Biological Assessment for
Building Demolition at Lost Coast Redwoods

49551 HWY 1, Westport
Mendocino County, California 95488
(APN-013-390-15)

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List of Abbreviations, Definitions, and Acronyms

CDFW	California Department of Fish and Wildlife
CDP	Coastal Development Permit
CESA	California Endangered Species Act
County	County of Mendocino
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRPR	California Rare Plant Rank
ESHA	Environmentally Sensitive Habitat Areas
FESA	Federal Endangered Species Act
League	Save the Redwoods League
MAMU	Marbled Murrelet
NCRM	NCRM, Inc.
NMFS	National Marine Fisheries Service
NSO	Northern Spotted Owl
SSC	Special Species of Concern
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

1.0 Summary

Botanical and wildlife surveys were conducted to determine if any direct or indirect impacts would be associated with the proposed demolition of aging infrastructure on APN-013-390-15. The parcel is located at 49551 HWY 1, Westport, Mendocino County, California (herein referred to as 'the lot'). The lot is part of the larger Lost Coast Redwoods property owned by Save the Redwoods League (Figure 1). NCRM, Inc. (NCRM) botanist surveyed for special-status plants and communities within the project vicinity in December 2023 and May 2024; NCRM biologist surveyed for special-status wildlife species and associated habitat in November of 2023 and in May 2024.

Surveys were conducted in accordance with a Coastal Development Permit (CDP) Application, which is required before undertaking any development activity in the Coastal Zone (Chapter 3, Coastal Act). The removal of the aged structures would be considered a parcel improvement under the Coastal Act; however, reviewing the potential impacts on sensitive or special-status species and their associated habitat is required in support of the CDP.

Removal of existing vegetation and the use of heavy machinery could potentially impact eight special-status plant species on the scoping list (Appendix A) that have "moderate" probability of occurring within the project area and seven special-status plant species deemed as having a "high" probability.

Only one special-status wildlife species was observed during surveys, an osprey (*Pandion haliaetus*) was documented flying overhead during the survey in May. We have determined that eleven wildlife species on the scoping list have "moderate" potential to occur, while three species have "high" potential to occur and a second species deemed "present" near or around the project site.

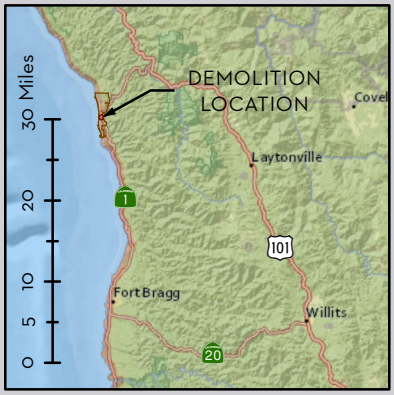
Following the recommendations and mitigation measures, this project is unlikely to adversely affect any species of special concern (SSC) wildlife or special-status plant species. This project will not result in disturbance or impacts to any Environmentally Sensitive Habitat Areas (ESHA). The removal of an existing culvert crossing and a water tank will cause a temporary impact to a riparian area, which over time will result in a natural environment, more closely resembling its original state.

2.0 Project Location

The Lost Coast Redwoods property encompasses five miles of remote, undeveloped California coastline in northern Mendocino County and includes 3,181 acres of forestland, coastal bluffs, and prairies. It is located approximately 19 miles north of Fort Bragg along Highway 1 in Sections 1, 2, 11, 14, & 23 of T22N, R18W, and Sections 25, 26, 27, 34, 35, & 36 of T23N, R18W within the Hales Grove and Westport USGS 7.5' quadrangles.

The lot, where the structures are being proposed for removal, is located adjacent to the northbound lane of Highway 1, approximately 2.5 miles north of Rockport, CA, and within the Hales Grove 7.5' USGS quadrangle. The lot sits across Highway 1 from Cottaneva Creek, a Class I watercourse (see Figure 1).

FIGURE #1



SAVE THE REDWOODS LEAGUE
LOST COAST REDWOODS
Location Map

CA Route 1 PM 90.3
APN 013-390-15
Section 11
T22N R18W
MDB&M

Portions of the
HALES GROVE
USGS 7.5' Quadrangle

0 0.25 0.5 1 Miles

01251018
01251005
01251015
01251031
01251028
USAL ROAD
01339004
01339014
01339010
Demolition Location
01339015
01339016
01340023
01340006
North Fork Cottaneva Creek
Middle Fork Cottaneva Creek
South Fork Cottaneva Creek
Rockport Creek
ROCKPORT STREET
1

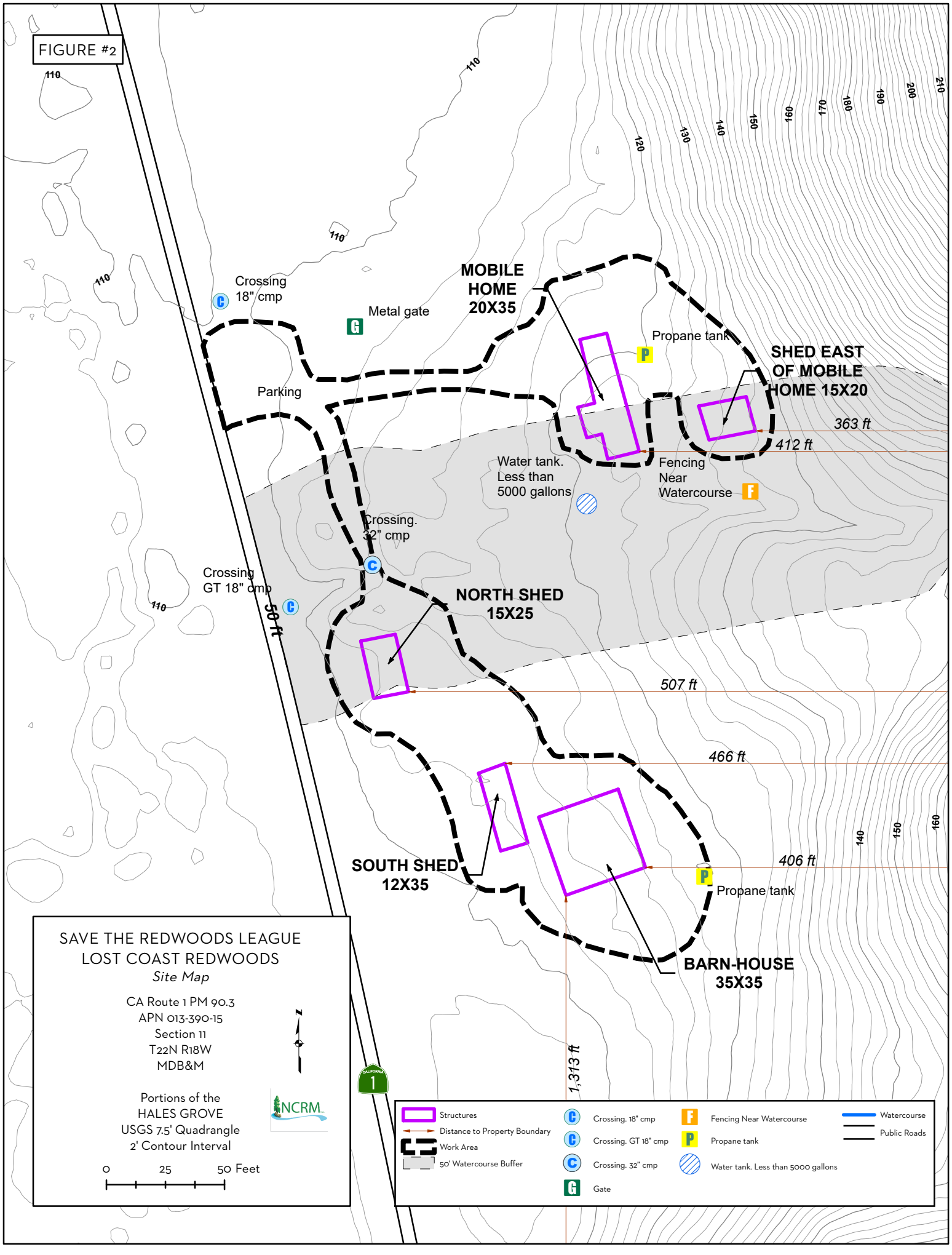


FIGURE #2
110
110
110
110
110
120
130
140
150
160
170
180
190
200
210
Crossing
18" cmp
Metal gate
MOBILE
HOME
20X35
Propane tank
SHED EAST
OF MOBILE
HOME 15X20
Parking
363 ft
412 ft
Water tank.
Less than
5000 gallons
Fencing
Near
Watercourse
Crossing.
32" cmp
Crossing
GT 18" cmp
50 ft
NORTH SHED
15X25
507 ft
466 ft
SOUTH SHED
12X35
406 ft
Propane tank
BARN-HOUSE
35X35
1,313 ft
SAVE THE REDWOODS LEAGUE
LOST COAST REDWOODS
Site Map
CA Route 1 PM 90.3
APN 013-390-15
Section 11
T22N R18W
MDB&M
Portions of the
HALES GROVE
USGS 7.5' Quadrangle
2' Contour Interval
0
25
50 Feet
N
NCRM
Structures
Distance to Property Boundary
Work Area
50' Watercourse Buffer
Crossing. 18" cmp
Crossing. GT 18" cmp
Crossing. 32" cmp
Gate
Fencing Near Watercourse
Propane tank
Water tank. Less than 5000 gallons
Watercourse
Public Roads

3.0 Project Description

The proposed development activities include the demolition and removal of five structures on the property, including a 700-square-foot mobile home, a barn-house, and three sheds (shed east of mobile home, north shed, south shed and north shed). The phases of this project will be broken down into 1) manual removal of salvageable materials from the structures, 2) removal of septic and demolition of structures, and 3) restoration of disturbed areas in the form of seeding and revegetating. Large machinery, including the use of an excavator and dump trucks will be used to break down the structures and remove debris. All resulting debris and materials will be hauled off-site to a certified landfill. In addition to the demolition activities, an existing culvert crossing and water tank near the demolition site will be removed once the demolition is complete.

4.0 Biological Setting

4.1 Watershed

The lot is situated within the Cottaneva Creek watershed. An unnamed tributary within the project area flows primarily westward into Cottaneva Creek, which ultimately drains into the Pacific Ocean. Cottaneva Creek watershed hosts Northern California steelhead (*Oncorhynchus mykiss irideus*) and coho (*Oncorhynchus kisutch*) along the majority of Cottaneva Creek. The South Fork of Cottaneva Creek is considered Critical Habitat for steelhead (Figure 3; NMFS-SWR-HCD 2009).

4.1.1 Wetlands

Forested and shrub-dominated freshwater wetland habitat classified as PFO1A (Palustrine (P), Forested (FO), Broad-leaved Deciduous (1), Temporary Flooded (A)) was identified across the highway (west and across from the lot), buffering Cottaneva Creek from project impacts. A separate designation of Freshwater Emergent Wetland habitat classified as PEM1B (Palustrine (P), Emergent (EM), Persistent (1), Seasonally Saturated (B)) (NWI-USFWS 2023) is located approximately 325 feet north of the demolition footprint. The wetland designations are mapped in Figure 3.

In May 2024, a wetland survey was performed on the lot. The survey covered approximately 1.56 acres within and around the demolition site. Of that area, a total of 0.131 acres of Waters of the United States were mapped in the survey area. Waters of the United States at the site include portions of an ephemeral drainage (0.016 acre, 243 linear feet) and portions of a freshwater emergent wetland (0.115 acre). The ephemeral drainage runs east to west through the work area.

An existing 32-inch culvert crossing is in place and will be used to access the southern part of the work site, where three of the five buildings proposed for demolition are located. The freshwater emergent wetland was identified near the northern boundary of the survey area, outside of the proposed demolition work site. Although filling and dredging activities are not proposed as part of the demolition, a 1600 Lake and Streambed Alteration Notification (MEN-51311) has been filed with the CDFW to address the removal of the undersized culvert once the demolition activities have been completed. For more information reference the Delineation of Waters of the United States document in Appendix D.

4.2 Vegetation Communities

The Lost Coast Redwoods property boasts rich aquatic, riparian, and terrestrial habitat types, and plant communities. The property is situated in a mountainous, maritime-influenced region that supports rich coniferous and hardwood forests.

The pastures to the north of the lot are dominated by exotic grass species, such as velvet grass (*Holcus lanatus*) and sweet vernal grass (*Anthoxanthum odoratum*), aptly classified as the *Holcus lanatus - Anthoxanthum odoratum* (common velvet grass - sweet vernal grass meadows) Semi-Natural Alliance. The natural community within the lot encompasses the watercourse and is dominated by a vegetation community most closely resembling red alder (*Alnus rubra*) and willow (*Salix sitchensis*, *S. lasiandra*, *S. lasiolepis*). This community is classified as the *Alnus rubra* (red alder) Riparian Forest Alliance (S4, G5). No associations of this community were identified; therefore, no vegetation ESHA are present in the project area.

