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Engineering and Construction

Cecily Condon
Planning

Steve Mosiurchak
Fire Marshal

May 11, 2026

To: Interested Agencies

The following application has been filed with the Sonoma County Permit and Resource Management Department.

File Number:	PLP26-0005
Applicant Name:	Charles Richardson
Owner Name:	RICHARDSON CHESTER D TR
Site Address:	33005 Hwy 1, The Sea Ranch
APN:	122-240-001
Zoning:	TP B6 160, TP CC B6 160/640 (Ac/DU)/Ac MIN, G RC100 SR

Project Description: Request for a Coastal Permit and Use Permit for a seasonal commercial campground on a portion of a 496.2-acre parcel (related to PLP14-0040). Proposal includes a maximum of 10 campers with an open season from March-October.

We are submitting the above application for your review and recommendation. Additional information is on file in this office.

Responses to referrals should include a combination of any or all of the following details:

- (1) Statement of any environmental concerns or uncertainties your agency may have with the project.
- (2) Comments you wish to make regarding the merits of the project.
- (3) Identification of any missing information or application submittals that will preclude you from providing conditions and mitigations for this project in the future.
- (4) Your proposed conditions of approval and/or mitigations for this project.

After reviewing this application, please respond to the planner with your *marked* response below:

- ☐ Conditions will be provided and no further information is necessary.
- ☐ Conditions will be provided and additional information is necessary.
- ☐ Comments and/or concerns.
- ☐ No comments or conditions.

Responsible agencies under CEQA are requested to indicate whether permits will be required for this project.

Your comments will be appreciated by May 26, 2026, and should be sent to the attention of:

PLP26-0005, Jennifer Faso (Jennifer.Faso@sonomacounty.gov). The Project Planner can also be reached at (707) 565-1683. **If no response is received by May 26, 2026, it will be assumed that no comments or conditions will be provided.**

Please send a copy of your comments to the applicant(s) or their representatives as indicated on the attached Planning Application.

- | | |
|--|--|
| ☒ Building Inspection | ☒ NW Information Center, S.S.U. |
| ☒ Fire Prevention | ☒ Local Fire District – North Sonoma Coast FPD |
| ☒ Health Specialist | ☒ Caltrans-State Dept of Transportation |
| ☒ Management Group | ☒ State Coastal Commission – Appealable? Yes |
| ☒ Natural Resources | ☒ Regional Water QCB: North Coast |
| ☒ Well & Septic | ☒ Sonoma Coast MAC |
| ☒ Dist. 5 Director and Commissioners | ☒ Tribal Notification |
| ☒ Sheriff Community Service Officer | ☒ Gualala Municipal Advisory Council |
| ☒ SPI (DTPW), Land Development | ☒ Sea Ranch HOA |
| ☒ SPI (DTPW), Drainage | |

Planning Application

PJR-001

Application Type(s):

☐ Admin Cert. Compliance	☐ Design Review Admin.	☐ Minor Subdivision	☒ Use Permit
☐ Ag. or Timber Preserve/Contract	☐ Design Review Full	☐ Voluntary Merger	☐ Variance
☐ Conditional Cert. of Compliance	☐ General Plan Amendment	☐ Ordinance Interpretation	☐ Zone Change
☐ Cert. of Modification	☐ Lot Line Adjustment	☐ Second Unit Permit	☐ Other: _____
☐ Coastal Permit	☐ Major Subdivision	☐ Specific/Area Plan Amendment	
☐ Zoning Permit for: _____			

File # _____

By placing my contact information (name, address, phone number, email address, etc.) on this application form and submitting it to Sonoma County PRMD, I understand and authorize PRMD to post this application to the internet for public information purposes, including my contact information.

PRINT CLEARLY			
APPLICANT		OWNER (IF OTHER THAN APPLICANT)	
Name CHARLES RICHARDSON		Name CHARLES RICHARDSON	
Mailing Address 2514 GREENVALE CT.		Mailing Address 2514 GREENVALE CT	
City SANTA ROSA	State CA	City Santa Rosa	State CA
Zip 95401		Zip 95401	
Day Ph (707-495-2478)	Email chaz@mcn.org	Day Ph ()	Email
Signature SAME AS APP.		Signature <i>Charles Richardson</i>	
Date		Date 2/19/26	
Billing Responsible Party (At-Cost Only) ☒ Applicant ☐ Owner ☐ Other: _____			
OTHER PERSONS TO RECEIVE CORRESPONDENCE			
Name/Title MARIA GHISLETTA/ DIMENSIONS 4 ENG.		Name/Title	
Mailing Address 2952 MENDOCINO AVE. STE C		Mailing Address	
City SANTA ROSA	State CA	City	State
Zip 95403		Zip	
Day Ph (707-578-3433)	Email MARIA@D4E.NET	Day Ph ()	Email
PROJECT INFORMATION			
Address(es) 33005 STATE HWY 1		City STEWARTS POINT	
Assessor's Parcel Number(s) 122-240-001			
Project Description Withdrawal of 2014 Use Permit, PLP14-0040 together with new 2026 Use Permit submittal for legalization of existing glampground facilities.			
PLANNER: JENNIFER FASO = D4E PRIMARY CONTACT ON THIS PROJECT			
Acreage 1+/- acres Use Permit Area		Number of new lots proposed NONE	
Site Served by Public Water? ☐ Yes ☒ No		Site Served by Public Sewer? ☐ Yes ☒ No	
TO BE COMPLETED BY PRMD STAFF			
Planning Area	Supervisorial District	☐ Critical Habitat	☐ Urban Service
Current Zoning		☐ NPDES	☐ Williamson Act
General Plan Land Use		Specific/Area Plan	Groundwater ☐ 1 / 2
		Parcel Specific Policy	Availability ☐ 3 / 4
Application resolve planning violation? ☐ Yes ☐ No		Subject to CEQA ☐ EX ☐ YES	
Previous Files		Violation? ☐ Yes ☐ No	
Application accepted by		File No.	
Approved by		Penalty application? ☐ Yes ☐ No	
		Date	
		Date	



ANALYSIS
PLANNING
SURVEYING
ENGINEERING

2952 Mendocino Avenue, Suite C
Santa Rosa, California 95403

(Office) 707-578-3433
(Fax) 707-526-3433

February 19, 2026

Use Permit Project Description

Richardson ~ Proposed Glampground
33005 State Hwy 1 ~ Stewarts Point
APN 122-240-001
D4E# 8120.4

It is requested that previous 2014 Use Permit, PLP14-0040, be withdrawn and that this new 2026 Use Permit application be reviewed and approved by county staff. This proposed seasonal low-impact, environmentally sustainable campground encompasses roughly 1-acre within the 496 acre parcel owned by the Richardson family. This campsite was utilized historically by the family and friends for decades; it was then opened to the public for a time prior to leasing it to a “glamping” business. Upon county notice the facility was shut down and efforts have been made to bring it up to code conformance. Over the years since the initial submittal family responsibilities have been redistributed and efforts to collect data has led us to this current submittal.

Per Permit Sonoma Planning and Accounting divisions, it is understood that remaining funds for PLP14-0040 (PCAS #JP140040) can be applied to this 2026 Use Permit application. The family requests that this \$11,164.50 balance be transferred to this submittal.

It is understood that the property is zone TP CC (Timber Production). As expressed by county staff, to allow glamping/camping use at this location a Coastal Permit and a Use Permit will be required. It is understood these two permits will be processed together as a Planning Project (PLP). Based on an initial review of the Coastal Commission jurisdiction maps this application appears to be a Coastal Permit without hearing. However, if it is determined that the campsites are proposed near environmentally sensitive habitat or riparian areas then the application may be elevated to a Coastal Permit with Hearing. D4E and the Richardson family trust this can be processed without hearing due to findings of supporting documents, reports and proposed use.

Proposed Use:

Ten tents would be available, allowing a maximum of 10 campers at any time. With an average stay of 3 nights, we would require a 2-night minimum and allow for a 7-night maximum stay. We have accounted for a 50% occupancy rate, based on Sonoma County Inns and Lodges, which account for a 55% occupancy. We would be reservations only, with access by keypad code, which would be unique to each guest and removed when they leave.

We tentatively plan for an 8-month season, open from March through October and closed for 5 months from November to March relative to the weather. It is typically damp and cold November to March, however if there is an extended period of exceptional weather, we would consider extending our camping season into these months.

There are no proposed structures under this submittal; the family wishes to utilize all existing infrastructure, aside from two additional proposed water storage tanks. There are 10 existing landings for tent locations and 1

landing for social common area purposes The existing toilets are mobile and will be tied to future septic system, SEP24-0176, under current review at the county. All kitchen and shower run-off gravity flow into said proposed septic.

Private Water Source:

There is a house, mobile home and cabin on the parcel with various outbuildings; all permitted. The house is lived in full time and has been the family home for generations. The mobile home and cabin are rented out month to month intermittently and are currently vacant. The house(s)/outbuildings are located southeasterly up on top of the ridge, 0.5+/- miles away from campsite, well above the camping activities and won't impact guests. These existing structures are not part of this campground project scope or submittal. An existing spring currently supplies the main residence. The family desires to utilize this spring for both the existing residence as well as the future campground. Current testing for this water source has not been performed as it is understood that previous water testing parameters for both quality and yield testing may differ from the PLP14-0040 COAs. We request that the county specify which proof of water availability testing procedures needs to be authorized to WEEKS for the 2026 official water yield testing period. It is our assumption that Testing procedures for 1-2 project activities = 8-12 hour test be required. The family has expressed no concern with this spring passing both quality and yield requirements.

This spring source shall serve (2)5000-gallon water storage tanks at the proposed campsite location. The family proposes that the county allows the use of the onsite water truck, filled by the spring source, to maintain these water storage tanks. One tank shall be dedicated to potential fire suppression. Tank #2 would supply water for existing outdoor kitchen area, battery and/or solar showers and flush toilets. Water tank#2 would distribute potable water by underground piping. Additionally, the family will supply guests with bottled Alhambra Spring water for drinking in efforts to conserve water as much as possible.

It is understood that this proposal does not require the creation of a public water system or private water company.

Proposed Septic, pending SEP24-0176:

D4E performed pre-perc soils testing as well as percolation testing in July and August of 2023. Detailed results and rationale of these tests can be seen in previously submitted Septic Design Report, SEP24-0176. The purpose of this septic proposal is to install a code compliant at-grade septic system sized for a total of 350 gallons per day in order to accommodate 10 campers at a campground with a central comfort station. A 1500-gallon IAPMO approved septic tank along with a 1000-gallon IAPMO approved sump tank will deliver the effluent to the septic system for the purpose of properly disposing of sewage. The proposed scope of work includes installing the septic and sump tank, trenching the transmission line from the house to the dispersal field, and installing the septic system. Based on a design for a campground with a central comfort station, the proposed system designed is adequate for a code conforming at-grade septic system sized for 10 campers.

Should the family so desire they reserve the right to amend this Use Permit to allow for additional guests should further feasible septic areas be designated/approved on said parcel.

Fire & Emergency Services:

Per letter dated 10/24/2025 following site review on July 30, 2025, it is understood that the following site allowances and requirements are agreeable to Sonoma County Fire & Emergency Services and will be implemented under this USE Permit:

- Existing access roadway from Hwy 1 to glampground site is acceptable and does not require roadway improvements if guest parking is restricted to limited unloading, reloading & emergency use at the glampground site. Primary parking for guests shall be designated by operator and be located on the parcel near main Hwy 1 entrance to property. Guest parking shall not obstruct any access roadway.

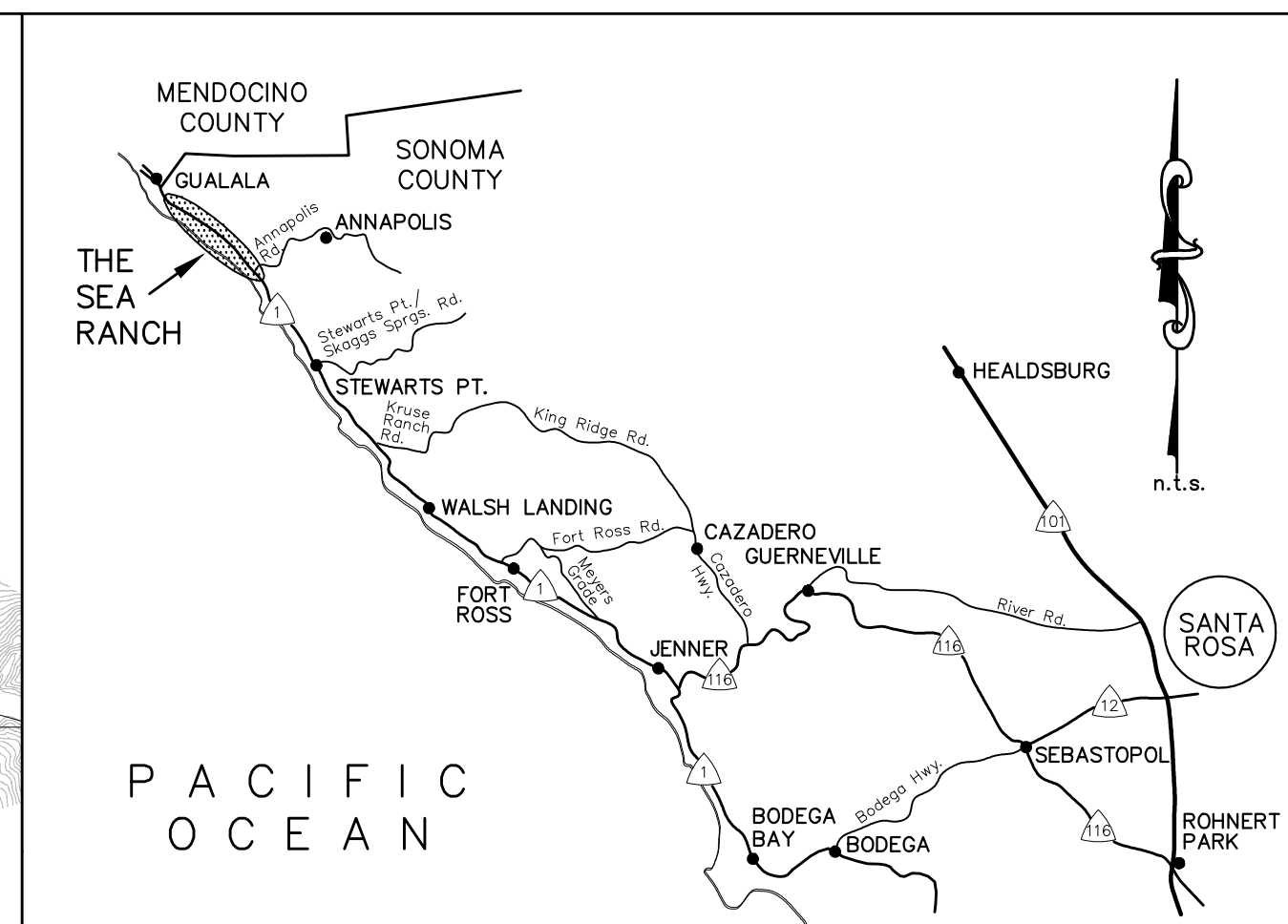
- Access roadway from Hwy 1 to glampground is subject to SCFES Standards, SEC 13-34, 37 Road & Drive, Vegetation Clearance.
- Glamground development shall include designated fire safe turnaround in close proximity to site subject to SCFES Standards, SEC 13-37(c) & 13-36(b),(c) Turnaround or SEC 13-37(c) & 13-36(b),(c) Hammerhead Turnaround. Existing staging area northeasterly of the glampground site is acceptable if permissible grades and minimum turnaround area can be maintained.
- Glamground development shall include dedicated 5,000 minimum gallons of water storage for potential fire suppression per SCFES Standards, SEC 13-51 Emergency Water Supply. This additional dedicated storage can be incorporated into the facility's water storage supply and does not necessarily have to be a separate storage tank.
 - Should this emergency water storage supply be located at the fire safe turnaround, a 2.5" fire service connection must be provided per SCFES Standards, SEC 13-51 Emergency Water Supply & SEC 13-52 Fire Department Hydrant / Guard Posts.
- Operator &/or landowner shall provide SCFES with access through any locked or electronic gates to main entrance and along access roadway to glampground site prior to commencement of occupancy.
- Operator &/or landowner shall provide each individual campsite and any designated common area access to Class ABC fire extinguisher.

