the north (primary) façade. The carport is two-cars-wide and is composed of a front gable corrugated metal roof, simple wood columns, and a horizontal wood plank party wall along its east and west sides. The roof of the carport also includes exposed raftertails, wood eaves, and horizontal wood planks applied beneath the front-facing gable. The originally extent of the residence has a corrugated metal hipped roof, a tall brick chimney extending upward from near the eastern end of the roof, horizontal wood plank cladding, picture and horizontal-sliding windows, a wood north (primary) entrance covered by an aluminum glass and screen door, wide overhanging wooden eaves, and wood trim around the door and windows (Figure 5-11).



Figure 5-11. North, primary façade of 207 Maywood Drive, view southwest.

### 5.1.12 Residence 218 (218 Maywood Drive)

Residence 218 is sited midway along the north side of Maywood Drive, facing 229 Maywood Drive. The rustic-shaped plan Ranch home was built in 1961 and has an attached extended carport, aluminum horizontal-sliding and picture windows, wood board siding, an irregular - hipped roof with a protruding front gable extension, corrugated metal roof sheathing, a post-and-beam foundation, decorative non-functioning wood shutters, and a brick chimney. The carport has two divided stalls, with simple wood columns, pony walls, and lattice inserts (Figure 5-12).



Figure 5-12. South, primary façade of 218 Maywood Drive, view northwest.

### 5.1.13 Residence 229 (229 Maywood Drive)

Residence 229 is midway along the south side of Maywood Drive, facing 207 and 240 Maywood Drive. The single-story Ranch style home was built in 1964 and has a post-and-beam foundation, vinyl horizontal-sliding double-paned windows, one large picture window, horizontal wood plank siding, and hipped roof with a front-gable projection. The roof projection covers an attached carport that fits one vehicle. The roof of the carport is supported by simple wood Y-columns and there is horizontal wood plank applied beneath the gabled end. The roof features composite gray shingle, moderately overhanging eaves, exposed raftertails, and a brick chimney extending upwards from the roofline near the western end. The roof overhangs slightly further on a section of the north (primary) façade, creating a narrow portico connecting an entry door and the carport. The windows and doors have white-painted wood trim, and the wood cladding is painted a gray-green color (Figure 5-13).



Figure 5-13. North, primary façade of 229 Maywood Drive, view southwest.

### 5.1.14 Residence 240 (240 Maywood Drive)

Residence 240 is midway along the north side of Maywood Drive, facing 229 and 251 Maywood Drive. The L-shaped plan Ranch style home was built in 1961 and features some rustic design elements such as board-and-batten cladding, exposed raftertails, stone veneer (around the south entrance), simple decorative wood shutters, and a brick chimney. Other elements include an attached two-car garage, roll-up aluminum garage doors, aluminum horizontal-sliding windows, a cross-gabled roof, and a portico spanning between the driveway and primary entrance on the south façade. The portico is supported by simple wood Y-columns and has a wood pony wall. The roof overhangs moderately and has corrugated metal sheathing (Figure 5-14).



Figure 5-14. South, primary façade of 240 Maywood Drive, view northeast.

### 5.1.15 Residence 251 (251 Maywood Drive)

Residence 251 is midway along the south side of Maywood Drive, facing 262 Maywood Drive. The single-story Ranch home was built in 1964 and has a hipped roof with a front-gable extension, creating an attached carport and L-shaped plan. Other architectural elements include aluminum horizontal-sliding windows including one 3-part aluminum window with a fixed central picture window, horizontal wood siding, and a paneled wood primary entry door on the north façade. There is also one garden window west of the entrance. The carport has a half wall with horizontal wood siding, wood lattice privacy screening, and simple wood columns with brackets. The roof is clad in gray composite shingles and features a brick chimney on the west end (Figure 5-15).



Figure 5-15. North, primary façade of 251 Maywood Drive, view south.

#### 5.1.16 Residence 262 (262 Maywood Drive)

Residence 262 is on the north side of Maywood Drive near its western terminus, facing 273 and 251 Maywood Drive. The single-story cross-gable ranch home was built in 1964. Architectural features include an attached two-car wide garage with a fiberglass roll-up door, composite gray roof sheathing, a brick chimney extending near the eastern end of the house, and aluminum windows. The garage door has six inset three-light quarter-round windows. The easternmost segment of the main wing of the house (which is aligned east-west) is slightly wider than the other portions of the wing. This section features a four-lite ribbon window and exposed rafter tails on its primary (south) façade. The central window on the primary (south) façade has one large fixed lite flanked by two horizontal sliding lites, the ribbon window, and two small horizontal-sliding windows. There is brick veneer along the bottom 1/3 of some of the primary façade siding. The primary entrance is near the center of the south façade. It is a wood panel and inset glass door set into a slightly recessed section of the façade. A second door, west of the primary entrance, provides direct access to the garage from the front yard (Figure 5-16).



Figure 5-16. South, primary façade of 262 Maywood Drive, view northwest.

### 5.1.17 Residence 273 (273 Maywood Drive)

Residence 273 is on the south side of Maywood Drive near its western terminus and faces 262 and 282 Maywood Drive. The single-story Ranch home was built in 1959 and reflects Rustic and Minimal Traditional style influences. The building features a cross-gable roof with a front gable extension which caps a carport. All sections of the roof have gray composite shingle sheathing. Other features include board-and-batten cladding, vinyl horizontal-sliding windows, steel picture windows, decorative non-functioning wood shutters, wood window trim, and moderately overhanging wood eaves. The carport is supported by simple wood columns, has a 2/3-height pony wall and wood lattice privacy screens along its west side, and includes asphalt paving (Figure 5-17).



Figure 5-17. North, primary façade of 273 Maywood Drive, view south.

### 5.1.18 Residence 282 (282 Maywood Drive)

Residence 282 is on the north side of Maywood Drive at its western end and faces 285 and 273 Maywood Drive. The single-story Ranch home was built in 1958. Residence 282 is the oldest home on Maywood Drive and is the most archetypal of the Ranch style. The home features a hip-and-valley roof with an attached front-gable extension which houses a carport. Other design elements include steel fixed and horizontal-sliding windows, a brick chimney, wood clapboard and brick veneer siding, and gray composite roof sheathing. A few windows have wood trim surrounds. The carport has bracketed Y-columns and wood latticework screening. A recessed segment of the south (primary) façade allows for a small concrete porch. There are two large mature conifers in the front yard and the side and rear yards and enclosed with vertical plank wood fencing (Figure 5-18).



Figure 5-18. South, primary façade of 282 Maywood Drive, view north.

### 5.1.19 Residence 285 (285 Maywood Drive)

Residence 285 is on the south side of Maywood Drive near its western terminus and faces Residence 282. The home is a single-story Ranch home built in 1972, featuring a cross-gable roof of gray composite shingle, wood eaves, stucco cladding, and an attached carport supported by bracketed wood columns and partially enclosed in with wood pony walls. Portions of the primary façade include stone veneer, and wood trim surrounds the doors and windows. A large portion of the carport has been enclosed for use as additional interior living space. The carport also has wide overhanging eaves, exposed raftertails, and wood board cladding beneath its gabled end. The front door is protected by a rustic portico. The primary façade features aluminum windows, vertical siding, and a cross-gabled composite shingle roof. The residence is primarily tan and cream with green-painted trim (Figure 5-19).



Figure 5-19. North, primary façade of 285 Maywood Drive, view southwest.

### 5.1.20 Residence 297 (297 Maywood Drive)

Residence 297 is on the south side of Maywood Drive at its western terminus and faces an undeveloped wooded property. The single-story Ranch style home was built in 1963 and features an attached extended two-car carport, aluminum picture and horizontal-sliding windows, wood panel and plank cladding, and a cross-gable roof with corrugated metal sheathing. There is a brick chimney extending upwards from the roof near its center. The front-facing gable caps a wide two-bay carport supported by simple bracketed wood columns and partially enclosed with privacy screening. The primary entry door is enclosed within the carport. The primary façade has one picture window and two sliding windows, all with non-operational decorative wood shutters. The building is painted light and medium gray with dark green-gray shutters (Figure 5-20).



Figure 5-20. North, primary façade of 297 Maywood Drive, view southeast.

## 5.2 SENECA HOSPITAL DISTRICT CAMPUS

Development of the Seneca Hospital District began in 1946 after special districts were created in California to recruit physicians and build and operate hospitals and other healthcare facilities in underserved areas. Special districts were given power to build public works projects, impose taxes, and exercise eminent domain. The creation of these districts facilitated the expansion of rural medicine for returning veterans.

In August 1950, the Seneca Hospital District of Chester, Plumas County, was announced in the trade publication *Architect and Engineer*. The paper reported that the firm Stone and Mulloy of San Francisco were the designers of the \$200,000 10-bed hospital building (Architect and Engineer 1950:47). When the call for bids was announced in the local paper, the architects listed were Douglas Dacre Stone, Louis B. Mulloy, and Silvio P. Marraccini of Stone, Mulloy, and Marraccini (Indian Valley 1950). This firm was based in San Francisco and specialized in public and community hospital architecture (PCAD 2005c:564, 264). The Seneca Hospital, the main building of the new hospital district, was bid as a public project with state-level wages.

In July 1951, an updated construction contract award notice published in *Architect and Engineer* stated that the Main Hospital Building Seneca Hospital District was \$276,000, and

that the general contractor would be Francis Construction Co. of Santa Rosa (Architect and Engineer 1951c:44). At that time, Marraccini was an associate architect for the Sequoia Hospital District in Redwood City (PCAD 2005b:953). Sequoia was the first Hospital District building constructed in the state and was featured on the cover of *Architect and Engineer* in August 1950. The Seneca Hospital, which opened in 1951, is part of the first wave of Local Hospital Districts opening in the early 1950s (Taylor 2006:6).

The Main Hospital Building was expanded in the 1960s and 1970s to include a new entry façade, constructed in 1969, and Extended Care and storage additions in 1975. Modular outbuildings were constructed in the 1980s (ASA 2021:14; Figure 5-21).

Changes to the hospital campus reflect changes to the Health Care District laws, and the Main Hospital Building and campus expanded as the nature of special districts changed. Notably, in 1993, the campus expanded to include the Lake Almanor Clinic and the Reynolds House, a physician residence. Table 5-2 summarizes the construction dates of all buildings in the Seneca Hospital Campus.

**Table 5-2. Seneca Hospital District Construction History**

Building	Building No.	Construction Date
Main Hospital Building	1	1950
Pump Building	2	1950
Boiler Room	15	1950
Main Hospital Building – Entrance Addition	3	1969
Main Hospital Building – Extended Care Addition	4	1975
Main Hospital Building – Storage Addition	5	1975
122 Brentwood – Physical Therapy Clinic	10	1976
118 Brentwood – Staff Housing	9	1982
150 Brentwood Building	8	1988
Generator Building	6	1993
Lake Almanor Clinic Building	12	1995
Clinic Mechanical Building	13	1995
Reynolds House	14	1996
Modular CT Building	11	1999
Railroad Car (Storage)	7	Unknown
Modular Purchasing Department Building	16	Unknown

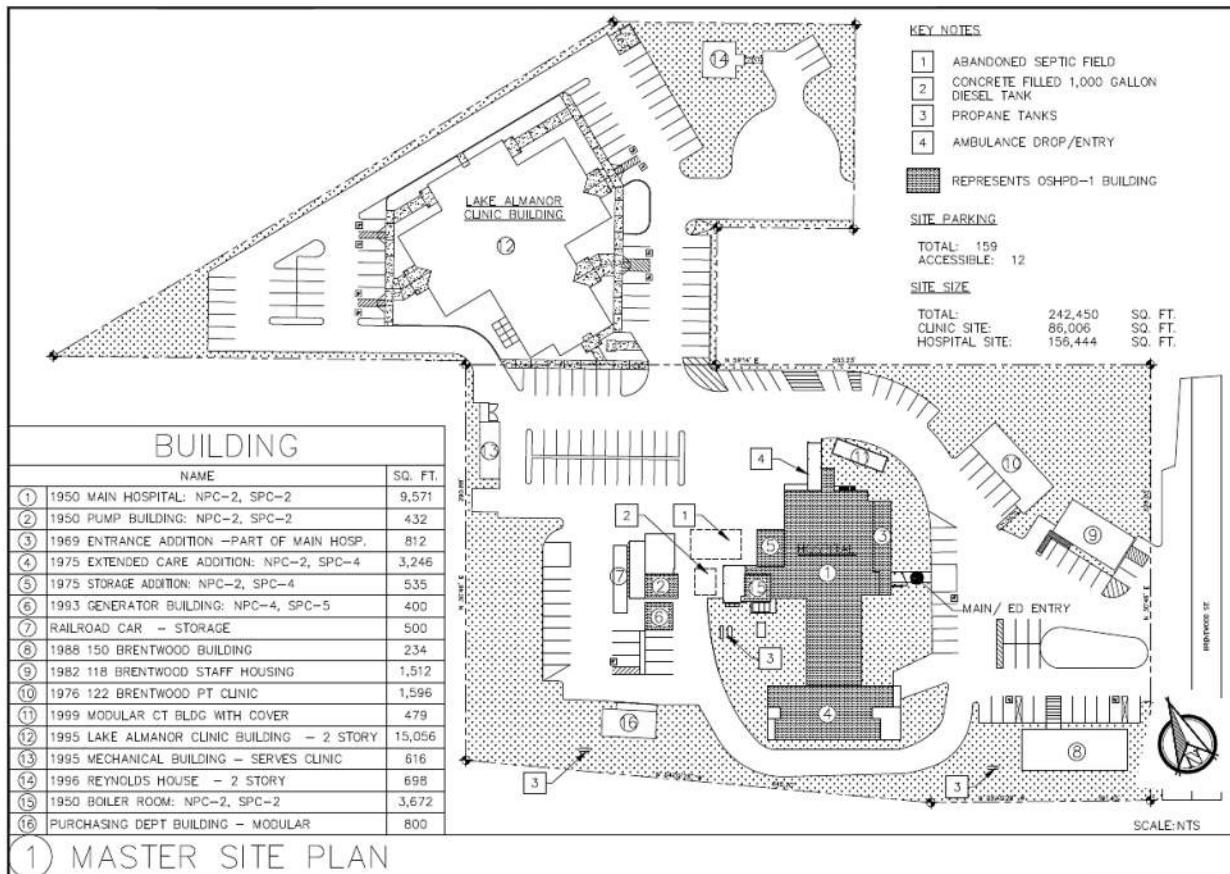


Figure 5-21. SHD site plan with labeled buildings, prepared by Aspen Street Architects for the 2019 Master Plan.

There are approximately three phases of development in the construction of buildings in the Seneca Hospital District campus:

- Phase 1 was the initial 1950s construction (Buildings 1,2,15).
- Phase 2 was between 1969 through 1976 (Buildings 3, 4, 5, 10)
- Phase 3 occurred between 1977 to 1994, when the District saw little development other than the addition of modular buildings on the perimeter of the Main Hospital Building (Buildings 9, 8, 3)

After Phase 3, the push to construct the Lake Almanor Clinic Building and supporting outpatient facilities occurred between 1995 and 1999 (Buildings 12, 13, 14, 16).

Development phases correspond to funding availability and changes to the SHD at both the state and local levels. The initial construction was a result of the independent districts, created in 1945 and constructed in 1950 by experienced hospital designers. Phase 2 corresponds with the expansion of the town's population and housing, apparent in the expansion of residential neighborhoods like Maywood Drive.

In the 1990s, California renamed Hospital Districts to "Healthcare Districts" to reflect a shift away from hospital-centric healthcare and toward outpatient clinics. The expansion of visiting physician housing also points to an increased commitment to supporting physician availability in the region.

## 5.2.1 Property Descriptions

The Seneca Hospital campus includes several medical buildings located west of Main Street, off Reynolds Road in Chester. The campus has two primary facilities: the original Main Hospital Building, dating to the 1950s, and the newer outpatient Lake Almanor Clinic built in the 1990s. Historic-era buildings within the district include utilitarian modular and simple, vernacular expressions of modernism and rustic stylings. The Seneca Hospital campus is the bedrock of healthcare in the community, having existed since the 1950s. The original 1950s hospital structure and 1970s skilled nursing facilities continue to operate with their original medical care purposes.

### Main Hospital Building

The Main Hospital Building area at 130 Brentwood Drive includes additions and outbuildings from various years, beginning in 1950. Building numbers were labeled by the SHD and are not necessarily discreet structures.

#### *Building 1. Acute Care Hospital Building/Seneca Hospital*

The Main Hospital Building is a single-story building with a cross-gabled roof and horizontal wood siding. The building has three additions, two of which are considered separate buildings for the Office of Statewide Health Planning and Development (OSHPD) purposes. The original hospital was built in 1950 as an acute care facility, and the first addition was made in 1969. The second and third additions provided the hospital with enough space for a skilled nursing facility and a storage building. Several other additions and outbuildings are attached or support Main Hospital Building operations.

The Main Hospital Building is in Minimal Traditional style with features reminiscent of the surrounding community and geography. The windows are various-sized sliding and non-operable aluminum windows, and the roof is constructed with corrugated metal sheathing.

The primary façade is a 1969 addition to the Main Hospital Building. While SHD lists it as a separate building ("Building 3"), it is structurally connected to the Main Hospital Building. The primary façade has two entrances, one on the center of the addition and the other in the extended care addition. The main entrance has four windows: one non-operable rectangular window, one ribbon sliding window, and two sliding windows. The Main Hospital Building has five multi-paned windows (Figure 5-22).



Figure 5-22. South façade of the Main Hospital Building, view northwest.

#### *Building 4. Extended Care Addition*

The extended care addition is of the same style and ornament as the rest of the Main Hospital Building and features horizontal wood siding, white framed windows, wide fascia, and white gutters. The addition departs from the style of the Main Hospital Building with a flat, cantilevered roof.