Other common mid-canopy woody plants and tall herbaceous perennials include ferns (*Polystichum munitum*, and *Dryopteris arguta*), blackberry (*Rubus armenicus*), red elderberry (*Sambucus racemosa*), and American stinging-nettle (*Urtica dioica* subsp. *gracilis*). The shady understory supports a diverse array of herbaceous species and could be conducive to populations of leafy-stemmed mitrewort (*Mitellastra caulescens*), a CRPR 4.2 species. As a result of local geology and hydrology, minor concavities, swales, and recesses can accumulate sufficient moisture to support small wetland communities that are unique in species composition relative to the adjacent, dryer ground.

4.3Climate

The Lost Coast Redwoods property experiences climatic conditions typical of a Mediterranean climate, with cool wet winters and warm dry summers. Daytime low temperatures are in the 40's throughout the year. Daytime high temperatures range from the mid 50's during winter to high 60's in the summer months. Most of the precipitation across the ownership is generated between the months of October and April by a westerly flow of moist air off the Pacific Ocean. Most precipitation comes in the form of rain during the winter months, averaging approximately 40 inches annually. The Lost Coast Redwoods proximity to the ocean gives it typical exposure to the coastal fog moisture influence that is characteristic of many redwood forests.

4.4 Soils and Geology

Geologic mapping of the region indicates that the Lost Coast Redwoods property is underlain by the Coastal Belt Franciscan Complex (Kelley 1984). In general, the Coastal Belt Franciscan Complex consists of greywacke sandstone and shale sequences that display varying degrees of deformation. Geology within the Lost Coast Redwoods has been formed over the past 25 million years through tectonic activity along the nearby San Andreas Fault. The fault runs north approximately eight miles west of the property. South of the property, the San Andreas fault turns inland around the town of Gualala and then returns offshore around Point Arena. The fault then again returns inland near Cape Mendocino forming the Mendocino Triple Junction. Repeated generations of folding, faulting, uplift, and subsidence have created a landscape with heterogeneous bedrock and fault-controlled run-off patterns. The area east of the San Andreas fault, including the Lost Coast Redwoods property, is part of the Franciscan Assemblage which makes up a large portion of the Coast Range. These rocks originate from deep ocean sediments that were scraped off the Pacific plate as it was subducted under the North American plate 100-150 million years ago. The property itself is underlain by sandstone and greenstone bedrock of the Franciscan Complex (Bailey, et al. 1964).

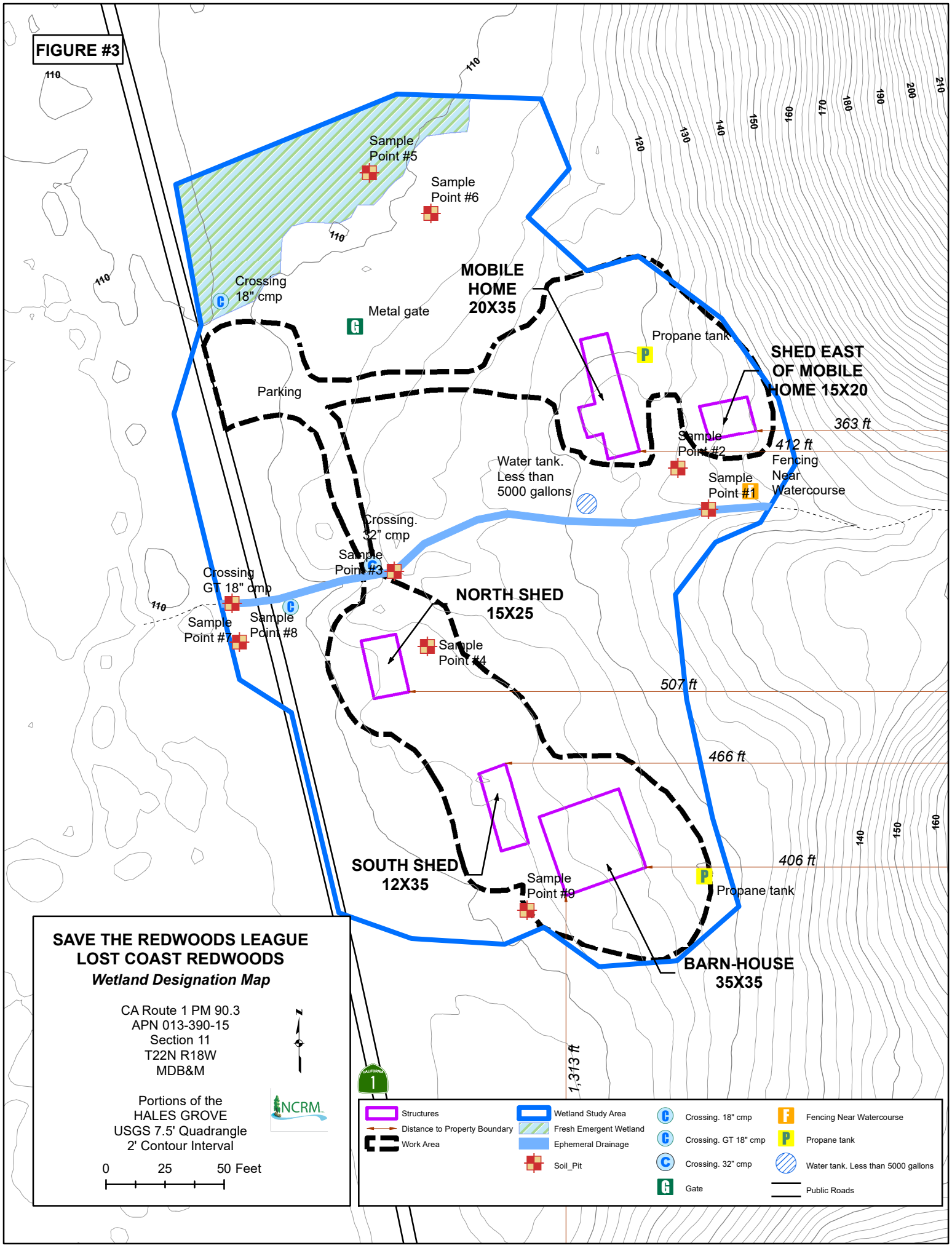


FIGURE #3
Sample Point #5
Sample Point #6
Crossing 18" cmp
Metal gate
MOBILE HOME 20X35
Propane tank
SHED EAST OF MOBILE HOME 15X20
Parking
363 ft
412 ft
Fencing Near Watercourse
Sample Point #2
Water tank. Less than 5000 gallons
Sample Point #1
Crossing. 32" cmp
Sample Point #3
Crossing GT 18" cmp
NORTH SHED 15X25
Sample Point #7
Sample Point #8
Sample Point #4
507 ft
466 ft
SOUTH SHED 12X35
406 ft
Sample Point #9
Propane tank
BARN-HOUSE 35X35
1,313 ft
SAVE THE REDWOODS LEAGUE
LOST COAST REDWOODS
Wetland Designation Map
CA Route 1 PM 90.3
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Section 11
T22N R18W
MDB&M
Portions of the HALES GROVE USGS 7.5' Quadrangle 2' Contour Interval
0 25 50 Feet
NCRM
Structures
Distance to Property Boundary
Work Area
Wetland Study Area
Fresh Emergent Wetland
Ephemeral Drainage
Soil_Pit
Crossing. 18" cmp
Crossing. GT 18" cmp
Crossing. 32" cmp
Gate
Fencing Near Watercourse
Propane tank
Water tank. Less than 5000 gallons
Public Roads

5.0 Survey Methodology

5.1 Scoping

In October 2023, the following literature and database searches were reviewed or completed to assess the potential for sensitive natural communities and special-status species:

- USDA Soil Survey Report for Mendocino County, California (Data Version 18, 2023)
- California Natural Diversity Database (CDFW 2023)
- California Native Plant Society Electronic Inventory (CNPS 2023)
- National Wetlands Inventory (USFWS 2023)
- Information of Planning and Consultation (USFWS 2023)

Scoping lists and database searches (i.e., CNDDB, CNPS) were based on a five-mile radius of the lot, including the Westport, Hales Grove, Lincoln Ridge, Leggett, and Mistake Point 7.5' USGS quadrangles. Pelagic wildlife species were excluded from this scoping list due to the lack of suitable habitat near the lot. A desktop review evaluated the potential presence of suitable habitats for special-status species, as well as past observations of certain species. Suitable habitat conditions are based on the physical and biological conditions of the lot. The potential for each special-status species to occur in proposed demolition areas was ranked based on the following criteria:

- **None**. No habitat components meeting the specific requirements are present (such as coastal marsh or coastal dunes) on the lot or directly adjacent.
- **Unlikely**. Few to none of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the lot.
- **Moderate**. Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the lot is unsuitable. The species has a moderate probability of being found on the lot.
- **High**. All the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the lot.
- **Present**. Species were observed on the site or have been recorded (database observation) on the lot in the recent past.

5.2 Surveys

Botanical surveys were conducted within the pastures near the lot on June 10, 2022, by botanists Laura Moreno-Baker and Kerry Heise, and again within the lot footprint on December 19, 2023 and May 28, 2024, by Laura Moreno-Baker. The June survey was conducted in support of a separate Biological Resource Assessment for Lost Coast Redwoods. Methods for both surveys were based on *Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Sensitive Natural Communities* (CDFW 2018). The survey methodology involved traversing habitats conducive to special-status species.

Wildlife biologists, Ben Cook and Annalise Smith, conducted biological surveys around the lot on November 11, 2023, and May 23, 2024, respectively. The visit in May occurred in the evening around dusk, for the specific purpose of documenting bat and bird activities. The surveys were assessments of existing biological conditions and the potential presence of special-status species and their habitats. Surveys consisted of an inventory of species observed (Appendix C), track and sign identification, as well as evaluations of all habitats within the proposed demolition areas. The site visit utilized the scoping list in Appendix B, and the survey was conducted within the proximity

of the lot.

5.3 Reference Populations

The CNDDB *RareFind 5* and *BIOS 6* tools, as well as past assessments (e.g., Timber Harvest Plans, Forest Management Plan, etc.), were utilized to locate reported rare plant populations in or adjacent to Lost Coast Redwoods (CDFW 2023a, CDFW 2023b, CalTREES 2023). Reference sites are used to identify rare species likely to occur within a project site and can serve to observe important plant characteristics and identify the potential for flower characteristics at the time of the survey.

Three species were observed near the project site, along the Class I watercourse across the highway, and within habitat like what is existing on the lot: leafy-stemmed mitrewort (*Mitellastra caulescens*, 4.2/S4/G5), nodding semaphore grass (*Pleuropogon refractus*, CRPR 4.2/G4/S4), and maple-leafed checkerbloom (*Sidalcea malachroides*, CRPR 4.2/S3/G3). Two additional species were historically observed near the lot and within habitats like those found on the lot. The two additional species are seaside bittercress (*Cardamine angulata*, CRPR 2B.2/G4,5/S3) and northern bugleweed (*Lycopus uniflorus*, CRPR 4.3/G5/S4). None of these species were observed during botanical surveys.

6.0 Results

6.1 Natural Communities

Of the two Sensitive Natural Communities included in the scoping list, North Central Coast Fall-Run Steelhead Stream and Upland Douglas-Fir Forest, neither exists within the lot. However, nearby Cottaneva Creek is a North Central Coast Fall-Run Steelhead Stream.

6.2 Special-Status Plants

Out of the 41 special-status plant species included in the scoping list, 15 species were determined to have a "moderate" to "high" potential to exist within the lot. Appendix A contains the botanical special-status scoping list. None of these 15 species were confirmed during surveys.

6.3 Special-Status Vertebrates and Invertebrates

A total of 24 sensitive vertebrate and invertebrate species were identified during the scoping for sensitive species. Eight of these species are federally listed (FESA), and two additional species are state-listed as "candidate endangered" species (CESA). The remaining species on the scoping list are all considered Species of Special Concern (SSC) by other state or federal agencies. Although 24 species have either been identified in the scoping area in the past or have the potential to occur within it (CNDDB 2023), no species on the list were observed during the wildlife surveys.

Based on our observations of habitat in areas surrounding the proposed demolition areas, we believe that three special-status species have a "high" potential of occurring in the areas surrounding the proposed work site and 12 species have a "moderate" potential to occur. Four special-status species were identified as unlikely to occur and five species were identified as having no potential to occur due to lack of suitable habitat around the work site.