Thank you for your time and consideration.

Sincerely,



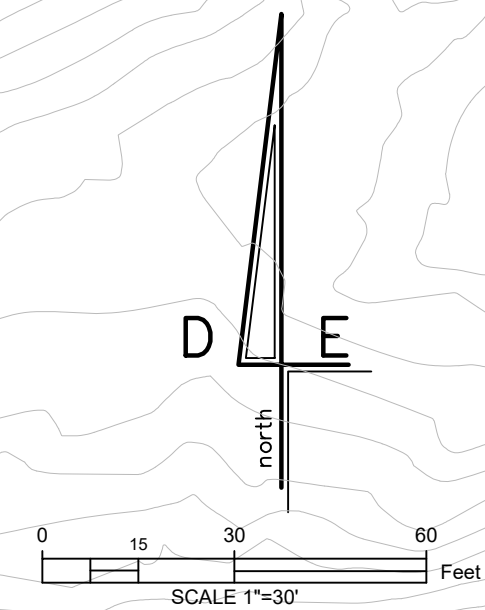
Richardson Family and Dimensions 4 Engineering, Inc.



VICINITY MAP
N.T.S.

TOPOGRAPHY IS BASED ON A FIELD SURVEY BY DIMENSIONS 4
ENGINEERING INC, ON 6/7/2023 + 7/12/2023 TOGETHER WITH
SONOMA COUNTY VEG.MANAGEMENT 1-FT INTERVAL CONTOURS.

PROPERTY LINES SHOWN BASED ON GIS DATA; ANY BOUNDARY
INFORMATION SHOWN HEREON IS APPROXIMATE AND IS NOT
REPRESENTATIVE OF A BOUNDARY SURVEY.



EXISTING ACCESS ROADWAY FROM HWY 1 TO GLAMPGROUND SITE IS ACCEPTABLE AND DOES NOT REQUIRE ROADWAY IMPROVEMENTS IF GUEST PARKING IS RESTRICTED TO LIMITED UNLOADING, RELOADING & EMERGENCY USE AT THE GLAMPGROUND SITE. PRIMARY PARKING FOR GUESTS SHALL BE DESIGNATED BY OPERATOR AND BE LOCATED ON THE PARCEL NEAR MAIN HWY 1 ENTRANCE TO PROPERTY. GUEST PARKING SHALL NOT OBSTRUCT ANY ACCESS ROADWAY.

FIRE EXTINGUISHER NOTE:
OPERATOR &/OR LANDOWNER SHALL
PROVIDE EACH INDIVIDUAL CAMPSITE AND
ANY DESIGNATED COMMON AREA ACCESS
TO CLASS "ABC" FIRE EXTINGUISHER AT
ALL TIMES.

PROPOSED 5000 GAL.
WATER STORAGE FOR
GUEST USE TIED TO
COMMON AREA SINK,
SHOWERS AND RESTROOM
SUPPLIED BY ONSITE
WATER SOURCE

DIMENSIONS 4.
ENGINEERING, INC.
ANALYSIS
PLANNING
LAND SURVEYING &
CIVIL ENGINEERING

APPROVED:	Maria Ghisletta 2-19-2026	DATE
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33005 HWY 1 ~ ANNAPOLIS, CA
SONOMA APN: 122-240-001

DATE: Z-2-19-2026
REVISION:
DRAWN: MFG
D4E JOB NO. 23-8120.4

SHEET #



ANALYSIS
PLANNING
SURVEYING
ENGINEERING

2952 Mendocino Avenue, Suite C
Santa Rosa, California 95403

(Office) 707-578-3433
(Fax) 707-526-3433

October 24, 2025

Subject: **Richardson ~ Future Glamground (Fire Marshall Site Review Findings / Approval)**
33005 State Hwy 1 ~ Stewarts Point
APN 122-240-001
D4E# 8120.4

Dear Mr. Mosiurchak,

Following your site review with Mr. Charles Richardson & Mr. Phil Write on July 30, 2025, together with our conversation yesterday, D4E is formally requesting Fire & Emergency Service Department approval for the proposed future glamground. It is understood that the following site allowances and requirements are agreeable to Sonoma County Fire & Emergency Services.

- Existing access roadway from Hwy 1 to glamground site is acceptable and does not require roadway improvements if guest parking is restricted to limited unloading, reloading & emergency use at the glamground site. Primary parking for guests shall be designated by operator and be located on the parcel near main Hwy 1 entrance to property. Guest parking shall not obstruct any access roadway.
- Existing access roadway from Hwy 1 to glamground site will require roadway improvements if guest parking is proposed at or in close proximity of designated campsites.
 - The existing access road, approximately 2000'+, would be subject to Sonoma County Fire & Emergency Services Standards, SCFES, SEC 13-37(b) & SEC 13-35(c) Turnouts: Any one-way road exceeding one thousand feet (1000') in length shall also have turnouts constructed approximately every five hundred feet (500') along the entire length of the road. Each turnout must be a minimum of 22 feet wide (12' drive lane + 10' turnout width) and 30 feet long, with 25-foot tapers on each end.
- Access roadway from Hwy 1 to glamground is subject to SCFES Standards, SEC 13-34, 37 Road & Drive, Vegetation Clearance.
- Glamground development shall include designated fire safe turnaround in close proximity to site subject to SCFES Standards, SEC 13-37(c) & 13-36(b),(c) Turnaround or SEC 13-37(c) & 13-36(b),(c) Hammerhead Turnaround. Existing staging area northeasterly of the glamground site is acceptable if permissible grades and minimum turnaround area can be maintained.
- Glamground development shall include dedicated 5,000 minimum gallons of water storage for potential fire suppression per SCFES Standards, SEC 13-51 Emergency Water Supply. This additional dedicated storage can be incorporated into the facility's water storage supply and does not necessarily have to be a separate storage tank.
 - Should this emergency water storage supply be located at the fire safe turnaround, a 2.5" fire service connection must be provided per SCFES Standards, SEC 13-51 Emergency Water Supply & SEC 13-52 Fire Department Hydrant / Guard Posts.

- Should this emergency water storage supply be located at the camp sites or removed from the turnaround, a 4.5" fire service draft hydrant must be provided per SCFES Standards, SEC 13-52(e) Dry or Draft Hydrant and shall be tied into the emergency water supply.
- Operator &/or landowner shall provide SCFES with access through any locked or electronic gates to main entrance and along access roadway to glampground site prior to commencement of occupancy.
- Operator &/or landowner shall provide each individual campsite and any designated common area access to Class ABC fire extinguisher.

Thank you for your time and consideration.

For Dimensions 4 Engineering, Inc.

Sincerely,



Maria Ghisletta, Principal, LSIT, CPESC, QSD, CESSWI

cc: File

Steve Mosiurchak

County of Sonoma Fire Marshal



Biological Resources Assessment

Richardson Glampground Project Sonoma County, CA



Prepared for: Charles Richardson

January 2026



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Section 1 | Introduction

1.1 PURPOSE OF ASSESSMENT

This Biological Resources Assessment (BRA) has been prepared for the Richardson ‘Glampground’ Project (proposed project), which is located on a portion of Assessor’s Parcel Number (APN) 122-240-001 in Sonoma County, California. This BRA provides information about the biological resources within the Study Area, the regulatory environment applicable to such resources, potential project-related impacts on these resources, and recommendations to reduce the significance of potential impacts. This BRA Report has been prepared to support a conditional use permit application to the County to utilize the Study Area as a glampground and install the septic infrastructure described in **Section 1.2.2**, below.

1.2 PROJECT LOCATION AND DESCRIPTION

1.2.1 Project Location

The Study Area consists of approximately 3.5 acres within a 496-acre privately owned property located at APN 122-240-001 in Sonoma County (County). The Study Area is located within Township 10 North, Range 14 West of the Stewart’s Point United States Geological Survey (USGS) 7.5-minute quadrangle. Access to the Study Area is via a private driveway located off California Highway 1 (Hwy 1), approximately 2.5 miles southeast of the unincorporated community of Sea Ranch. **Figure 1** and **Figure 2** show the location of the Study Area. **Figure 3** presents an aerial photograph of the Study Area and the immediate vicinity.

The parcel has a General Plan land use designation of Resources and Rural Development (RRD), which focuses on protecting timber, agricultural, and natural resources. The parcel is zoned timber production (TP) with Geologic Hazard (G) and Riparian Corridor (RC) combining districts within the Coastal Zone (CC).

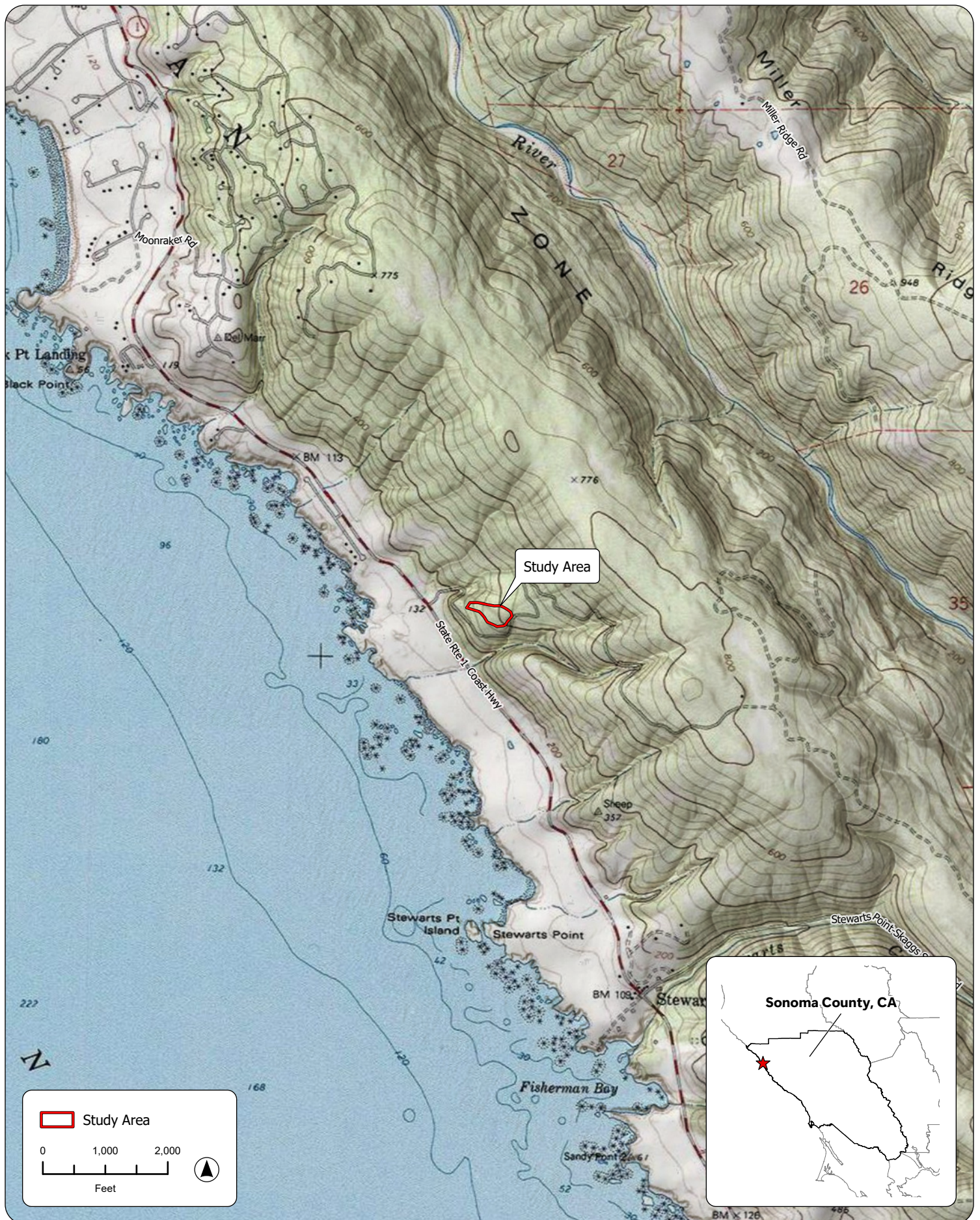
1.2.2 Proposed Project

The proposed project includes the development of five glamping sites and the installation of a septic system and plumbing connections to an existing trailer restroom and shower facility, as shown on **Figure 3**. The Study Area contains an existing restroom, shower facility, and 10 abandoned camping sites, as well as associated facilities and walking trails. The access road from Hwy 1 to the glampground is existing, and no road improvements are proposed. Ground disturbance to support the proposed project is limited to the installation of the septic system. Installation of the septic system would occur when soil conditions are dry, likely in the summer or late fall.