The extended care addition has a large porch area extending south from the main entrance. This porch has a temporary scalloped awning and seating area enclosed by a fence. The west façade has eight windows in sets of three-two-three. The two sets of three are on either side of the set of two and contain two larger windows with a smaller middle window. Each of the larger fixed pane windows has a vent beneath it. The rear of the building has an accessible ramp (Figure 5-23 and Figure 5-24).



Figure 5-23. Overview of the south and west façades of the Extended Care Addition, view northwest.



Figure 5-24. Overview of the north and west façades of the Extended Care Addition, view southeast.

#### ***Building 5. Storage Addition and Building 15. Boiler Room***

Building 5 is a 1975 rear storage addition providing approximately 500 square feet of storage space to the Main Hospital Building. Like the Extended Care addition, Building 5 retains many of the stylistic elements of the Main Hospital Building other than a flat roof. The north façade of the building has three fixed-pane windows with black trim, and an entry door is on the east façade. Building 15 is immediately adjacent to the storage room. The gabled boiler room has a shed roofed carport extension with covered storage (Figure 5-25).



Figure 5-25. North and east façades of the Storage Addition Building, view southeast.

#### ***Hospital Ancillary Buildings***

##### **Building 2. Pump Building, Building 6. Generator Building, Building 7. Railroad Car**

A cluster of outbuildings (Figure 5-26), including the Generator Building, the Pump Building, and a storage rail car, are just north of the Main Hospital Building. The Pump Building has two distinct but connected sections—one with a flat roof and one with a gable roof. Both sections of roof have gray composite shingle sheathing. The building has horizontal wood siding that

matches the Main Hospital Building. The only visible window, an aluminum horizontal-slider, has been half-filled with a window air-conditioning unit. There are four doors of various materials with wood trim. One of the doors has a small fixed inset window.

The third ancillary building is a large rectangular cinder-block structure (Building 6) adjacent to the paired Buildings 2 and 7. The generator building has three access doors and a flat roof that abuts the gabled pump building roof. Behind these buildings is a red railcar, which is used for storage.



Figure 5-26. View of ancillary buildings from left to right: Building 6, building 2, building 7. Camera facing west.

### **Building 12. Lake Almanor Clinic Building**

The Lake Almanor Clinic Building is the only two-story building on the Campus. It was built between 1993 and 1998 and has an irregular corrugated metal roof with a mix of gabled roofs, dormers, and hipped rooves. The Clinic has a similar design to the original hospital, with front-facing gables near entrances, but it has larger massing than the Main Hospital Building (Figure 5-27).



Figure 5-27. East façade of the Lake Almanor Clinic Building, camera facing west.

### ***Building 13. Mechanical Building – Clinic Building***

Building 13 is an ancillary mechanical building that supports the Clinic. It has a saltbox roof. The Mechanical Building is on a concrete footing. The siding is a mix of exposed cement block and board-and-batten. The roof is a green metal corrugated roof. There is a large central open-air space in the center, with two sets of double wood swinging doors on either end. The central area includes space for mechanical equipment and venting (Figure 5-28).



Figure 5-28. East, primary façade of Building 13, camera facing north.

### ***Building 14. Reynolds House***

Building 14, also called the Reynolds House, is a two-story contemporary vernacular residence on the Seneca Hospital Campus, built in 1996, and owned and operated by SHD as a visiting physicians' residence near the hospital and clinics. The house has a mix of board and horizontal wood plank siding. The side-gabled, corrugated standing seam metal roof has a moderate overhang. The windows are horizontal-sliding aluminum types (Figure 5-29).



Figure 5-29. East, primary façade of 187 Reynolds Road, camera facing northwest.

### Building 8. 150 Brentwood Building

Building 8 is a side-gable modular clinic building along the perimeter of the campus at 150 Brentwood. The roof has gray composite shingles. The siding is wood panel. There are two accessible ramps on either side of the building and a central main entrance in the center of the modular building. There are a mix of sliding and double-hung aluminum horizontal-sliding windows with wood trim along the primary façade (Figure 5-30).



Figure 5-30. Primary, east façade of Building 8 at 150 Brentwood. Camera facing southwest.

### Building 9. 118 Brentwood, Staff Housing

Building 9, at 118 Brentwood, is a modular manufactured building used to house hospital staff. The building is similar in appearance to other modular buildings within the campus. The side-gable roof is clad in grey composite shingles. There are five large steel-framed windows of various sizes on the primary façade. The primary façade and main entrance have a ramp.

covered by a narrow extension of the roof. The windows and doors have wood trim, and the cladding is wood panel (Figure 5-31).



Figure 5-31.Primary façade of Building 9. Staff Housing at 118 Brentwood. Camera Facing east.

### Building 10. 122 Brentwood PT Clinic

Building 10 is a Physical Therapy (PT) Clinic with four parking spots. The building sits on a raised post-and-beam foundation. The building is a utilitarian modular building with a low-pitched cross-gable roof of composite shingles. The building has a ramped entrance on the north end of the west (primary) façade. The entrance is within a front-gable projection accessed via a poured concrete ramp with metal pipe railings. There are five aluminum horizontal-sliding windows set within wood trim surrounds. The three central windows have been partially filled with wood panels reducing their original size in half. The building has wood panel cladding and a paneled front entry door (Figure 5-32).



Figure 5-32. West, primary façade of Building 10, 122 Brentwood, camera facing northeast.

## **Building 11. Modular CT Building with Cover**

The Modular CT building houses medical imaging equipment for the healthcare district. It is a manufactured building with a post-and-beam foundation and has walking paths connect it to the Main Hospital Building. The utilitarian style of the building mimics the Main Hospital Building and others on the campus. The tan wood panel cladding has vertical scoring. The main portion of the building has a flat roof but is beneath a gabled canopy (Figure 5-33).



Figure 5-33. West façade of Modular CT building, camera facing east.

## **Building 16. Purchasing Department Building – Modular**

The purchasing department is housed in a manufactured, mobile building beneath a free-standing canopy structure. The canopy has a side gable roof with brown composite sheathing and steel bracing. The main building has aluminum horizontal-sliding windows, a mixture of horizontal plank and wood panel cladding, and a low-pitch side gable. There is a long accessibility ramp leading up to the main entry door on the east façade (Figure 5-34).



Figure 5-34. East (primary) façade of Purchasing Department Building, camera facing northwest.

## 5.3 SITE 21-415-KH-001/H

Site 21-415-KH-001/H is a large multicomponent site consisting of historic period remains of logging activities, and a Pre-contact locus consisting of four obsidian flaked stone artifacts and two cobble tools. The following section details historical features and Historic and Pre-contact Period artifacts.

### 5.3.1 Historic Period Component

Table 5-3 summarizes historic period features in site 21-415-KH-001/H. Table 5-4 lists Historic Period artifacts identified in site 21-415-KH-001/H. Additional details are provided in DPR forms in Attachment B.

Table 5-3. Site 21-415-KH-001/H Historic Period Features

Feature Number	Feature Type	Description
HF1	Two-track road (southern)	HF1 is the southernmost two-track road that roughly parallels the southern site boundary. Aerial images from 1955 and 1962 show parts of this road (though it is obscured by trees), and it appears to follow the same path. Modern modifications to the road include grading and added gravel. It is approximately 465 ft long × 8–10 ft wide. The eastern terminus of the road leads to the Lake Almanor Clinic Building (199 Reynolds Road) and the western part of the road leads to pavement at 299 Maywood Drive.
HF2	Two-track road and spurs (northern)	HF2 is the northern two-track road and associated spurs. Parts of this road are visible in 1956 aerial photographs, and most of it can be seen clearly on 1972 aerial images. Including spurs, the entire road is approximately 1700 ft long and roughly 8–10 ft wide. The eastern terminus of the road is at 400 Meadowbrook Loop, and the western terminus leads towards the Collins Pine Company lumber yard.

Feature Number	Feature Type	Description
HF3	Logging ditch	HF3 extends at least 445 ft from the eastern edge of the Collins Pine lumber yard. The ditch is at least 445 ft long × 12–15 ft wide at the top, and 2–3 ft wide near the base. The depth of the ditch ranges from 5–7 ft deep and is lined with river cobbles at the base. Modifications including added culverts suggest modern alterations have been made to the ditch in more recent years.
HF4	Fence line	Constructed with roughhewn wooden posts as well as modern "t" bar stakes. The fence line is partially collapsed in the center and abruptly terminates at a wooden post on the east side with no clear indication of where the fence continued. Wooden posts are approximately 57–60 in tall and have a square cross section 6–8 in wide. One opening is present in the west side of the fence where a graded gravel road cuts through the fence line. On the west side of the opening is a milled log with two 8 in wide hatchet/chain saw cuts are present the east side of the body 10–18 in from the ground and 53–58 in from the ground possibly indicating where a gate was attached (remnant hardware is still present in the notches of the post). The log is overall 73 in tall and has a diameter of 13.75 in. Double twist double pronged barbed wire is present throughout the fence line corridor.
HF5	Concentration of earthworks	These include mounds and depressions approximately two to four ft tall in an area, 80 ft east-west × 50 ft north-south. Some modern concrete is present in some of the depressions with modern refuse also found within the feature area. The function of these earth works is unknown. A broken historic period Vic's Vapor Rub jar (HA1) was found in association with the earthworks.
HF6	Earthworks concentration	Area of five pits, trenches, and mounds
HF7	Wooden platform	Square of boards as a platform or cover on ground surface, 3 × 3 ft. Metal strapping present.
HF8	Earthworks	Ditches and berms
HF9	Linear berm and pit	Two adjacent in densely wooded area of forest.
HF10	Concentration of ferrous strapping	All 3 in wide by various lengths.
HF11	Ferrous strap in mound	3 in × 4 ft long, buried in mound
HF12	Cluster of non-native irises	2 ft in diameter, possibly related to historic land use
HF13	Folded metal sheeting	9 in × 12 in, likely about 24 in if unfolded
HF14	Dump	Bits of metal strapping and sheet metal in burned spot. Likely a burned dump pile.
HF15	Earthworks concentration	Area of pits, trenches, and mounds near north of APE, five to ten features in proximity
HF16	Fencepost remnant	Remnant of roughhewn fencepost, partially burned, no fence line associated

**Table 5-4. Site 21-415-KH-001/H Historic Period Artifacts**

Artifact Number	Artifact Type	Description
HA1	Glass container	Cobalt blue Vic's Vapor Rub, in association with earthworks (HF5)
HA2	Metal container	Large, crushed metal container, at least 3 ft long by unknown width.
HA3	Crimped seam can	Portion of large can with possible spout and lead solder. Wire handle on reverse
HA4	Steel cable	Partially buried
HA5	Ferrous strapping	3 in wide and 1 ft long, found in HF2
HA6	Corrugated sheet	Partially buried, found near center of APE.
HA7	Ferrous strapping	3 in wide and 1 ft long
HA8	Ferrous strapping	3 in wide and 1 ft long
HA9	Ferrous strapping	3 in wide and 1 ft long
HA10	Ferrous strapping	3 in wide and 1 ft long
HA11	Ferrous strap	3 in × 4 ft long, buried in ground
HA12	Ferrous strapping and rebar	Five straps identified, all are 3 in wide and 12 in long, both strapping and rebar partially buried in mound
HA13	Ferrous strapping	8 ft long by 3 inches wide, found piled up in possible dumping area
HA14	Folded metal sheeting	9 in × 12 in, approximately 24 in if unfolded
HA15	Sanitary can	Partially crushed
HA16	Solder dot can	Crimped-seam vent-hole can, found in areas with ash pile concentrations/possible dump

### 5.3.2 Pre-Contact Component

The Pre-contact component of site 21-415-KH-001/H consists of an isolated shaped cobble handstone (PA6) and a small concentration of four flaked obsidian artifacts and a rhyolitic hammerstone. The locus was identified in a clearing in the mixed conifer forest between two segments of unpaved east-west-trending two-track roads, 20 m north of the Lake Almanor Clinic parking lot. Flakes identified include three small (>3 cm max length; PA1, PA2, and PA3) interior gray obsidian flakes and one larger exterior black obsidian flake (PA4) in an approximately 8.8-m<sup>2</sup> area. The ovoid rhyolitic hand tool or hammerstone (PA5) has shaped margins and one battered edge and is 10 cm long, 7 cm wide, and 6 cm thick. The locus is in an area affected by modern and Historic Period land use, including impacts from logging and vehicle traffic. Ground surface visibility in the vicinity of the locus is 40 percent.

PA6 is a shaped and lightly battered Pre-contact cobble tool of local volcanic material. The cobble is an asymmetrical oval with light shaping around the margins and battering on the tapered end, and is 11.0 × 8.5 × 4.5 cm. It was identified in an isolated context within a small wash south of an east-west trending road segment in an area characterized by light tan brown ashy sandy sediments. Surface visibility in the vicinity of the find is 75 percent.

Table 5-5 presents key details for Pre-contact artifacts identified in site 21-415-KH-001/H. Additional details are provided in DPR forms in Attachment B.

**Table 5-5. Site 21-415-KH-001/H Pre-Contact Period Artifacts**

Artifact Number	Artifact Type	Description
PA1	Obsidian flake	Obsidian flake, complex dorsal surface, 10% cortex. In area showing some more recent ground disturbance. $0.5 \times 0.3 \times 0.1$ cm.
PA2	Obsidian flake	Obsidian flake, complex dorsal surface, no cortex. Grayish with banding. In area showing some more recent ground disturbance. $0.75 \times 0.50 \times 0.10$ cm.
PA3	Obsidian flake	Large obsidian flake, complex dorsal surface, no cortex. Brownish gray. May have use wear/edge modification. $3.0 \times 4.0 \times 0.3$ cm
PA4	Obsidian flake	Grayish obsidian shatter with some cortex. $0.3 \times 0.3 \times 0.2$ cm
PA5	Hammerstone	Vesicular basalt or conglomerate hammerstone. $12 \times 7 \times 6$ cm.
PA6	Handstone or shaped cobble	Vesicular basalt handstone or shaped cobble with shaped margins and one battered side. $11.5 \times 8.5 \times 4.5$ cm.

## 6 SITE 21-415-KH-001/H TESTING RESULTS

Testing for new prehistoric loci within Site 21-415-KH-001/H identified in 2022 was completed from November 29 to 30, 2022. PaleoWest archaeologist Katherine Holst acted as Field Director and was supported by archaeologist Maria Hawley. The work was monitored by tribal representatives from the Susanville Indian Rancheria and the Greenville Rancheria. Excavations consisted of 10 shovel test pits (STPs) and one  $0.5 \times 0.5$  m control excavation unit. One Pre-contact artifact, an obsidian flake, was identified as a result of testing efforts (Figure 6-1 and Figure 6-2).



Figure 6-1. Overview of site with pin flags showing excavation locations; looking north. November 29, 2022.



Figure 6-2. Overview of site with pin flags showing excavation locations; looking south. November 29, 2022.

The following tables detail results per each shovel test unit (Table 6-1 through Table 6-10).

**Table 6-1. STP # 1 Results**

STP# 1		Date: 11/29/2022	Excavator: Katherine Holst
Diameter: 30 cm		Max Level Depth: 20 cm	Max Auger Depth: 34 cm
Within Site Boundary: Yes		Ground Cover: 10 cm of Snow	Screener: Maria Hawley
Level	Depth (cm)	Cultural Materials	Soil Description
01	0 – 10	No	Dark brown compact clayey gravelly loam with >20 river rounded cobbles (2 – 5 cm in size). Small amount of vegetation from rootlet systems from surface grasses.
02	10 – 20	No	Soils were the same as the previous level with a decrease in cobbles. Minimal vegetation from roots in the second level.
03+	20 – 34	No	Augured from 20 cm an additional 14 cm to a max depth of 34 cm. Soils were consistent with the sediments observed in Levels 01 and 02. Excavation terminated when the auger could not penetrate a rocky cobble layer at 34 cmbs.

**Table 6-2. STP # 2 Results**

STP# 2		Date: 11/29/2022	Excavator: Maria Hawley
Diameter: 30 cm		Max Level Depth: 20 cm	Max Auger Depth: 50 cm
Within Site Boundary: No		Ground Cover: 12 cm of Snow	Screener: Katherine Holst
Level	Depth (cm)	Cultural Materials	Soil Description
01	0 – 10	No	Dark brown moderately compact clayey gravelly loam. Minimal amount of vegetation and larger (2 – 4 cm in size) cobbles.
02	10 – 20	No	Sediments were the same as previous level with an increase in subangular cobbles (2 – 4 cm in size). Roots are present across the level floor. Soils are moderately compact and are overall looser than the previous level.
03+	20 – 50 (Augur)	No	Augured from 20 cm an additional 30 cm to a max depth of 50 cm. Soils were consistent with the sediments observed in Levels 01 and 02 to 48 cm down. At 50 cmbs there was a soil change with sediments changing to a loose pack sandy gravelly loam with a tan, brown color. Excavation terminated at 50 cmbs.

**Table 6-3. STP # 3 Results**

STP# 3		Date: 11/29/2022	Excavator: Maria Hawley
Diameter: 30 cm		Max Level Depth: 20 cm	Max Auger Depth: 40 cm
Within Site Boundary: No		Ground Cover: 1 cm of Snow	Screener: Katherine Holst
Level	Depth (cm)	Cultural Materials	Soil Description
01	0 – 10	No	Dark brown moderately compact clayey gravelly loam. Minimal amount of roots and vegetation.
02	10 – 20	No	Sediments were the same as previous level.
03+	20 – 40	No	Augured from 20 cm an additional 20 cm to a max depth of 40 cm. Soils were consistent with the sediments observed in Levels 01 and 02. Excavation terminated due to a large root system at 40 cmbs.