6.3.1 Birds

We believe that four SSC birds have a "moderate" or "present" potential of occurring adjacent to the lot including the western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), marbled murrelet (*Brachyramphus marmoratus*), northern spotted owl (*Strix occidentalis caurina*), and the documented osprey. Although many different bird species were observed during the survey, only one SSC was documented, an osprey flying overhead.

Photo 1. Mud-based nest cup inside of shed.

During the wildlife surveys, the bird species identified to potentially be impacted by the demolition site would be barn swallows (*Hirundo rustica*) and Vaux's swift (*Chaetura vauxi).* Neither species is listed as a SSC, but both are protected under the Migratory Bird Treaty Act. Every abandoned building proposed for demolition has nests present (see Photo 1). Many of these nests are currently occupied and will be thoroughly inspected, prior to operations to ensure the nests are not in use. CDFW considers the nesting bird season to be between February 15th – September 1st.

As documented during the May wildlife survey, osprey are present in the area. They have been listed as having a high likelihood of occurring near the project area. There is an established osprey nest located approximately 2,000 feet south of the lot. The proposed operations are not likely to affect the osprey habitat, as large trees with nesting potential will not be removed.

The western yellow-billed cuckoo was determined to have a moderate potential of occurrence. This determination is based on the presence of riparian habitat with thick blackberries and the Class I watercourse across the highway from the project area. Because the creek would not be considered a large river and because there is a lack of documented occurrences in Mendocino, the chance of this species occurring is less likely.

Another species with "moderate" potential to occur is the marbled murrelet. While no marbled murrelet (MAMU) detections were made during 2022 and 2023 surveys NCRM conducted, the Lost Coast Redwoods does have potential to support MAMUs with its abundance of late seral trees and proximity to the ocean. Four areas with the Lost Coast Redwoods property have been designated as MAMU habitat stands by CDFW (Figure 4). The closest designated MAMU area is approximately 1.5 miles south of the proposed demolition site. MAMUs require old-growth forests with multiple canopy layers and moderate to high canopy closure. These specific characteristics are not present within the demolition footprint but can be found nearby.

One species that was given a "present" status of occupation is the northern spotted owl (*Strix occidentalis caurina*). The Lost Coast Redwoods is home to six northern spotted owl (NSO) Activity Centers (Figure 4). NCRM has conducted protocol level spotted owl surveys since the League acquired the property in 2022. Prior to that, a different company conducted six-visit surveys from 2017-2019. NSOs depend on both foraging and nesting habitats to survive and reproduce successfully. Foraging habitat contains over 40% canopy cover of trees that are 11 inches or greater in diameter and have a basal area that is greater than or equal to 75 square feet per acre of trees (11 inches or greater in diameter). Nesting and roosting habitat has over 60% canopy cover of trees that are greater than or equal to 11 inches in diameter and yet also have a

basal area greater than or equal to 100 square feet per acre of trees (11 inches or greater in diameter). The existing habitat around the lot is considered nesting/roosting habitat. NSOs are particularly vulnerable to disturbance during their breeding season, between February 1 and July 31[1]. NSOs have been documented occupying nearby areas, but proposed operations will not alter habitat and potential disturbance would be limited to noise outside of the breeding season.

6.3.2 Mammals

Lost Coast Redwoods is home to numerous terrestrial mammals including mountain lion (*Puma concolor*), black-tailed deer (*Odocoileus hemionus*), racoon (*Procyon lotor*), coyote (*Canus latrans*), gray fox (*Urocyon cinereoargenteus*), dusky-footed woodrat (*Neotoma fuscipes*), western gray squirrel (*Sciurus griseus*), brush rabbit (*Sylvilagus bachmani*), black-tailed jack rabbit (*Lepus californicus*), bobcat *(Lynx rufus*), Roosevelt elk (*Cervus elaphus roosevelti*), and California black bear (*Ursus americanus californiensis*).

The scoping effort resulted in four SSC mammal species potentially occurring in the area. Of the four, three have been determined to have a moderate chance of occurring within or adjacent to proposed development areas: Pacific fisher's (*Pekania pennanti*), Sonoma tree vole (*Arborimus pomo*), North American porcupine (*Erethizon dorsatum*), and Townsend's big-eared bat (*Corynorhinus townsendii*).

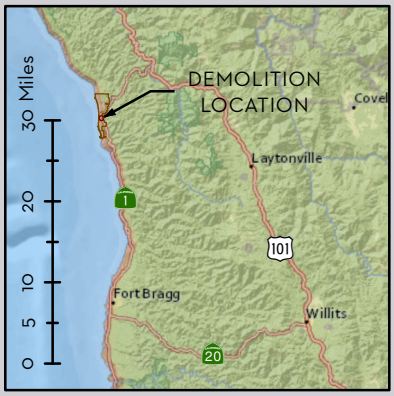
The Pacific fisher is currently listed as a CDFW SSC and is considered of least concern with IUCN. Fishers prefer mature conifer or mixed conifer forests with a high percentage of canopy coverage. They are considered highly carnivorous and have even been known to prey on porcupines. Their historical range encompasses the area and their preference for coniferous old growth forests gives this species a moderate chance of occurring.

The Sonoma tree vole (*Arborimus pomo*) is currently listed as an IUCN near threatened species and a CDFW SSC reflecting its vulnerable status due to habitat loss and fragmentation. This small, arboreal rodent is primarily found in the coastal forests of northern California, where it exhibits a strong preference for old-growth and mature Douglas-fir (*Pseudotsuga menziesii*) forests. These forests provide the essential structure and food resources that the voles need, as they spend most of their lives in the canopy, feeding on the needles of Douglas-fir, grand fir (*Abies grandis*), and Sitka spruce (*Picea sitchensis*). Due to the presence of mature Douglas-fir in the area, there is a moderate chance of Sonoma tree voles occurring.

The North American porcupine (*Erethizon dorsatum*) is not a CDFW SSC and is considered a IUCN species of least concern; however, it is noted as having a Subnational Conservation Status Rank of vulnerable meaning that there is moderate risk of extirpation in the state/province. According to CNDDB (2024a), the last porcupine documented to have occurred in the area was in 1959. The existing range within California has been the center of much debate and conflicting data (Appel, et al., 2017). Porcupines have an expansive range across the United States, preferring coniferous forests and mixed woodland habitats; therefore, they would have a moderate chance of occurring within or adjacent to the lot.

[1] This is the breeding season for the coast redwood ecotype found in the Coastal District of California.

FIGURE #4



- Northern Spotted Owl Observations
- Northern Spotted Owl Activity Center Buffer
- Potential Marbled Murrelet Habitat Stands (Historic)
- Potential Marbled Murrelet Habitat Buffer

SAVE THE REDWOODS LEAGUE
LOST COAST REDWOODS

MAP OF CDFW DESIGNATED MAMU HABITAT AND THE KNOWN SPOTTED OWL ACTIVITY CENTERS

CA Route 1 PM 90.3
APN 013-390-15
Section 11
T22N R18W
MDB&M

Portions of the
HALES GROVE
USGS 7.5' Quadrangle

0 0.25 0.5 1 Miles

01251018
01251005
01251015
MEN0291
MEN0134
01251031
01251028
USAL ROAD
01339004
01339014
01339010
MEN0668
Middle Fork Cottaneva Creek
Demolition Location
01339015
MEN0428
01339016
01340023
1
MEN0110
Stand B
01340006
Unit B
Stand A
Site 2
ROCKPORT STREET
MEN0576
South Fork Cottaneva Creek
Rockport Creek

The Townsend's big-eared bat (*Corynorhinus townsendii*) was determined to have a high chance of occurring in the vicinity. This species roosts in caves, cliffs, and abandoned buildings, but generally only occupies abandoned buildings during the summer (Kunz and Martin 1982). During our November survey no bats were observed occupying the work site. During this survey, most of the ceilings in the target demolition buildings were saturated with water, making the current conditions unfavorable for roosting in the wet winter period. In December, there was no sign of bat guano or evidence of bats recently roosting within the structures. However, bats were documented inside the buildings during the May survey. Two bats were observed flying out of the mobile home deck area, and approximately ten bats were observed flying in and out of the upper floor of the barn. No bats or sign of bats were observed in the northern shed. The bat mitigation plan will allow for operations to take place while limiting take.

A non-listed species, dusky-footed wood rat (*Neotoma fuscipes*), will possibly be affected by the proposed building removal as middens were found in three different structures (Photo 2). Prior to demolition, the nests will be inspected and removed to minimize impact.

Photo 2. Dusky-footed wood rat nest inside mobile home.

6.3.3 Reptiles and Amphibians

No reptiles or amphibians were documented during the survey, but due to the existence of some amphibian preferred riparian forest habitat near the worksite, as well as CNDDB records of the species in the vicinity, there is a "moderate" potential for the following SSC to occur: northern red-legged frog (*Rana aurora*), Pacific tailed frog (*Ascaphus truei*), red-bellied newt (*Taricha rivularis*), and the southern torrent salamander (*Rhyacotriton variegatus*). Foothill yellow-legged frog (*Rana boylii*) has an unlikely chance of occurring due to the closest documented detection being 150-miles away from the property.

The northern red-legged frog is currently listed as a CDFW SSC in various parts of its range, reflecting concerns over habitat loss, degradation, and fragmentation. This amphibian is typically found in the Pacific Northwest, inhabiting moist, forested areas, particularly those with abundant vegetation and still or slow-moving water bodies such as ponds, marshes, and streams. They prefer habitats with dense riparian cover, which provides essential shelter and breeding sites. The presence of clean, freshwater ecosystems is crucial for their survival, as they rely on these environments for laying eggs and the development of tadpoles.

The red-bellied newt is currently listed as a CDFW SSC due to habitat loss, water pollution, and the impacts of climate change. This amphibian is endemic to the coastal regions of northern California, where it prefers moist, forested environments, particularly those in proximity to clean, fast-flowing streams. These streams are crucial for their breeding and larval development, while the surrounding forest provides shelter and feeding grounds. The red-bellied newt relies on a combination of aquatic and terrestrial habitats, migrating between them seasonally.

The southern torrent salamander is currently listed as a CDFW SSC due to its limited range and the ongoing threats of habitat loss and degradation. This small, semi-aquatic salamander is endemic to the coastal forests of northern California and southern Oregon. It prefers cold, clear, fast-flowing streams and seepages in old-growth and mature second-growth coniferous forests. These pristine aquatic habitats, often characterized by a dense canopy cover and minimal sedimentation, are crucial for their survival as they provide essential breeding and foraging grounds.

The Pacific tailed frog is currently listed as a CDFW SSC and is considered of least concern with IUCN. They live in cold, fast-moving streams with large rocky, stone substrates and prefer the absence of fish. Adults are known to forage on land during wet conditions. Cottaneva Creek could be considered a suitable habitat for this species; therefore, a moderate potential for terrestrial movement within the demolition footprint.

Photo 3. Pooling of water on west side of culvert in small Class II watercourse

6.3.4 Fish

The property is located within the Northern California/Southern Oregon Coast Evolutionary Significant Unit (ESU) for coho salmon and the Northern California ESU for steelhead. These ESUs are listed as endangered and threatened under both the ESA and the CESA. Cottaneva Creek, which runs parallel to the eastern boundary of the lot, across the highway, is considered Critical Habitat for both species by the National Marine Fisheries Service (NMFS 2009) and USFWS (1997). The small Class II watercourse, which runs through the worksite, is not suitable fish habitat (Photo 3) as it lacks suitable substrate; therefore, it was determined that no sensitive fish species would occur within the demolition footprint.

6.3.5 Invertebrates

The two mollusk species identified on our scoping list are California floater (*Anodonta californiensis*) and western pearlshell (*Margaritifera falcata*), and both are unlikely to occur within the work site due to a lack of available habitat. Potential habitat for mollusk species on the scoping list included only the Class I watercourse across the highway from the prospective demolition site.

Of the four insect species on the scoping list, there is a moderate chance that three could occupy the lot. Crotch bumble bees (*Bombus crotchii*), obscure bumble bees (*Bombus caliginosus*), and western bubble bees (*Bombus occidentalis*) all prefer grasslands and open prairies. There is a small meadow adjacent to the worksite which would meet some of the habitat needs for these species to occur; therefore, they have a moderate chance of occurring near the worksite.