SOURCE: ESRI, 2026; Acorn Environmental, 1/23/2026

Figure 1
Regional Location



SOURCE: "Stewarts Point, CA" USGS 7.5 Minute Topographic Quadrangle, T10N R14W, Section 34, Mt. Diablo Baseline & Meridian; ESRI, 2026; Acorn Environmental, 1/23/2026

Figure 2
Site and Vicinity



SOURCE: ESRI, 2026; Sonoma County Ortho EagleView, 2025; Dimensions 4 Engineering, 12/15/2025; Acorn Environmental, 1/30/2026

Figure 3
Aerial Overview

Section 2 | Regulatory Setting

The regulatory setting relevant to the proposed project and Study Area is discussed below.

2.1 FEDERAL

Federal Endangered Species Act

The Federal Endangered Species Act (FESA) protects species that are at risk of extinction and provides for the conservation of the ecosystems on which they depend. The U.S. Fish and Wildlife Service (USFWS) and the National Oceanic and Atmosphere Administration, National Marine Fisheries Service (NMFS) share responsibility for implementing FESA. Generally, USFWS manages terrestrial and freshwater species, while NMFS is responsible for marine and anadromous species. Threatened and endangered species on the federal list (50 CFR Sections 17.11 and 17.12) are protected from take.

Magnuson-Stevens Act and Sustainable Fisheries Act

The Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) is the primary law that governs marine fisheries management in U.S. federal waters. The Sustainable Fisheries Act of 1996 (Public Law 104-297) amended the Magnuson-Stevens Act to establish new requirements for fishery management councils to identify and describe Essential Fish Habitat (EFH) and to protect, conserve, and enhance EFH for the benefit of fisheries. EFH is defined as those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity. An adverse effect includes direct or indirect physical, chemical, or biological alterations to waters or substrate, species and their habitat, quality and/or quantity of EFH, or other ecosystem components. A 2002 update to EFH regulations allowed fishery management councils to designate Habitat Areas of Particular Concern, specific areas within EFH that have extremely important ecological functions and/or are especially vulnerable to degradation.

Migratory Bird Treaty Act (MBTA)

Migratory birds are protected under the MBTA of 1918 (16 USC 703-711). The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed under 50 CFR 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). The intentional direct injury or death of a migratory bird that causes nest abandonment, nestling abandonment, or forced fledging would be considered take under federal law.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act was enacted in 1940 to protect bald eagles and was later amended to include golden eagles (16 USC Subsection 668-668). This act prohibits take, possession, and commerce of bald and golden eagles and associated parts, feathers, nests, or eggs with limited exceptions. The USFWS established five recovery programs in the mid-1970s based on geographical distribution of the species, with California located in the Pacific Recovery Region. Habitat conservation efforts in the Pacific Recovery Region, including laws and management practices at federal, state, and community levels, have helped facilitate bald eagle population increases. In 1995, the USFWS reclassified the bald eagle from endangered to threatened under FESA in the contiguous 48 states, excluding Michigan, Minnesota, Wisconsin, Oregon, and Washington where it had already been listed as threatened.

In 2007, the bald eagle was federally delisted under FESA. However, the provisions of this act remain in place for protection of bald and golden eagles.

Clean Water Act (Sections 404 and 401)

Projects that involve discharge of dredged or fill material into jurisdictional waters of the U.S. must first obtain authorization from the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act (CWA). Projects requiring a 404 permit under the CWA also require a Section 401 certification from the Regional Water Quality Control Board (RWQCB) in California. These two agencies also administer the National Pollutant Discharge Elimination System (NPDES) general permits for construction activities disturbing one acre or more. Effective September 8, 2023, the USEPA and the USACE have issued a new final rule in the Code of Federal Regulations to conform the definition of ‘waters of the United States’ to the 2023 Supreme Court’s May 25, 2023 decision in *Sackett vs. USEPA*. Under the new final rule, tributaries and wetlands must have a continuous surface connection to navigable waterways to be considered jurisdictional under the CWA. Only those relatively permanent, standing, or continuously flowing bodies of water meet the current definition. In certain states where litigation regarding this definition is ongoing, the pre-2015 definition of waters of the U.S. is in effect. California is not one of these states and currently operates under the definition as promulgated under the new final rule.

2.2 STATE

California Endangered Species Act

The California Endangered Species Act (CESA) declares that certain plant or animal species will be given protection by the State because they are of ecological, educational, historical, recreational, aesthetic, economic, and/or scientific value to the people of the State. The CESA established that it is State policy to conserve, protect, restore, and enhance State-listed species and their habitats. Under State law, plant and animal species may be formally listed by the California Fish and Game Commission, and those species that are listed are protected from take under CESA. CESA authorizes take that is ancillary to an otherwise lawful activity provided that an incidental take permit is acquired prior to the activity.

California Fish and Game Code

The California Fish and Game Code (CFGF) defines “take” (Section 86) and prohibits take of a species listed under the CESA (CFGF Section 2080), or otherwise of a special status CFGF Section 3511, 4700, and 5050). Section 2081(b) and (c) of the CESA allows CDFW to issue an incidental take permit for a State-listed species if specific criteria outlined in Title 14 CCR Section 783.4(a), (b) and CDFW Code Section 2081(b) are met. The CDFW Code Section 3503 also states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird except as otherwise provided by the code. Section 3503.5 states that it is unlawful to take, possess, or destroy any birds in the taxonomic order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird. Section 3513 states that it is unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the U.S. Secretary of the Interior under provisions of the MBTA. CDFW cannot provide take authorization under the CESA for impacts to migratory birds.

Native Plant Protection Act of 1977

The Native Plant Protection Act of 1977 and implementing regulations in Section 1900 et seq. of the CFGF designate special status plant species and provide specific protection measures for identified populations.

The CDFW administers the Native Plant Protection Act.

Porter-Cologne Water Quality Control Act

Waters of the State in California are currently defined to include any surface water or groundwater, including saline waters and man-made features, within the boundaries of the state. In general, features that do not meet the definition of a water of the U.S. but that do meet the definition of a water of the State are subject to permitting requirements as dictated by the Porter-Cologne Water Quality Control Act. Impacts to waters of the State, under the Porter-Cologne Water Quality Control Act, would generally require acquisition of a Waste Discharge Requirement permit.

Sensitive Natural Communities Ranking

Sensitive natural communities are vegetation communities that are considered sensitive by CDFW based on the range and distribution of a given type of vegetation, the proportion of occurrences that are of good ecological integrity, and threats and trends. Communities are evaluated at both a global (full range within and outside of California) and state (within California) using NatureServe's Heritage Program methodology. Rankings include a single G (global) and S (state) rank ranging from 1 (very rare and threatened) to 5 (demonstrably secure). CDFW maintains a current list of vegetation alliances, associations, special stands, and their global and state rarity ranks. It should be noted that some alliances that are not considered sensitive may contain associations that are listed as sensitive by CDFW. Oak woodlands are also protected by local ordinances under the Oak Woodlands Protection Act. Sensitive natural communities may also be identified in local or regional plans, policies, or regulations.

2.3 LOCAL

Sonoma County General Plan 2020

The Open Space & Resource Conservation Element of the County's General Plan addresses open space for the "preservation of natural resources, for the managed production of resources, for outdoor recreation, for public health and safety, and for Archeological, Historical, and Cultural resources". The purpose of the Open Space and Resource Conservation Element is to "preserve the natural and scenic resources which contribute to the general welfare and quality of life for the residents of the county and to the maintenance of its tourism industry".

The following goals and objectives from this element relate to the environment:

GOAL OSRC-7: Protect and enhance the County's natural habitats and diverse plant and animal communities.

Objective OSRC-7.1: Identify and protect native vegetation and wildlife, particularly occurrences of special status species, wetlands, sensitive natural communities, woodlands, and areas of essential habitat connectivity.

Objective OSRC-7.5: Maintain connectivity between natural habitat areas.

Objective OSRC-7.6: Establish standards and programs to protect native trees and plant communities.

The following policies shall be used to achieve these objectives:

Policy OSRC-7h: In coordination with resource agencies, landowners and affected public, conduct a comprehensive study of the cumulative impacts of habitat fragmentation and connectivity loss and the effects of exclusionary fencing on wildlife movement. If warranted, identify essential habitat connectivity corridors and develop recommendations for policies to protect essential habitat corridors and linkages and to restore and improve opportunities for native plant and animal dispersal.

Policy OSRC-7k: Require the identification, preservation and protection of native trees and woodlands in the design of discretionary projects, and, to the maximum extent practicable, minimize the removal of native trees and fragmentation of woodlands, require any trees removed to be replaced, preferably on the site, and provide permanent protection of other existing woodlands where replacement planting does not provide adequate mitigation

Policy OSRC-7u: Identify and consider designation of old growth Redwood and Douglas Fir as sensitive natural communities. Encourage preservation and public acquisition of remaining old growth Redwood and Douglas Fir forests in private ownership with the County. Because of their rarity and biological importance, these sensitive natural community types should be made priorities for protection through conservation easements, fee title purchase, or other mechanisms.

Sonoma County Zoning Code: Riparian Corridor Combining Zone

The Riparian Corridor (RC) combining zone was established to protect biotic resource communities, including critical habitat areas within and along riparian corridors, for their habitat and environmental value, and to implement the provisions of the General Plan Open Space and Resource Conservation and Water Resources Elements. The County designated the following three zones with varying setbacks:

- Russian River Riparian Corridor: 200 feet
- Flatland Riparian Corridors: 100 feet
- Other Riparian Corridors: 50 feet

Non-conforming activities within these setbacks require biological review and approval from the Permit and Resource Management Department and/or the Office of the Agricultural Commissioner of Sonoma County. Non-conforming uses with some exemptions include, but are not limited to: grading, vegetation removal (riparian vegetation), agricultural cultivation, structures, roads, utility lines, and parking lots.

Section 3 | Methods

3.1 PRELIMINARY DATA GATHERING AND RESEARCH

Information on special-status species and habitats was compiled through a review of background literature and databases. The search focused on the known occurrences of special-status species on the Stewart's Point 7.5-minute USGS quadrangle where the proposed project is located and the surrounding quadrangles. The following information sources were reviewed in support of this BRA:

- Natural Resources Conservation Service (NRCS) soil report for the Study Area (NRCS, 2026; **Attachment A**)
- USGS topographic quadrangles of the Study Area and vicinity
- Current and historical aerial photography of the Study Area and vicinity
- The California Natural Diversity Database (CNDDB) query of known species occurrences within the Stewart's Point USGS Quad (RareFind, 2026; **Attachment B**)
- A query of the California Native Plant Society's (CNPS) Inventory of Rare and Endangered Plants of California of known species occurrences within the Stewart's Point USGS Quad (CNPS, 2026a; **Attachment B**)
- USFWS Critical Habitat Mapper (USFWS, 2026, **Attachment B**)
- USFWS Information for Planning and Consultation (IPaC) species list (IPaC, 2026; **Attachment B**)
- The NMFS Critical Habitat and National Oceanic and Atmospheric Administration (NOAA) Essential Fish Habitat (EFH) mappers (NMFS, 2026; NOAA, 2026; **Attachment B**)
- USFWS National Wetlands Inventory (NWI) mapper (NWI, 2026; **Attachment B**)

3.2 BIOLOGICAL FIELD SURVEY

A biological resources survey was conducted across the Study Area on January 12, 2026 by Acorn biologist Kimberlina Gomez, M.S. The field surveys followed the methods described in CDFW's *Protocols for Surveying and Evaluating Impacts to Special-status Native Plant Populations and Natural Communities* (CDFW, 2018) and Sonoma County's *Guidelines for Preparing Biological Resource Studies or Assessments* (Agricultural Commissioner, 2014). The survey was completed to 1) document and map vegetation communities, 2) compile a list of plant and animal species present, 3) evaluate the project site for the presence of special-status species and their habitats, and 4) evaluate the project site for jurisdictional aquatic features. Areas adjacent to the project site were also observed for context and to evaluate the potential for impacts on off-site resources.

A variable-intensity pedestrian survey was performed that covered the totality of the Study Area. Fauna and flora observed were recorded in a field notebook and identified to the lowest possible taxon. Survey efforts emphasized the search for State and federally listed special status species identified in the queries contained in **Attachment B**. Habitat types on the Study Area were mapped on aerial photographs and via a handheld GPS receiver. Information on habitat conditions and the suitability of habitats to support special status species was also recorded. Vegetation communities were classified by Vegetation Series using the CNPS Vegetation Classification system (CNPS, 2026b). Species' habitat requirements and life histories were identified using the following sources: USFWS (2026); CNPS (2026); Calflora (2026); and CDFW (2026).

The Study Area was also assessed for the presence of potentially-jurisdictional water features, including

riparian zones, isolated wetlands and vernal pools, and other biologically-sensitive aquatic habitats. The site was reviewed for the presence of wetlands and other aquatic resources according to the methods described in the *Corps Manual* (Environmental Laboratory 1987), the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West* (Corps, 2008), and *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (Lichvar and McColley, 2008). Any areas meeting these indicators were mapped as aquatic resources and categorized using the vegetation community classification.

3.3 SPECIAL-STATUS SPECIES

Potential occurrence of special-status species in the Study Area was evaluated by first determining which special-status species occur in the greater vicinity through a literature and database review, as described above. For the purposes of this assessment, “special status” is defined to be species that are:

- Listed as endangered, threatened, proposed, or candidate for listing under FESA;
- Listed as endangered, threatened, rare, or proposed for listing, under CESA;
- Designated as endangered or rare, pursuant to CFGC (§1901);
- Designated as fully protected, pursuant to CFGC (§3511, §4700, or §5050);
- Designated as a species of special concern (SSC) by CDFW;
- Plants considered to be rare, threatened or endangered in California by CNPS; this consists of species on Lists 1A, 1B, and 2 of the CNPS Ranking System; or
- Plants listed as rare under the California Native Plant Protection Act.

3.4 MAPPING AND OTHER ANALYSES

Locations of species’ occurrences and habitat boundaries within the Study Area were mapped using hand-held GPS receivers, and color aerial photographs were interpreted and the data digitized to produce habitat maps. The boundaries of potentially jurisdictional aquatic resources within the Study Area were identified and measured in the field and similarly digitized to calculate acreages and to produce aquatic resources delineation maps. Geographic analyses were performed using geographical information system software (ArcGIS Pro, ESRI, Inc.).

To account for potential impacts to wildlife movement/migratory corridors, biologists reviewed CDFW's Biogeographic Information and Observation System (BIOS) (CDFW 2023b). Additionally, aerial imagery for the local area was referenced to assess if local core habitat areas were present within or connected to the Study Area. This assessment was refined based on observations of on-site physical and/or biological conditions.