**Table 6-4. STP # 4 Results**

STP# 4		Date: 11/29/2022	Excavator: Maria Hawley
Diameter: 30 cm		Max Level Depth: 20 cm	Max Auger Depth: 42 cm
Within Site Boundary: No		Ground Cover: 1 cm of Snow	Screener: Katherine Holst
Level	Depth (cm)	Cultural Materials	Soil Description
01	0 – 10	No	Dark brown moderately compact clayey gravelly loam with pine needles and small roots.
02	10 – 20	No	Sediments were the same as previous level.

03+	20 – 42	No	Augured from 20 cm an additional 22 cm to a max depth of 42 cm. Soils were consistent with the sediments observed in Levels 01 and 02. STP terminated due to a root system at 42 cmbs.
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**Table 6-5. STP # 5 Results**

STP# 5			Date: 11/29/2022	Excavator: Maria Hawley
Diameter: 30 cm			Max Level Depth: 20 cm	Max Auger Depth: 42 cm
Within Site Boundary: Yes			Ground Cover: 15 cm of Snow	Screener: Katherine Holst
Level	Depth (cm)	Cultural Materials	<b>Soil Description</b>	
01	0 – 10	No	Dark brown moderately compact clayey gravelly loam with 20% subangular small cobbles (2 – 3 cm in size).	
02	10 – 20	No	Same as previous level with an increase in cobbles and pebbles.	
03+	20 – 42	No	Augured from 20 cm an additional 22 cm to a max depth of 42 cm. Soils were consistent with the sediments observed in Levels 01 and 02. Excavation terminated at 42 cmbs at rocky cobble layer and a large root system on the northern portion of the STP.	

**Table 6-6. STP # 6 Results**

STP# 6			Date: 11/29/2022	Excavator: Katherine Holst
Diameter: 30 cm			Max Level Depth: 20 cm	Max Auger Depth: 40 cm
Within Site Boundary: No			Ground Cover: Pine needle duff	Screener: Maria Hawley
Level	Depth (cm)	Cultural Materials	<b>Soil Description</b>	
01	0 – 10	No	Dark brown moderately compact clayey gravelly loam with around 30% subangular pebbles. A decent amount of vegetation was observed, including roots, pine needles, seeds, and pinecone fragments.	
02	10 – 20	No	Soils were the same as the previous level in materials with a slightly lighter dark brown color with an increase in roots.	
03+	20 – 40	No	Augured from 20 cm an additional 20 cm to a max depth of 40 cm. Soils were similar to that of Level 02 with an increase in pebbles. Excavation terminated at 40 cmbs when the auger could not pass through a compact rock layer.	

**Table 6-7. STP # 7 Results**

STP# 7		Date: 11/29/2022	Excavator: Maria Hawley
Diameter: 30 cm		Max Level Depth: 20 cm	Max Auger Depth: 30 cm
Within Site Boundary: Yes		Ground Cover: 8 cm of Snow	Screener: Katherine Holst
Level	Depth (cm)	Cultural Materials	Soil Description
01	0 – 10	No	Dark brown moderately compact clayey gravelly loam. Small roots observed sporadically in level.
02	10 – 20	No	Sediments were the same as the previous level.
03	20 – 30	No	Augered from 20 cm an additional 10 cm to a max depth of 30 cm. Soils were consistent with the sediments observed in Levels 01 and 02. Excavation terminated at a large root (approximately 3 cm in diameter) encountered in the center of the pit.

**Table 6-8. STP # 8 Results**

STP# 8		Date: 11/30/2022	Excavator: Katherine Holst
Diameter: 30 cm		Max Level Depth: 20 cm	Max Auger Depth: 35 cm
Within Site Boundary: Yes		Ground Cover: 10 cm of Snow	Screener: Maria Hawley
Level	Depth (cm)	Cultural Materials	Soil Description
01	0 – 10	No	Frozen (first 5 cm) dark brown highly compact clayey gravelly loam with a few 4 cm in size cobbles. Small amount of vegetation from rootlet systems from surface grasses.
02	10 – 20	No	Increased compaction in this level. Soils consisted of the same material as the previous level.
03+	20 – 45	No	Augered from 20 cm an additional 15 cm, to a max depth of 35 cm. Soils were consistent with the sediments observed in Levels 01 and 02. A root system was encountered with the auger between 20 – 25 cmbs. The excavation was terminated when auger could not penetrate a compact rocky cobble layer at 35 cmbs.

**Table 6-9. STP # 9 Results**

STP# 9		Date: 11/30/2022	Excavator: Maria Hawley
Diameter: 30 cm		Max Level Depth: 20 cm	Max Auger Depth: 39 cm
Within Site Boundary: Yes		Ground Cover: 2 cm of Snow	Screener: Katherine Holst
Level	Depth (cm)	Cultural Materials	Soil Description
01	0 – 10	No	Dark brown moderately compact clayey gravelly loam.
02	10 – 20	No	Sediments were the same as the previous level.

03+	20 – 39	No	Augured from 20 cm an additional 19 cm to a max depth of 39 cm. Soils were consistent with the sediments observed in Levels 01 and 02. STP terminated at a compact cobble layer at 39 cmbs.
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**Table 6-10. STP # 10 Results**

STP# 10		Date: 11/30/2022	Excavator: Katherine Holst
Diameter: 30 cm		Max Level Depth: 30 cm	Max Auger Depth: 30 cm
Within Site Boundary: Yes		Ground Cover: 2.5 cm of Snow	Screener: Maria Hawley
Level	Depth (cm)	Cultural Materials	Soil Description
01	0 – 10	No	Compact partially frozen surface. Sediments consisted of a dark brown moderately compact clayey gravelly loam with approximately 30% mixed small cobbles 3 cm in size. Burnt wood was present as well as additional mixed organic materials from surrounding vegetation including pine needles and grassy roots.
02	10 – 20	No	Slightly decreased compaction in this level with soils consisting of the same material as the previous level.
03	20 – 30	No	Slightly decreased compaction in this level with soils consisting of the same material as the previous level with a significant increase in river rounded cobbles (3 – 5 cm in size). The level was excavated after auger probe showed a cluster of cobbles at the level's final depth.
04	30 – 40	No	Augured from 30 cm an additional 10 cm and found a cobble layer with 3-4 cm in size river rounded rocks. Excavated an additional 10 cm level to investigate the cobble layer. Soils were consistent with sediments observed in Levels 01 and 02. The cobbles were tightly compacted, and no additional auguring was done. Unit terminated at 40 cmbs.

## 6.1 EXCAVATION CONTROL UNIT METHODS

One 0.5 x 0.5 cm excavation control unit was also excavated near the center of the site. The target depth was one meter below ground surface, excavated in 10-cm increments. The unit was excavated to 65 cmbs when it was terminated due to the large cobbles at the final two levels from 40 – 60 cmbs. One small (>3 cm in size) black banded obsidian flake was found in Level 04 (30 – 40 cm). No other cultural materials were observed, and the artifact was reburied when the unit was backfilled (Table 6-11; Figure 6-3 through Figure 6-31).

**Table 6-11. Excavation Control Unit Results**

<b>Control Unit 01</b>			Date: 11/30/2022	
Dimensions: 0.5 x 0.5 cm		Max Level Depth: 65 cm	Max Auger Depth: ~70 cm	
Within Site Boundary: Yes		Ground Cover: 20-30 cm of Snow		
Level	Depth (cm)	Cultural Materials	Soil Description	Comments
01	0 – 10	No	Compact frozen surface. Sediments consisted of a dark brown clayey gravelly loam with a small number of cobbles.	<b>Excavator:</b> Katherine Holst Slight overcut in the northwest corner which was excavated down to 12 cmbs. The remainder of the unit was at 10 cmbs.
02	10 – 20	No	Sediments consisted of a compact dark brown clayey gravelly loam with a slight increase in cobbles. Root systems are present along the floor and walls of the level.	<b>Excavator:</b> Maria Hawley
03	20 – 30	No	Same as previous level with an increase in compaction and slight increase in cobbles. Roots are also increasing in size and abundance around the level.	<b>Excavator:</b> Katherine Holst
04	30 – 40	Yes	Sediments consist of a compact dark brown clayey gravelly loam with a massive increase in cobbles approximately 30% cobbles 3 - 10 cm in size. Root systems are present along the floor and walls of the level.	<b>Excavator:</b> Katherine Holst One small interior black banded obsidian flake was found within the level.
05	40 – 50	No	Sediments consist of a compact dark brown clayey gravelly loam with a soil change at 50 cmbs to a light tan brown loose sandy loam matrix. Cobble amounts continue to increase with approximately 50% subangular cobbles 3 - 10 cm in size. Root systems are present along the floor and walls of the level.	<b>Excavator:</b> Katherine Holst Level at 55 cmbs in northwest corner due to large rocks being displaced in the unit. Slight bath tubbing on unit floor due to dense cobbles across the unit floor.
06	50 – 60	No	Sediments consist of a tan, brown sandy loam with approximately 40% loose river rounded cobbles (1-10 cm in size)	<b>Excavator:</b> Katherine Holst The level appears to be in the flood plain of the Feather River due to the soils present within the level.
07	60 – 70	No	An auger probe was attempted at 60 cmbs. The auger was able to turn an additional 5-10 cm through the level floor, but the soft loose pack material could not be picked up by the auger, which failed to turn at 70 cmbs due to increased river rounded cobbles in the unit floor.	<b>Excavator:</b> Katherine Holst Final depths were 65 cmbs northeast corner, 63 cmbs northwest corner, 62 cmbs southwest corner, and 60 cmbs southeast corner. Overcut due to loose soils and cobbles.



Figure 6-3. Overview of STP#1 before excavation.



Figure 6-6. Overview of STP#2 at the end of excavation.



Figure 6-4. Overview of STP#1 at the end of excavation.



Figure 6-7. Overview of STP#3 before excavation.



Figure 6-5. Overview of STP#2 before excavation.



Figure 6-8. Overview of STP#3 at the end of excavation.



Figure 6-9. Overview of STP#4 before excavation.



Figure 6-12. Overview of STP#5 at the end of excavation.



Figure 6-10. Overview of STP#4 at the end of excavation.



Figure 6-13. Overview of STP#6 before excavation.



Figure 6-11. Overview of STP#5 before excavation.



Figure 6-14. Overview of STP#6 at the end of excavation.



Figure 6-15. Overview of STP#7 before excavation.



Figure 6-18. Overview of STP#8 at the end of excavation.



Figure 6-16. Overview of STP#7 at end of excavation.



Figure 6-19. Overview of STP#9 before excavation.



Figure 6-17. Overview of STP#8 before excavation.



Figure 6-20. Overview of STP#9 at the end of excavation.



Figure 6-21. Overview of STP#10 before excavation.



Figure 6-24. Plan view of Control Unit Level 01.



Figure 6-22. Overview of STP#10 at end of excavation.



Figure 6-25. Plan view of Control Unit Level 02.

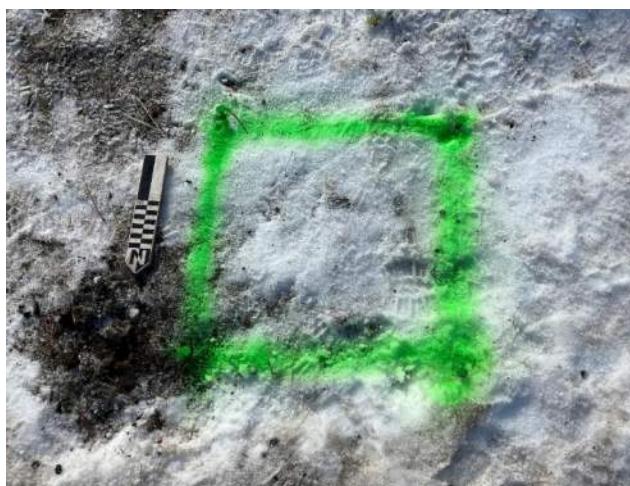


Figure 6-23. Excavation control unit before excavation.



Figure 6-26. Plan view of Control Unit Level 03.



Figure 6-27. Plan view of Control Unit Level 05.



Figure 6-30. Black obsidian flake from Level 4; side A.



Figure 6-28. Plan view of Control Unit Level 06.



Figure 6-31. Black obsidian flake from Level 4; side B.



Figure 6-29. Plan view of Control Unit close.

# 7 SIGNIFICANCE AND ELIGIBILITY

The following evaluations discuss potential historical significance of the Maywood Drive District, the Seneca Historic District, individual buildings within each district, and that of multicomponent archaeological site 21-415-KH-001/H. Recommendations of NRHP and CRHR eligibility and analyses of historical integrity follow.

## 7.1 MAYWOOD DRIVE RESIDENCES

Due to their shared history, proximity, and shared characteristics, residences within the APE along Maywood Drive were evaluated for the NRHP and CRHR eligibility as a potential historic district, the Maywood Drive Residences. Table 7-1 lists all residences included in this evaluation.

Table 7-1. Maywood Drive Residences Summary Table

Address	APN	Year Built
116 Maywood Drive	100-281-010	1966
121 Maywood Drive	100-282-010	1972
132 Maywood Drive	100-281-009	1972
145 Maywood Drive	100-282-009	1973
148 Maywood Drive	100-281-008	1972
163 Maywood Drive	100-282-008	1960
164 Maywood Drive	100-281-007	1964
179 Maywood Drive	100-282-007	1972
180 Maywood Drive	100-281-006	1966
196 Maywood Drive	100-281-005	1964
207 Maywood Drive	100-282-006	1964
218 Maywood Drive	100-281-004	1961
229 Maywood Drive	100-282-005	1964
240 Maywood Drive	100-281-003	1961
251 Maywood Drive	100-282-004	1964
262 Maywood Drive	100-281-002	1964
273 Maywood Drive	100-282-003	1959
282 Maywood Drive	100-281-001	1958
285 Maywood Drive	100-282-002	1972
297 Maywood Drive	100-282-001	1963

### 7.1.1 Criterion A/1

PaleoWest evaluated the residences under Criterion A/1 for associations with important historical events or patterns of development.

The residences on Maywood Drive were primarily constructed between the late 1950s and 1970s, during and soon after the post-war period of peak development, population growth, and suburbanization of California and the U.S. Although the history of the residences is tied to the development of Chester and nearby Lake Almanor during this period, they do not reach the threshold of significance under the theme of post-war development. Approximately six million housing units, over half of single-family houses, were built in California during this period, and 30 million were built across the country (Hope 2011:ii). Despite some residential development in Chester during this period, the area has remained a rural community far removed from an urban center. While Maywood Drive may be physically similar to a typical tract home constructed throughout California and the U.S. during the post-war era, it was built during a period characterized by major population loss in Lassen County, as many people in rural areas of California moved to urban areas. As such, the Maywood Drive Residences district is the antithesis of residential development trends in the area at the time and not representative of the theme of suburbanization of Chester or California more broadly.

PaleoWest also considered whether the Maywood Drive Residences district is directly associated with the logging industry or development of recreation near Lake Almanor during the mid-twentieth century. Economic development in Chester that is tied to recreation at Lake Almanor is largely limited to businesses that attract tourists. Located on the west side of Highway 36 and within a strictly residential area, Maywood Drive is removed from the attractions that bring in tourists, such as restaurants, shops, and hotels. No evidence was uncovered to suggest the Maywood Drive Residences district is strongly or directly tied to recreation development in the area during the 1960s and 1970s enough that it could be considered representative of Chester becoming a retail center for Lake Almanor. Similarly, while logging has been a primary industry in Lassen County and in the Chester area since the beginning of the twentieth century, the residences were constructed after major events in the history of logging in Chester, including the establishment of the community, railroads, and the Collins Pine sawmill.

In summary, the Maywood Drive Residences district is not directly associated with an important historical event, sequence of events, or pattern(s) of history. Though built during the post-war period, the district is not representative of residential development trends in rural areas at the time. The residences are also not representative of the development of recreation tourism or logging in Chester and Lassen County. Thus, the Maywood Drive Residences district is not historically significant under NRHP/CRHR Criterion A/1.

### 7.1.2 Criterion B/2

The Maywood Drive Residences were evaluated under Criterion B/2. The literature review and research completed as part of this historic property assessment did not uncover any direct associations with the lives of persons important in local, state, or national history. While there are important figures in the history of Lassen County, Chester, post-war residential development in California, recreation in Northern California, and logging, no information was uncovered to suggest the Maywood Drive Residences are representative of or directly

associated with such persons. Therefore, the Maywood Drive Residences district is not historically significant under NRHP/CRHR Criterion B/2.

### 7.1.3 Criterion C/3

The Maywood Drive Residences were evaluated under Criterion C/3 for potential significance in architecture or engineering, or as the work of a master architect or builder. All residences are traditional post-war tract homes and are typical expressions of the Ranch style which would frequently borrow features from Minimal Traditional and other preceding architectural styles. Such homes are ubiquitous throughout California. The Maywood Drive Residences are not rare, exemplary, or unique examples of the Ranch style. Additionally, no evidence was found to suggest any of the residences are the work of a master builder or architect. As such, the Maywood Drive Residences district is not historically significant under NRHP/CRHR Criterion C/3.

### 7.1.4 Criterion D/4

The Maywood Drive Residences are unlikely to yield information important to history, nor do they have the potential to broaden our understanding of residential architecture and development, tract housing, recreation, logging, the surrounding neighborhood, or the history of Chester in ways that are not readily apparent, available through archival research, or indicated in previous cultural studies completed in the area. Thus, the Maywood Drive Residences district is not historically significant under NRHP/CRHR Criterion D/4.

### 7.1.5 Eligibility Summary

As a district, the Maywood Drive Residences do not possess historical significance and are thus not recommended NRHP/CRHR-eligible under any criteria. Furthermore, no evidence was found to suggest individual significance of any properties (Residences 116, 121, 132, 145, 148, 163, 164, 179, 180, 196, 207, 218, 229, 240, 251, 262, 273, 282, 285, 297) within the Maywood Drive Residences district in relation to any thematic contexts (Criterion A/1), historically important persons (Criterion B/2), architecture or engineering (Criterion C/3), or other potentially important discoveries (Criterion D/4).