7.0 Discussion

7.1 Potential Impacts

Due to the extent of disturbance caused by the proposed demolition activities, as proposed in Section 3.0 of this assessment, and the "high" potential for eight sensitive plant species to occur, it is likely that populations, if present, would be impacted. The eight species with "high" likelihood of occurring include: Bolander's reed grass (*Calamagrostis bolanderi*), leafy reed grass (*Calamagrostis foliosa*), redwood lily (*Lilium rubescens*), leafy-stemmed miterwort (*Mitellastra caulescens*), white-flowered rein orchid (*Piperia candida*), nodding semaphore grass (*Pleuropogon refractus*), maple-leaved checkerbloom (*Sidalcea malachroides*), and Methuselah's beard lichen (*Usnea longissima*).

Two of the above-listed species are specially-ranked – the white-flowered rein orchid is the only species on the list ranked as a California Rare Plant Rank (CRPR) 1B.2, meaning it is endangered, and the leafy reed grass is the only species on the list with a 'rare' ranking under the California Endangered Species Act (CESA 1979). Neither species has been observed within 3.5 miles of the lot. The white-flowered rein orchid is threatened by logging, foot traffic, and road construction, and would be heavily impacted if their populations coincided with development activities (CNPS Rare Plant Inventory 2023). The remaining species with high potential to occur within the lot are listed as CRPR 4.2, plants that are not on a specific list but have recognized regional or local interests and qualify for protection.

Based on the proposed scope of work, we do not foresee any significant impacts on sensitive wildlife species from this project, because very little work will occur outside of the existing footprints. We believe that the potential biological resources that could be impacted, are terrestrial wildlife species that either move into the demolition area during work, such as roosting bats, nesting voles, or nesting birds, or are immediately adjacent to the lot. The small watercourse within the worksite has the potential to transfer sediment downstream into the fish bearing Class I, Cottaneva Creek, which should be mitigated with precautionary measures. Operations will be covered under a 1600 permit for work around and near the watercourses.

7.2 Recommendations and Mitigations

The CRPR 4 plant taxa are of limited distribution throughout California and their vulnerability or susceptibility to threat typically appears low. While avoidance is generally recommended for CRPR 4 plants, strict mitigation is only required if the taxa meet the definition of rare or endangered under CEQA Guidelines. According to a 2020 Technical Memorandum adopted by the CNPS Rare Plant Program, only taxa that, "can be shown to meet the criteria for endangered, rare, or threatened status under CEQA Section 15380(d) or that can be shown to be regionally rare or unique as defined in CEQA Section 15125I", require full analysis (CNPS 2020).

Observational data, from the 2022 surveys, for adjacent populations of leafy reed grass, leafy-stemmed miterwort, nodding semaphore grass, Methuselah's beard lichen, and maple-leafed checkerbloom, was submitted to CNDDB, but the data has not yet been processed. These observations prevent the species from being regionally rare. Redwood lily populations were not found to be regionally rare; therefore, none of the CRPR 4-listed species with "high" potential to occur within the lot, meet the above criteria. If found, no mitigation measures are recommended for these species.

If it is found that white-flowered rein orchid and/or leafy reed grass are present within the lot a 50-foot buffer shall be established around the population wherein:

- No equipment will operate,
- No vegetation will be cut or removed,

Because potential impacts to plant and wildlife species are almost exclusively limited to the existing culvert crossings and the worksite footprints surrounding the structures set for removal, it is unlikely that any sensitive or SSC will be impacted by this project. Regardless, to mitigate any potential impacts, we recommend the following avoidance and minimization recommendations:

- All construction vehicles utilize only existing footprints or roadways.
- Pre-construction surveys for nesting birds and roosting bats should take place no sooner than one week before work begins.
- A biological monitor should be present during demolition operations to confirm no species are present within the structures prior to demolition and ensure no sensitive species enter the work site.
- If operations occur during the nesting bird season (February 15th -August 15th), a nesting bird survey should take place at the work site. The biologist will also survey for Sonoma tree vole nests.
- Bat mitigation plan:
    - Prior to demolition a bat survey of the structures will be undertaken. The bat survey should involve surveying the structure for evidence of bat use (guano accumulation, ammonia odor, grease-stained cavities). If an active roost site is not found, the biologist shall submit such findings to the Department of Planning & Building Services prior to demolition. If evidence of bat use is found, then the biologist shall conduct acoustic surveys using an acoustic detector to determine whether a site is occupied.
    - Demolition shall be conducted outside of pupping season (June-August).
    - Demolition shall occur during daylight hours to limit construction noise and artificial light.
    - Demolition will be incremental, disassembling small portions of the roof structure first. This should create a disturbance and an undesirable roost site, which the bats should vacate the premises prior to the complete demolition of structures.
    - If an active pupping colony is observed, a 100-foot exclusion zone shall be established around the roost site. Demolition and/or ground disturbance shall not occur within the exclusion zone until all young are no longer dependent upon the roost. If no dependent pups are present, bats will be gently flushed out from the structures prior to demolition, incentivizing relocation.
    - Installation of three bat boxes to accommodate for loss of potential habitat.
    - Another bat survey will be implemented in August with the use of specialized equipment, the Echo Meter Touch 2 Pro^{TM}.
- Create an exclusionary buffer near the Class II watercourse channel. This action should inhibit the potential transfer of sediment into Cottaneva Creek, where sensitive fish species exist.
- Operations will not commence if the elk herd is present within project footprint.

8.0 References

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Appendix A. Special-Status Plant Species with Potential for Occurrence

SCIENTIFIC NAME COMMON NAME	FED LISTED	STATE LISTED	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	BLOOM PERIOD	ASSOCIATED HABITAT	POTENTIAL TO OCCUR
Abronia umbellata subsp. *breviflora* pink sand-verbena	None	None	G4G5T2	S2	1B.1	Jun-Oct	Coastal dunes. 0-10 meters in elevation.	None
Agrostis blasdalei Blasdale's bent grass	None	None	G2G3	S2	1B.2	May-Jul	Coastal bluff scrub, Coastal dunes, Coastal prairie. 0-150 meters in elevation.	Unlikely
Arctostaphylos stanfordiana subsp. *raichei* Raiche's manzanita	None	None	G3T2	S2	1B.1	Feb-Apr	Chaparral, Lower montane coniferous forest (openings). Rocky, Serpentinite (often). 450-1035 meters in elevation.	None
Astragalus agnicidus Humboldt County milk-vetch	None	Endangered	G2	S2	1B.1	Apr-Sep	Broadleafed upland forest, North Coast coniferous forest. Disturbed areas, openings, roadsides (sometimes). 120-800 meters in elevation.	None
Astragalus rattanii subsp. *rattanii* Rattan's milk-vetch	None	None	G4T4	S4	4.3	Apr-Jul	Chaparral, cismontane woodland, Lower montane coniferous forest. Gravelly, streambanks. 30-825 meters in elevation.	Moderate
Calamagrostis bolanderi Bolander's reed grass	None	None	G4	S4	4.2	May-Aug	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. 0-455 meters in elevation.	High
Calamagrostis foliosa leafy reed grass	None	Rare	G3	S3	4.2	May-Sep	Coastal bluff scrub, North Coast coniferous forest. Rocky. 0-1220 meters in elevation.	High
Cardamine angulata seaside bittercress	None	None	G4G5	S3	2B.2	(Jan) Mar-Jul	Lower montane coniferous forest, North Coast coniferous forest. Wet areas. Streambanks. 15-915 meters in elevation.	Moderate
Castilleja litoralis Oregon coast paintbrush	None	None	G3	S3	2B.2	Jun	Coastal bluff scrub, coastal dunes, coastal scrub. Sandy. 15-100 meters in elevation.	Unlikely
Castilleja mendocinensis Mendocino Coast paintbrush	None	None	G2	S2	1B.2	Apr-Aug	Closed-cone coniferous forest, coastal bluff scrub, coastal dunes, coastal prairie, coastal scrub. 0-160 meters in elevation.	Unlikely

SCIENTIFIC NAME COMMON NAME	FED LISTED	STATE LISTED	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	BLOOM PERIOD	ASSOCIATED HABITAT	POTENTIAL TO OCCUR
Ceanothus foliosus subsp. *vineatus* Vine Hill ceanothus	None	None	G3T1	S1	1B.1	Mar-May	Chaparral. 45-305 meters in elevation.	None
Ceanothus gloriosus subsp. *exaltatus* glory brush	None	None	G4T4	S4	4.3	Mar-Jun (Aug)	Chaparral. 30-610 meters in elevation.	None
Clarkia amoena subsp. *whitneyi* Whitney's farewell-to-spring	None	None	G5T1	S1	1B.1	Jun-Aug	Coastal bluff scrub, coastal scrub. 10-100 meters in elevation.	Unlikely
Coptis laciniata Oregon goldthread	None	None	G4?	S3?	4.2	(Feb) Mar-May (Sep-Nov)	Meadows and seeps, North Coast coniferous forest (streambanks). Mesic. 0-1000 meters in elevation.	Moderate
Epilobium septentrionale Humboldt County fuchsia	None	None	G4	S4	4.3	Jul-Sep	Broadleafed upland forest, North Coast coniferous forest. Rocky (sometimes), candy (sometimes). 45-1800 meters in elevation.	Unlikely
Erigeron biolettii streamside daisy	None	None	G3?	S3?	3	Jun-Oct	Broadleafed upland forest, cismontane woodland, North Coast coniferous forest. Mesic, rocky. 30-1100 meters in elevation.	Unlikely
Eriogonum kelloggii Kellogg's buckwheat	None	Endangered	G2	S2	1B.2	(May) Jun-Aug	Lower montane coniferous forest (rocky, serpentinite). 579-1250 meters in elevation.	None
Erysimum concinnum bluff wallflower	None	None	G3	S2	1B.2	Feb-Jul	Coastal bluff scrub, Coastal dunes, Coastal prairie. 0-185 meters in elevation.	Unlikely
Erythronium revolutum coast fawn lily	None	None	G4G5	S3	2B.2	Mar-Jul (Aug)	Bogs and fens, broadleafed upland forest, North Coast coniferous forest. Mesic, streambanks. 0-1600 meters in elevation.	Moderate
Gilia capitata subsp. *pacifica* Pacific gilia	None	None	G5T3	S2	1B.2	Apr-Aug	Chaparral (openings), coastal bluff scrub, coastal prairie, valley and foothill grassland. 5-1665 meters in elevation.	Unlikely
Hemizonia congesta subsp. *tracyi* Tracy's tarplant	None	None	G5T4	S4	4.3	(Mar-Apr) May-Oct	Coastal prairie, lower montane coniferous forest, North Coast coniferous forest. Openings, serpentinite (sometimes). 120-1200 meters in elevation.	None

SCIENTIFIC NAME COMMON NAME	FED LISTED	STATE LISTED	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	BLOOM PERIOD	ASSOCIATED HABITAT	POTENTIAL TO OCCUR
Hesperocyparis pygmaea pygmy cypress	None	None	G1	S1	1B.2	NA	Closed-cone coniferous forest (usually podzol-like soil). 30-600 meters in elevation.	None
Horkelia marinensis Point Reyes horkelia	None	None	G2	S2	1B.2	May-Sep	Coastal dunes, coastal prairie, coastal scrub. Sandy. 5-755 meters in elevation.	Unlikely
Hosackia gracilis harlequin lotus	None	None	G3G4	S3	4.2	Mar-Jul	Broadleafed 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. Wetlands. Roadsides. 0-700 meters in elevation.	Moderate
Kopsiopsis hookeri small groundcone	None	None	G4?	S1S2	2B.3	Apr-Aug	North Coast coniferous forest. 90-885 meters in elevation.	None
Lathyrus glandulosus sticky pea	None	None	G3	S3	4.3	Apr-Jun	Cismontane woodland. 300-800 meters in elevation.	None
Leptosiphon latisectus broad-lobed leptosiphon	None	None	G4	S4	4.3	Apr-Jun	Broadleafed upland forest, cismontane woodland. 170-1500 meters in elevation.	None
Lilium rubescens redwood lily	None	None	G3	S3	4.2	(Mar) Apr-Aug (Sep)	Broadleafed upland forest, chaparral, lower montane coniferous forest, North Coast coniferous forest, upper montane coniferous forest. Roadsides (sometimes), serpentinite (sometimes). 30-1910 meters in elevation.	High
Listera cordata heart-leaved twayblade	None	None	G5	S4	4.2	Feb-Jul	Bogs and fens, lower montane coniferous forest, North Coast coniferous forest. 5-1370 meters in elevation.	Moderate
Lomatium kogholiini Wailaki lomatium	None	None	G1	S1	1B.2	Apr-Jun	Lower montane coniferous forest. Serpentine. 450-1250 meters in elevation.	None
Micranthes marshallii Marshall's saxifrage	None	None	G5	S3	4.3	Mar-Aug	Riparian forest. Rocky, streambanks. 90-2130 meters in elevation.	None
Mitellastra caulescens leafy-stemmed mitrewort	None	None	G5	S4	4.2	(Mar) Apr-Oct	Broadleafed upland forest, lower montane coniferous forest, meadows and seeps, North Coast coniferous forest. Mesic, roadsides (sometimes). 5-1700 meters in elevation.	High