Section 4 | Assessment Results

4.1 CLIMATE AND TOPOGRAPHY

The Study Area is located within the North Coast Subregion (NCo) within the larger California floristic province (U.C. Berkeley, 2026). The nearest metropolitan area is Sea Ranch, which experiences a mild, Mediterranean-type climate, characterized by cool, foggy summers and mild, wet winters. Average monthly temperatures peak in September at 66 degrees Fahrenheit and reach a low in December with an average temperature of 44 degrees Fahrenheit (U.S. Climate Data, 2026). Precipitation falls exclusively as rain, with February receiving the most precipitation at an average of 6.04 inches across the month. Topography of the Study Area is variable with elevations ranging from approximately 385 feet above mean sea level (asml) to 415 feet asml.

The Study Area is located within the Russian Gulch-Frontal Pacific Ocean (180101090202) watershed (USEPA, 2026).

Soils within the Study Area are Empire loam (9 to 30 percent slopes) (**Attachment A**). This soil type is well drained with a high runoff class and low permeability. Remnants of previous use as a campground are present throughout the Study Area. Surrounding land includes forested areas to the north, east, and south, and a small grassland hill to the west.

4.2 INVENTORY OF FLORA AND FAUNA

Plant and animal species identified on the Study Area during the survey conducted on January 12, 2026 are listed in **Attachment C**.

4.3 LAND COVER TYPES

Representative site photographs are included as **Attachment D** and a figure illustrating habitat types is provided as **Figure 4**. Terrestrial habitats observed within the Study Area include ruderal/developed areas intermixed with Redwood Forest and Woodland.

4.3.1 Terrestrial Habitats

Ruderal/Developed

Areas that are ruderal/developed either contain remnants of previous development or areas of landscaped and managed vegetation. Previous areas of development include camp site platforms and a communal building, restroom structures, and walking trails. Throughout these areas, mulch in the form of wood chips and bark line the walking trails and vegetation is generally absent in these areas. Where vegetation is present, it is generally in the form of herbaceous cover, including forbs and graminoids such as pampas grass (*Cortaderia selloana*), Wild strawberry (*Fragaria vesca*), and Modesty (*Whipplea modesta*). This habitat is present where human development and management has occurred. There are approximately 1.92 acres of ruderal/developed habitat type within the Study Area.



SOURCE: ESRI, 2026; Sonoma County Ortho EagleView, 2025; Dimensions 4 Engineering, 12/15/2025; Acorn Environmental, 1/30/2026

Figure 4
Habitat Types

Redwood Forest and Woodland

Redwood Forest and Woodland habitat contains Coast Redwood (*Sequoia sempervirens*) as the dominant/co-dominant species along with other evergreens and deciduous trees such as Douglas fir (*Pseudotsuga menziesii*) and Pacific madrone (*Arbutus menziesii*). This habitat type is a composite name for a variety or mix of conifer species that grow within the coastal influence zone, characterized by maritime climates with heavy fog and high moisture (CDFW, 2026b; CNPS, 2026b). Where canopy cover is denser, the habitat tends to a dense forest, and where transitional or disturbed cover is found, the habitat tends to a woodland format. Various immature pine species, such as Monterey pine (*Pinus radiata*) and Red pine (*Pinus resinosa*) are also found within less dense stands of this habitat. More dense and mature stands of this habitat are found to the north, east, and south of the Study Area. Redwood Forest and Woodland is considered a sensitive natural community by CDFW with a rank of G3 and S3, meaning it is considered sensitive at both a global and state level (CDFW, 2025). There are approximately 1.54 acres of Redwood Forest and Woodland habitat within the Study Area.

4.3.2 Aquatic Habitats

No aquatic habitats occur within the Study Area. The nearest mapped feature on the USFWS NWI is a Freshwater Forested/Shrub Wetland, approximately 0.2 mile northwest of the Study Area (NWI, 2026).

The nearest blueline drainage is an unnamed stream approximately 450 feet south of the Study Area that drains the surrounding hillsides directly into the Pacific Ocean. This drainage is located at the bottom of a steep canyon, approximately 200 feet in elevation below the Study Area and an average 44 percent slope.

4.4 CRITICAL HABITAT AND ESSENTIAL FISH HABITAT

The Study Area is not within critical habitat that is designated or proposed by the USFWS or NMFS (**Attachment B**). The nearest USFWS critical habitat is located approximately 4.25 miles south of the Study Area for Marbled Murrelet (*Brachyramphus marmoratus*) (**Attachment A**; USFWS, 2026). The nearest NMFS critical habitat is the Pacific Ocean located approximately 0.25 miles west of the Study Area for Killer whale/orca [Southern Resident DPS] (*Orcinus orca*), leatherback green sea turtle (*Dermochelys coriacea*), Black abalone (*Haliotis cracherodii*), and green sturgeon [Southern DPS] (*Acipenser medirostris*) (NMFS, 2026). NOAA maps the Gualala-Salmon watershed, which encompasses the region of the Study Area, as Essential Fish Habitat (EFH) for Chinook salmon (*Oncorhynchus tshawytscha*) and Coho salmon (*Oncorhynchus kisutch*) (NMFS, 2026). However, there are no aquatic resources and no suitable habitat for Chinook salmon or Coho salmon within the Study Area. Therefore, there is no suitable EFH within the Study Area.

4.5 WILDLIFE USE AND MOVEMENT

Active bird nests were not observed within the Study Area, however, there is potential for birds to nest in the vegetation or on structures. Throughout the majority of the Study Area, there is minimal terrestrial foraging habitat for wildlife given the ruderal/developed portions of the site. However, surrounding lands to the north and east are forested, relatively undisturbed, and contain suitable wildlife habitat. Therefore, wildlife from nearby forested areas may enter the Study Area or use it as a stopover site in the cases of migrating or nesting birds. Unique wildlife features such as nursery sites and rookeries were not observed.

4.6 SPECIAL-STATUS SPECIES

No special status species were observed during the survey conducted on January 12, 2026. Lists of special status species that may occur in the vicinity of the Study Area are included in **Attachment B**. A species table is included as **Attachment E** and provides the species name, status, and habitat requirements of these special status species, as well as an analysis of the potential for each species to occur within the Study Area. The potential for each special status species to occur in the Study Area was evaluated according to the criteria listed below. For purposes of this assessment, species determined to have “none” or “low” potential to occur, as assessed in **Attachment E**, are presumed absent and are therefore not discussed further.

- **“None” or No Potential.** Habitat on and adjacent to the Study Area is clearly unsuitable for the species (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime) or is outside of the known range of the species.
- **Low Potential.** Few 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. Additionally, the Study Area may be outside the known range of the species or isolated such that the species is unlikely to access the area. The species is not likely to occur within the Study Area.
- **Moderate Potential.** Some habitat components meeting the species’ requirements are present, and/or only some of the habitat on or adjacent to the Study Area is unsuitable. The species has a moderate probability of being found within the Study Area.
- **High Potential.** All 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 being found within the Study Area.

As detailed in **Attachment E**, only the following special status species have the potential to occur within the Study Area:

- Mammals:
 - Sonoma Tree Vole (*Arborimus pomo*)
- Plants:
 - Coastal bluff morning-glory (*Calystegia purpurata ssp. saxicola*)
 - Swamp harebell (*Eastwoodiella californica*)
 - Coast lily (*Lilium maritimum*)

An account of each of these species is provided below along with where and when these species may be present in the Study Area. No special-status reptile, amphibian, or fish species have the potential to occur within the Study Area due to the lack of aquatic habitat and lack of connectivity to nearby aquatic resources. The special-status birds with potential to occur in the surrounding region have specialized nesting habitat requirements that are lacking within the Study Area; while no special-status birds have the potential to occur, nesting or migratory birds could use the trees within the Study Area and are assessed further in **Section 5**.

4.6.1 Special-Status Mammals

Sonoma Tree Vole (*Arborimus pomo*), SSC

This species mainly occurs in old-growth and other forests, mainly Douglas-fir, redwood, and montane hardwood-conifer habitat (CDFW, 2026c). Sonoma tree vole typically feeds on the needles of Douglas-fir and grand fir trees, which are primarily gathered during the night. Nests for this species can vary for males and females. Males most frequently nest in a tree nest constructed of fir needles or, less frequently, in

shallow burrows at the base of fir trees beneath litter, while females spend most of their lives in trees, constructing large, domed nursery nests of Douglas-fir needles approximately 6 to 150 feet above the ground (CDFW, 2026c). This species breeds year-round, but generally from February through September. The home range of this species can encompass one to several trees, with females often living in one and males visiting several trees (CDFW, 2026c).

The Study Area contains suitable Redwood Forest and Woodland habitat, however, Douglas fir trees (the species' preferred habitat) are generally more concentrated at the perimeter of the site. While no nests were observed at the time of the survey, the survey was conducted outside of the known breeding season for this species. The nearest reported occurrence of this species was approximately 1-mile south of the Study Area and was recorded in 1996 (RareFind, 2026).

4.6.2 Special-Status Plant Species

Coastal bluff morning-glory (*Calystegia purpurata* ssp. *Saxicola*), 1B.2

Coastal bluff morning-glory is a perennial herb that is endemic to California. Habitat for this species includes Coastal bluff scrub, coastal dunes, coastal scrub, and North Coast coniferous forest (CNPS, 2026c). This species has large funnel-like shaped white flowers, sometimes pink or purple, and heart shaped leaves. It will grow trailing stems that reach three to six feet in length. The elevation range for this species is generally 0 to 345 feet amsl, but several County occurrences are out of this range. Coastal bluff morning-glory flowers between April through September. While this species prefers coastal scrub habitat, it can also be found within North Coast coniferous forest and the Redwood Forest and Woodland habitat within and adjacent to the Study Area present potential suitable habitat for this species. The nearest CNDDDB reported occurrence of this species was in 2016, approximately 1.75 miles south of the Study Area on a rocky outcrop of a coastal terrace grassland (CNDDDB, 2026a).

Swamp harebell (*Eastwoodiella californica*), 1B.2

Swamp harebell is a perennial rhizomatous herb that is endemic to California. Habitat for this species includes bogs and fens, closed-cone coniferous forest, coastal prairie, marshes and swamps, meadows and seeps, and North Coast coniferous forest (CNPS, 2026d). This species has a bell-shaped flower that is pale blue with curving petals and thin, rippled leaves. The elevation range for this species is between 5 to 1,330 feet amsl. Swamp harebell flowers between June through October. The Redwood Forest and Woodland habitat within and adjacent to the Study Area present potential suitable habitat for this species. The nearest CNDDDB reported occurrence of this species was in 2018 approximately 0.5 miles northeast of the Study Area (CNDDDB, 2026b). The area with the occurrence was reported as a "grassy opening and seasonally wet area" (CNDDDB, 2026b).

Coast lily (*Lilium maritimum*), 1B.1

Coast lily is a perennial bulbiferous herb that is endemic to California. Habitat for this species includes Broadleafed upland forest, Closed-cone coniferous forest, Coastal prairie, Coastal scrub, Marshes and swamps (freshwater), and North Coast coniferous forest (CNPS, 2026e). The flowers of this species are red and orange with a bell-shape, with narrow, basal leaves. The elevation range for this species is between 15 to 1,560 feet amsl. Coast lily flowers between May through August. The Redwood Forest and Woodland habitat within and adjacent to the Study Area present potential suitable habitat for this species. The nearest reported CNDDDB occurrence was in 1988 located approximately 0.75 miles north of the Study Area (CNDDDB, 2026c).

Section 5 | Impact Analyses and Recommendations

As defined by the California Environmental Quality Act (CEQA), the proposed project would be considered to have a significant adverse impact on biological resources if it would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a special status species in local or regional plans, policies, or regulations, or by USFWS or CDFW;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by USFWS or CDFW;
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- 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;
- Conflict with any county or municipal policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved governmental habitat conservation plan.

5.1 IMPACTS TO SPECIAL STATUS SPECIES

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

As discussed in **Section 4.7**, one special-status mammal and three special-status plants have the potential to occur within the Study Area. In addition, while no special-status birds have the potential to occur, nesting and migratory birds that are protected under the MBTA do have the potential to nest in trees within the Study Area. Potential impacts to these species resulting from implementation of the proposed project are discussed below.

Special-Status Mammals

As described above, the Sonoma Tree Vole could be present within the Study Area within the redwood or Douglas fir trees. However, as a result of the previous use of the Study Area as a campground, intermixed ruderal/developed habitat throughout, the likelihood of this species occurring is decreased and it would be more likely to utilize the undisturbed, denser habitat outside of the Study Area. Construction activities associated with the proposed project could result in impacts to this species. While no tree removal is proposed and therefore no direct mortality is anticipated, noise from pipe trenching and installing the septic system could cause indirect impacts to the species if trees containing suitable nest habitat occur in the vicinity. Operation of the proposed project involves low-intensity recreational uses in less dense stands on the edge of forest habitat and thus is unlikely to have significant impacts on Sonoma Tree Vole.

Measure 1 is recommended to reduce potential construction impacts to Sonoma tree vole to less-than-significant levels, and would also serve to reduce noise disturbances to non-special status wildlife that may occur in the area during construction activities.

Measure 1: Minimize Noise for Sonoma Tree Vole

The following measures shall be followed during construction to reduce potential impacts to Sonoma Tree Vole:

- Tree removal shall be limited to the minimum necessary.
- Construction and staging areas shall not be larger than necessary and shall be visibly demarcated prior to construction activities to prevent unnecessary impacts or encroachment into surrounding forested areas. Equipment shall not be kept outside established areas.
- Jackhammers or similar machinery that produces high intensity sounds shall only be used for short duration (less than two hours total per day) and shall only be operated between the hours of 10:00 a.m. and 4:00 p.m during construction.
- All construction-related work shall be performed during daylight hours. No nighttime operations or use of staging lights shall be allowed.

Special-Status Plants

Three special-status plants have the potential to occur within the Study Area: Coastal bluff morning-glory, Swamp harebell, and Coast lily.

Although these species were not observed during the site visit, the survey was not conducted during the identifiable bloom period for these species and therefore there is the potential that these species may occur within the Study Area. Construction activities, such as trenching and septic installation, could impact the species if they were to occur within the area of disturbance. In order to determine whether these special-status plants are present and if further mitigation is warranted, **Measure 2** requires that a qualified biologist or botanist conduct surveys during the appropriate bloom season for the above-listed plants. With mitigation, potential impacts would be reduced to a less-than-significant level.