### 7.1.6 Integrity Analysis

For a property to qualify for NRHP/CRHR-listing, it must display significance under one or more of the established criteria and retain historical integrity. Since the Maywood Drive Residences do not exhibit significance under any of the established criteria, an evaluation of the historical integrity of the district is not warranted.

## 7.2 SENECA HOSPITAL CAMPUS

Due to their shared history, proximity, and characteristics, buildings within the SHD campus were evaluated for CRHR and NRHP eligibility as a potential historic district. The following evaluations discuss the historical significance and eligibility of the Seneca Hospital Campus under each criterion. Table 7-2 lists each building, construction dates, and whether each building is associated with the historical significance and period of significance (circa 1945-1970) for the district under any NRHP/CRHR criteria. The SHD master plan (ASA 2021)

identifies individual additions to the Main Hospital Building as separate entities, but they are subsumed under the Main Hospital Building entry in Table 7-2 and as part of the evaluation of historical significance and NRHP/CRHR eligibility. As the primary element of the Seneca Hospital Campus, the Main Hospital Building is also evaluated individually.

**Table 7-2. Seneca Hospital Campus Summary Table**

Building	Building No.	Construction Date	Significance
Main Hospital Building	1	1950	Criteria A/1
Pump Building	2	1950	Criteria A/1
Boiler Room	15	1950	Criteria A/1
122 Brentwood – PT Clinic	10	1976	None
118 Brentwood – Staff Housing	9	1982	None
150 Brentwood Building	8	1988	None
Generator Building	6	1993	None
Lake Almanor Clinic Building	12	1995	None
Clinic Mechanical Building	13	1995	None
Reynolds House	14	1996	None
Modular CT Building	11	1999	None
Railroad Car (Storage)	7	Unknown	None
Modular Purchasing Department Building	16	Unknown	None

### 7.2.1 Criterion A/1

PaleoWest evaluated the Seneca Hospital Campus and Main Hospital Building under Criterion A/1 for associations with important historical events or patterns of development. PaleoWest analyzed the properties within the context of American settlement and development. Specifically, the hospital campus and Main Hospital Building were evaluated within the theme of community healthcare.

The Seneca Hospital District is one of the earliest hospitals developed under the 1946 Local Hospital District Law, which ushered a period of hospital district development (circa 1946–1970) under hospital districts that operated independently from local governments to build and manage hospitals and healthcare systems. Since 1946, 85 local healthcare districts have been established but only a small portion of the hospitals remain under the direct management of their Healthcare Districts. Though the district has grown and shifted as the needs and standard of care for rural hospital systems have changed, the SHD campus is one of a few remaining hospitals built as a direct result of the 1946 legislation.

In summary, the Seneca Hospital District and the Main Hospital Building are directly associated with the post-World War II creation of local hospital districts in California, which instituted a self-managed and local public healthcare system in underserved, often rural areas. As an early example, the Seneca Hospital Campus and the Main Hospital Building meet the threshold for historical significance under NRHP/CRHR Criterion A/1. PaleoWest proposes a period of

significance of 1946-1970 which corresponds to both the post-war era and includes the decades following the Local Hospital District Law, marked by high productivity in local hospital construction throughout California.

### 7.2.2 Criterion B/2

The literature review and research completed as part of this historic property assessment did not uncover any direct associations between the Seneca Hospital Campus or Main Hospital Building and the lives of persons important in local, state, or national history. While there are important figures in the history of Chester, Lassen County, and mid-twentieth century healthcare trends, the Seneca Hospital Campus and its Main Hospital Building are not representative of or directly associated with these persons. Therefore, the Seneca Hospital Campus and Main Hospital Building do not meet the threshold for historical significance under NRHP/CRHR Criterion B/2.

### 7.2.3 Criterion C/3

The Seneca Hospital Campus district and Main Hospital Building were evaluated under Criterion C/3 for significance for their architecture and engineering and/or as the work of a master architect. All buildings and structures on the campus, including the Main Hospital Building, are of simple vernacular design, featuring some design elements inspired by the Rustic and Contemporary styles of the mid-twentieth century. Many are prefabricated or manufactured and have been altered over time. While vernacular architecture is not inherently excluded from significance under NRHP/CRHR Criterion C/3, the hospital campus and Main Hospital Building are not unique examples of rural community hospitals, nor are they a rare example of this property type. Furthermore, neither the Main Hospital Building nor the Seneca Hospital Campus are exemplary renditions of a particular architectural style of high artistic value, and they do not represent a unique method of construction.

The Seneca Hospital Building was designed by the architects Douglas Dacre Stone, Louis Belden Mulloy, and Silvio Peter Marraccini, who were partners from 1947 until 1951. As a firm, they designed (additions to) many public hospitals and other medical buildings, primarily in the San Francisco Bay Area. Many of these facilities have since been demolished or severely altered with additions, adapting them for growing surrounding communities.

Prior to their partnership, Stone had an established career designing artistic residences, apartment buildings, stores, and schools such as the Francis Scott Key Elementary School (1938), El Mirador Apartments (1931), a school for girls named the Evangeline Home (1931), the Emerson Apartments (1928), and the Mary A. Bowles Building (1931). Together, Stone, Mulloy, and Marraccini (along with Patterson, a later partner) designed the First Interstate Bank Building (1956-1959), an office building in downtown Oakland, California. The First Interstate Bank Building (also known as the Western Building & Garage) is within the boundary of the Downtown Oakland Historic District, which was added to the NRHP in 1998, but the office building was not listed as a contributor to the district at the time due to its age. The nomination does suggest the building would likely become eligible individually upon turning 50 years old as a great rendition of the International Style and as one of the earliest Bay Area buildings designed in the style (Community and Economic Development Agency 1998:8). Mulloy and Dacre also designed the Andrew Williams Store (1937) which was one of the first

supermarkets in the state, though it was demolished in the 1960s (Stone and Mulloy 1947:22-27).

Based on this review of these works of Mulloy, Stone, and Marraccini, it is clear that Stone was a master of his craft who went on to design at least one building of high artistic quality with both Mulloy and Marraccini. However, the design of the Seneca Hospital Campus is not a strong example of the work of Stone and his partners. A review of their hospitals shows that most adhered to popular contemporary styles, and designs typically featured clean lines, large massing, irregular or rectangular forms, extensive fenestration, simple ornamentation, and heavy use of glass, concrete, and other modern materials. Though it is one of a few remaining hospitals by the firm, the Seneca Hospital Campus does not represent the qualities typically attributed to Stone, Mulloy, and Marraccini. Therefore, neither the Seneca Hospital Campus nor the Main Hospital Building are representative of the work of a master architect.

In summary, the Seneca Hospital Campus and the Main Hospital Building are not historically significant for architecture or engineering, nor do they represent the work of a master architect under NRHP/CRHR Criterion C/3.

#### 7.2.4 Criterion D/4

The Seneca Hospital Campus and Main Hospital Building are unlikely to yield information important to prehistory or history. It is also unlikely that these properties have the potential to broaden our understanding of community hospitals in California, Chester, Lassen County, and the SHD in ways that are not readily apparent, available through archival research, or indicated in previous cultural studies. Thus, the Seneca Hospital Campus and the Main Hospital Building do not meet the threshold for significance under NRHP/CRHR Criterion D/4.

#### 7.2.5 Integrity Analysis

For a property to qualify for NRHP listing, it must display significance under one or more of the NRHP/CRHR criteria, discussed above, and retain sufficient historical integrity to convey that significance. Since the Seneca Hospital Campus and Main Hospital Building exhibit significance under Criterion A/1, a discussion of their historical integrity is required.

The Seneca Hospital Campus has not been moved and remains set in a quiet part of Chester, near residential areas and forested land. The SHD still manages the district, has been the owner and developer of the district since its inception in 1946, and still operates the property for medical use. The primary component of the Seneca Hospital Campus is the original 10-bed Main Hospital Building, which has undergone various alterations since 1970. Many buildings have been added to the property over its lifetime and outside of the period of significance for the district (1946-1970), including the PT Clinic, Staff Housing, Brentwood Building, Generator Building, Lake Almanor Clinic Building, Clinic Mechanical Building, Reynolds House, and Modular CT Building. These late additions to the property are not associated with the district's significance under Criterion A/1 and vastly outnumber the pre-1970 buildings, including the only pre-1970 building constructed for direct and primary use as a medical treatment facility (the Main Hospital Building).

Although the district and Main Hospital Building retain their integrity of location and setting, their associations under Criterion A/1 have been compromised by extensive changes over time. Additionally, these alterations have negatively affected the materials, workmanship, design, and

feeling of the Seneca Hospital Campus. Thus, the integrity of both the district and the Main Hospital Building is extremely diminished.

### 7.2.6 Eligibility Summary

As a district, the Seneca Hospital Campus possesses historical significance under Criterion A/1 for its associations with community hospital development in California. The property does not demonstrate historical significance under Criterion B/2, C/3, and D/4. An evaluation of the integrity of the campus and hospital, in relation to their significance under Criterion A/1, identified severe deficits. PaleoWest asserts that the Seneca Hospital Campus does not retain sufficient integrity to convey its historical significance under Criterion A/1 and is thus not recommended eligible under this criterion. As the Seneca Hospital Campus did not demonstrate significance under any other criteria, the property is also recommended not eligible for associations with historically important persons (Criterion B/2), architecture or engineering (Criterion C/3), or other potentially important discoveries (Criterion D/4).

## 7.3 SITE 21-415-KH-001/H

Multicomponent site 21-415-KH-001/H was evaluated NRHP and CRHR eligibility. The following discusses the evaluation of the site under criteria A-D of the NRHP and criteria 1-4 of the CRHR.

### 7.3.1 Criterion A/1

Site 21-415-KH-001/H is not associated with events that have made a significant contribution to the broad patterns of local or regional history. Tribal representatives from the Susanville Indian Rancheria and the Greenville Rancheria are in consultation with the lead agency and provided monitors for testing efforts. Tribal consultation and monitoring did not result in the identification of tribal cultural resources or an association with important events of the past.

The historic period component of the site consists primarily of logging-related refuse, earthworks, and access roads. This component is likely related to the Collins Pine Lumber Company, whose lumber yard is immediately adjacent to the west end of the site. Collins Pine played an important role in the development of Chester and continues to play a vital role in the community through philanthropic efforts of the Collins Companies Foundation. The logging-related features and associated artifacts, however, are ubiquitous throughout Northern California, and no diagnostic material that could date the component was identified. The component is therefore unlikely to yield information important to the history of Chester, or California more broadly, in ways that are not readily apparent or available through archival research.

Because site 21-415-KH-001/H is not associated with important events, PaleoWest recommends the site as not eligible for the NRHP/CRHR under Criterion A/1.

### 7.3.2 Criterion B/2

Site 21-415-KH-001/H is not associated with the lives or persons important to the history of Chester, California, or the nation. As such, PaleoWest recommends site 21-415-KH-001/H as not eligible for the NRHP/CRHR under Criterion B/2.

### 7.3.3 Criterion C/3

Site 21-415-KH-001 does not embody the distinctive characteristics of a type, period, region, or method of construction, nor does it represent the work of a master or possess high artistic values. As such, PaleoWest recommends site 21-415-KH-001/H as not eligible for the NRHP/CRHR under Criterion C/3.

### 7.3.4 Criterion D/4

Testing of site 21-415-KH-001/H exhausted much of the data potential of the site's Pre-contact locus, which suggests the component is unlikely to yield information important to the Pre-contact period. Testing uncovered one subsurface obsidian flake which is likely the result of bioturbation and may not reflect an intact subsurface component to the Pre-contact locus. Surface finds across the site are minimal, and no Pre-contact diagnostic artifacts were identified. The locus is not extensive enough to be able to evaluate whether surface artifacts and features represent an intact deposit.

Site 21-415-KH-001/H is also highly degraded and disturbed and is therefore unlikely that further study will yield additional information meaningful to the history of the area. Thus, PaleoWest recommends the site not eligible for the NRHP/CRHR under Criterion D/4 of the NRHP/CRHR.

As site 21-415-KH-001/H is recommended as not eligible under any criteria, no further management recommendations are necessary.

## 8 CONCLUSION

In conformance with NHPA Section 106 and CEQA, PaleoWest evaluated the cultural resources within the APE for their eligibility to be listed in the CRHR and/or NRHP. These evaluations included the historic period built-environment Maywood Drive Residences and Seneca Hospital Campus and the multicomponent archaeological site 21-415-KH-001/H. The built environment properties were evaluated as historic districts, and the Main Hospital Building within the Seneca Hospital Campus was also individually evaluated.

Evaluation of the Maywood Drive Residences district found that the residences do not possess historical significance for associations with historically important events (Criterion A/1) or persons (Criterion B/2), architecture or engineering (Criterion C/3), or a likelihood to contribute to other important discoveries (Criterion D/4). Evaluation of the Seneca Hospital Campus and the Main Hospital Building also did not point to significance for either property under NRHP/CRHR Criteria B/2, C/3, and D/4. The campus and hospital were determined to have historical significance under Criterion A/1 for its association with the development of local community hospitals in California during the post-war period, but an analysis of the integrity of the district and the hospital found severe deficiencies in their ability to convey this significance due to many alterations made to the campus and hospital during over time. In summary, PaleoWest recommends the Maywood Drive Residences, Seneca Hospital Campus, and Seneca Main Hospital Building not eligible for listing in the NRHP and CRHR.

Using data gathered during field surveys, a literature review and historical research, and archaeological testing, PaleoWest assessed the significance of historical and Pre-contact resources identified in the APE. Test excavations completed within the Pre-contact locus of

multicomponent site 21-415-KH-001/H did not reveal an intact subsurface deposit, and the site lacks diagnostic materials that could inform significant associations with individuals or events. As a disturbed site lacking data potential, PaleoWest recommends site 21-415-KH-001/H not eligible for the NRHP or CRHR under any criteria. In summary, the cultural resource investigation did not identify any built-environment or archaeological resources within the APE that are considered historic properties or historical resources for the purposes of CEQA or the NHPA. As such, the Project, as proposed, will have No Impact to historical resources in accordance with accordance with CEQA Section 15064.5(b).

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# **Appendix A.**

# **DPR Forms**

**State of California — The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
PRIMARY RECORD**

Primary #

HRI#

Trinomial

NRHP Status Code **Unevaluated**

Other Listings \_\_\_\_\_

Review Code \_\_\_\_\_ Reviewer \_\_\_\_\_ Date \_\_\_\_\_

**Page 1 of 9**

**Resource Name or #:** 21-0415-KH-001/H

**P1. Other Identifier:**

\***P2. Location:**  Not for Publication  Unrestricted

\***a. County:** Plumas **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

\***b. USGS 7.5' Quad:** Chester

**Date:** 1995 **T28 N R 7 E ; SE 1/4 of SE 1/4 of Sec 6 ; MDMB**

c. Address City Zip

Chester 96020

d. UTM: Zone 11 649711 mE; 4463320 mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

From Chester CA travel northeast down Highway 36 and turn west on Reynolds Road. Park near the medical clinic at 199 Reynolds Road. The southern boundary of the site is immediately north of the parking lot.

**\*P3a. Description:** This is a multicomponent site consisting of remains from historic era logging activities, and a small pre-contact lithic locus and isolate. Historic era features include two-track road systems, a logging ditch, multiple earthworks concentrations (containing pits, trenches, and berms), a historic period fence line, and a wooden board or platform. Historic era artifacts include ferrous metal straps, folded and corrugated metal sheeting, crimped seam vent-hole and solder dot cans, metal cable, and glass.

**\*P3b. Resource Attributes:** AP2. Lithic scatter, AH6. Water conveyance system, AH7. Roads/trails/railroad grades, AH11.

**\*P4. Resources Present:**  Building  Structure  Object  Site  District  Element of District  Other (Isolates, etc.)

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



**\*P6. Date Constructed/Age and Source:**  
Historic      Prehistoric      Both  
Aerial images

**\*P7. Owner and Address:** Seneca Healthcare District (199 Reynolds Road, Chester)  
Collins Pine Company (500 Main Street, Chester)

**\*P8. Recorded by:** Katherine Holst, Joshua Noyer

**\*P9. Date Recorded:** October 3, 2022

**\*P10. Survey Type:** Pedestrian

**\*P11. Report Citation:** 2022 Cultural Resource Assessment for the Seneca Healthcare District Redevelopment Project, PaleoWest

**\*Attachments:**  NONE  
 Archaeological Record  
 Artifact Record

Location Map  
 District Record  
 Photograph Record

Continuation Sheet  
 Linear Feature Record  
 Other (List):

Building, Structure, and Object Record  
 Milling Station Record  Rock Art Record

**State of California — Natural Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
ARCHAEOLOGICAL SITE RECORD**

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Primary #  
Trinomial

\*Resource Name or #: 21-0415-KH-001/H

- \*A1. Dimensions:** a. Length:      ft ( E/W ) x    b. Width:      ft ( N/S )  
**Method of Measurement:**  Paced  Taped  Visual Estimate  GPS  GIS Other: GIS  
**Method of Determination:**  Artifacts  Features  Soil  Vegetation  Topography  Cut Bank  
 Animal Burrow  Excavation  Property Boundary Other: Artifacts
- Reliability of Determination:**  High  Medium  Low Explain: The site extends beyond the current boundary, which is the property boundary surveyed for the Seneca Healthcare Redevelopment Project.
- Limitations:**  Restricted Access  Paved/built over  Site limits incompletely defined  Disturbances  Vegetation  
Other: Disturbances

- A2. Depth:       None  Unknown Method of Determination: Site limits confined to current project area.  
**\*A3. Human Remains:**  Present  Absent  Possible  Unknown Method of Determination: Site limits confined to current project area.  
**\*A4. Features:** HF1 is the southernmost two-track road that roughly parallels the southern site boundary. Aerial images from 1955 and 1962 show parts of this road (though it is obscured by trees), and it appears to follow the same path. Modern modifications to the road include grading and added gravel. It measures approximately 465 ft long by 8-10 feet wide. The eastern terminus of the road leads to the Lake Almanor Clinic Building (199 Reynolds Road) and the western part of the road leads to pavement at 299 Maywood Drive. See Continuation Sheet (page 9) for complete list of features.