SCIENTIFIC NAME COMMON NAME	FED LISTED	STATE LISTED	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	BLOOM PERIOD	ASSOCIATED HABITAT	POTENTIAL TO OCCUR
North Central Coast Fall-Run Steelhead Stream	None	None	GNR	SNR	NA	NA	Inland waters.	None
Piperia candida white-flowered rein orchid	None	None	G3?	S3	1B.2	(Mar-Apr) May-Sep	Broadleafed upland forest, lower montane coniferous forest, North Coast coniferous forest. Serpentinite (sometimes). 30-1310 meters in elevation.	Moderate
Pityopus californicus California pinefoot	None	None	G4G5	S4	4.2	(Mar-Apr) May-Aug	Broadleafed upland forest, Lower montane coniferous forest, North Coast coniferous forest, upper montane coniferous forest. Mesic. 15-2225 meters in elevation.	Moderate
Pleuropogon refractus nodding semaphore grass	None	None	G4	S4	4.2	(Feb-Mar) Apr-Aug	Lower montane coniferous forest, meadows and seeps, North Coast coniferous forest, riparian forest. Mesic. 0-1600 meters in elevation.	High
Sedum eastwoodiae Red Mountain stonecrop	None	None	G2	S2	1B.2	May-Jul	Lower montane coniferous forest (serpentinite). 600-1200 meters in elevation.	None
Sidalcea malachroides maple-leaved checkerbloom	None	None	G3	S3	4.2	(Mar) Apr-Aug	Broadleafed upland forest, coastal prairie, coastal scrub, North Coast coniferous forest, riparian woodland. Disturbed areas (often). 0-730 meters in elevation.	High
Silene bolanderi Bolander's catchfly	None	None	G2	S2	1B.2	May-Jun	Chaparral (edges), cismontane woodland, lower montane coniferous forest, meadows and seeps, North Coast coniferous forest. Usually grassy openings, sometimes dry rocky slopes, canyons, or roadsides. Openings (usually), roadsides (sometimes), rocky (sometimes), serpentinite (sometimes). 420-1150 meters in elevation.	None
Silene greenei subsp. *angustifolia* Red Mountain catchfly	None	Endangered	G5T1	S1	1B.2	May-Jun	Chaparral, lower montane coniferous forest. Peridotite. Rocky, serpentinite (usually). 425-2085 meters in elevation.	None
Thermopsis robusta robust false lupine	None	None	G2	S2	1B.2	May-Jul	Broadleafed upland forest, North Coast coniferous forest. 150-1500 meters in elevation.	None
Upland Douglas Fir Forest	None	None	G4	S3.1	NA	NA	North coast coniferous forest.	None

SCIENTIFIC NAME **COMMON NAME**	**FED LISTED**	**STATE LISTED**	**GLOBAL RANK**	**STATE RANK**	**CA RARE PLANT RANK**	**BLOOM PERIOD**	**ASSOCIATED HABITAT**	**POTENTIAL TO OCCUR**
Usnea longissima Methuselah's beard lichen	None	None	G4	S4	4.2	NA	Broadleafed upland forest, North Coast coniferous forest. On tree branches; usually on old growth hardwoods and conifers. 50-1460 meters in elevation.	High
Viburnum ellipticum oval-leaved viburnum	None	None	G4G5	S3?	2B.3	May-Jun	Chaparral, Cismontane woodland, Lower montane coniferous forest. 215-1400 meters in elevation.	None

Plants addressed in the rare plant assessment are cataloged on the following lists:

a) Species listed or proposed for listing as threatened or endangered under the FESA
b) Species that are candidates for possible future listing as threatened or endangered under the FESA
c) Species listed or proposed for listing by the State of California as threatened or endangered under the CESA
d) CNPS list 1A species (plants presumed extinct in California)
e) CNPS list 1B (plants rare, threatened, or endangered in California)
f) CNPS list 2 species (plants rare, threatened, or endangered in California but more common elsewhere)
g) CNPS list 3 and list 4 species (plants with limited distribution, more information needed, on review list); plants that are not on a specific list but have recognized regional or local interests and qualify for protection.

The CNPS New Threat Code extensions and their meanings:

The classification system created by the CNPS helps distinguish between rarity, endangerment, and distribution:

.1 – Seriously endangered in California
.2 – Fairly endangered in California
.3 – Not very endangered in California

Global Ranking

The Global rank (G-rank) reflects the overall condition of a plant species or community throughout its global range.

Species or Community Level

G1 – Less than 6 viable element occurrences (Eos) OR less than 1,000 individuals OR less than 2,000 acres
G2 – 6-20 Eos OR 1,000-3,000 individuals OR 2,000-10,000 acres
G3 – 21-80 Eos OR 3,000-10,000 individuals OR 10,000-50,000 acres
G4 – Apparently secure; this rank is lower than G3, but factors exist to cause some concern (i.e., there is some threat or somewhat rare habitat)
G5 – Population or stand demonstrably secure to ineradicable due to being commonly found in the world.

Subspecies Level

Subspecies receive a T-rank attached to the G-rank. With the subspecies, the G-rank reflects the condition of the entire species, whereas the T-rank reflects the global situation of the subspecies or variety.

State Ranking

The state rank (S-rank) is assigned much the same way as the global rank, except state ranks in California often also contain a threat designation attached to the S-rank:

S1 – Less than 6 Eos OR less than 1,000 individuals OR less than 2,000 acres
S1.1 – very threatened
S1.2 – threatened
S1.3 – No current threats known
S2 – 6-20 Eos OR 1,000-3,000 individuals OR 2,000-10,000 acres
S2.1 – very threatened
S2.2 – threatened
S2.3 – No current threats known
S3 – 21-80 Eos or 3,000-10,000 individuals OR 10,000-50,000 acres
S3.1 – very threatened
S3.2 – threatened
S3.3 – No current threats known
S4 – Apparently secure within California; this rank is lower than S3 but factors exist to cause some concern (i.e., there is some threat or somewhat rare habitat)
S5 = Demonstrably secure to ineradicable in California. NO THREAT RANK.

Appendix B. Special-Status Wildlife with Potential for Occurrence.

COMMON NAME	*SCIENTIFIC NAME*	STATUS	BREEDING SEASON	HABITATS	GENERAL HABITAT	MICROHABITAT	RANGE	POTENTIAL TO OCCUR
Amphibians								
Foothill yellow-legged frog – north coast DPS	*Rana boylii* pop. 1	G3TNRQ, S4 | BLM | CSSC | USFS	Mating & egg-laying in streams & rivers (not ponds or lakes), April- early July, after streams slow from winter runoff.	Aquatic | Klamath/North coast flowing waters | Riparian forest | Riparian scrub | Riparian woodland	Partly shaded shallow streams and riffles with a rocky substrate in a variety of habitats.	Needs at least some cobble-sized substrate for egg-laying and at least 15 weeks to attain metamorphosis.	North Coast Ranges of the SF Bay Estuary, Klamath Mtns., and Cascade Range. Includes watershed subbasins (HU 8) Lower Pit, Battle Cr., Thomes Cr., and Big Chico Cr. In Lassen, Shasta, Tehama, and Butte counties.	Unlikely, nearest detection being 150-miles from the lot.
Northern red-legged frog	*Rana aurora*	G4, S3| CSSC | ILC | USFS	December-March. Eggs hatch after about four weeks.	Klamath/North coast flowing waters | Riparian forest | Riparian woodland	Humid forests, woodlands, grasslands, and streamside, usually near dense riparian cover.	Generally near permanent water, but can be found far from water, in damp woods and meadows, during non-breeding season.	Mendocino Co. north along the west coast through WA.	Moderate, based on habitat on lot and in the adjacent Cottoneva Creek.
Pacific tailed frog	*Ascaphus truei*	G4, S3S4 | CSSC | ILC	Most breeding occurs in early fall (reported May-Oct.); breed in stream they inhabit. Eggs laid in spring/summer after spring runoff.	Aquatic | Klamath/ North coast flowing waters | Lower montane coniferous forest | North coast coniferous forest | Redwood | Riparian forest	Occurs in montane hardwood-conifer, redwood, Douglas-fir, and ponderosa pine habitats.	Restricted to perennial montane streams. Tadpoles require water below 59°F.	Known only from Del Norte, Siskiyou, Humboldt, Trinity, Shasta, Tehama, & Mendocino counties.	Moderate, based on habitat in the adjacent Cottoneva Creek.
Red-bellied newt	*Taricha rivularis*	G2, S2 |CSSC | ILC	Breeding takes place from late February to May, peaking in March.	Broadleaved upland forest | North coast coniferous forest | Redwood | Riparian forest | Riparian woodland	Coastal drainages. Will migrate over 1 km to breed, typically in streams with moderate flow and clean, rocky substrate.	Terrestrial habitats, juveniles generally underground, adults active at surface in moist environments.	Humboldt Co. south to Sonoma Co., inland to Lake Co. Isolated pop. of uncertain origin in Santa Clara Co.	Moderate, based on habitat on lot.

COMMON NAME	*SCIENTIFIC NAME*	STATUS	BREEDING SEASON	HABITATS	GENERAL HABITAT	MICROHABITAT	RANGE	POTENTIAL TO OCCUR
Southern torrent salamander	*Rhyacotriton variegatus*	G3G4, S2S3 |CSSC | ILC | USFS	Egg laying occurs in late spring and early summer.	Lower montane coniferous forest | Old growth | Redwood | Riparian forest	Coastal redwood, Douglas-fir, mixed conifer, montane riparian, and montane hardwood-conifer habitats. Old growth forest.	Cold, well-shaded, permanent streams and seepages, or within splash zone or on moss-covered rocks within trickling water.	Point Arena north to OR border.	Moderate, based on habitat on lot and in the adjacent Cottoneva Creek.
Birds								
Northern goshawk	*Accipiter gentilis*	G5, S3| BLM | CDF | CSSC | ILC | USFS	Nests typically in densest part of a stand; in trees greater than 12-in. diameter and nest generally built below the canopy in fork of large branch.	North coast coniferous forest | Subalpine coniferous forest | Upper montane coniferous forest	Within, and in vicinity of, coniferous forest. Uses old nests and maintains alternate sites.	Usually nests on north slopes, near water. Red fir, lodgepole pine, Jeffrey pine, and aspens are typical nest trees.	Year-round resident on northern 1/3 of CA.	Unlikely. Habitat not present on the lot, and nearest known is 150-miles away.
Western yellow-billed cuckoo	*Coccyzus americanus occidentalis*	G5T2T3, S1 |BLM | NRWL | USFS | FT | CE	May-August.	Riparian forest	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems.	Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	No known occurrences in Mend. Co. Sac. River from Red Bluff to Colusa; South Fork Kern R.; Feather R. Oroville to Verona; Butte, Yuba, and Sutter counties.	Moderate, based on habitat adjacent to lot and nearest known occurrence is 60-miles away.
Osprey	*Pandion haliaetus*	G5, S4 | CDF | CWL | ILC	Most are migratory, breeding starts in March and migrate south for the winter.	Riparian forest | Ocean shore, bays, freshwater lakes, and larger streams.	Large, fish-bearing waters, including rivers, lakes, bays, estuaries, and surf zones, primarily in ponderosa pine through mixed conifer habitats. Preys mostly on fish.	Large nests built in treetops within 15 miles of a good fish-producing body of water.	Statewide.	Present., active nest 2,000 ft from the lot.