Measure 2: Special-Status Plant Protection

Prior to ground-breaking activities, a qualified biologist shall conduct a focused botanical survey for Coastal bluff morning-glory, Swamp harebell, and Coast lily during the identifiable bloom season to determine absence or presence within the Study Area. One site visit between June and August would cover all applicable species. If present and unavoidable, a qualified biologist shall develop a mitigation and management plan to offset any direct impacts to the plants. Such a plan shall include, but necessarily limited to, an on-site donor location for plant relocation, management prescriptions, monitoring methods, success criteria, a monitoring schedule/period, and reporting schedule and outline. Mitigation ratio shall be 1:1 based on either number of individuals or occupied area, depending on which is determined appropriate by the qualified biologist.

Migratory, Nesting, and Special Status Birds and Raptors

Numerous non-special status bird species have the potential to occur on or in the vicinity of the Study Area. Although no tree removal is proposed so no direct mortality would occur, indirect impacts from

construction activities occurring during the nesting season have the potential to result in sensory disturbance to nesting birds that could cause nest abandonment or forced fledging. Avoidance and minimization measures, including a pre-construction nesting bird survey, are recommended in Measure BIO-3 to ensure impacts are avoided. These measures would ensure that active nests are identified prior to construction and that the appropriate buffer would be provided for construction occurring in the nesting season. Impacts to nesting birds would be less than significant with mitigation.

Measure BIO-3: Protection of Nesting Birds During Construction

- For construction activities occurring during the nesting season (typically February 1 through August 31), a qualified biologist shall conduct a preconstruction survey for the presence of special-status bird species or any nesting bird species within 500 feet of proposed construction areas. If active nests are identified in these areas, CDFW and/or USFWS shall be consulted to develop measures to avoid “take” of active nests prior to the initiation of any construction activities. Avoidance measures may include establishment of a buffer zone using construction fencing or the postponement of vegetation removal until after the nesting season, or until after a qualified biologist has determined the young have fledged and are independent of the nest site.
- Should work activity cease for 14 days or more during the nesting season, surveys shall be repeated prior to recommencing construction within the general nesting season to ensure birds and have not established nests during inactivity. If new nests have been established, the avoidance measures outlined above shall apply.

5.2 IMPACTS TO SENSITIVE HABITATS

Will the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

The proposed project would impact ruderal/developed habitat, which is not considered a sensitive habitat, and Redwood Forest and Woodland, which is ranked by CDFW as an S3 and is considered a Sensitive Natural Community. Impacts as a result of the Proposed Project would affect approximately 0.02 acres of ruderal/developed habitat and approximately 0.06 acres within Redwood Forest and Woodland habitat, as shown on **Figure 4**. Currently, no tree removal is proposed, however, should it be necessary for the proposed project, tree removal would be limited to only a singular tree. Impacts would involve groundwork associated with the installation of the septic system and would not result in alternations to habitat through vegetation removal or conversion. Impacts would not involve alternations to the tree canopy and would involve the trenching of pipelines below ground. Overall, the proposed project would not permanently convert habitat as it is proposed in a location which was previously used for camping. Therefore, impacts to sensitive habitats would be less than significant.

The Study Area is not within proposed or designated critical habitat. As discussed in **Section 4.4**, the Study Area is within a watershed that is designated as EFH for Chinook salmon and Coho salmon, however, the site does not contain suitable habitat for fish species. Therefore, there would be no impact on designated USFWS critical habitat, NMFS critical habitat, or EFH within the Study Area.

No avoidance or minimization measures are required.

5.3 IMPACTS TO AQUATIC RESOURCES

Will 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?

No aquatic resources occur within or adjacent to the Study Area. The nearest aquatic resource is a Freshwater Forested/Shrub Wetland, located approximately 0.18 miles northwest of the Study Area (NWI, 2026). Therefore, there would be no direct impact to aquatic resources as a result of the Proposed Project, and no avoidance or minimization measures are required.

5.4 IMPACTS TO WILDLIFE MOVEMENT, CORRIDORS, OR NURSERY SITES

Will 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?

There are no designated wildlife corridors, nursery sites, or fisheries present within the Study Area. While wildlife may occur within adjacent properties, existing land use would not be altered and the Proposed Project would not limit connectivity. The proposed septic system would be installed underground and therefore would not impede local wildlife movement. The operation of the glamping sites would introduce humans to the property that could result in slight increases in noise and activity that may disturb wildlife. Because the area is surrounded with undisturbed forested areas, it is anticipated that the minimal noise and disturbance caused by five glamping sites would not impede overall wildlife movement, as there are ample opportunities for wildlife to move past the Study Area on all surrounding sides; this impact is considered less than significant and no avoidance or minimization measures are required.

5.5 CONFLICT WITH POLICIES, ORDINANCES, HABITAT CONSERVATION PLANS, OR NATURAL COMMUNITY CONSERVATION PLAN

Will the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? Will the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The Study Area does not occur within an area covered by a Habitat Conservation Plan (HCP) or approved tree protection ordinance. Sonoma County is currently developing an HCP under the Conserve Sonoma Program; however, at the time of this report, no HCP has been proposed or adopted. Therefore, there would be no impact. No avoidance or minimization measures are required.

Section 6 | References

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Section 7 | Qualifications of Surveyors and Authors

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Ms. Gomez holds a B.S. and M.Sc. in Environmental Science with a focus on Wildlife and Biodiversity. She has approximately 3 years of experience collecting field data and preparing biological reports and other environmental studies. Ms. Gomez has published a scientific article related to wildlife behavior ecology. She also has experience preparing documents for Section 7 consultations with the USFWS.

Attachment A

USDA NRCS Soils Report



United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for Sonoma County, California



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

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identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map



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MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features

 Blowout

 Borrow Pit

 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water

 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot

 Sinkhole

 Slide or Slip

 Sodic Spot

 Spoil Area

 Stony Spot

 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

Water Features

 Streams and Canals

Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Sonoma County, California
Survey Area Data: Version 19, Sep 8, 2025

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Data not available.

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
EmE	Empire loam, 9 to 30 percent slopes	2.7	100.0%
Totals for Area of Interest		2.7	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

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An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Sonoma County, California

EmE—Empire loam, 9 to 30 percent slopes

Map Unit Setting

National map unit symbol: hfcm
Elevation: 1,500 feet
Mean annual precipitation: 50 inches
Mean annual air temperature: 52 degrees F
Frost-free period: 350 days
Farmland classification: Not prime farmland

Map Unit Composition

Empire and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Empire

Setting

Landform: Terraces
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Alluvium derived from sedimentary rock

Typical profile

H1 - 0 to 19 inches: loam
H2 - 19 to 60 inches: clay loam
H3 - 60 to 70 inches: weathered bedrock

Properties and qualities

Slope: 9 to 30 percent
Depth to restrictive feature: 40 to 60 inches to paralithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 10.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: B
Ecological site: F004BL103CA - Fog-influenced, low elevation mountain slopes
Hydric soil rating: No

Minor Components

Caspar

Percent of map unit: 4 percent
Hydric soil rating: No

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Hugo

Percent of map unit: 4 percent

Hydric soil rating: No

Mendocino

Percent of map unit: 4 percent

Hydric soil rating: No

Noyo

Percent of map unit: 3 percent

Hydric soil rating: No

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Attachment B

Biological Desktop Review Results



Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad IS (Stewarts Point (3812364))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Actinemys marmorata</i> northwestern pond turtle	ARAAD02031	Proposed Threatened	None	G2	SNR	SSC
<i>Agrostis blasdalei</i> Blasdale's bent grass	PMPOA04060	None	None	G2G3	S2	1B.2
<i>Ammodramus savannarum</i> grasshopper sparrow	ABPBXA0020	None	None	G5	S3	SSC
<i>Arboreus pomo</i> Sonoma tree vole	AMAFF23030	None	None	G3	S3	SSC
<i>Bombus caliginosus</i> obscure bumble bee	IIHYM24380	None	None	G2G3	S1S2	
<i>Calystegia purpurata ssp. saxicola</i> coastal bluff morning-glory	PDCON040D2	None	None	G4T2T3	S2S3	1B.2
<i>Carex saliniformis</i> deceiving sedge	PMCYP03BY0	None	None	G2	S2	1B.2
<i>Danaus plexippus plexippus pop. 1</i> monarch - California overwintering population	IILEPP2012	Proposed Threatened	None	G4T1T2Q	S2	
<i>Dicamptodon ensatus</i> California giant salamander	AAAAH01020	None	None	G2G3	S2S3	SSC
<i>Eastwoodiella californica</i> swamp harebell	PDCAM02060	None	None	G3	S3	1B.2
<i>Erigeron supplex</i> supple daisy	PDAST3M3Z0	None	None	G2	S2	1B.2
<i>Gilia capitata ssp. pacifica</i> Pacific gilia	PDPLM040B6	None	None	G5T3	S3	1B.2
<i>Gilia capitata ssp. tomentosa</i> woolly-headed gilia	PDPLM040B9	None	None	G5T2	S2	1B.1
<i>Hesperovax sparsiflora var. brevifolia</i> short-leaved evax	PDASTE5011	None	None	G4T3	S3	1B.2
<i>Hesperoleucus parvipinnis</i> Gualala roach	AFCJB19025	None	None	G3	S3	SSC
<i>Lasthenia californica ssp. macrantha</i> perennial goldfields	PDAST5L0C5	None	None	G3T2	S2	1B.2
<i>Lathyrus palustris</i> marsh pea	PDFAB250P0	None	None	G5	S2	2B.2
<i>Lilium maritimum</i> coast lily	PMLIL1A0C0	None	None	G2	S2	1B.1
<i>Oncorhynchus mykiss irideus pop. 49</i> steelhead - northern California DPS winter-run	AFCHA0213Q	Threatened	None	G5T3Q	S3	SSC
<i>Rana boylei pop. 1</i> foothill yellow-legged frog - north coast DPS	AAABH01051	None	None	G3T4	S4	SSC



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Rana draytonii</i> California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
<i>Sidalcea calycosa ssp. rhizomata</i> Point Reyes checkerbloom	PDMAL11012	None	None	G5T2	S2	1B.2
<i>Sidalcea malachroides</i> maple-leaved checkerbloom	PDMAL110E0	None	None	G3	S3	4.2
<i>Sidalcea malviflora ssp. purpurea</i> purple-stemmed checkerbloom	PDMAL110FL	None	None	G4G5T1	S1	1B.2
<i>Speyeria zerene behrensii</i> Behren's silverspot butterfly	IILEPJ6088	Endangered	None	G5T1	S1	
<i>Sulcaria spiralifera</i> twisted horsehair lichen	NLT0042560	None	None	G3G4	S2	1B.2
<i>Taxidea taxus</i> American badger	AMAJF04010	None	None	G5	S3	SSC
<i>Usnea longissima</i> Methuselah's beard lichen	NLLEC5P420	None	None	G5	S4	4.2

Record Count: 28

Search Results

22 matches found. Click on scientific name for details

Search Criteria: , Quad is one of [3812364]

▲ SCIENTIFIC NAME	COMMON NAME	BLOOMING PERIOD	FED LIST	STATE LIST	STATE RANK	CA RARE PLANT RANK	GENERAL HABITATS	MICROHABITATS	LOWEST ELEVATION (FT)	HIGHEST ELEVATION (FT)
<i>Agrostis blasdalei</i>	Blasdale's bent grass	May-Jul	None	None	S2	1B.2	Coastal bluff scrub, Coastal dunes, Coastal prairie		0	490
<i>Calamagrostis bolanderi</i>	Bolander's reed grass	May-Aug	None	None	S4	4.2	Bogs and fens, Broadleafed upland forest, Closed-cone coniferous forest, Coastal scrub, Marshes and swamps (freshwater), Meadows and seeps (mesic), North Coast coniferous forest	Mesic	0	1495
<i>Calochortus uniflorus</i>	pink star-tulip	Apr-Jun	None	None	S4	4.2	Coastal prairie, Coastal scrub, Meadows and seeps, North Coast coniferous forest		35	3510
<i>Calystegia purpurata</i> ssp. <i>saxicola</i>	coastal bluff morning-glory	(Mar)Apr-Sep	None	None	S2S3	1B.2	Coastal bluff scrub, Coastal dunes, Coastal scrub, North Coast coniferous forest		0	345
<i>Carex saliniformis</i>	deceiving sedge	(May)Jun(Jul)	None	None	S2	1B.2	Coastal prairie, Coastal scrub, Marshes and swamps (coastal salt), Meadows and seeps	Mesic	10	755
<i>Castilleja ambigua</i> var. <i>ambigua</i>	johnny-nip	Mar-Aug	None	None	S3S4	4.2	Coastal bluff scrub, Coastal prairie, Coastal scrub, Marshes and swamps, Valley and foothill grassland, Vernal pools (margins)		0	1425

<i>Ceanothus gloriosus</i> var. <i>gloriosus</i>	Point Reyes ceanothus	Mar-May	None	None	S4	4.3	Closed-cone coniferous forest, Coastal bluff scrub, Coastal dunes, Coastal scrub	Sandy	15	1705
<i>Eastwoodiella californica</i>	swamp harebell	Jun-Oct	None	None	S3	1B.2	Bogs and fens, Closed-cone coniferous forest, Coastal prairie, Marshes and swamps (freshwater), Meadows and seeps, North Coast coniferous forest	Mesic	5	1330
<i>Erigeron supplex</i>	supple daisy	May-Jul	None	None	S2	1B.2	Coastal bluff scrub, Coastal prairie		35	165
<i>Gilia capitata</i> ssp. <i>pacifica</i>	Pacific gilia	Apr-Aug	None	None	S3	1B.2	Chaparral (openings), Coastal bluff scrub, Coastal prairie, Valley and foothill grassland		15	5465
<i>Gilia capitata</i> ssp. <i>tomentosa</i>	woolly-headed gilia	May-Jul	None	None	S2	1B.1	Coastal bluff scrub, Valley and foothill grassland	Rocky, Serpentine	35	720
<i>Hesperevax sparsiflora</i> var. <i>brevifolia</i>	short-leaved evax	Mar-Jun	None	None	S3	1B.2	Coastal bluff scrub (sandy), Coastal dunes, Coastal prairie		0	705
<i>Hosackia gracilis</i>	harlequin lotus	Mar-Jul	None	None	S3	4.2	Broadleaved upland forest, Cismontane woodland, Closed-cone coniferous forest, Coastal bluff scrub, Coastal prairie, Coastal scrub, Marshes and swamps, Meadows and seeps, North Coast coniferous forest, Valley and foothill grassland	Roadsides	0	2295
<i>Lasthenia californica</i> ssp. <i>macrantha</i>	perennial goldfields	Jan-Nov	None	None	S2	1B.2	Coastal bluff scrub, Coastal dunes, Coastal scrub		15	1705

<i>Lathyrus palustris</i>	marsh pea	Mar-Aug	None	None	S2	2B.2	Bogs and fens, Coastal prairie, Coastal scrub, Lower montane coniferous forest, Marshes and swamps, North Coast coniferous forest	Mesic	5	330
<i>Lilium maritimum</i>	coast lily	May-Aug	None	None	S2	1B.1	Broadleafed upland forest, Closed-cone coniferous forest, Coastal prairie, Coastal scrub, Marshes and swamps (freshwater), North Coast coniferous forest	Roadsides (sometimes)	15	1560
<i>Sidalcea calycosa</i> ssp. <i>rhizomata</i>	Point Reyes checkerbloom	Apr-Sep	None	None	S2	1B.2	Marshes and swamps (freshwater, near coast)		10	245
<i>Sidalcea malachroides</i>	maple-leaved checkerbloom	(Mar)Apr-Aug	None	None	S3	4.2	Broadleafed upland forest, Coastal prairie, Coastal scrub, North Coast coniferous forest, Riparian woodland	Disturbed areas (often)	0	2395
<i>Sidalcea malviflora</i> ssp. <i>purpurea</i>	purple-stemmed checkerbloom	May-Jun	None	None	S1	1B.2	Broadleafed upland forest, Coastal prairie		50	280
<i>Sulcaria spiralis</i>	twisted horsehair lichen		None	None	S2	1B.2	Coastal dunes (SLO Co.), North Coast coniferous forest (immediate coast)		0	295
<i>Usnea longissima</i>	Methuselah's beard lichen		None	None	S4	4.2	Broadleafed upland forest, North Coast coniferous forest		165	4790
<i>Veratrum fimbriatum</i>	fringed false-hellebore	Jul-Sep	None	None	S3	4.3	Bogs and fens, Coastal scrub, Meadows and seeps, North Coast coniferous forest	Mesic	10	985

Showing 1 to 22 of 22 entries

Go to top

Suggested Citation:

}

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

Sonoma County, California



Local office

Sacramento Fish And Wildlife Office

☎ (916) 414-6600
📠 (916) 414-6713

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

Endangered species

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

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

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

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

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

Listed species¹ 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 Fisheries²).