- \*A5. Cultural Constituents:** HA1 is a Cobalt blue Vic's Vapor Rub, in association with HF5. HA2 is a large crushed metal container. HA3 is a crimped seam can with wire handle and pour spout. See Continuation Sheet (page 9) for complete list of cultural constituents.

- \*A6. Were Specimens Collected?**:  Yes  No  
**\*A7. Site Condition:**  Good  Fair  Poor (Describe disturbances.): This site is adjacent to residential and commercial developments and modern refuse was identified throughout the area, suggesting contemporary impacts.  
**\*A8. Nearest Water:** North Fork of the Feather River approximately 1,100 ft north.  
**\*A9. Elevation:** 4500'

A10. Environmental Setting: The site is located in a mixed conifer forest with tan brown ashy sandy soils with sub angular volcanic cobbles and gravels. The site is located on a relatively flat landform with a slightly east/northeast aspect.

A11. Historical Information:

- \*A12 Age:**  Prehistoric  Protohistoric  1542-1769  1769-1848  1848-1880  1914-1945  Post 1945  Undetermined

A13. Interpretations: The historic period components of the site appear to relate to logging, likely by the adjacent Collins Pine Company lumber yard, and possibly from the previous Red River Lumber Company. The sawmill and ponds adjacent to the site were built in 1943 and the company still owns part of the land in the western portion of the site.

**A14. Remarks:**

A15. References:

A16. Photographs (List subjects, direction of view, and accession numbers or attach a Photograph Record.):

Original Media/Negatives Kept at:

**\*A17. Form Prepared by:** Katie Holst

Date: October 18, 2022

Affiliation and Address:

**State of California — The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
LOCATION MAP**

**Primary  
HRI  
Trinomial**

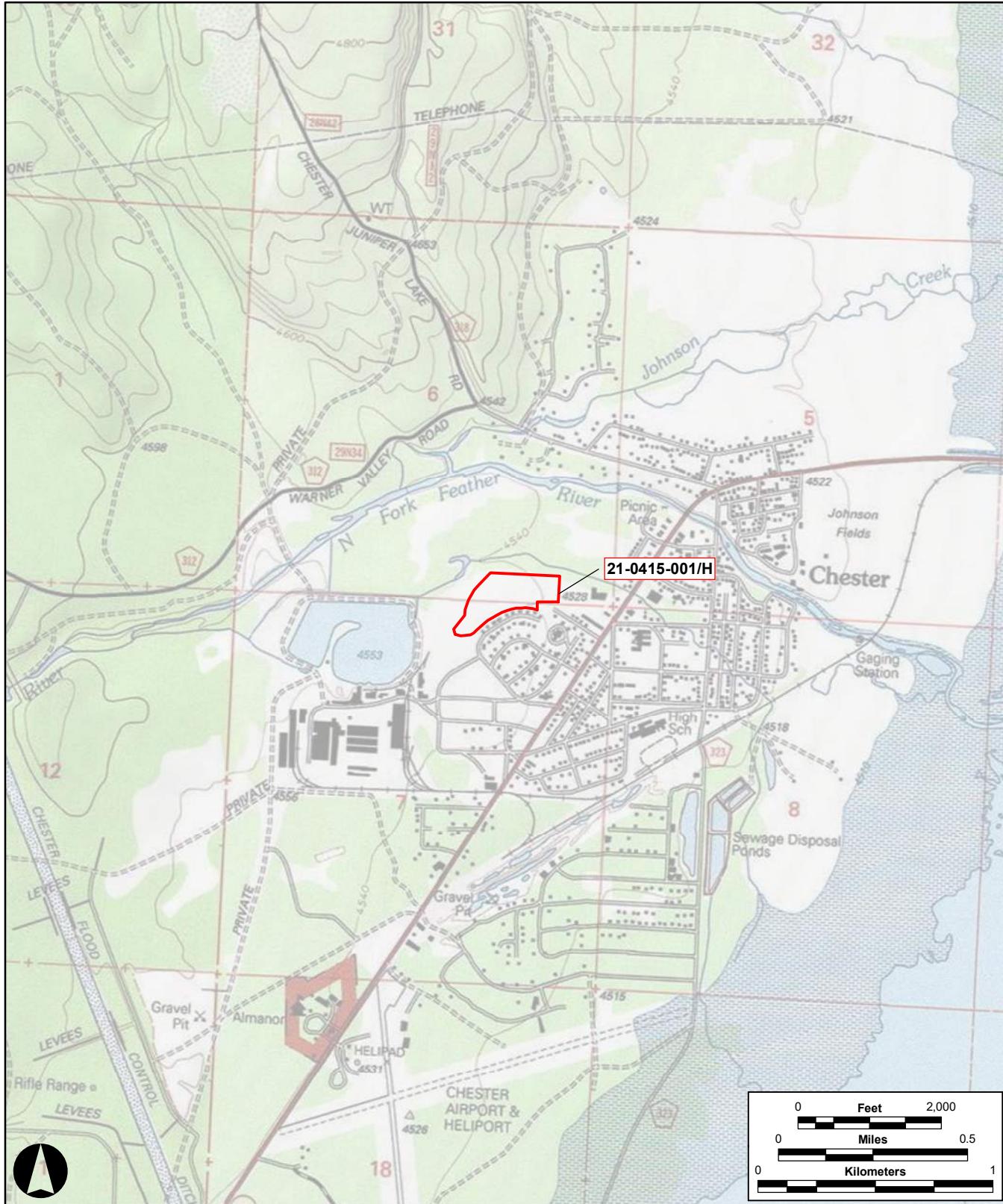
**Page 3 of 9**

**Resource Name or #: 21-0415-001/H**

**Scale: 1:24,000**

**Map Name:** Chester, CA (1979) 7.5' USGS Quad.

**Date:** 2022



**State of California — The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
SKETCH MAP**

**Page 4 of 9**

**\*Drawn by:** K. Markham

**Primary #**

**HRI#**

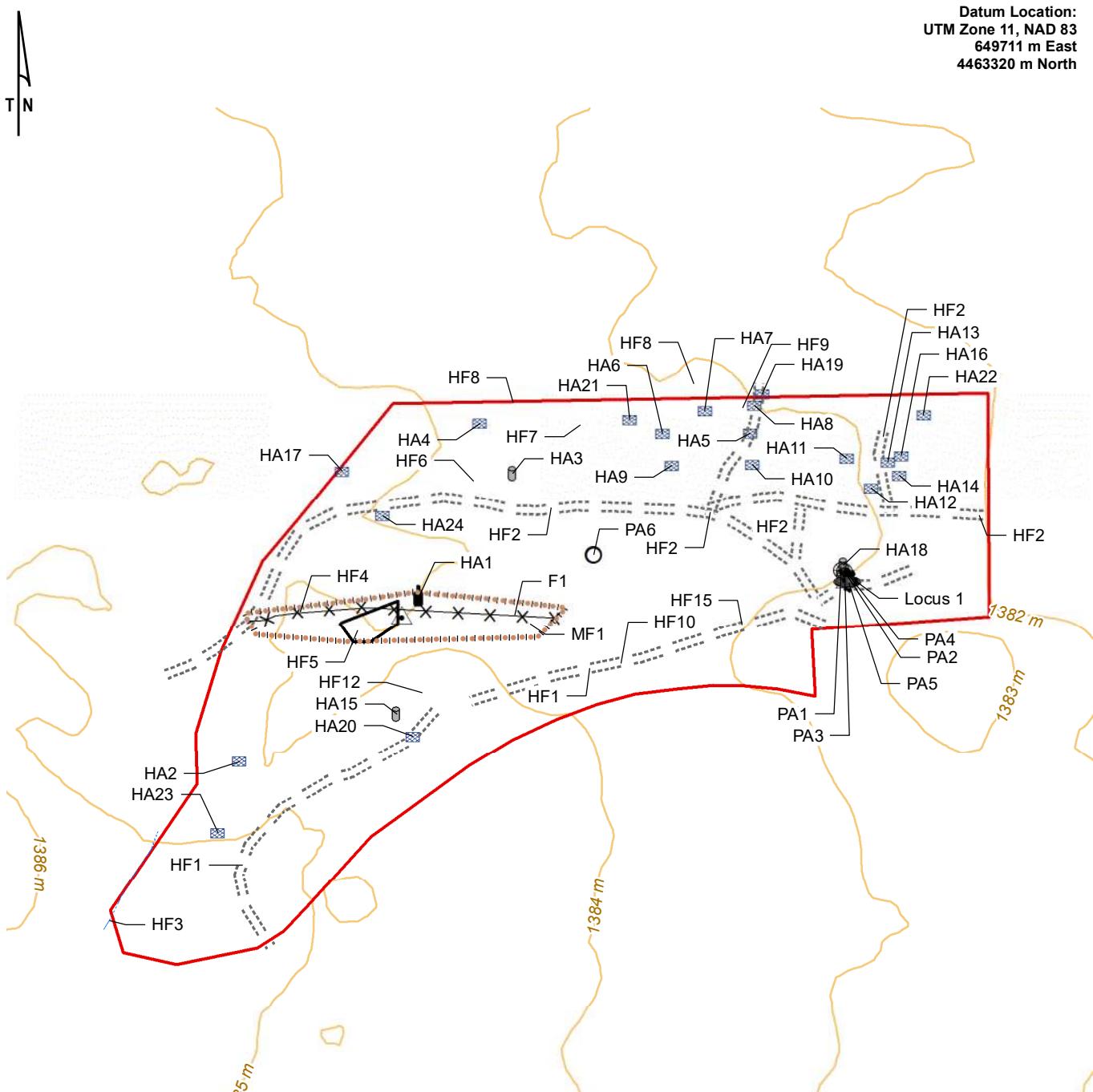
**Trinomial**

**\*Resource Name or #:** 21-0415-001/H

**\*Scale:** 1:3,000

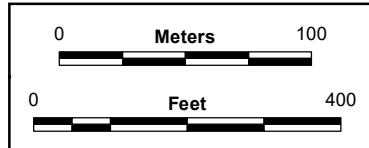
**\*Date of map:** November 2022

**Datum Location:**  
UTM Zone 11, NAD 83  
649711 m East  
4463320 m North



**Legend**

- △ Datum
- Site Boundary
- Ditch
- Feature
- Locus
- Two Track Road
- Drainage
- X—X Fence
- Contour
- Mano
- Can
- Metal Artifact
- Obsidian Flake
- ◆ Lithic Debitage
- Historic Glass Bottle
- Hammerstone
- Hammerstone



State of California — Natural Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**LINEAR FEATURE RECORD**

Primary#  
HRI #  
Trinomial

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\*Resource Name or # 21-0415-KH-001/H

L1. Historic and/or Common Name: Two-track road, HF1

L2a. Portion Described:  Entire Resource  Segement  Point Observation Designation:

b. Location of point or segment:

L3. Description: HF1 is the southernmost two-track road that roughly parallels the southern site boundary. Aerial images from 1955 and 1962 show parts of this road (though it is obscured by trees), and it appears to follow the same path. Modern modifications to the road include grading and added gravel. It measures approximately 465 ft long by 8-10 feet wide. The eastern terminus of the road leads to the Lake Almanor Clinic Building (199 Reynolds Road) and the western part of the road leads to pavement at 299 Maywood Drive.

L4. Dimensions:

- a. Top Width 8-10'
- b. Bottom Width
- c. Height or Depth
- d. Length of Segment 465

L5. Associated Resources:

L4e. Sketch of Cross Section (includes scale)

Facing:

L6. Setting:

The road winds through a flat and moderately forested area north of Maywood Drive and the Lake Almanor Clinic in Chester.

L7. Integrity Considerations: The road appears to follow the same path visible in historical aerial images, though modern modifications have affected feature integrity.

L8a. Photograph, Map or Drawing: Overview of two-track road looking east, October 3, 2022.



L9. Remarks:

L10. Form Prepared by:  
Katie Holst, PaleoWest

L11. Date: November 10, 2022

State of California — Natural Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**LINEAR FEATURE RECORD**

Primary#  
HRI #  
Trinomial

Page 6 of 9

\*Resource Name or #21-0415-KH-001/H

**L1. Historic and/or Common Name:** Two-track road, HF2

**L2a. Portion Described:**  Entire Resource  Segement  Point Observation **Designation:**

b. Location of point or segment:

**L3. Description:** HF2 is the northern two-track road and associated spurs. Parts of this road are visible in 1956 aerial photographs, and most of it can be seen clearly on 1972 aerial images. Including spurs, the entire road is approximately 1,700 ft long and roughly 8-10 ft wide. The eastern terminus of the road is at 400 Meadowbrook Loop, and the western terminus leads towards the Collins Pine Company lumber yard.

**L4. Dimensions:**

- a. Top Width 8-10
- b. Bottom Width
- c. Height or Depth
- d. Length of Segment 1701

**L5. Associated Resources:**

**L4e. Sketch of Cross Section (includes scale)**

**Facing:**

**L6. Setting:**

The road winds through a flat and moderately wooded area characterized by Sierran conifer forest, between the North Fork of the Feather River and the developed areas of northwest Chester.

**L7. Integrity Considerations:** The road appears to follow the same path visible in historical aerial images, though modern modifications have affected feature integrity.

**L8a. Photograph, Map or Drawing:** Overview of the two-track road looking west, October 3, 2022.



**L9. Remarks:**

**L10. Form Prepared by:**  
Katie Holst, PaleoWest

**L11. Date:** November 10, 2022

State of California — Natural Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**LINEAR FEATURE RECORD**

Primary#  
HRI #  
Trinomial

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\*Resource Name or # 21-0415-KH-001/H

**L1. Historic and/or Common Name:** Collins Pine Company logging ditch, HF3

**L2a. Portion Described:**  Entire Resource  Segement  Point Observatio **Designation:**

b. Location of point or segment:

**L3. Description:** The historic period ditch extends from the Collins Pine Company lumber yard and sawmill to the northeast, at least 182 feet (ft). The ditch measures 12-15 ft across the top and 2-3 ft wide along the base, and 6-7 ft deep.

**L4. Dimensions:**

- a. Top Width 12-15ft
- b. Bottom Width 2-3
- c. Height or Depth 6-7
- d. Length of Segment 454

**L5. Associated Resources:** None

**L4e. Sketch of Cross Section (includes scale)**

**Facing:**

**L6. Setting:**

The ditch is in a flat area of Sierra Mixed Conifer Forest. Sediments in the area are quaternary alluvium and marine deposits, and ground surface visibility is 20-40% with coverage from pine duff.

**L7. Integrity Considerations:** Modern modifications to the ditch are evidenced by channels cut perpendicular to the ditch, and some erosion has occurred along the north side of the feature.

**L8a. Photograph, Map or Drawing:** Overview of the ditch looking northeast. October 3, 2022.



**L9. Remarks:**

**L10. Form Prepared by:**  
Katie Holst, PaleoWest

**L11. Date:** November 10, 2022

State of California — Natural Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**LINEAR FEATURE RECORD**

Primary#  
HRI #  
Trinomial

Page 8 of 9

\*Resource Name or #21-0415-KH-001/H

**L1. Historic and/or Common Name:** Fence line, HF4

**L2a. Portion Described:**  Entire Resource  Segement  Point Observation **Designation:**

b. Location of point or segment:

**L3. Description:** HF4 is a historic fence line with roughhewn wooden posts and modern "t" bar stakes. The fence line is partially collapsed in the center and abruptly terminates at a wooden post on the east side with no clear indication of where the fence continued. Wooden posts are approximately 57-60 in tall and have a square cross section 6-8 in wide. One opening is present in the west side of the fence where a graded gravel road cuts through the fence line. On the west side of the opening is a milled log with two 8 in wide hatchet/chain saw cuts are present the east side of the body 10-18 in from the ground and 53-58 in from the ground possibly indicating where a gate was attached (remnant hardware is still present in the notches of the post). The log is

**L4. Dimensions:**

- a. Top Width 1
- b. Bottom Width 1
- c. Height or Depth 0-5
- d. Length of Segment 500

**L5. Associated Resources:** The fence is located within a larger historic site with earth work features (Feature 02) and one diagnostic artifact (Artifact 01), a blue cobalt glass Vic's Vapr Rub jar bottom base.

**L6. Setting:**

The feature is located in a mixed conifer woodland with tan brown ashy loam soils and subangular cobbles and gravels made of volcanic material.

**L7. Integrity Considerations:** The fence appears to have been used in modern times evident by the "t" posts being used in between sections of the fence where wooden posts are present. The fence appears to no longer be maintained as sections of the resource are collapsed with some deadfall and soils partially burying the remains.

**L8a. Photograph, Map or Drawing:** Overview of fence line looking west, October 3, 2022.



**L9. Remarks:**

**L10. Form Prepared by:**  
Katherine Holst, PaleoWest

**L11. Date:** November 10, 2022

**State of California — The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
CONTINUATION SHEET**

**Primary #**

**HRI #**

**Trinomial**

**Page 9 of 9**

**\*Resource Name:** 21-0415-KH-001/H

**\*Recorded by:** Katherine Holst, Joshua Noyer

**\*Date:** 10/4/2022

xContinuation

Update

### **Features**

HF2 is the northern two-track road and associated spurs. Parts of this road are visible in 1956 aerial photographs, and most of it can be seen clearly on 1972 aerial images. Including spurs, the entire road is approximately 1,700 ft long and roughly 8-10 ft wide. The eastern terminus of the road is at 400 Meadowbrook Loop, and the western terminus leads towards the Collins Pine Company lumber yard.