COMMON NAME	*SCIENTIFIC NAME*	STATUS	BREEDING SEASON	HABITATS	GENERAL HABITAT	MICROHABITAT	RANGE	POTENTIAL TO OCCUR
Northern spotted owl	*Strix occidentalis caurina*	FT | CT | CSSC | BLM | CDF | USFS	February-August.	Mature multi-layered mixed conifer, redwood and Douglas fir forests with a permanent water source and suitable nesting sites.	Prey mostly on small mammals. Nests in cavities or broken tops of large trees or snags. A pair may use the same breeding site for 5 to 10 years, although not breed every year. Sensitive to habitat destruction and fragmentation.	Prefer narrow, steep canyons with north-facing slopes.	Northern CA to WA.	Present, adjacent to lot.
Marbled murrelet	*Brachyramphus marmoratus*	G3, S2 | CDF | IUCN | NRWL | FT | CE	Eggs are laid from mid-May to mid-June. Incubation from mid-June to mid-Aug. and lasts 30 days. Young fledge from early July-early Sept.	Lower montane coniferous forest | Old growth | Redwood	Feeds near-shore; nests inland along coast from Eureka to OR border and from Half Moon Bay to Santa Cruz.	Nests in old-growth redwood-dominated forests, up to six miles inland, often in Douglas-fir.	Northern CA coast.	Moderate, based on adjacent habitat.
Western snowy plover	*Charadrius nivosus nivosus*	G3T3, S3 – CSSC | NRWL | FT	March 1 – September 30.	Great Basin standing waters | Sand shore | Wetland	Sandy beaches, salt pond levees and shores of large alkali lakes.	Needs sandy, gravelly, or friable soils for nesting.	Extends from Damon Point, WA to Baja California, MX.	None, habitat not present.
Fish								
Coho salmon – central California coast ESU	*Oncorhynchus kisutch* pop. 4	G5T2Q, S2 – AED | FE | CE	Adults enter fresh water from Nov.-Jan. to spawn. In the short coastal streams of CA, migration usually begins between mid-Nov.- mid- Jan.	Aquatic | Coastal watershed Streams	Relatively slow-moving water with fine gravel. In the ocean, they tend to live closer to shores than in the open ocean.	Require beds of loose, silt-free, coarse gravel for spawning. Also need cover, cool water and sufficient dissolved oxygen.	Federally listed populations occur between Punta Gorda and San Lorenzo River. State listed populations occur south of Punta Gorda.	Moderate, based on adjacent habitat in Cottoneva Creek.
Steelhead- northern California DPS summer-run	*Oncorhynchus mykiss irideus,* pop.48	G5TNRQ| S2| FT| SE| ATH	Return to freshwaters between May and October.	Aquatic | North Coast flowing waters	Migrating adults require a 7-inch depth minimum for migration. Water	Cool, swift, shallow water and clean loose gravel for spawning, and suitably large	Mattole River, Eel River, Trinity River, Mad River, Redwood Creek,	Moderate, based on adjacent habitat

COMMON NAME	*SCIENTIFIC NAME*	STATUS	BREEDING SEASON	HABITATS	GENERAL HABITAT	MICROHABITAT	RANGE	POTENTIAL TO OCCUR
					velocities of 10-13 ft/s begin to hinder the swimming ability of adult steelhead. Optimum temperature requirements fall in the range of 39 to 52°F.	pools in which to spend the summer.	Klamath River, Smith River, Salmon River, and Scott River.	in Cottoneva Creek.
Steelhead- northern California DPS winter-run	*Oncorhynchus mykiss irideus*, pop.49	G5TNRQ| S3| FT| ATH	Return to freshwaters between November and April.	Aquatic | Klamath/North coast flowing waters | Sacramento/San Joaquin flowing waters	Migrating adults require a 7-inch depth minimum for migration. Water velocities of 10-13 ft/s begin to hinder the swimming ability of adult steelhead. Optimum temperature requirements fall in the range of 39 to 52°F.	Cool, swift, shallow water and clean loose gravel for spawning, and suitably large pools in which to spend the summer.	All naturally spawning populations in California coastal river basins below upstream barriers to migration from Redwood Creek (Humboldt Co.) to just south of the Gualala River (Mendocino Co.)	Moderate, based on adjacent habitat in Cottoneva Creek.
Tidewater goby	*Eucyclogobius newberryi*	G3, S3 – AED | INT | FE	Spawning may occur year-round, but it is less frequent in December - March.	Aquatic | Klamath/North coast flowing waters | Sacramento/San Joaquin flowing waters | South coast flowing waters	Brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego Co. to the mouth of the Smith River.	Found in shallow lagoons and lower stream reaches, they need fairly still water, but not stagnant water and high oxygen levels.	Big-Navarro-Garcia, Gualala-Salmon, and lower Eel watersheds.	None, habitat not present.
Insects								
Crotch bumble bee	*Bombus crotchii*	G2, S1S2 – IUCN	Queen bees are active from March until May.	Grasslands | Shrublands	Mediterranean region, Pacific Coast, Western Desert, and adjacent foothills throughout most of California's southwestern region	Food plant genera include *Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia,* and *Eriogonum.*	Coastal CA east to the Sierra-Cascade crest and south into MX.	Moderate, due to some small grassland areas near the project worksite. The nearest documented detection was 9-miles from the lot, in 1978.

COMMON NAME	*SCIENTIFIC NAME*	STATUS	BREEDING SEASON	HABITATS	GENERAL HABITAT	MICROHABITAT	RANGE	POTENTIAL TO OCCUR
Obscure bumble bee	*Bombus caliginosus*	G2G3, S1S2 – IVU	Active February-November.	Open grassy coastal prairies and coast range meadows.	Coastal areas.	Food plant genera include *Baccharis, Cirsium, Lupinus, Lotus, Grindelia,* and *Phacelia.*	Santa Barbara Co. north to WA, with scattered records from the east side of the Central Valley.	Moderate, some habitat on the lot. No detection within 50-miles of the Property since 1990.
Western bumble bee	*Bombus occidentalis*	G2G3, S1 – IVU | USFS	Active from February to November.	Found in a range of habitats.	Mixed woodlands, farmlands, urban areas, montane meadows and into the western edge of the prairie grasslands.	Once common and widespread, species has declined precipitously, perhaps from disease.	Central CA to southern B.C.	Moderate, suitable habitat on the lot. No detection within 50-miles of the Property since 1984.
Monarch butterfly – California overwintering population	*Danaus plexippus plexippus* pop. 1	G4T1T2, S2 – IUCN | USFS | FC	As temperatures warm at the overwintering sites in the spring, monarchs begin to breed and lay eggs on milkweed throughout their migration. The following generations breed and lay eggs throughout the summer.	Closed-cone coniferous forest	Winter roost sites extend along the coast from northern Mendocino Co. to Baja California, MX.	Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby.	Monarchs are native to North and South America but have since spread to many other locations where milkweed and suitable temperatures exist, including Australia, New Zealand and portions of the Iberian Peninsula.	Unlikely, due to the absence of milkweed in surrounding area. The closest documented sighting was about 65-miles from the lot.
Mammals								
Pacific fisher	*Pekania pennanti*	G5, S2S3 – BLM | CSSC | ILC | USFS	Reproduction peaks in late March, and breeding may occur as late as May.	North Coast coniferous forest | Old growth | Riparian forest	Intermediate to large-tree stages of coniferous forests and deciduous-riparian areas with high percent canopy closure.	Uses cavities, snags, logs and rocky areas for cover and denning. Needs large areas of mature, dense forest.	Northern Coastal Range, Klamath Mtns, southern Cascades, and Sierra Nevada mtn. ranges.	Moderate, suitable habitat on the lot. Nearest documented sighting was about 8-miles from the Property.

COMMON NAME	*SCIENTIFIC NAME*	STATUS	BREEDING SEASON	HABITATS	GENERAL HABITAT	MICROHABITAT	RANGE	POTENTIAL TO OCCUR
North American porcupine	*Erethizon dorsatum*	G5, S3 – ILC	Breeding occurs in fall and early winter with young born in the spring/early summer	Broadleaved upland forest | Cismontane woodland | Closed-cone coniferous forest | Lower montane coniferous forest | North coast coniferous forest | Upper montane coniferous forest	Forested habitats in the Sierra Nevada, Cascade, and Coast ranges, with scattered observations from forested areas in the Transverse Ranges.	Wide variety of coniferous and mixed woodland habitat.	Canada to northern MX.	Moderate, suitable habitat on the lot. Nearest documented sighting was 8-miles from the lot, in 1959. Nearest modern detection was about 23-miles from the Property in 2014.
Sonoma tree vole	*Arborimus pomo*	G3, S3 – CSSC | INT	Breeds year-round, but mostly from February - September.	North coast coniferous forest | Old growth | Redwood	North coast fog belt in Douglas-fir, redwood, and montane hardwood-conifer forests.	Feeds almost exclusively on Douglas-fir needles. Will occasionally take needles of grand fir, hemlock, or spruce.	Distributed along coast from Sonoma Co. to OR border, restricted to fog belt.	Moderate, presence of suitable habitat on the lot. The closest documented sighting was 2.4-miles from the lot.
Townsend's big-eared bat	*Corynorhinus townsendii*	G4, S2 – BLM | CSSC | ILC | USFS	Mating occurs Nov.- Feb. Young born May-June, peak birthing in late May. Young are capable of flight in 2-3 weeks and weaned after six weeks.	Broadleaved upland forest | Chaparral | Lower montane coniferous forest | Meadow & seep | | Riparian forest | Riparian woodland | Upper montane coniferous forest | Valley & foothill grassland	Wide variety of habitats. Most common in mesic sites.	Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	Statewide; once common now uncommon.	High, based on the presence of suitable habitat on the lot as well as recent detections documented in a nearby area.
Mollusks								

COMMON NAME	*SCIENTIFIC NAME*	STATUS	BREEDING SEASON	HABITATS	GENERAL HABITAT	MICROHABITAT	RANGE	POTENTIAL TO OCCUR
California floater	*Anodonta californiensis*	G3Q, S2? – USFS	Larvae released by female in the spring/early summer. Breeding varies depending on water temperature and habitat.	Aquatic	Freshwater lakes and slow-moving streams and rivers. Most often found in the sand and mud of lakes and reservoirs or in stable areas of low-gradient stream reaches. Taxonomy under review by specialists.	Generally, in shallow water.	Historically from BC to Baja. Extirpated in many areas including the Central Valley. Known populations. Occur in the Fall and Pit Rivers in Shasta Co.	Unlikely, based on the lack of suitable habitat on the lot.
Western pearlshell	*Margaritifera falcata*	G4G5, S1S2 – INT	Reproduction is dependent on salmonids for parasitic larvae to attach to.	Aquatic	Found in perennial, cold-water small streams and large rivers that support salmonid populations. Stable sand, gravel, or cobble stream bottoms. Can live more than 100 years.	In large streams with a higher gradient, they are found in sheltered areas behind boulders or log jams. Prefers lower velocity waters.	Southern California to British Columbia.	Unlikely, based on the lack of suitable habitat on the lot.

*Oceanic/pelagic species were omitted due to the location of the worksite in proximity to the ocean

Potential to Occur:	
None	No habitat components meeting the species requirements are present.
Unlikely	Few to none of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site.
Moderate	Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.
High	All the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.
Present	Species were observed on the site or have been recorded (database observation) on the site in the recent past.

Acronym	Status:
AED	American Fisheries Society (AFS) – **Endangered**
AVU	American Fisheries Society (AFS) – **Vulnerable**
ATH	American Fisheries Society (AFS) – **Threatened**
BLM	Bureau of Land Management (BLM) – **Sensitive**
CDF	CA Dept. of Forestry – **Sensitive**
CC	California – **Candidate**
CD	California – **Delisted**
CE	California – **Endangered**
CFP	California – **Fully Protected**
CP	California – **Protected**
CT	California – **Threatened**
CSSC	CDFW – **Species of Special Concern**
CWL	CDFW – **Watch List**
FC	Federal – **Candidate**
FD	Federal – **Delisted**
FE	Federal – **Endangered**
FT	Federal – **Threatened**
IUCN	International Union for the Conservation of Nature (IUCN) – **Sensitive or Near Endangered**
ICE	IUCN – **Critically Endangered**
IDD	IUCN – **Data Deficient**
ILC	IUCN – **Least Concern**
INT	IUCN – **Near Threatened**
IVU	IUCN – **Vulnerable**
MSSC	Marine Mammal Commission (MMC) – **Species of Special Concern**
NRWL	North American Bird Conservation Initiative (NABCI) – **Red Watch List**
NYWL	NABCI – **Yellow Watch List**
UBCC	U.S. Fish & Wildlife Service (USFWS) – **Birds of Conservation Concern**
USFS	U.S. Forest Service (USFS) – **Sensitive**

G1	Global Conservation Status Rank: **Critically Imperiled** – At very high risk of extinction due to extreme rarity (five or fewer populations).
G2	Global Conservation Status Rank: **Imperiled** – at risk of extinction or elimination (6-20 extant populations).
G3	Global Conservation Status Rank: **Vulnerable** – at moderate risk of extinction or elimination (21-100 extant populations).
G4	Global Conservation Status Rank: **Apparently secure** – at fairly low risk of extinction or elimination (100-1,000 extant populations).
G5	Global Conservation Status Rank: **Secure** – Common; widespread and abundant (1,000+ extant populations).
S1	Subnational Conservation Status Rank: **Critically Imperiled** – at very high risk of extirpation in the state/province due to extreme rarity.
S2	Subnational Conservation Status Rank: **Imperiled** – at high risk of extirpation in the state/province.
S3	Subnational Conservation Status Rank: **Vulnerable** – moderate risk of extirpation in the state/province.
S4	Subnational Conservation Status Rank: **Apparently secure** – at fairly low risk of extirpation in the state/province.
S5	Subnational Conservation Status Rank: **Secure** – at very low risk of extirpation in the state/province.
T#	Infraspecific (Subspecies) Taxon Conservation Status Rank