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:

Birds

NAME	STATUS
Marbled Murrelet <i>Brachyramphus marmoratus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/4467	Threatened
Northern Spotted Owl <i>Strix occidentalis caurina</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/1123	Threatened
Western Snowy Plover <i>Charadrius nivosus nivosus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8035	Threatened

Reptiles

NAME	STATUS
Green Sea Turtle <i>Chelonia mydas</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6199	Threatened

Northwestern Pond Turtle Actinemys marmorata Proposed Threatened

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/1111>

Amphibians

NAME	STATUS
California Red-legged Frog Rana draytonii	Threatened
Wherever found	
There is final critical habitat for this species. Your location does not overlap the critical habitat.	
https://ecos.fws.gov/ecp/species/2891	

Fishes

NAME	STATUS
Tidewater Goby Eucyclogobius newberryi	Endangered
Wherever found	
There is final critical habitat for this species. Your location does not overlap the critical habitat.	
https://ecos.fws.gov/ecp/species/57	

Insects

NAME	STATUS
Behren's Silverspot Butterfly Speyeria zerene behrensii	Endangered
Wherever found	
No critical habitat has been designated for this species.	
https://ecos.fws.gov/ecp/species/900	
Lotis Blue Butterfly Lycaeides argyrognomon lotis	Endangered
Wherever found	
There is proposed critical habitat for this species.	
https://ecos.fws.gov/ecp/species/5174	
Monarch Butterfly Danaus plexippus	Proposed Threatened
Wherever found	
There is proposed critical habitat for this species. Your location does not overlap the critical habitat.	
https://ecos.fws.gov/ecp/species/9743	

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.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act ² and the Migratory Bird Treaty Act (MBTA) ¹. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide avoidance and minimization measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

There are Bald Eagles and/or Golden Eagles in your [project](#) area.

Measures for Proactively Minimizing Eagle Impacts

For information on how to best avoid and minimize disturbance to nesting bald eagles, please review the [National Bald Eagle Management Guidelines](#). You may employ the timing and activity-specific distance recommendations in this document when designing your project/activity to avoid and minimize eagle impacts. For bald eagle information specific to Alaska, please refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#).

The FWS does not currently have guidelines for avoiding and minimizing disturbance to nesting Golden Eagles. For site-specific recommendations regarding nesting Golden Eagles, please consult with the appropriate Regional [Migratory Bird Office](#) or [Ecological Services Field Office](#).

If disturbance or take of eagles cannot be avoided, an [incidental take permit](#) may be available to authorize any take that results from, but is not the purpose of, an otherwise lawful activity. For assistance making this determination for Bald Eagles, visit the [Do I Need A Permit Tool](#). For assistance making this determination for golden eagles, please consult with the appropriate Regional [Migratory Bird Office](#) or [Ecological Services Field Office](#).

Ensure Your Eagle List is Accurate and Complete

If your project area is in a poorly surveyed area in IPaC, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the [Supplemental Information on Migratory Birds and Eagles](#), to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to bald or golden eagles on your list, see the "Probability of Presence Summary" below to see when these bald or golden eagles are most likely to be present and breeding in your project area.

Review the FAQs

The FAQs below provide important additional information and resources.

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. https://ecos.fws.gov/ecp/species/1626	Breeds Mar 1 to Aug 31
Golden Eagle <i>Aquila chrysaetos</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. https://ecos.fws.gov/ecp/species/1680	Breeds Mar 1 to Aug 31

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 "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "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.

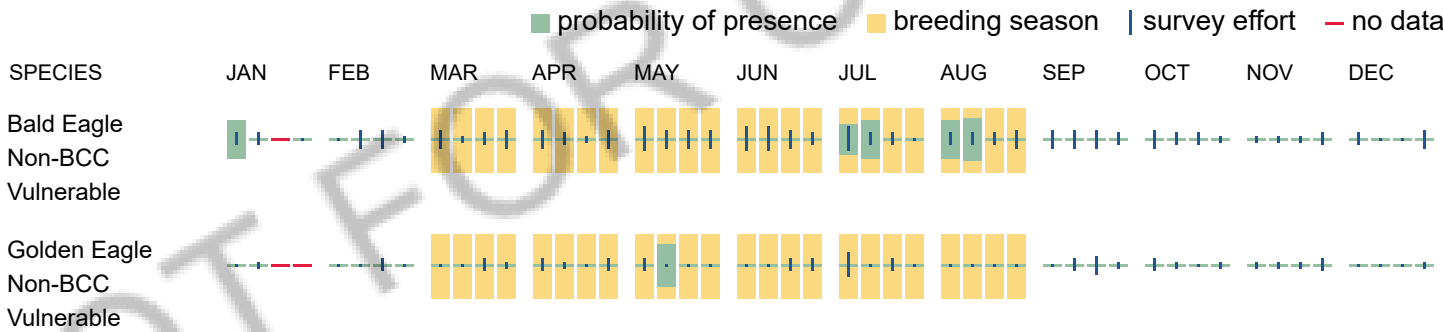
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

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.



Bald & Golden Eagles FAQs

What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence 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 an eagle ([Bald and Golden Eagle Protection Act](#) requirements may apply).

Proper interpretation and use of your eagle report

On the graphs provided, please look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). 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 line or no data line (red horizontal) 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 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 and associated information help you know what to look for to confirm presence and helps guide you in knowing when to implement avoidance and minimization measures to eliminate or reduce potential impacts from your project activities or get the appropriate permits should presence be confirmed.

How do I know if eagles are 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 resident), you may query your location using the [RAIL Tool](#) and view the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If an eagle on your IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your "IPaC

PROBABILITY OF PRESENCE SUMMARY” at the top of your results list), 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.

Interpreting the Probability of Presence Graphs

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 taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

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

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.

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 $0.05/0.25 = 0.2$.

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.

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.

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.

Migratory birds

The Migratory Bird Treaty Act (MBTA) ¹ prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service).

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:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

Measures for Proactively Minimizing Migratory Bird Impacts

Your IPaC Migratory Bird list showcases [birds of concern](#), including [Birds of Conservation Concern \(BCC\)](#), in your project location. This is not a comprehensive list of all birds found in your project area. However, you can help proactively minimize significant impacts to all birds at your project location by implementing the measures in the [Nationwide avoidance and minimization measures for birds](#) document, and any other project-specific avoidance and minimization measures suggested at the link [Measures for avoiding and minimizing impacts to birds](#) for the birds of concern on your list below.

Ensure Your Migratory Bird List is Accurate and Complete

If your project area is in a poorly surveyed area, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the [Supplemental Information on Migratory Birds and](#)

[Eagles document](#), to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

Review the FAQs

The FAQs below provide important additional information and resources.

NAME	BREEDING SEASON
Allen's Hummingbird <i>Selasphorus sasin</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9637	Breeds Feb 1 to Jul 15
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. https://ecos.fws.gov/ecp/species/1626	Breeds Mar 1 to Aug 31
Black Oystercatcher <i>Haematopus bachmani</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9591	Breeds Apr 15 to Oct 31
Black Turnstone <i>Arenaria melanocephala</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Brandt's Cormorant <i>Urile penicillatus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 15 to Sep 15
California Gull <i>Larus californicus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 1 to Jul 31
Chestnut-backed Chickadee <i>Poecile rufescens rufescens</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Mar 1 to Jul 31
Clark's Grebe <i>Aechmophorus clarkii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jun 1 to Aug 31
Golden Eagle <i>Aquila chrysaetos</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. https://ecos.fws.gov/ecp/species/1680	Breeds Mar 1 to Aug 31
Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Olive-sided Flycatcher <i>Contopus cooperi</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3914	Breeds May 20 to Aug 31
Rufous Hummingbird <i>Selasphorus rufus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8002	Breeds Apr 15 to Jul 15

Western Grebe *aechmophorus occidentalis*

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

<https://ecos.fws.gov/ecp/species/6743>

Breeds Jun 1 to Aug 31

Western Gull *Larus occidentalis*

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

Breeds Apr 21 to Aug 25

Western Screech-owl *Megascops kennicottii cardonensis*

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

Breeds Mar 1 to Jun 30

Wrentit *Chamaea fasciata*

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

Breeds Mar 15 to Aug 10

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 "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "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.

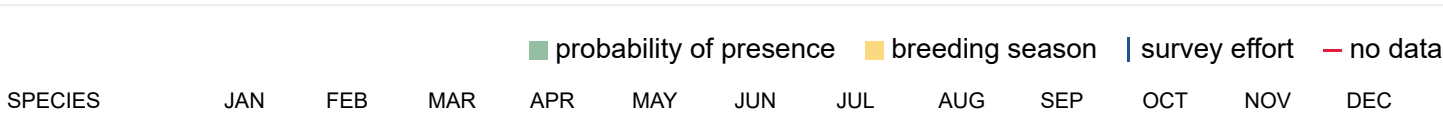
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

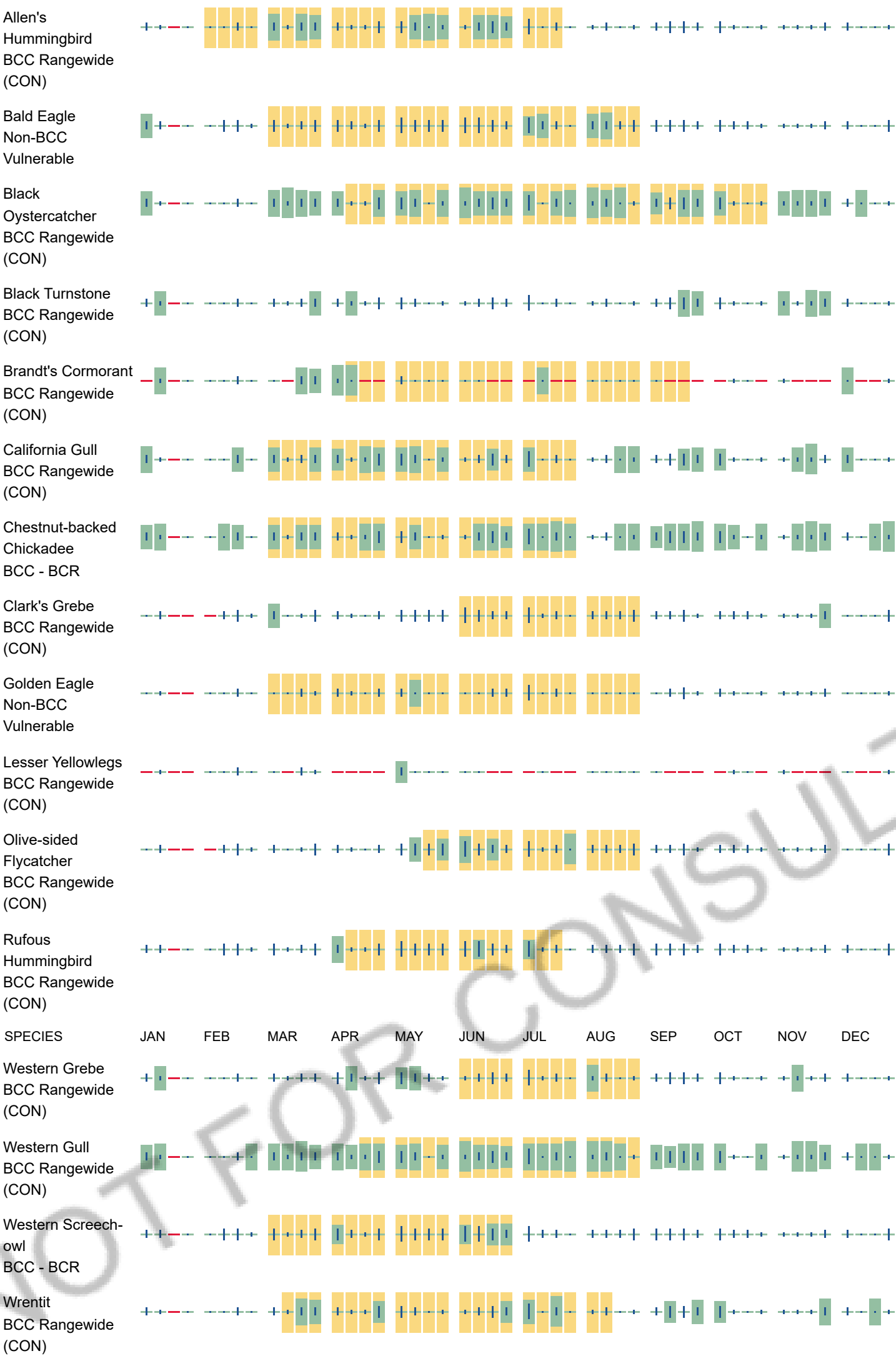
No Data (—)

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.