HF3 is a logging ditch extending at least 445 ft long from the eastern edge of the Collins Pine lumber yard. The ditch measures at least 445 ft long by 12-15 ft wide at the top, and 2-3 ft wide near the base. The depth of the ditch ranges from 5 to 7 feet deep and is lined with river cobbles at the base. Modifications including added culverts suggest modern alterations have been made to the ditch in more recent years.

HF4 is a fence line Constructed with roughhewn wooden posts as well as modern "t" bar stakes. The fence line is partially collapsed in the center and abruptly terminates at a wooden post on the east side with no clear indication of where the fence continued. Wooden posts are approximately 57-60 in tall and have a square cross section 6-8 in wide. One opening is present in the west side of the fence where a graded gravel road cuts through the fence line. On the west side of the opening is a milled log with two 8 in wide hatchet/chain saw cuts are present the east side of the body 10-18 in from the ground and 53-58 in from the ground possibly indicating where a gate was attached (remnant hardware is still present in the notches of the post). The log is overall 73 in tall and has a diameter of 13.75 in. Double twist double pronged barbed wire is present throughout the fence line corridor.

HF5 is a concentration of earthworks including mounds and depressions approximately two to four ft tall in an area measuring 80 ft E/W by 50 ft N/S. Some modern concrete is present in some of the depressions with modern refuse also found within the feature area. The function of these earth works is unknown. A broken historic-period Vic's Vapor Rub jar (HA1) was found in association with the earthworks.

HF6 is a wooden platform consisting of a square of boards as a platform or cover on ground surface, 3 x 3 ft. Metal strapping is present.

HF8 is a group of earthworks including ditches and berms.

HF9 is a linear berm and pit.

HF10 is a concentration of ferrous strapping, all are 3 in wide by various lengths.

HF11 is a ferrous metal strap partially buried in a mound and is 3 in wide by 4 ft long.

HF12 is a cluster of non-native irises.

HF13 is folded sheet metal that is 9 in by 12 in, and likely around 24 in unfolded.

HF14 is a dump area including bits of metal strapping and sheet metal in a burned area.

HF15 is a concentration of earthworks including pits, trenches, and mounds.

HF16 is the remnant of a roughhewn fence post, no associated fence line.

### **Cultural Constituents**

HA4 is partially buried steel cable.

HA5, HA7, HA8, HA9, HA10, HA11, HA12, and HA13 are all ferrous strapping; HA12 is adjacent to rebar and partially buried.

HA6 is partially buried corrugated sheet metal.

HA15 is a partially crushed sanitary can.

HA16 is a crimped seam solder dot can.



**For General Inquiries:**

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March 6, 2023

Ms. Julianne Polanco

State Historic Preservation Officer  
Office of Historic Preservation, Review and Compliance Unit  
1725 23rs Street, Suite 100  
Sacramento, CA 95816

Re: Consultation under Section 106 of the National Historic Preservation Act, Seneca Healthcare District Redevelopment Project

Dear Ms. Polanco:

The Seneca Healthcare District (SHD) has applied for federal grant monies under Senate Bill 1953 (SB1953) to develop a new hospital that meets state seismic safety requirements in Chester, Plumas County, California. This undertaking, known as the SHD Chester Redevelopment Project, proposes construction of a new hospital campus on 17.6 undeveloped acres adjacent to the northwest of the current hospital campus at 130 Brentwood Drive.

On behalf of the U.S. Department of Agriculture (USDA), SHD is initiating SHPO consultation for this undertaking with respect to compliance with the National Historic Preservation Act (NHPA) and the California Environmental Quality Act (CEQA). As such, and in accordance with the implementing regulations for Section 106 found at 36 CFR Part 800.16(d), we are seeking SHPO concurrence on the delineation of the project's Area of Potential Effect (APE) and the cultural resource assessment.

#### Description of the Undertaking

The Project will be partially funded by federal grant monies under Senate Bill 1953 (SB1953) to ensure the new hospital meets state seismic safety requirements. Therefore, the proposed Project qualifies as an undertaking and is subject to compliance with Section 106 of the National Historic Preservation Act (NHPA). Furthermore, the Project must also comply with the California Environmental Quality Act (CEQA). SHD is the lead agency for CEQA and acting on behalf of the U.S. Department of Agriculture (USDA) as lead agency for Section 106.



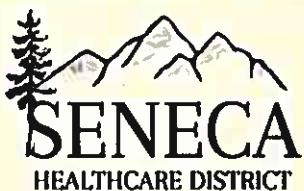
SHD is a rural California Critical Access Hospital (CAH) serving a district on the northern edge of Plumas County in the Sierra Nevada. The hospital site is in the town of Chester and consists of the Main Hospital Building with attached outbuildings, including a Skilled Nursing Facility, a modular CT Scan building, central plant and pump building, manufactured physical therapy building, manufactured doctor's sleep building, health education and respiratory therapy building, and the Lake Almanor Clinic Building. As northwestern Plumas County's only healthcare facility, the site is fully developed and lacks adequate space for growth. Additionally, the main building was constructed in 1952 and does not meet California structural seismic requirements outlined in SB1953, and the current facility cannot be retrofit to meet the requirements.

SHD is considering land owned by SHD (Assessor's Parcel Numbers [APNs] 100-110-028 and 100-110-029), and 5.9 acres of land donated by the Collins Pine Lumber Company (APN 100-470-003) as the site of the new hospital. The land is adjacent to the existing campus and offers consistent traffic flow from Reynolds Road and proximity to the existing clinic. The new planned structure will be approximately 43,000 square feet (ft<sup>2</sup>) in area on the northwest corner of the existing facility. Additional improvements will consist of exterior concrete flatwork, lighting, and underground utilities as well as an ambulance carport at the existing facility to the south. Grading is anticipated to be minor because the site is relatively flat, and excavations for new utilities are anticipated to be less than 5 ft deep.

#### Description of the Area of Potential Effect (APE)

The APE is in Plumas County, in the town of Chester, approximately 0.2-mile (mi) west of Highway 36 (Figure 1). The site is adjacent to the existing facility at 130 Brentwood Drive (Figure 2). The area encompassing the two proposed Project study parcels covers APNs 100-110-028, 100-230-029, and a portion of 100-470-003. The Project is on the 1979 U.S. Geological Survey (USGS) 7.5-minute Chester, California topographic quadrangle, and is in Section 28, Township (T) 28 North (N), Range (R) 7 East (E); and Sections 6 and 7 of the Mount Diablo Base Meridian (MDBM; Figure 3).

The APE was delineated by SHD to identify historic properties that may be directly or indirectly affected by the undertaking, in compliance with 36 CFR 800.16(d). The Project APE and is defined as areas occupied by the existing hospital campus, including the clinic building, historic period main hospital, and all associated outbuildings (Assessor's



Parcel Number [APN] 100-110-029), in addition to the 17.5-acres of undeveloped land, including APN 100-230-028, owned by SHD, and a portion of 100-470-003, owned by the Collins Pine Lumber Company.

The limits of the APE were extended beyond the direct Project footprint to include buildings adjacent to the current and proposed SHD facility properties. This includes the following privately-owned parcels: APNs 100-281-001, 100-281-002, 100-281-003, 100-281-004, 100-281-005, 100-281-006, 100-281-007, 100-281-008, 100-281-009, 100-281-010, 100-280ROW, 100-282-001, 100-282-002, 100-282-003, 100-282-004, 100-282-005, 100-282-006, 100-282-007, 100-282-008, 100-282-009, 100-282-010, 100-101-006, 100-101-007, 100-101-008, 100-101-009, and 100-101-010. The vertical limits of the APE extend from a maximum of five feet (ft) below ground surface to a height of 35 ft above ground surface.

## Survey Results

Pedestrian archaeological and built environment survey efforts resulted in the identification of a new multicomponent archaeological site (21-0415-KH-001). The site occupies the undeveloped portion of the APE and contains historic period remnants of logging activities including historic period refuse, linear features (two-track roads and a logging ditch), earthworks like berms, mounds, and pits, and pre-contact flaked and battered stone artifacts.

Built environment resources 45 years or older identified within the APE include two historical districts, the Seneca Hospital District and Maywood Drive District. The Seneca District contains 16 medical buildings, three of which date to the historic period (1950). The Maywood Drive District contains 20 single-family ranch-style tract homes dating from the 1950s to the 1970s.

All built environment and archaeological resources identified in the APE were evaluated against National Register of Historic Places (NRHP) and California Register of Historical Resources (CRHR) criteria. This included archival research of historic buildings and archaeological remains and subsurface testing of the pre-contact locus to assess data potential.



## Historic Property Evaluations

In conformance with NHPA Section 106 and CEQA, PaleoWest evaluated the cultural resources within the APE for their eligibility to be listed in the CRHR and/or NRHP. These evaluations included the historic period built-environment Maywood Drive Residences and Seneca Hospital Campus and the multicomponent archaeological site 21-415-KH-001/H. The built environment properties were evaluated as historic districts, and the Main Hospital Building within the Seneca Hospital Campus was also individually evaluated.

Evaluation of the Maywood Drive Residences district found that the residences do not possess historical significance for associations with historically important events (Criterion A/1) or persons (Criterion B/2), architecture or engineering (Criterion C/3), or a likelihood to contribute to other important discoveries (Criterion D/4). Evaluation of the Seneca Hospital Campus and the Main Hospital Building also did not point to significance for either property under NRHP/CRHR Criteria B/2, C/3, and D/4. The campus and hospital were determined to have historical significance under Criterion A/1 for its association with the development of local community hospitals in California during the post-war period, but an analysis of the integrity of the district and the hospital found severe deficiencies in its ability to convey this significance due to significant alterations made to the campus and hospital over time. SHD recommends the Maywood Drive Residences, Seneca Hospital Campus, and Seneca Main Hospital Building not eligible for listing in the NRHP and CRHR.

Using data gathered during field surveys, a literature review and historical research, and archaeological testing, the significance of the historical and Pre-contact components of multicomponent site 21-415-KH-001/H was evaluated. Test excavations completed within the Pre-contact locus of multicomponent site 21-415-KH-001/H did not reveal an intact subsurface deposit, and the site lacks diagnostic materials that could inform significant associations with individuals or events. The historic period component of the site consists primarily of logging-related refuse, earthworks, and access roads, all of which are ubiquitous throughout Northern California and do not contain diagnostic information. The component is therefore unlikely to yield information important to local or state history in ways that are not readily apparent or available through archival research. As a disturbed site lacking data potential, SHD recommends site 21-415-KH-001/H not eligible for the NRHP or CRHR under any criteria.



In summary, the cultural resource investigation did not identify any built-environment or archaeological resources within the APE that are considered historic properties or historical resources for the purposes of NHPA or CEQA . As such, the undertaking, as proposed, will result in No Historic Properties Affected in accordance with 36 CFR 100.4(d)(1) and will have No Impact to historical resources in accordance with CEQA Section 15064.5(b).

SHD, on behalf of the USDA, is requesting SHPO's comments on the adequacy of the APE (36 CFR 800.16(d)), historic property identification efforts (36 CFR 800.4), and assessment of effect (36 CFR 800.5) for the undertaking.

Sincerely,

Shawn McKenzie, CEO  
Seneca Healthcare District  
199 Reynold Road  
P O Box 1460  
Chester, CA 96020  
Phone: 833-227-3743 Ext. 1500

List of attachments:

APE Vicinity Map (Figure 1) USGS Location Map (Figure 2) APE Map (Figure 3)

Cultural Resource Technical Report

Historic Property Evaluation and Effects Recommendation Report

**DEPARTMENT OF PARKS AND RECREATION  
OFFICE OF HISTORIC PRESERVATION**

Julianne Polanco, State Historic Preservation Officer  
1725 23rd Street, Suite 100, Sacramento, CA 95816-7100  
Telephone: (916) 445-7000      FAX: (916) 445-7053  
calshpo.ohp@parks.ca.gov      [www.ohp.parks.ca.gov](http://www.ohp.parks.ca.gov)

Armando Quintero, Director

May 3, 2023

Reply in Reference To: USDA\_2023\_0324\_001

*Submitted Via Electronic Mail*

Shawn McKenzie, CEO  
Seneca Healthcare District  
199 Reynold Road  
PO Box 1460  
Chester, CA 96020

RE: Seneca Healthcare District Redevelopment Project, Chester, Plumas County, California

Dear Mr. McKenzie:

On behalf of the United States Department of Agriculture (USDA), Seneca Healthcare District (SHD) is consulting with the State Historic Preservation Officer (SHPO) in order to comply with Section 106 of the National Historic Preservation Act of 1966 (54 U.S.C. § 306108), as amended, and its implementing regulations at 36 CFR Part 800. SHD is requesting SHPO concurrence with a finding of no historic properties affected. In addition to your March 6, 2023 letter, you have provided maps, aerial images, evidence of Native American consultation, and the following cultural resources study in support of the above-referenced undertaking:

- *PaleoWest: Historic Property Evaluation Report For The Seneca Healthcare District Redevelopment Project, Chester, Plumas County, California* (PaleoWest, LLC: January 26, 2023)

SHD is applying for USDA funding to develop a new 43,000 square foot hospital (Undertaking). Components of the Undertaking include building construction, exterior concrete flatwork, lighting, installation of underground utilities, and construction of an ambulance carport at the existing SHD facility.

The Area of Potential Effects (APE) for the Undertaking is defined as a 17.6 acre new hospital site, the current SHD facility, and a neighboring area identified as the Maywood Drive Residences District. The height of the new hospital is expected to reach 36 feet above ground level, while excavation for footings and utilities extend to approximately five feet below ground level.

In an effort to identify historic properties in the APE, cultural resources consultants working for SHD conducted Native American consultation, performed a records search at the Central California Information

Center, and carried an archaeological survey of the new hospital site, and evaluated the buildings and structures comprising the Maywood Drive Residences District and the current SHD facility.

On the new hospital site, archaeologist identified and recorded a historic period multi-component archaeological site identified as 21-415-KH-001/H. The site, comprised primarily of logging-related refuse, earthworks, and access roads, was evaluated under all National Register of Historic Places (NRHP) criteria and determined to be ineligible for listing on the NRHP.

The following twenty single family homes comprising the Maywood Drive Residences District were evaluated under all NRHP criteria and found ineligible for listing on the NRHP:

- 116 Maywood Drive, built in 1966
- 121 Maywood Drive, built in 1972
- 132 Maywood Drive, built in 1972
- 145 Maywood Drive, built in 1973
- 148 Maywood Drive, built in 1972
- 163 Maywood Drive, built in 1960
- 164 Maywood Drive, built in 1964
- 179 Maywood Drive, built in 1972
- 180 Maywood Drive, built in 1966
- 196 Maywood Drive, built in 1964
- 207 Maywood Drive, built in 1964
- 218 Maywood Drive, built in 1961
- 229 Maywood Drive, built in 1964
- 240 Maywood Drive, built in 1961
- 251 Maywood Drive, built in 1964
- 262 Maywood Drive, built in 1964
- 273 Maywood Drive, built in 1959
- 282 Maywood Drive, built in 1958
- 285 Maywood Drive, built in 1972
- 297 Maywood Drive, built in 1963

The following thirteen buildings comprising the SHD campus were evaluated using NRHP criteria and determined ineligible for listing on the NRHP:

- Main Hospital Building, built in 1950
- Pump Building, built in 1950
- Boiler Room, built in 1950
- 122 Brentwood- PT Clinic, built in 1976
- 118 Brentwood- Staff Housing, built in 1982
- 150 Brentwood Building, built in 1988
- Generator Building, built in 1993
- Lake Almanor Clinic Building, built in 1995
- Clinic Mechanical Building, built in 1995
- Reynolds House, built in 1996
- Modular CT Building, built in 1999

- Railroad Car (Storage), date unknown
- Modular Purchasing Department Building, date unknown

Having reviewed your submittal, SHPO offers the following comments:

- 1) The APE appears adequate to account for direct and indirect effects to historic properties;
- 2) SHPO concurs that 21-415-KH-001/H is ineligible for listing on the NRHP;
- 3) SHPO concurs that the Maywood Drive Residences District properties are ineligible for listing on the NRHP individually or as a historic district;
- 4) SHPO concurs that the SHD District buildings are ineligible for listing on the NRHP individually or as a historic district;
- 5) SHPO concurs that the undertaking, as described in your letter and supporting documentation, will not affect historic properties.

Please be reminded that in the event of change in the scale or scope of the undertaking or a post review discovery, the USDA may have further consultation responsibilities under 36 CFR Part 800. If the USDA has any questions or comments, please contact staff historian Tristan Tozer at (916) 445-7027 or [Tristan.Tozer@parks.ca.gov](mailto:Tristan.Tozer@parks.ca.gov).

Sincerely,



Julianne Polanco  
State Historic Preservation Officer

# Memorandum

**Date:** 12 January 2023

**To:** Shawn McKenzie, CEO, Seneca Healthcare District

**From:** Steven Towers, Ph.D.  
Senior Project Manager  
Sequoia Ecological Consulting, Inc.  
Phone: (530) 410-5966  
Email: [stowers@sequoiaecco.com](mailto:stowers@sequoiaecco.com)

**RE:** Noise Analysis  
Seneca Hospital Expansion Project, General Plan Amendment, and Zone Change  
Plumas County, California

---

## Introduction

The purpose of this memorandum is to analyze the potential noise impacts of the proposed hospital facilities on sensitive receptors in the Project vicinity. Sensitive receptors primarily include single-family residences on Maywood, Riverwood, and Edgewood drives located south of the Project, residents of the Wildwood Senior Center apartments located east of the Project area, and if approved and constructed, the proposed hospital facilities and employee housing units. Noise impacts are expected to comprise temporary noise during land clearing and construction, and long-term noise associated with operating a helicopter ambulance.

Noise is usually defined as unwanted sound. It is an undesirable by-product of normal day-to-day activities in a defined area. Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm, or when it has adverse effects on health. The definition of noise as unwanted sound implies that it has an adverse effect on people and their environment. Noise is measured on a logarithmic scale of sound pressure level known as a decibel (dB).