Appendix C. Wildlife Species Observed

Common nighthawk (*Chordeiles minor*)
Western screech owl (*Megascops kennicottii*)
Coyote (*Canis latrans*)
Great horned owl (*Bubo virginianus*)
Northern saw-whet owl (*Aegolius acadicus*)
Sharp-shinned hawk (*Accipiter striatus*)
Common raven (*Corvus corax*)
Steller's jay (*Cyanocitta stelleri*)
American robin (*Turdus migratorius*)
Swainson's thrush (*Catharus ustulatus*)
Hermit thrush (*Catharus guttatus*)
Pacific-slope flycatcher (*Empidonax difficilis*)
Brown creeper (*Certhia americana*)
Golden-crowned kinglet (*Regulus satrapa*)
Dark-eyed junco (*Junco hyemalis*)
Band-tailed pigeon (*Patagioenas fasciata*)
Osprey (*Pandion haliaetus*)
American black bear (*Ursus americanus*)
California common scorpion (*Paruroctonus silvestrii*)
California king snake (*Lampropeltis getula californiae*)
Red-tailed hawk (*Buteo jamaicensis*)
American bushtit (*Psaltriparus minimus*)
Northern flicker (*Colaptes auratus*)
Chestnut-backed chickadee (*Poecile rufescens*)
Hairy woodpecker (*Leuconotopicus villosus*)
Vaux's swift (*Chaetura vauxi)*
Violet-green swallow *(Tachycineta thalassina*)
Wilson's warbler (*Cardellina pusilla*)
Belted kingfisher (*Megaceryle alcyon*)
Song sparrow (*Melospiza melodia)*
Roosevelt elk (*Cervus canadensis roosevelti*)
Turkey vulture (*Cathartes aura*)
Western flycatcher (*Empidonax difficilis*)

Appendix D. Observed Plants

Family	Scientific Name	Common Name
Blechnaceae - Deer Fern Family		
	Woodwardia fimbriata	giant chain fern
Dryopteridaceae -Wood Fern Family		
	Dryopteris arguta	California wood fern
	Polystichum munitum	western sword fern
Equisetaceae - Horsetail Family		
	Equisetum hyemale subsp. *affine*	common scouring rush
	Equisetum telmateia subsp. *braunii*	giant horsetail
GYMNOSPERMS		
Cupressaceae - Cypress Family		
	Sequoia sempervirens	coast redwood
Pinaceae - Pine Family		
	Abies grandis	grand fir
	Pseudotsuga menziesii	Douglas fir
MAGNOLIIDS		
Aristolochiaceae - Pipevine Family		
	Asarum caudatum	wild ginger
EUDICOTS		
Anacardiaceae - Sumac Family		
	Toxicodendron diversilobum	poison oak
Apiaceae - Carrot Family		
	Conium maculatum	poison hemlock
	Heracleum maximum	common cow parsnip
	Oenanthe sarmentosa	water parsley
	Osmorhiza occidentalis	western sweet cicely
Asteraceae - Aster Family		
	Achillea millefolium	yarrow
	Bellis perennis	English daisy
	Hieracium albiflorum	hawkweed
	Hypochaeris radicata	hairy cat's ear
	Leucanthemum vulgare	ox-eye daisy
	Sonchus oleraceus	common sow thistle
	Taraxacum officinale	common dandelion
Betulaceae - Birch Family		
	Alnus rubra	red alder
Boraginaceae - Borage Family		
	Myosotis latifolia	forget-me-not
Brassicaceae - Mustard Family		
	Barbarea orthoceras	winter cress
Caprifoliaceae - Honeysuckle Family		
	Lonicera hispidula	honeysuckle
Caryophyllaceae - Pink Family		
	Spergularia rubra	sand-spurrey
	Stellaria media	common chickweed

Ericaceae - Heath Family		
	Gaultheria shallon	salal
	Vaccinium parvifolium	red huckleberry
Fabaceae - Pea Family		
	Acmispon parviflorus	deervetch
	Lathyrus vestitus subsp. *vestitus*	hillside pea
	Vicia sativa subsp. *sativa*	spring vetch
Geraniaceae - Geranium Family		
	Geranium dissectum	cut-leaf geranium
	Pelargonium grossularioides	
Hydrophyllaceae - Waterleaf Family		
	Hydrophylllum tenuipes	Pacific waterleaf
	Nemophila parviflora	
Lamiaceae - Mint Family		
	Mentha pulegium	penny royal
	Stachys rigida subsp. *quercetorum*	hedge nettle
Montiaceae - Montia Family		
	Claytonia perfoliata	miner's lettuce
	Claytonia sibirica	candy flower
Myrsinaceae - Myrsine Family		
	Lysimachia latifolia	star flower
Oxalidaceae- Oxalis Family		
	Oxalis oregana	redwood sorrel
Papaveraceae - Poppy Family		
	Dicentra formosa	bleeding heart
Philadelphaceae - Mock Orange Family		
	Whipplea modesta	modesty
Plantaginaceae - Plantain Family		
	Digitalis purpurea	foxglove
	Plantago lanceolata	English plantain
Primulaceae		
	Primula hendersonii	mosquito bills
Ranunculaceae - Buttercup Family		
	Ranunculus occidentalis	western buttercup
Rosaceae - Rose Family		
	Fragaria vesca	wood strawberry
	Rosa gymnocarpa	wood rose
	Rubus armeniacus	Himalayan blackberry
	Rubus parviflorus	thimbleberry
	Rubus ursinus	California blackberry
Rubiaceae - Madder Family		
	Galium aparine	goose grass
	Galium trifidum subsp. *columbianum*	
Salicaceae - Willow Family		
	Salix sitchensis	Coulter willow
Saxifragaceae - Saxifrage Family		

	Tellima grandiflora	fringe cups
	Tolmiea menziesii	pig-a-back plant
Solanaceae - Nightshade Family		
	Solanum xanti	nightshade
	Urtica dioica subsp. *gracilis*	American stinging nettle
Violaceae - Violet Family		
	Viola glabella	stream violet
	Viola sempervirens	evergreen violet
MONOCOTS		
Cyperaceae - Sedge Family		
	Carex nudata	torrent sedge
	Scirpus microcarpus	
Iridaceae - Iris Family		
	Iris douglasiana	Douglas iris
	Sisyrinchium bellum	blue-eyed grass
Juncaceae - Rush Family		
	Luzula comosa subsp. *laxa*	wood rush
Liliaceae - Lily Family		
	Prosartes sp.	fairybells
Poaceae - Grass Family		
	Anthoxanthum ordoratum	sweet vernal grass
	Dactylis glomerata	orchard grass
	Polypogon australis	Chilean beardgrass
	Trisetum canescens	smooth trisetum

Appendix E. Delineation of Waters of the United States

DEVILBISS RANCH DEMOLITION PROJECT

Delineation of Waters of the United States

June 2024

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Devilbiss Ranch Demolition Project

Delineation of Waters of the United States

Contents

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Appendices

1. Introduction

On behalf of Save the Redwood League (SRL), North Coast Resource Management (NCRM) conducted a wetland determination of potential waters of the United States in support of the approximately 1.6-acre Devilbiss Ranch Demolition Project (project). The project consists of removing 5 abandoned structures located along Highway 1 near Rockport, in Mendocino County, California (See Figure 1). The property is currently managed by the Save the Redwood League (SRL). This report provides the results for a field investigation of the site to determine the extent and location of potential waters of the U.S. that could potentially be impacted by the demolition project.

This wetland determination provides the location of waters of the United States, including wetlands, within the Study Area (See Figure 2). These boundaries are provided for reference to aid in the demolition of the site. The delineation of waters of the United States, including wetlands, was conducted in sufficient detail to meet the minimum standards necessary for a delineation for verification of the jurisdictional boundaries. The work products, interpretations, and conclusions produced in the determination are subject to revision pending application of the methods prescribed in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the United States Army Corps of Engineers (Corps) verification.

A total of 0.131 acre of waters of the United States were mapped in the survey areas. Waters of the United States at the sites include: portions of an ephemeral drainage (0.016 acre, 243 linear feet), and portions a freshwater emergent wetland (0.115 acre).

Approved Jurisdictional Determinations and Preliminary Jurisdictional Determinations are tools used by the Corps to help implement Section 404 of the Clean Water Act. In order to obtain an Approved Jurisdictional Determination, as required to determine a feature as non-jurisdictional, the Corps must conduct a significant nexus evaluation to assess the characteristics and functions of the aquatic features to determine if they significantly affect the chemical, physical, and biological integrity of downstream navigable waters. Alternatively, an applicant can request a Preliminary Jurisdictional Determination in which case the Corps will treat all features as jurisdictional waters of the United States for permitting purposes (Riley 2008).

This delineation of waters of the United States is subject to verification by the Corps, San Francisco District. NCRM advises all parties to treat the information contained herein as preliminary until the Corps provides written verification of the boundaries of its jurisdiction, if required.

2. Project Location

The project is located on the Devilbiss Ranch property which encompasses approximately five miles of remote, undeveloped California coastline in northern Mendocino County and includes 3,181 acres of forestland, coastal bluffs, and prairies. It is located approximately 19 miles north of Fort Bragg

along Highway 1 in Sections 1, 2, 11, 14, & 23 T22N R18W, and Sections 25, 26, 27, 34, 35, & 36 T23N R18W within the Hales Grove USGS 7.5' quadrangles. The lot sits adjacent to Cottaneva Creek, a perennial watercourse.

Acreage

The wetland delineation was conducted within and around the demolition site/work area (see Figure 1). The "Work Area" identified on the map is the location where ground disturbance is anticipated due to heavy equipment operations required for demolition. The survey areas encompass a total of approximately 1.56 acres.

Proximity to Major Highways and Streets

The project site is located immediately east along Highway 1 along a stretch of highway approximately 2.5 miles north of Rockport. To access the site, head north on Highway 1 from Rockport for approximately 2.5 miles. A small dirt pullout along the side of the road provides access into the site through a small fence.

USGS Hydrologic Unit

The project site is located in the *Big River-Navarro-Garcia, California* USGS Hydrologic Map Unit (Cataloging Unit Number 18010108).

3. Environmental Setting

Current/Recent Land Use

The project site is currently managed by Save the Redwoods League as a nature preserve. The structures in the project area are dilapidated and are not used for any purpose. The project proponent proposes to demolish these abandoned buildings. No replacement construction is proposed at this location.

Site Topography and Elevation

The project site is situated along Cottaneva Creek and Highway 1, approximately 1,500 ft. east of the Pacific Ocean. Elevations within the site range from 100 to 130 feet above mean sea level (msl). One small ephemeral drainage flows through the middle of the project site into Cottaneva Creek. The ephemeral drainage is approximately 3 feet wide and 1 foot deep through the project site, and flows through an existing 32 inch culvert. The site slopes in a westerly direction towards Cottaneva Creek.

Climate

Climate at Devilbiss Ranch is as follows:

Type: The site characterized by a Mediterranean climate with cool, wet winters and hot, dry summers.

Precipitation: Precipitation in the project site primarily falls as rain. The average annual rainfall is approximately 48 inches (California Department of Water Resources 2024).

Air Temperature: Air temperatures in the concession sites range between an average January high of 56 degrees Fahrenheit (ºF), and an average August high of 65ºF. The annual average high is approximately 61ºF (Western Regional Climate Center 2024).

Growing Season: The temperature regime is mesic and the average frost-free period is 295 to 365 days (USDA 2024).

Hydrology/Hydrologic Features

Hydrology occurring in the project site is provided by a combination of precipitation, sheet flow, and groundwater. One ephemeral drainage flow through the site into Cottaneva Creek, then flows downstream approximately 3.5 miles into the Pacific Ocean.

Soil Map Units

Two soil map units occur in the project site. The U.S. Department of Agriculture Natural Resource Conservation Service provides descriptions of these soil (USDA 2024). Soil map units occurring within the project site are shown in figure 3 and described in Table 3.

Table 3. Soil Map Units in the Project Site

Map Unit Name Taxonomy	Map Unit Symbol	Drainage Class	Depth to Restrictive Layer	Hydric Soils
Carlain Loam 2-9%	118	Well-drained	80 inches or more	No
Cottoneva Loam 0-2%	131	Somewhat poorly drained	80 inches or more	Yes

Habitat Communities

The habitat communities occuring within the project site include Redwood Forest, and Freshwater Emergent Wetland. *A Manual of California Vegetation* (Sawyer and Keeler-Wolf 1995) and the California Wildlife Habitat Relationship system (Mayer and Laudenslayer Jr. 1988) were used to classify habitat communities.