Migratory Bird FAQs

Tell me more about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Avoidance & Minimization Measures for Birds](#) describes measures that can help avoid and minimize impacts to all birds at any location year-round. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is one of the most effective ways to minimize impacts. To see when birds are most likely to occur and breed 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 [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location, such as those listed under the Endangered Species Act or the [Bald and Golden Eagle Protection Act](#) and those species marked as “Vulnerable”. See the FAQ “What are the levels of concern for migratory birds?” for more information on the levels of concern covered in the IPaC migratory bird species list.

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) with which your project

intersects. These species have been identified as warranting special attention because they are BCC species in that area, an eagle ([Bald and Golden Eagle Protection 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, and to verify survey effort when no results present, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

Why are subspecies showing up on my list?

Subspecies profiles are included on the list of species present in your project area because observations in the AKN for **the species** are being detected. If the species are present, that means that the subspecies may also be present. If a subspecies shows up on your list, you may need to rely on other resources to determine if that subspecies may be present (e.g. your local FWS field office, state surveys, your own surveys).

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 to 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 resident), you may query your location using the [RAIL Tool](#) and view 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 IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your "IPaC PROBABILITY OF PRESENCE SUMMARY" at the top of your results list), 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 [Bald and Golden Eagle Protection 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 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 BCC species. For more information on avoidance and minimization measures you can implement to help avoid and minimize migratory bird impacts, please see the FAQ "Tell me more about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds".

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.

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 look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). 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 does not represent all birds present in your project area. 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 and associated information help you know what to look for to confirm presence and helps guide implementation of avoidance and minimization measures to eliminate or reduce potential impacts from your project activities, should presence be confirmed. To learn more about avoidance and minimization measures, visit the FAQ "Tell me about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds".

Interpreting the Probability of Presence Graphs

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 taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

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

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.

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 $0.05/0.25 = 0.2$.

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.

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.

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.

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](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

- FRESHWATER
- FORESTED/SHRUB
- WETLAND
- [PSS1B](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

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

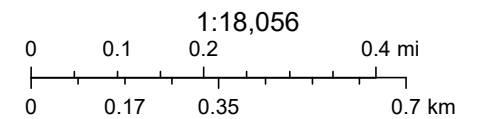
Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, 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.

NMFS ESA Critical Habitat Mapper



1/22/2026, 12:01:37 PM

-  All_critical_habitat_line_20220404
-  All_critical_habitat_poly_20230502



Vantor, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community, NOAA National

NOAA Fisheries



U.S. Fish and Wildlife Service

National Wetlands Inventory

Richardson Glampground NWI



U.S. Fish and Wildlife Service, National Standards and Support Team,
wetlands_team@fws.gov

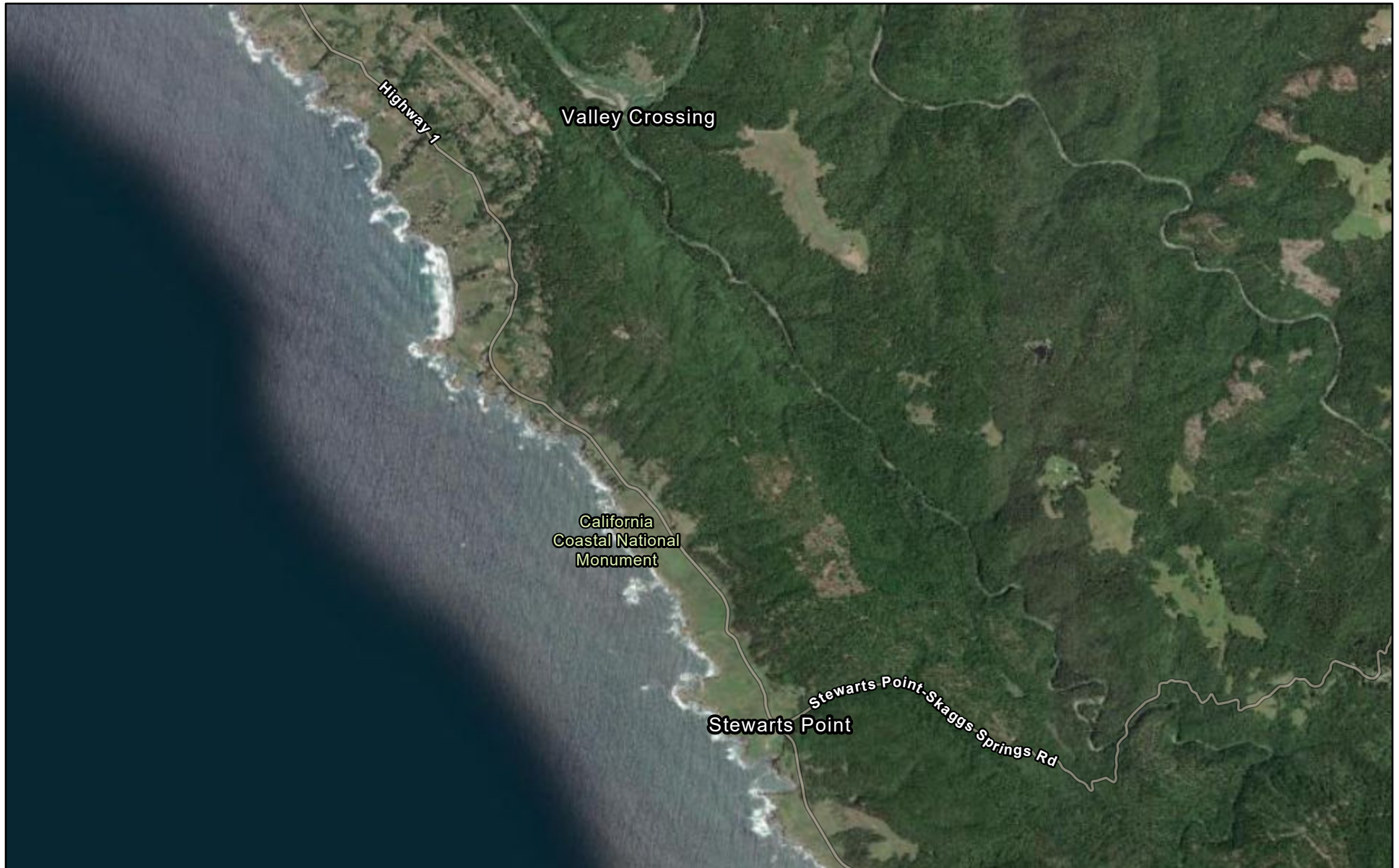
January 22, 2026

Wetlands

	Estuarine and Marine Deepwater		Freshwater Emergent Wetland		Lake
	Estuarine and Marine Wetland		Freshwater Forested/Shrub Wetland		Other
			Freshwater Pond		Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

Critical Habitat for Threatened & Endangered Species [USFWS]



1/22/2026

World Imagery

Low Resolution 15m Imagery

High Resolution 60cm Imagery

High Resolution 30cm Imagery

Citations

1:61,074
0 0.4 0.8 1.6 mi
0 0.5 1 2 km
Earthstar Geographics, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community

Attachment C

List of Species Observed

List of Species Observed

Plants	
Scientific name	Common name
<i>Abies balsamea</i>	Balsam fir
<i>Arbutus menziesii</i>	Pacific madrone
<i>Arctostaphylos columbiana</i>	Hairy manzanita
<i>Baccharis pilularis</i>	Coyote brush
<i>Ceanothus thyrsiflorus</i>	Blueblossom
<i>Cirsium vulgare</i>	Bull thistle
<i>Cladoniaceae</i>	Cladoniaceae
<i>Clavulinaceae</i>	Clavulinaceae
<i>Cortaderia selloana</i>	Pampas grass
<i>Eriodictyon californicum</i>	Yerba santa
<i>Erodium cicutarium</i>	Redstem stork's bill
<i>Fragaria vesca</i>	Wild strawberry
<i>Galium triflorum</i>	Fragrant bedstraw
<i>Gaultheria shallon</i>	Salal
<i>Genista monspessulana</i>	French broom
<i>Holcus lanatus</i>	Yorkshire fog
<i>Hypochaeris glabra</i>	Smooth cat's ear
<i>Iris douglasiana</i>	Douglas iris
<i>Iris pseudacorus</i>	Yellow flag iris
<i>Juncus patens</i>	Spreading rush
<i>Lotus corniculatus</i>	Bird's-foot trefoil
<i>Lupinus arboreus</i>	Yellow bush lupine
<i>Luzula pilosa</i>	Harry wood-rush
<i>Micromeria douglasii</i>	Yerba Buena
<i>Morella californica</i>	Pacific wax myrtle
<i>Parmeliaceae</i>	Parmeliaceae
<i>Pedicularis lanceolata</i>	Swamp lousewort
<i>Pinus radiata</i>	Monterey pine
<i>Pinus resinosa</i>	Red pine
<i>Polystichum munitum</i>	Western swordfern
<i>Pseudotsuga menziesii</i>	Douglas fir
<i>Rubus ursinus</i>	California blackberry
<i>Scorzoneroideis autumnalis</i>	Autumn hawkbit
<i>Sequoia sempervirens</i>	Coast redwood
<i>Stachys bullata</i>	California hedgenettle
<i>Trifolium dubium</i>	Lesser trefoil
<i>Vaccinium ovatum</i>	Evergreen huckleberry
<i>Verbascum blattaria</i>	Moth mullein
<i>Vicia gigantea</i>	Giant vetch
<i>Viola sempervirens</i>	Evergreen violet

Animals	
Scientific name	Common name
<i>Buteo jamaicensis</i>	Red tailed hawk
<i>Cathartes aura</i>	Turkey vulture
<i>Chamaea fasciata</i>	Wrentit
<i>Corvus corax</i>	Raven
<i>Poecile rufescens</i>	Chestnut-backed chickadee
<i>Cyanocitta stelleri</i>	Stellar's jay
<i>Psaltiriparus minimus</i>	Bushtit

Attachment D

Site Photographs



Photo 1: Communal building associated with previous use as campground and mulch lined trail.



Photo 2: Ruderal/Developed habitat showing previously managed and mulched trails within Study Area.



Photo 3: One of the existing restroom facilities within the Ruderal/Developed portion of the Study Area.



Photo 4: One of 10 existing campsites.

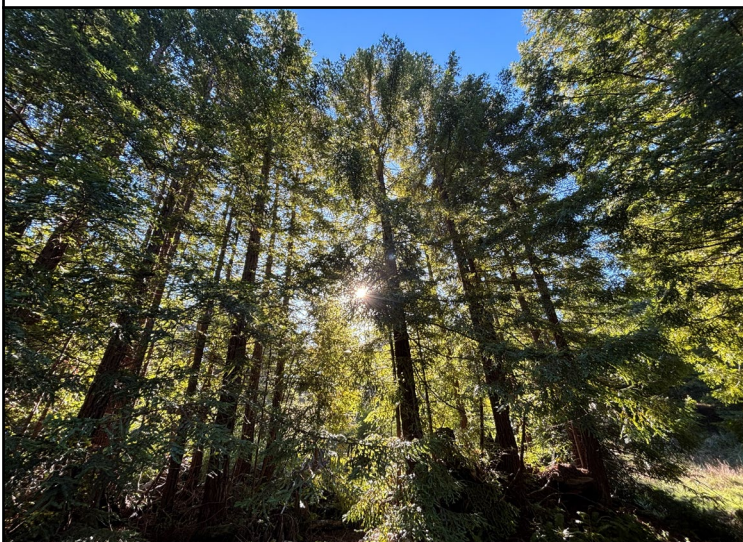


Photo 5: Redwood Forest and Woodland habitat found within and adjacent to Study Area, composed of Coast Redwood, Douglas-fir and various pine species.



Photo 6: Adjacent Forested habitat.

Attachment E

Table of Special-status
Species

SPECIAL STATUS SPECIES WITH POTENTIAL TO OCCUR WITHIN THE STUDY AREA

Common Name <i>Scientific Name</i>	Status	Life History/Habitat*	Potential to Occur within the Study Area
Marbled Murrelet <i>Brachyramphus marmoratus</i>	FT	This species spends the majority of its time on the ocean, resting and feeding in near-shore marine waters and goes inland to nest. Nests for this species are primarily in old-growth forests characterized by large trees, multiple canopy layers and moderate to high canopy closure. Nest stands vary in size from several acres to thousands of acres; larger unfragmented stands appear to be the highest quality habitat for marbled murrelet nesting.	Low. While the Study Area contains forested habitat, it does not contain the high canopy cover needed for nesting sites. However, as suitable habitat is located surrounding the Study Area, this species may use the site as foraging or migratory habitat.
Northern Spotted Owl <i>Strix occidentalis caurina</i>	FT	Habitat for this species includes older forests with a higher degree of complexity and a high canopy closure. Structural components include a multilayered, multispecies canopy, large conifer overstory trees, shade-tolerant understory conifers or hardwoods, moderate to high canopy closure, live coniferous trees with deformities (e.g. cavities, broken tops, mistletoe infections), large snags, and large logs and other woody debris in the groundcover. This species does not build their own nest but seek out naturally occurring nest sites such as broken-top trees, tree cavities, mistletoe brooms, debris accumulations, or nests built by other wildlife (e.g., abandoned raptor nests, squirrel nests).	Low. While the Study Area contains forested habitat, it does not contain the high canopy cover needed for nesting sites. However, as suitable habitat is located surrounding the Study Area, this species may use the site as foraging or migratory habitat.
Western Snowy Plover <i>Charadrius nivosus nivosus</i>	FT	This species is a shorebird that nests along the shores, peninsulas, offshore islands, bays, estuaries, and rivers of the Pacific Coast during the nesting season. During the non-nesting season, this species can also be found on nesting beaches, non-nesting beaches, and on estuarine sand and mud flats.	None. The Study Area does not contain suitable beaches or estuaries used for nesting sites.
Grasshopper sparrow <i>Ammodramus savannarum</i>	SSC	This species frequents dense, dry or well-drained grassland, especially native grassland with a mix of grasses and forbs for foraging and nesting. Nests can be built within grasses and forbs in a slight depression in ground, hidden at base of an overhanging clump of grasses or forbs	None. No suitable grassland habitat occurs within the Study Area.
Sonoma tree vole <i>Arborimus pomo</i>	SSC	Habitat for this species occurs in old-growth and other forests, mainly Douglas-fir, redwood, and montane hardwood-conifer habitats. This species specializes on feeding on needles of Douglas-fir and grand fir which are gathered primarily during the night, and may be consumed where found, or brought to the nest. Males nest most frequently in a tree nest constructed of fir needles, or, less frequently, in shallow burrows at the base of fir trees, beneath litter. Females spend most of their lives in trees, constructing large, domed nursery nests of Douglas-fir needles, from 2-45 m (6-150 ft) above the ground.	Moderate. Suitable Douglas-fir trees are located throughout and adjacent to the Study Area. No nests were observed at the time of the survey and the site has previously disturbed and developed portions, limiting establishment of individuals.
American badger <i>Taxidea taxus</i>	SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Badgers dig burrows in friable soil for cover. Frequently reuse old burrows, although some may dig a new den each night, especially in summer.	Low. While suitable Coniferous Forest occurs within and adjacent to the site, previous disturbances limit its suitability as habitat. Additionally, no conversion of forest habitat or tree removal is proposed as a part of the Project, therefore, no threat to this species would occur.
Green Sea Turtle	FT	Green turtles are found worldwide primarily in subtropical and temperate	None. The Project Site does not contain suitable