Noise sources occur in two forms: (1) point sources, such as stationary equipment, loudspeakers, or individual motor vehicles; and (2) line sources, such as a roadway with a large number of point sources (motor vehicles). Sound generated by a point source typically



diminishes (attenuates) at a rate of 6.0 dB(A) for each doubling of distance from the source to the receptor at acoustically “hard” sites and 7.5 dB(A) at acoustically “soft” sites. For example, a 60 dB(A) noise level measured at 50 feet from a point source at an acoustically hard site would be 54 dB(A) at 100 feet from the source and 48 dB(A) at 200 feet from the source. Sound generated by a line source typically attenuates at a rate of 3.0 dB(A) and 4.5 dB(A) per doubling of distance from the source to the receptor for hard and soft sites, respectively. Sound levels can also be attenuated by man-made or natural barriers. For the purpose of analysing the attenuation of long-term noise, the Project area is considered a hard site (separated from sensitive receptors primarily by parking lots).

Sensitive receptors are facilities where sensitive receptor population groups (children, the elderly, the acutely ill, and the chronically ill) are likely to be located. These land uses include residences, schools, playgrounds, child care centers, retirement homes, convalescent homes, hospitals and medical clinics. The proposed Seneca HCD Hospital, existing Seneca HCD facilities, and the adjacent Wildwood Village retirement apartments are sensitive receptors.

The Inventory of Prominent Noise Sources within the Community areas of Plumas County (General Plan, 2013) identifies the Rogers Field Airport, Collins Pine Sawmill, and Chester Pit Mine as prominent noise sources. The Project is located approximately 0.5 miles from Collins Pine Sawmill, 1.10 miles from Rogers Field Airport, and 1.35 miles from Chester Pit Mine.

## Short-Term Noise

Any construction noise resulting from construction of the facility would be temporary. Although Plumas County does not have an ordinance in relation to construction noise, the Plumas County 2035 General Plan does contain policies for construction noise for discretionary projects.

Construction-related activities can be a source of stationary (temporary) noise. Two types of short-term noise are emitted during construction. First, construction crew commutes and the transport of construction equipment and materials to construction sites would incrementally increase noise levels on access roads leading to the sites. Although there would be a relatively high single-event noise exposure potentially causing intermittent noise nuisance; for example, passing trucks at 50 feet would generate up to a maximum of 86 dBA Lmax, the effect on longer term (hourly or daily) ambient noise levels would be minimal. Second, noise would be generated during excavation, grading and erection of buildings. Construction typically occurs in discrete steps, each of which has a distinctive mix of equipment and, consequently, distinctive noise characteristics. These various sequential phases would change the character of the noise generated on each site and, therefore, the noise levels surrounding these sites as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be



categorized by work phase. **Table 1** lists typical construction equipment noise levels recommended for noise-impact assessments, based on a distance of 50 feet between the equipment and a noise receptor.

**TABLE 1. TYPICAL CONSTRUCTION EQUIPMENT MAXIMUM NOISE LEVELS**

Type of Equipment	Range of Maximum Sound Levels (dBA at 50 feet)	Suggested Maximum Sound Levels for Analysis (dBA at 50 feet)
Pile Drivers	81 to 96	93
Rock Drills	83 to 99	96
Jackhammers	75 to 85	82
Pneumatic Tools	78 to 88	85
Pumps	68 to 80	77
Scrapers	83 to 91	87
Haul Trucks	83 to 94	88
Electric Saws	66 to 72	70
Portable Generators	71 to 87	80
Rollers	75 to 82	80
Dozers	85 to 90	88
Tractors	77 to 82	80
Front-End Loaders	86 to 90	88
Hydraulic Backhoe	81 to 90	86
Hydraulic Excavators	81 to 90	86
Graders	79 to 89	85
Air Compressors	76 to 89	85
Trucks	81 to 87	85

Source: Plumas County General Plan, 2013<sup>1</sup>

## Long-Term Noise

Most operational noise produced by the facility are expected to be negligible, in keeping with ambient noise generated by surrounding residences, businesses, and industrial operations. The primary exception to this will be the ingress and egress of a helicopter ambulance from a helipad proposed on the west side of the Project area. Potential noise impacts of helicopter operations at the hospital helipad are provided in **Table 2**.



**TABLE 2. TYPICAL HELICOPTER OPERATION NOISE LEVELS**

<u>Type of helicopter:</u>	Eurocopter EC130	
<u>dBA overflight:</u>	84.3 dBA <sup>2</sup>	
<u>dBA on average:</u>	85.5 dBA <sup>2</sup>	Garbage disposal at 3 ft <sup>1</sup>
<u>Attenuation at 30 ft:</u>	56.0 dBA <sup>3</sup>	Large business office <sup>1</sup>
<u>Attenuation at 100 ft:</u>	45.5 dBA <sup>3</sup>	Dishwasher in adjacent room <sup>1</sup>
<u>Attenuation at 300 ft:</u>	36.0 dBA <sup>3</sup>	Quiet suburban nighttime <sup>1</sup>

Inverse square law formula used to calculate sound attenuation over distance for a point source:

$$Lp(R2) = Lp(R1) - 20 \cdot \log_{10}(R2/R1)$$

Where:

$Lp(R1)$  = Known sound pressure level at the first location<sup>1</sup>

$Lp(R2)$  = Unknown sound pressure level at the second location

$R1$  = Distance from the noise source to location of known sound pressure level

$R2$  = Distance from noise source to the second location

## **Discussion of Potential Impacts**

### **Short-Term Noise Impacts**

Any construction noise resulting from construction of the facility would be temporary. Although Plumas County does not have an ordinance in relation to construction noise, the Plumas County 2035 General Plan does contain policies for construction noise and discretionary projects such as a special use permit.

### **Proposed Mitigation for Construction-Related Noise**

The District shall seek to limit the potential noise impacts of construction activities on surrounding land uses. The standards outlined below shall apply to those activities associated with actual construction of a project as long as such construction occurs between the hours of 7 a.m. and 7 p.m., Monday through Friday and 8 a.m. and 5 p.m. on weekends or on federally recognized holidays. Exceptions are allowed if it can be shown that construction beyond these times is necessary to alleviate traffic congestion and safety hazards.



It is not likely or anticipated that the project will generate or expose people to excessive ground-borne vibration and noise levels

### Long-Term Noise Impacts

Helicopter transports from Seneca HCD Hospital typically increase during the summer months when tourism and summer residency peak. **Table 3** provides monthly data from 2021. Monthly transports were somewhat suppressed during the latter part of the year owing to unavailability of beds in regional hospitals due to COVID-19 impacts. Monthly transports were also untypically low in August when the area was evacuated during the Dixie Fire.

**Table 3. Helicopter Transports in 2021**

Month	Number of Transports	Notes
January	5	
February	6	
March	10	
April	11	
May	12	
June	9	
July	16	
August	1	Dixie fire evacuations
September	4	
October	5	COVID-19 hospitals full
November	2	COVID-19 hospitals full
December	1	Severe weather
Mean	6.8	
Median	5.5	

Noise generated by the most common model of helicopter ambulance servicing Seneca Healthcare District (Eurocopter EC130) will be on the order of 85.5 dBA at the source, 56 dBA at an attenuation distance of 30 ft, and 36 dBA at an attenuation distance of 300 ft. The proposed heliport will be more than 300 ft from the nearest residential structure, so it is estimated that exposure of nearby residents to helicopter noise generated at the heliport will be less than 36 dBA.

The EC130 is the quietest in its class of light-transport helicopters. Per Plumas County 2035 General Plan Update (2013), these attenuated levels of noise exposure are in the “normally



acceptable” range for sensitive receptors. In order to ensure the noise produced by helicopters remains in the conditionally acceptable range, design features and/or mitigation measures may be incorporated with the goal of limiting noise impacts to less than 65 dBA at exterior sensitive receptors, and to less than 45 dBA or less for interior sensitive receptors (including hospital patients and staff).

#### Potential Mitigation Measures for Noise Impacts:

- Preferentially contract with air ambulance services that use the Eurocopter EC130
- Where feasible, retain trees within 50-100 feet of neighboring residential properties
- Incorporate acoustic barriers in the walls of the hospital facilities and employee housing facilities facing the heliport
- Construct a sound-attenuation barrier next to the hospital and employee housing, facing the heliport.
- Plant sound-attenuating landscaping between the helipad and sensitive receptors to soften the acoustic environment
- Provide guidance and training to helicopter pilots in flight procedures to reduce noise impacts during ingress and egress<sup>4</sup>

## References

<sup>1</sup>Plumas County 2035 General Plan Update. 2013. Noise Element.

[Plumas County 2035 General Plan | Plumas County, CA - Official Website](#)

<sup>2</sup>[Eurocopter EC130 B4 Technical Data.](#)

<sup>3</sup>[Sound Attenuation Calculator - Inverse Square Law | WKC Group](#)

<sup>4</sup>Greenwood, E. 2017. Helicopter Flight Procedures for Community Noise. Aeroacoustics Branch NASA Langley Research Center Hampton, VA

<https://ntrs.nasa.gov/api/citations/20170005476/downloads/20170005476.pdf>

# Exhibit T5. Air Quality Analysis

RAMBOLL

ENVIRONMENT  
& HEALTH

## MEMO

Project name **Seneca Healthcare District**  
Project no. **1690030304**  
To **Donna Huntingdale**  
**Building Rx**  
From **Michael Keinath, PE**  
**Emma Lupoff**  
Subject **CEQA Air Quality and Greenhouse Gas Analyses in  
Support of Initial Study/Mitigated Negative Declaration  
Seneca Healthcare District Expansion Project**

March 16, 2023

### 1 Introduction

Ramboll prepared air quality and greenhouse gas (GHG) analyses for the Seneca Healthcare District Expansion Project ("Project") in Chester, Plumas County, CA to support its California Environmental Quality Act (CEQA) Initial Study / Mitigated Negative Declaration (IS/MND) documentation.

Ramboll  
2200 Powell Street  
Suite 700  
Emeryville, CA 94608  
USA

### 2 Project Description

Seneca Healthcare District (SHD) is proposing to develop a new acute-care hospital, skilled nursing facility, and outpatient services building (approximately 45,000 square feet plus 3,000 support services building) to replace their existing aged hospital facility. SHD has acquired 10 acres of land near Reynolds Road and Wildwood Lane adjacent to their existing campus to construct the new building. The Project will also include heliport activity, with a change to the existing flight path, but not an expected increase in flights. Project operations are expected to begin in the first quarter of 2026. In a future project, SHD may construct up to ten 1,000-square-foot residential units to house SHD employees and their families. A summary of existing and proposed land uses is shown in the table below. SHD is the lead agency and preparer of the IS/MND for the Project, which was circulated for public comment on March 6, 2023. Plumas County (the County) and Plumas Local Agency Formation Commissions (LAFCO) are the approving agencies.

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<b>Existing</b>	<b>Proposed</b>
<ul style="list-style-type: none"> <li>▪ 10-bed acute care, no negative pressure</li> </ul>	<ul style="list-style-type: none"> <li>▪ 10-bed acute care, 2 of those with isolation capabilities</li> </ul>
<ul style="list-style-type: none"> <li>▪ 2-bed open-bay emergency room</li> </ul>	<ul style="list-style-type: none"> <li>▪ 3-bed private emergency room and Trauma/procedure room within emergency department</li> </ul>
<ul style="list-style-type: none"> <li>▪ 16-bed skilled nursing facility</li> </ul>	<ul style="list-style-type: none"> <li>▪ 26-bed skilled nursing facility</li> </ul>
<ul style="list-style-type: none"> <li>▪ Imaging including x-ray, CT outside hospital in portable building, MRI via trailer</li> </ul>	<ul style="list-style-type: none"> <li>▪ Imaging to include x-ray, CT, ultrasound, and MRI via trailer</li> </ul>
<ul style="list-style-type: none"> <li>▪ Operating room &amp; 2-bed patient recovery</li> </ul>	<ul style="list-style-type: none"> <li>▪ Operating room, procedure room, &amp; 3-bed patient recovery</li> </ul>
	<ul style="list-style-type: none"> <li>▪ All spaces right-sized to allow for improved workflow, updated/improved infrastructure, updated medical equipment, and ADA accessibility per current code</li> </ul>

### 3 Air Quality Analysis

#### 3.1 Construction

Emissions are generated during Project construction from sources such as on-site, off-road heavy equipment; off-site, on-road travel; architectural coating application; paving; and fugitive dust from site preparation and vehicle travel.

Off-road diesel-fueled equipment generates emissions of criteria air pollutants (CAPs), toxic air contaminants (TACs) and greenhouse gases (GHGs). Off-road equipment is regulated by the United States Environmental Protection Agency (U.S. EPA) and the California Air Resources Board (CARB). Effective January 2011, both the U.S. EPA and the CARB adopted so-called Interim Tier 4 standards for new equipment with diesel engines of 175 hp or greater. The interim Tier 4 emissions standards for particulate matter are about 85 percent more restrictive than previous particulate matter emissions standards (Tier 2 or Tier 3, depending on the size of the engine<sup>1</sup>) for these larger off-road engines. As a result, use of engines that meet the interim Tier 4 standards would reduce diesel exhaust emissions of particulate matter by approximately 85 percent, compared to engines produced under the previous

<sup>1</sup> For most construction equipment other than that with extremely powerful engines (greater than 750 hp), Tier 2 and Tier 3 emissions standards are the same with respect to particulate matter. Therefore, cancer risk from DPM – a subset of all particulate matter – is essentially the same for Tier 2 and Tier 3 engines.

standards. Tier 4 Final standards are required for new off-road engines, depending on engine size, for all model years starting in 2014 or 2015. Compared to Tier 4 Interim standards, Tier 4 Final standards are about 80 percent more restrictive for NOx emissions and 30 percent more restrictive for particulate matter emissions. As a result, use of engines that meet the Tier 4 Final standards would reduce exhaust emissions of NOx by approximately 80 percent and reduce diesel exhaust emissions of particulate matter by approximately 30 percent compared to new engines produced under Tier 4 Interim standards<sup>2</sup>. Tier 2 or Tier 3 engines (for larger equipment, those manufactured since 2006) can achieve generally the same reduction in particulate matter emissions through retrofitting by installing a diesel particulate filter (an CARB-certified Level 3 Verified Diesel Emissions Control System). Beginning in 2014, air board regulations require off-road equipment fleets to begin gradual replacement of older engines with newer, cleaner engines, the installation of exhaust filters on remaining older engines, or some combination of the two to achieve fleet-wide emissions reductions. Because only a certain percentage of each fleet's engines must be replaced or retrofitted on an annual or periodic basis to achieve the required emissions reductions, and because fleet turnover of heavy-duty off-road equipment takes many years, the full effect of the regulations on emissions reduction is not anticipated to be realized until sometime between 2020 and 2030, depending on the engine size and pollutant<sup>3</sup>.

Regarding equipment already in use, the air board adopted rules for in-use off-road diesel vehicles—including construction equipment—in 2007. Those rules also limit idling to 5 minutes, require a written idling policy for larger vehicle fleets, and require that fleet operators provide information on their engines to the air board and label vehicles with an air board-issued vehicle identification number. The off-road rules require the retrofit or replacement of diesel engines in existing equipment. This “repowering” was originally to be required beginning in 2010 (for the largest fleets). However, in 2010, CARB delayed the start of repowering to 2014 for large fleets, 2017 for medium-size fleets, and 2019 for small fleets<sup>4</sup>. CARB stated that the delayed implementation was justified because the 2007 to 2009 recession had dramatically reduced emissions, and because the CARB staff found that the data on which the original rule was based had overestimated emissions. According to CARB, under the revised rules, DPM emissions from off-road equipment will decrease by more than 40 percent from 2010 levels by the year 2020, and by 2030, they will decrease by more than 75 percent<sup>5</sup>.

Fugitive dust particulate matter emissions are generated by vehicle travel as well as activities such as demolition, grading, and dozing. The Northern Sierra Air Quality Management District (NSAQMD), where the Project is located, regulates fugitive dust through Regulation II Rule 226: Dust Control<sup>6</sup>. The rule requires that individuals “take all reasonable precautions to prevent dust emissions” The Air Pollution

<sup>2</sup> California Air Resources Board (CARB). Non-road Diesel Engine Certification Tier Chart. Available online at: <https://ww2.arb.ca.gov/resources/documents/non-road-diesel-engine-certification-tier-chart>. Accessed March 16, 2023.

<sup>3</sup> CARB. 2017 Off-Road Diesel Emission Factor Update for NOX and PM. Available online at: [https://ww3.arb.ca.gov/msei/ordiesel/ordas\\_ef\\_fcf\\_2017.pdf](https://ww3.arb.ca.gov/msei/ordiesel/ordas_ef_fcf_2017.pdf). Accessed March 16, 2023.

<sup>4</sup> Fleet size is based on total horsepower: large fleets are those with more than 5,000 hp, medium fleets have 2,501 to 5,000 hp, and small fleets are those with less than 2,500 hp.

<sup>5</sup> CARB. 2010. Staff Report: Initial Statement of Reasons for Proposed Rulemaking: Proposed Amendments to the Regulation for

In-Use Off-Road Diesel-Fueled Fleets and the Off-Road Large Spark-Ignition Fleet Requirements. October. Available online at:

<http://www.arb.ca.gov/regact/2010/offroadlsi10/offroadvisor.pdf>. Accessed March 16, 2023.

<sup>6</sup> NSAQMD. 1994. Regulation II Prohibitions Rule 226 Dust Control. May. Available online at: [https://myairdistrict.com/wp-content/uploads/2016/02/Reg\\_II\\_-\\_226.pdf](https://myairdistrict.com/wp-content/uploads/2016/02/Reg_II_-_226.pdf). Accessed March 12, 2023.