Common Name Scientific Name	Status	Life History/Habitat*	Potential to Occur within the Study Area
<i>Chelonia mydas</i>		regions of the Atlantic, Pacific, and Indian Oceans, and in the Mediterranean Sea.	oceanic or aquatic habitat to support this species.
Northwestern Pond Turtle <i>Actinemys marmorata</i>	FPT	Found in ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches, with abundant vegetation, and either rocky or muddy bottoms, in woodland, forest, and grassland. In streams, prefers pools to shallower areas. Logs, rocks, cattail mats, and exposed banks are required for basking. May enter brackish water and even seawater (California Herps, 2026).	None. The Study Area lacks the aquatic habitats required by this species and the nearest aquatic habitat is approximately 450 feet south and approximately 200 feet lower in elevation (greater than 44% slope). The steep slope would preclude this species from migrating upland into the Study Area.
California Red-legged Frog <i>Rana draytonii</i>	FT, SSC	The California red-legged frog spends the bulk of its life in or near water sources like streams or stock ponds, which the species uses for breeding. The frog moves into neighboring upland areas to feed and shelter when stream flow levels are high. In the summer, they seek relief from the heat by hiding under rocks or boulders, leaf litter, small stream channels or animal burrows.	Low. The Study Area lacks the aquatic habitats required by this species and the nearest aquatic habitat is approximately 450 feet south and approximately 200 feet lower in elevation (greater than 44% slope). The steep slope would preclude this species from migrating upland into the Study Area.
California giant salamander <i>Dicamptodon ensatus</i>	SSC	California tiger salamanders require access to both aquatic and upland habitat throughout their life cycle. They use standing bodies of fresh water, like ponds, vernal pools and other ephemeral or permanent water bodies for breeding. These bodies of water must hold water for a minimum of 12 weeks to support the salamander larvae development. The salamanders also need access to upland habitat that contains small animal burrows or underground hideaways for shelter and protection from predators and desiccation during nonbreeding periods. The burrows are also good locations to find insects to eat. This species breeds during the rainy winter months, typically from November through April, with the peak breeding season being from December to February.	Low. The Study Area lacks the aquatic habitats required by this species, and the nearest aquatic habitat is located approximately 450 feet south in the bottom of a steep canyon. It is unlikely that the species would migrate upland into the Study Area across the steep slope.
Foothill yellow-legged frog – north coast DPS	SSC	Foothill Yellow-legged frog is found in the foothills and mountain streams from the Pacific coast to the Sierra Nevada and Cascade mountains. Habitat for this species includes valley-foothill hardwood, valley-foothill hardwood-conifer, valley-foothill riparian, ponderosa pine, mixed conifer, mixed chaparral and wet meadows, and is closely associated with streams. Breeding occurs in shallow, rocky streams or rivers with some sun exposure typically between April until early July. This species is not found far from permanent water, and tadpoles require water for at least three to four months while completing development.	None. The Study Area lacks the aquatic habitats required by this species for breeding, and the nearest aquatic habitat is located approximately 450 feet south in the bottom of a steep canyon. It is unlikely that the species would migrate upland into the Study Area across the steep slope.
Gualala roach <i>Hesperoleucus parvipinnis</i>	SSC	Data pertaining to Gualala roach habitat requirements are lacking but it is assumed they are similar to those of Navarro roach and Russian River roach, as their most proximate relatives occupying similar northern coastal stream habitats. Roach are a warm water-adapted species and can survive extremely warm water temperatures, while salmonids are highly cold water-dependent.	None. The Study Area lacks the aquatic habitats required by this species.
Steelhead - northern California	FT, SSC	This species is anadromous and migrate from the ocean into freshwater to	None. The Study Area lacks the aquatic habitats

Common Name Scientific Name	Status	Life History/Habitat*	Potential to Occur within the Study Area
DPS winter-run <i>Oncorhynchus mykiss irideus</i> pop. 49		spawn. Their habitat includes rivers, streams, and tributaries with cool, clear, well-oxygenated water, crucial for their survival. This species requires both freshwater rivers and oceans. Spawning habitats include cold-water tributaries to the Sacramento and San Joaquin Rivers, with clean gravel and moderate flows. Incubation and emergence includes high dissolved oxygen with cold stable flows.	required by this species.
Tidewater Goby <i>Eucyclogobius newberryi</i>	FE	This species inhabits lagoons, estuaries, marshes and freshwater tributaries. These habitats have shallow, still, but not stagnant, water, and are freshwater or brackish water, a varying mixture of fresh and saltwater.	None. The Study Area lacks the aquatic habitats required by this species.
Behren's Silverspot Butterfly <i>Speyeria zerene behrensii</i>	FE	This species inhabits coastal terrace prairie habitat. These habitats are strongly influenced by proximity to the ocean, with mild temperatures, moderate rainfall, and frequent summer fog. An occupied or potential site must have two key resources: (1) caterpillar host plants, which are only the blue (or hookedspur) violet (<i>Viola adunca</i>); and (2) adult nectar sources, as well as other suitable environmental conditions including wind breaks and warm microclimates.	Low. Suitable prairie habitat is absent from the Study Area. However, this species may use the site as foraging habitat. Conversion of forested habitat is not proposed as a part of the Project, therefore, impacts to this species are not likely.
Lotis Blue Butterfly <i>Lycaeides argyrognomon lotis</i>	FE	This species likely inhabits wet meadows and sphagnum willow bogs. Lotis blue larvae have apparently not been observed; therefore, it is not known what plants the larvae require for food. Based on closely related species, native plants in the pea family (Fabaceae) are likely candidates. The coast trefoil (also known as seaside bird's-foot trefoil) (<i>Lotus formosissimus</i>) is thought to be a larval food plant.	Low. Suitable wet meadow and bog habitats are absent from the Study Area. However, this species may use the site as foraging habitat. Conversion of forested habitat is not proposed as a part of the Project, therefore, impacts to this species are not likely.
Monarch Butterfly <i>Danaus plexippus</i>		Monarch is an obligate feeder on milkweed for breeding. Open areas like prairies, meadows, grasslands, and roadsides may provide suitable breeding grounds. Open areas like prairies, meadows, grasslands, and roadsides provide suitable breeding grounds for monarch butterflies. The Monarch is an obligate feeder on milkweed for breeding.	Low. No host plants were observed at the time of the survey and no suitable meadow, prairie, or grassland habitats occur within the Study Area. However, this species may use the site as foraging habitat. Conversion of forested habitat is not proposed as a part of the Project, therefore, impacts to this species are not likely.
Blasdale's bent grass <i>Agrostis blasdalei</i>	1B.2	Coastal bluff scrub, coastal dunes, and coastal prairie. Elevation ranges between 0 to 490 feet above mean sea level (amsl). Bloom period occur between May to July.	None. Suitable coast scrub, dune, and prairie habitats are not located within the Study Area.
Coastal bluff morning-glory <i>Calystegia purpurata ssp. saxicola</i>	1B.2	Coastal bluff scrub, coastal dunes, coastal scrub, and North Coast coniferous forest. Elevation ranges between 0 to 345 feet amsl. Bloom period occurs between April to September.	Moderate. Suitable coast scrub, dune, and prairie habitats are not located within the Study Area but it does contain coniferous forest that could provide habitat for this species. While the Study Area is just above the preferred elevation range, several Sonoma County occurrences are documented at above 345 feet amsl.

Common Name Scientific Name	Status	Life History/Habitat*	Potential to Occur within the Study Area
Deceiving sedge <i>Carex saliniformis</i>	1B.2	Coastal prairie, coastal scrub, marshes and swamps (coastal salt), and Meadows and seeps. Other habitat may also include mesic. Elevation ranges between 10 to 755 feet amsl. Bloom period occurs in June.	None. Suitable prairie, scrub, and marsh habitats are not located within the Study Area.
Swamp harebell <i>Eastwoodiella californica</i>	1B.2	Bogs and fens, closed-cone coniferous forest, coastal prairie, Marshes and swamps(freshwater), Meadows and seeps, North Coast coniferous forest. Other habitat may also include mesic. Elevation ranges between 5 to 1,330 feet amsl. Bloom period occur between June to October.	Moderate. Suitable bogs, fens, and prairie are not located within the Study Area but it does contain coniferous forest that could provide habitat for this species.
Supple daisy <i>Erigeron supplex</i>	1B.2	Coastal bluff scrub and coastal prairie. Elevation ranges between 35 to 165 feet amsl. Bloom periods occur between May to July.	None. Suitable coastal scrub and prairie habitats are not located within the Study Area, and the Study Area is above the known elevation for this species.
Pacific gilia <i>Gilia capitata ssp. pacifica</i>	1B.2	Chaparral (openings), coastal bluff scrub, coastal prairie, valley and foothill grassland. Elevation ranges between 15 to 5,465 feet amsl. Bloom periods occur between April to August.	None. Suitable coastal scrub, prairie, and grassland habitats are not located within the Study Area.
Wolly-headed Gilia <i>Gilia capitata ssp. tomentosa</i>	1B.1	Coastal bluff scrub, Valley and foothill grassland. Elevation ranges between 35 to 720 feet amsl. Bloom periods occur between May to July.	None. Suitable coastal scrub and grassland habitats are not located within the Study Area.
Short-leaved evax <i>Hesperervax sparsiflora var. brevifolia</i>	1B.2	Coastal bluff scrub (sandy), coastal dunes, and coastal prairie. Elevation ranges between 0 to 705 feet amsl. Bloom periods occur between March to June.	None. Suitable coastal scrub, dune, and prairie habitats are not located within the Study Area.
Perennial goldfields <i>Lasthenia californica ssp. macrantha</i>	1B.2	Coastal bluff scrub, coastal dunes, and coastal scrub. Elevation ranges between 15 to 1,705 feet amsl. Bloom periods occur between January to November.	None. Suitable coastal scrub, dune, and prairie habitats are not located within the Study Area.
Marsh pea <i>Lathyrus palustris</i>	2B.2	Bogs and fens, coastal prairie, coastal scrub, lower montane coniferous forest, marshes and swamps, North Coast coniferous forest. Habitat can also include mesic environments. Elevation ranges between 4 to 330 feet amsl. Bloom period occur between March to August.	Low. Suitable bogs, fens, and prairie are not located within the Study Area. Coniferous forest occurs within and adjacent to the site. However, no conversion of forest habitat is proposed as a part of the Project. Additionally, the Study Area is outside the known elevation range for this species, therefore, no threat to this species would occur.
Coast lily <i>Lilium maritimum</i>	1B.1	Broadleaf upland forest, closed-cone coniferous forest, coastal prairie, coastal scrub, marshes and swamps (freshwater), North Coast coniferous forest. Can also be found along roadsides. Elevation ranges between 15 to 1,560 feet amsl. Bloom periods occur between May to August.	Moderate. Suitable prairie, scrub, marsh and swamp habitats are absent from the Study Area. but it does contain coniferous forest that could provide habitat for this species.
Point Reyes checkerbloom <i>Sidalcea calycosa ssp. rhizomata</i>	1B.2	Marshes and swamps (freshwater, near coast). Elevation ranges between 10 to 245 feet amsl. Bloom periods occur between April to September.	None. Suitable marsh and swamp habitats are not located within the Study Area.
Purple stemmed checkerbloom <i>Sidalcea malviflora ssp. purpurea</i>	1B.2	Broadleafed upland forest, Coastal prairie. Elevation ranges between 50 to 280 feet amsl. Bloom periods occur between May to June.	Low. While the Study Area contains suitable upland forests, it is above the known elevation range for this species. Additionally, the nearest reported

Common Name <i>Scientific Name</i>	Status	Life History/Habitat*	Potential to Occur within the Study Area
			occurrence for this species is approximately a mile south of the site and was recorded in 1897. Therefore, the likelihood of this species occurring in the region and within the Study Area is low.
Twisted horsehair lichen <i>Sulcaria spiralifera</i>	1B.2	Coastal dunes (SLOCo.), North Coast coniferous forest (immediate coast). Elevation ranges between 0 to 295 feet amsl. This species does not have a defined blooming season.	Low. Suitable coastal dunes are absent from the Study Area. Coniferous forest occurs within and adjacent to the site, however the Study Area is above the known elevation range for this species.
*Habitat requirements are derived from the USFWS, CNDDDB, or CNPS general and microhabitats unless otherwise noted.			

Status Rankings

State:

- **SE:** State-listed as Endangered
- **ST:** State listed as threatened
- **SC:** State candidate for listing as endangered or threatened
- **SSC:** Species of Special Concern

Federal:

- **FPT:** Federally-proposed for listing as Threatened
- **FT:** Federally-listed as Threatened
- **FPE:** Federally-proposed for listing as Endangered
- **FE:** Federally-listed as Endangered

CNPS:

- **1A:** Plants presumed extirpated in California and either rare or extinct elsewhere
- **1B:** Plants rare, threatened, or endangered in California and elsewhere
- **2A:** Plants presumed extirpated in California but common elsewhere
- **2B:** Plants rare, threatened, or endangered in California but more common elsewhere

The following describes the criteria used for the probability of a special status species' occurrence:

- **No Potential.** Habitat on and adjacent to the Study Area is clearly unsuitable for the species (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime) or is outside of the known range of the species.
- **Low Potential.** Few 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. Additionally, the Study Area may be outside the known range of the species or isolated such that the species is unlikely to access the area. The species is not likely to occur within the Study Area.
- **Moderate Potential.** Some habitat components meeting the species' requirements are present, and/or only some of the habitat on or adjacent to the Study Area is unsuitable. The species has a moderate probability of being found within the Study Area.
- **High Potential.** All 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 being found within the Study Area.

Additional References

CaliforniaHerps, 2026. Northwestern Pond Turtle - *Actinemys marmorata*. Available online at: <https://californiaherps.com/frogs/pages/s.hammondii.htm>. Accessed January 2026.