Control Officer (APCO) may require actions such as the use of water to control dust. California Emissions Estimator Model Version 2022.1 (CalEEMod®) is a statewide program designed to calculate CAP and GHG emissions for development projects in California<sup>7</sup>. Per the CalEEMod 2022.1 User Guide, fugitive dust from material movement (grading, dozing, truck loading) can be reduced by 61% by watering twice per day (every 3.2 hours) and 74% by watering three times per day (every 2.1 hours). Similarly, CalEEMod assumes on-road fugitive dust can be reduced by 55% through twice per day watering. Watering and other dust control measures, mandated through NSAQMD, are effective at keeping impacts below applicable thresholds.

### 3.2 Operations

Operational emissions from the Project include on-road mobile vehicles associated with employees, emergency services and patients/visitors, building electricity and natural gas use, wastewater, solid waste handling, landscaping, architectural coating, and consumer products. The Project may also include a diesel generator.

In 2012, CARB approved the Advanced Clean Cars (ACC) program, a new emissions-control program for non-commercial passenger vehicles and light-duty truck for model years 2017–2025.<sup>8</sup> The program combines the control of smog, soot, and GHGs with requirements for greater numbers of zero-emission vehicles (ZEVs). In 2022, CARB developed the ACC II regulations to augment the state's growing zero-emission vehicle market and robust motor vehicle emission control rules to meet more aggressive tailpipe emissions standards and ramp up to 100% zero-emission vehicles.<sup>9</sup> The regulations are two-pronged. First, they amend the ACC program to require an increasing number of ZEV sales. The ACC II regulation will rapidly scale down light-duty passenger car, pickup truck and SUV emissions starting with the 2026 model year through 2035. By 2035, new passenger cars, trucks and sports utility vehicles sold in California will be 100 percent zero emissions. These amendments support Governor Newsom's 2020 Executive Order N-79-20 that requires all new passenger vehicles sold in California to be zero emissions by 2035. Second, the Low-emission Vehicle Regulations were amended to include increasingly stringent standards for gasoline cars and heavier passenger trucks to continue to reduce smog-forming emissions while the sector transitions toward 100% electrification by 2035.

The Project is scheduled to start operating in 2026, which is the year ACC II comes into effect. Therefore, ACC II's increased requirements on ZEV sales will directly affect the fuel types of on-road light duty fleets in Plumas County and the Project. As a result, the increased ZEV sales and fleet mix change will lead to a decrease in average emission rates of on-road light duty vehicles. Such a reduction in average vehicle emission rates brought by the ACC II can help mitigate the Project emissions contributed by the 7% VMT increase and reduce overall Project mobile source emissions. The emission reduction impacts brought by ACC II will grow substantially over time along with the ZEV penetration increase. Therefore, it is also expected that the Project mobile source emissions will continue to decrease over time.

Emissions from the proposed diesel generator are regulated under Airborne Toxic Control Measure for Stationary Compression Ignition Engines (17 CCR section 93115), which limits use to 50 hours per year

<sup>7</sup> California Air Pollution Control Officers Association (CAPCOA). California Emissions Estimator Model (CalEEMod®), Versions 2022.1. Available online at: <https://www.caleemod.com/>. Accessed March 16, 2023.

<sup>8</sup> Zero-Emission Vehicle Program. CARB. Available online at: <https://ww2.arb.ca.gov/our-work/programs/zero-emission-vehicle-program/about>. Accessed March 9, 2023.

<sup>9</sup> Advanced Clean Cars II. CARB. Available online at: <https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program/advanced-clean-cars-ii>. Accessed March 9, 2023.

for non-emergency testing of emergency generators<sup>10</sup>. Per NSAQMD, stationary or portable diesel-fired engines greater than 49 horsepower must be permitted under Regulations IV and V<sup>11</sup>. The NSAQMD permitting process requires the applicant provide information such as fuel consumption rate, emission factor data, operating schedule, and whether the equipment is located within 1,000 feet of a school. With the provided information, NSAQMD will issue a permit with conditions such that the generator does not create adverse air quality or health impacts.

The Project will also include continued operations of an existing helipad. Historical data indicates the number of flights ranges between approximately 65 and 80 flights per year, which equates to one or two flights per week. The project will not significantly change the flights per year or localized emissions generated during the take-off and landing of the helicopter. The project will allow for changes to the flight path of the helicopters, which will not have a material impact on the air quality emissions of the project.

#### 4 Greenhouse Gas Analysis

Greenhouse gas emissions generated during construction are a very small portion of a project's lifetime GHG emissions, and thus operational emissions are primarily assessed to evaluate a project's GHG impacts. Construction GHGs, however, may still be assessed in relation to meting local and statewide GHG reduction goals and best management practices such as use of renewable diesel fuel or electrification of off-road equipment and recycling of construction waste can be implemented where feasible. Operational GHG emissions are generated from sources including on-road mobile vehicles and building electricity usage. As discussed in **Section 3**, the ACC II regulations implemented by CARB include provisions for zero-emission vehicles with the goal of reducing the impacts of both CAPs and GHGs over time.

The indirect GHGs generated through electricity usage will also decrease with time in accordance with California's Renewable Portfolio Standards, which incrementally set targets for the percentage of retail sales of electricity from carbon-free sources with a final target of 100% carbon-free by 2045. Additional regulatory measures for GHG reductions are discussed below.

Several climate bills were adopted in September 2022. AB 1279 requires California to achieve "net zero greenhouse gas emissions" as soon as possible, but no later than 2045, and to achieve and maintain net negative GHG emissions thereafter. It also requires that statewide anthropogenic GHG emissions be reduced to at least 85% below 1990 levels. Senate Bill (SB) 1020 – referred to as the Clean Energy, Jobs, and Affordability Act of 2022 - amends California's previous target of having renewable and carbon neutral energy resources supply 100% of all retail sales of electricity in 2040 with binding interim targets - 90% of all retail sales to California end users by 2035; 95% by 2040; 100% by 2045; and 100% of all state agency electricity by 2035.

The legislature directed CARB to adopt a roadmap for achieving these reductions – call the Scoping Plan. The 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan) lays out a path to achieve targets for carbon neutrality as directed by Assembly Bill 1279. The actions and outcomes in the plan will achieve: significant reductions in fossil fuel combustion by deploying clean technologies and fuels,

<sup>10</sup> CARB. 2011. Final Regulation Order: Amendments to the Airborne Toxic Control Measure for Stationary Compression Ignition Engines. May. Available online at: <https://ww2.arb.ca.gov/sites/default/files/classic/diesel/documents/finalreg2011.pdf>. Accessed March 12, 2023.

<sup>11</sup> NSAQMD. Permits. Available online at: <https://myairdistrict.com/index.php/permits/>. Accessed March 16, 2023.

further reductions in short-lived climate pollutants, support for sustainable development, increased action on natural and working lands to reduce emissions and sequester carbon, and the capture and storage of carbon.

As discussed earlier, the 2022 Scoping Plan for Achieving Carbon Neutrality assesses progress towards achieving the SB 32 2030 target and lay out a path to achieve carbon neutrality no later than 2045, as directed by AB 1279. While not directly applicable to individual development projects, the 2022 Scoping Plan contains many actions that the Project can benefit from and further reduce its operational emissions. Featured Scoping Plan actions include cleaner vehicles and fuels, compact development and VMT reductions, renewable energy, building efficiencies, the low carbon fuel standard, short-lived climate pollutants, and natural and working lands. With the application of this 2022 Scoping Plan actions, the Project operational emissions can be even lower than the current modeling results.

## **5      Closing**

As illustrated through the regulatory analyses discussed above, the Project is not expected to generate construction or operational emissions that would lead to adverse air quality, health risk, or greenhouse gas impacts.

## Exhibit T6. Noise Technical Memorandum



# Memorandum

**Date:** 12 January 2023

**To:** Shawn McKenzie, CEO, Seneca Healthcare District

**From:** Steven Towers, Ph.D.  
Senior Project Manager  
Sequoia Ecological Consulting, Inc.  
Phone: (530) 410-5966  
Email: [stowers@sequoiaecco.com](mailto:stowers@sequoiaecco.com)

**RE:** Noise Analysis  
Seneca Hospital Expansion Project, General Plan Amendment, and Zone Change  
Plumas County, California

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## Introduction

The purpose of this memorandum is to analyze the potential noise impacts of the proposed hospital facilities on sensitive receptors in the Project vicinity. Sensitive receptors primarily include single-family residences on Maywood, Riverwood, and Edgewood drives located south of the Project, residents of the Wildwood Senior Center apartments located east of the Project area, and if approved and constructed, the proposed hospital facilities and employee housing units. Noise impacts are expected to comprise temporary noise during land clearing and construction, and long-term noise associated with operating a helicopter ambulance.

Noise is usually defined as unwanted sound. It is an undesirable by-product of normal day-to-day activities in a defined area. Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm, or when it has adverse effects on health. The definition of noise as unwanted sound implies that it has an adverse effect on people and their environment. Noise is measured on a logarithmic scale of sound pressure level known as a decibel (dB).

Noise sources occur in two forms: (1) point sources, such as stationary equipment, loudspeakers, or individual motor vehicles; and (2) line sources, such as a roadway with a large number of point sources (motor vehicles). Sound generated by a point source typically



diminishes (attenuates) at a rate of 6.0 dB(A) for each doubling of distance from the source to the receptor at acoustically “hard” sites and 7.5 dB(A) at acoustically “soft” sites. For example, a 60 dB(A) noise level measured at 50 feet from a point source at an acoustically hard site would be 54 dB(A) at 100 feet from the source and 48 dB(A) at 200 feet from the source. Sound generated by a line source typically attenuates at a rate of 3.0 dB(A) and 4.5 dB(A) per doubling of distance from the source to the receptor for hard and soft sites, respectively. Sound levels can also be attenuated by man-made or natural barriers. For the purpose of analysing the attenuation of long-term noise, the Project area is considered a hard site (separated from sensitve receptors primarily by parking lots).

Sensitive receptors are facilities where sensitive receptor population groups (children, the elderly, the acutely ill, and the chronically ill) are likely to be located. These land uses include residences, schools, playgrounds, child care centers, retirement homes, convalescent homes, hospitals and medical clinics. The proposed Seneca HCD Hospital, existing Seneca HCD facilities, and the adjacent Wildwood Village retirement apartments are sensitive receptors.

The Inventory of Prominent Noise Sources within the Community areas of Plumas County (General Plan, 2013) identifies the Rogers Field Airport, Collins Pine Sawmill, and Chester Pit Mine as prominent noise sources. The Project is located approximately 0.5 miles from Collins Pine Sawmill, 1.10 miles from Rogers Field Airport, and 1.35 miles from Chester Pit Mine.

## Short-Term Noise

Any construction noise resulting from construction of the facility would be temporary. Although Plumas County does not have an ordinance in relation to construction noise, the Plumas County 2035 General Plan does contain policies for construction noise for discretionary projects.

Construction-related activities can be a source of stationary (temporary) noise. Two types of short-term noise are emitted during construction. First, construction crew commutes and the transport of construction equipment and materials to construction sites would incrementally increase noise levels on access roads leading to the sites. Although there would be a relatively high single-event noise exposure potentially causing intermittent noise nuisance; for example, passing trucks at 50 feet would generate up to a maximum of 86 dBA Lmax, the effect on longer term (hourly or daily) ambient noise levels would be minimal. Second, noise would be generated during excavation, grading and erection of buildings. Construction typically occurs in discrete steps, each of which has a distinctive mix of equipment and, consequently, distinctive noise characteristics. These various sequential phases would change the character of the noise generated on each site and, therefore, the noise levels surrounding these sites as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be



categorized by work phase. **Table 1** lists typical construction equipment noise levels recommended for noise-impact assessments, based on a distance of 50 feet between the equipment and a noise receptor.

**TABLE 1. TYPICAL CONSTRUCTION EQUIPMENT MAXIMUM NOISE LEVELS**

Type of Equipment	Range of Maximum Sound Levels (dBA at 50 feet)	Suggested Maximum Sound Levels for Analysis (dBA at 50 feet)
Pile Drivers	81 to 96	93
Rock Drills	83 to 99	96
Jackhammers	75 to 85	82
Pneumatic Tools	78 to 88	85
Pumps	68 to 80	77
Scrapers	83 to 91	87
Haul Trucks	83 to 94	88
Electric Saws	66 to 72	70
Portable Generators	71 to 87	80
Rollers	75 to 82	80
Dozers	85 to 90	88
Tractors	77 to 82	80
Front-End Loaders	86 to 90	88
Hydraulic Backhoe	81 to 90	86
Hydraulic Excavators	81 to 90	86
Graders	79 to 89	85
Air Compressors	76 to 89	85
Trucks	81 to 87	85

Source: Plumas County General Plan, 2013<sup>1</sup>

## Long-Term Noise

Most operational noise produced by the facility are expected to be negligible, in keeping with ambient noise generated by surrounding residences, businesses, and industrial operations. The primary exception to this will be the ingress and egress of a helicopter ambulance from a helipad proposed on the west side of the Project area. Potential noise impacts of helicopter operations at the hospital helipad are provided in **Table 2**.



**TABLE 2. TYPICAL HELICOPTER OPERATION NOISE LEVELS**

<u>Type of helicopter:</u>	Eurocopter EC130	
<u>dBA overflight:</u>	84.3 dBA <sup>2</sup>	
<u>dBA on average:</u>	85.5 dBA <sup>2</sup>	Garbage disposal at 3 ft <sup>1</sup>
<u>Attenuation at 30 ft:</u>	56.0 dBA <sup>3</sup>	Large business office <sup>1</sup>
<u>Attenuation at 100 ft:</u>	45.5 dBA <sup>3</sup>	Dishwasher in adjacent room <sup>1</sup>
<u>Attenuation at 300 ft:</u>	36.0 dBA <sup>3</sup>	Quiet suburban nighttime <sup>1</sup>

Inverse square law formula used to calculate sound attenuation over distance for a point source:

$$Lp(R2) = Lp(R1) - 20 \cdot \log_{10}(R2/R1)$$

Where:

$Lp(R1)$  = Known sound pressure level at the first location<sup>1</sup>

$Lp(R2)$  = Unknown sound pressure level at the second location

$R1$  = Distance from the noise source to location of known sound pressure level

$R2$  = Distance from noise source to the second location

## Discussion of Potential Impacts

### Short-Term Noise Impacts

Any construction noise resulting from construction of the facility would be temporary. Although Plumas County does not have an ordinance in relation to construction noise, the Plumas County 2035 General Plan does contain policies for construction noise and discretionary projects such as a special use permit.

### Proposed Mitigation for Construction-Related Noise

The District shall seek to limit the potential noise impacts of construction activities on surrounding land uses. The standards outlined below shall apply to those activities associated with actual construction of a project as long as such construction occurs between the hours of 7 a.m. and 7 p.m., Monday through Friday and 8 a.m. and 5 p.m. on weekends or on federally recognized holidays. Exceptions are allowed if it can be shown that construction beyond these times is necessary to alleviate traffic congestion and safety hazards.



It is not likely or anticipated that the project will generate or expose people to excessive ground-borne vibration and noise levels

### Long-Term Noise Impacts

Helicopter transports from Seneca HCD Hospital typically increase during the summer months when tourism and summer residency peak. **Table 3** provides monthly data from 2021. Monthly transports were somewhat suppressed during the latter part of the year owing to unavailability of beds in regional hospitals due to COVID-19 impacts. Monthly transports were also untypically low in August when the area was evacuated during the Dixie Fire.

**Table 3. Helicopter Transports in 2021**

Month	Number of Transports	Notes
January	5	
February	6	
March	10	
April	11	
May	12	
June	9	
July	16	
August	1	Dixie fire evacuations
September	4	
October	5	COVID-19 hospitals full
November	2	COVID-19 hospitals full
December	1	Severe weather
Mean	6.8	
Median	5.5	

Noise generated by the most common model of helicopter ambulance servicing Seneca Healthcare District (Eurocopter EC130) will be on the order of 85.5 dBA at the source, 56 dBA at an attenuation distance of 30 ft, and 36 dBA at an attenuation distance of 300 ft. The proposed heliport will be more than 300 ft from the nearest residential structure, so it is estimated that exposure of nearby residents to helicopter noise generated at the heliport will be less than 36 dBA.

The EC130 is the quietest in its class of light-transport helicopters. Per Plumas County 2035 General Plan Update (2013), these attenuated levels of noise exposure are in the “normally



acceptable” range for sensitive receptors. In order to ensure the noise produced by helicopters remains in the conditionally acceptable range, design features and/or mitigation measures may be incorporated with the goal of limiting noise impacts to less than 65 dBA at exterior sensitive receptors, and to less than 45 dBA or less for interior sensitive receptors (including hospital patients and staff).

#### Potential Mitigation Measures for Noise Impacts:

- Preferentially contract with air ambulance services that use the Eurocopter EC130
- Where feasible, retain trees within 50-100 feet of neighboring residential properties
- Incorporate acoustic barriers in the walls of the hospital facilities and employee housing facilities facing the heliport
- Construct a sound-attenuation barrier next to the hospital and employee housing, facing the heliport.
- Plant sound-attenuating landscaping between the helipad and sensitive receptors to soften the acoustic environment
- Provide guidance and training to helicopter pilots in flight procedures to reduce noise impacts during ingress and egress<sup>4</sup>

## References

<sup>1</sup>Plumas County 2035 General Plan Update. 2013. Noise Element.

[Plumas County 2035 General Plan | Plumas County, CA - Official Website](#)

<sup>2</sup>[Eurocopter EC130 B4 Technical Data.](#)

<sup>3</sup>[Sound Attenuation Calculator - Inverse Square Law | WKC Group](#)

<sup>4</sup>Greenwood, E. 2017. Helicopter Flight Procedures for Community Noise. Aeroacoustics Branch NASA Langley Research Center Hampton, VA

<https://ntrs.nasa.gov/api/citations/20170005476/downloads/20170005476.pdf>