Red Alder Forest

This community is classified as the Alnus rubra (red alder) Riparian Forest Alliance. Common mid-canopy woody plants and tall herbaceous perennials include elk clover (*Aralia californica*), lady fern (*Athyrium felix-femina*), slough sedge (*Carex obnupta*), sword fern (*Polystichum munitum*), California blackberry (*R. ursinus*), red elderberry (*Sambucus racemosa*), and American stinging-nettle (*Urtica dioica subsp. gracilis*). These stands of red alder occur along the ephemeral creek flowing through the project site, and also along the highway and Cottaneva Creek.

Redwood Forest

Redwood forests occur in the project area and the surrounding watershed upslope from Cottoneva Creek. The stands are second growth redwoods that provide a closed canopy that is contiguous with the red alder trees along the creek. Grand fir (Abies grandis) and Douglas-fir (*Pseudotsuga menziesii*) occur scattered throughout the forests and hillsides in these redwood dominated stands. Understory species include species such as sword fern, evergreen huckleberry (*vaccinium ovatum*) and poison oak (*Toxicodendron pubescens*).

Fresh Emergent Wetland

Freshwater emergent wetland habitat occurs in the meadow area to the north of the parking pull out show in Figure 2. This area extends to the north, along the highway, and is also parallel to Cottaneva Creek. The wetland feature and its hydrology is associated with Cottaneva Creek. The grassy area is dominated by exotic grass species, such as velvet grass (*Holcus lanatus*) and sweet vernal grass (*Anthoxanthum odoratum*), but also contains native wood rush (*Lazula comosa*).

4. Methods

Field Delineation

The delineation of wetlands and "other waters" of the United States was based on field observations of positive indicators for wetland vegetation, hydrology, and soils, and indicators of an OHWM. This methodology is consistent with the approach outlined in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (U.S. Army Corps of Engineers 2008). Taxonomic nomenclature for plant species is in accordance with *The Jepson Manual* (Hickman 1993). Wetland indicator status for plant species was confirmed using Reed (Reed 1988), and the "50/20 Rule" was applied to determine plant dominance (U.S. Army Corps of Engineers 2008). Presence of primary and secondary wetland hydrology indicators were documented for each wetland feature.

A soil pit was dug in or near representative wetland features. Soil pits were dug to a depth sufficient to document the presence or confirm the absence of hydric soil or hydrology indicators. Soils were

examined in order to assess field indicators of hydric soils. Positive indicators of hydric soils were observed in the field in accordance with the criteria outlined in *Field Indicators of Hydric Soils in the United States, Version 8.2*(U. S. Department of Agriculture 2018). Soil colors were determined using a Munsell® soil color chart. The hydric status of each soil map unit occurring in the concession sites was reviewed using the *Web Soil Survey* (USDA 2024). At least one set of data points was selected to best represent the wetland feature type and the adjacent uplands. Data points were also placed in potential wetland areas to confirm wetland or upland status.

"Other waters" are traditional navigable waters/territorial seas and their tributaries. Delineation of other waters was based on presence of an OHWM as defined in Corps regulations (33 CFR 328.3 and 33 CFR 328.4) and whether the feature qualified as tributary to waters of the United States. Physical characteristics of an OHWM include, but are not limited to, a natural line impressed on the bank, shelving, changes in the character of the soil, destruction of terrestrial vegetation, presence of litter and debris, leaf litter disturbed or washed away, scour, deposition, presence of bed and bank, and water staining.

Nine data points were evaluated to characterize and document wetland and other waters and the associated uplands. The on-site delineation was conducted on May 26, 2024. Routine wetland determination data forms are presented in Appendix B. Representative photographs of the delineated features and data point locations are presented in Appendix C.

Evaluation of Jurisdictional Features

The final "Revised Definition of 'Waters of the United States'" rule was published in the Federal Register on January 18, 2023, and took effect on March 20, 2023. On August 29, 2023, the agencies issued a final rule amending the Code of Federal Regulations to conform the January 2023 Rule's definition of "waters of the United States" to the Supreme Court decision in Sackett v. Environmental Protection Agency. The conforming rule amends the provisions of the agencies' definition of "waters of the United States" in the January 2023 Rule that are invalid under the Supreme Court's interpretation of the Clean Water Act in the Sackett decision. The conforming rule, "Revised Definition of 'Waters of the United States'; Conforming," became effective on September 8, 2023 upon publication in the Federal Register.

40 CFR 120.2(a)
Waters of the United States means:
(1) Waters which are:
(i) Currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
(ii) The territorial seas; or
(iii) Interstate waters;
(2) Impoundments of waters otherwise defined as waters of the United States under this definition, other than impoundments of waters identified under paragraph (a)(5) of this section;

(3) Tributaries of waters identified in paragraph (a)(1) or (2) of this section that are relatively permanent, standing or continuously flowing bodies of water;

(4) Wetlands adjacent to the following waters:

(i) Waters identified in paragraph (a)(1) of this section; or
(ii) Relatively permanent, standing or continuously flowing bodies of water identified in paragraph (a)(2) or (a)(3) of this section and with a continuous surface connection to those waters;

(*5) Intrastate lakes and ponds, streams, or wetlands not identified in paragraphs (a)(1) through (4) of this section that are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to the waters identified in paragraph (a)(1) or (a)(3) of this section.*

It should be noted that non- jurisdictional features may still fall under the jurisdiction of the Regional Water Quality Control Board and/or the California Department of Fish and Game.

5. Results

Overview

A total of 0.131 acre of Waters of the United States were mapped in the survey areas. Waters of the United States at the sites include: portions of an ephemeral stream (0.016 acre, 243 linear feet), and portions a freshwater emergent wetland (0.115 acre) The boundaries of waters of the United States shown in Figures 2.

Characterization of Delineated Wetland Features

Fresh Emergent Wetland

One fresh emergent wetland (FEW) occurs in the survey area. The wetland is located near the northern boundary of the survey area. It appears the area has been used in the past for livestock grazing because of the existing barbwire fencing around the pasture. Common wood rush, and sweet vernal grass dominate the pasture area, and water appears to gather near the culvert located just north of the parking area. Sedges and willows occur along the roadside where the water collects. Hydrology indicators include surface soil cracks and evidence of soil saturation. Redox soil matrix criteria indicates hydric soils.

The fresh emergent wetland is adjacent to Cottaneva Creek, which is considered a Waters of the United States. The wetland is located approximately 200 feet away from the banks of Cottaneva Creek, and drains or show any physical evidence of a surface connection to the creek. Therefore, the wetland would be considered adjacent to a “Waters of the U.S.” and under the jurisdiction of the CWA.

Characterization of Delineated "Other Water" Features

Ephemeral Stream

An ephemeral streams passes through the project area, flowing from east to west, into Cottaneva Creek. The channel is approximately 1-3 feet wide, with a small bed and bank. The feature exhibits indicators of scour and deposition, minor drift lines, and sediment deposits, and flowing surface water. Hydrology is provided by sheet flow during precipitation events, and natural seeps/springs along the watercourse. Willows and red alders occur along the creek in the overstory, and blackberry and stinging nettle dominate the understory. Cottaneva Creek is a Waters of the U.S. and , therefore the ephemeral streams within these survey areas also qualify as waters of the United States due to their hydrologic connection.

6. Conclusion

A total of 0.131 acre of Waters of the United States were mapped in the survey areas. Waters of the United States at the sites include: portions of an ephemeral stream (0.016 acre, 243 linear feet), and portions a freshwater emergent wetland (0.115 acre) The boundaries of waters of the United States shown in Figures 3.

Jurisdictional delineations for the delineated features are based on current conditions, (i.e., normal circumstances). Potential jurisdictional delineations were made in accordance with EPA and Corps guidance developed from the outcomes of case law. Features determined to not meet criteria for waters of the United States are subject to verification by the Corps. NCRM advises all interested parties to treat the information contained herein as preliminary pending written verification of jurisdictional boundaries by the Corps.

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Appendix A

Figures

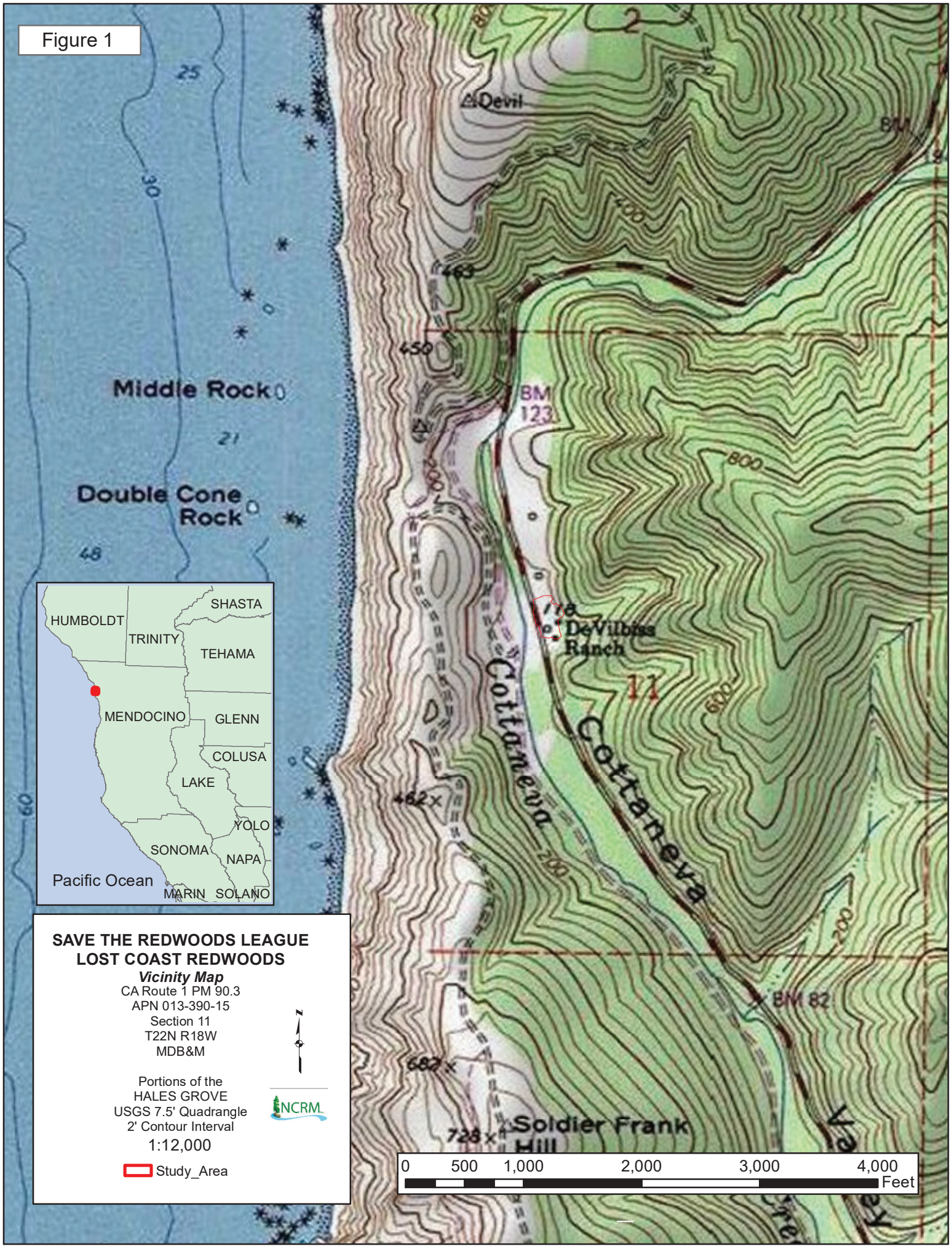
Figure 1
Middle Rock
Double Cone Rock
Devil
BM
BM 123
DeVilbiss Ranch
Cottaneva
Cottaneva
BM 82
Soldier Frank Hill
HUMBOLDT
TRINITY
SHASTA
TEHAMA
MENDOCINO
GLENN
COLUSA
LAKE
YOLO
SONOMA
NAPA
MARIN
SOLANO
Pacific Ocean
SAVE THE REDWOODS LEAGUE
LOST COAST REDWOODS
Vicinity Map
CA Route 1 PM 90.3
APN 013-390-15
Section 11
T22N R18W
MDB&M
Portions of the
HALES GROVE
USGS 7.5' Quadrangle
2' Contour Interval
1:12,000
Study_Area
NCRM
0 500 1,000 2,000 3,000 4,000
Feet

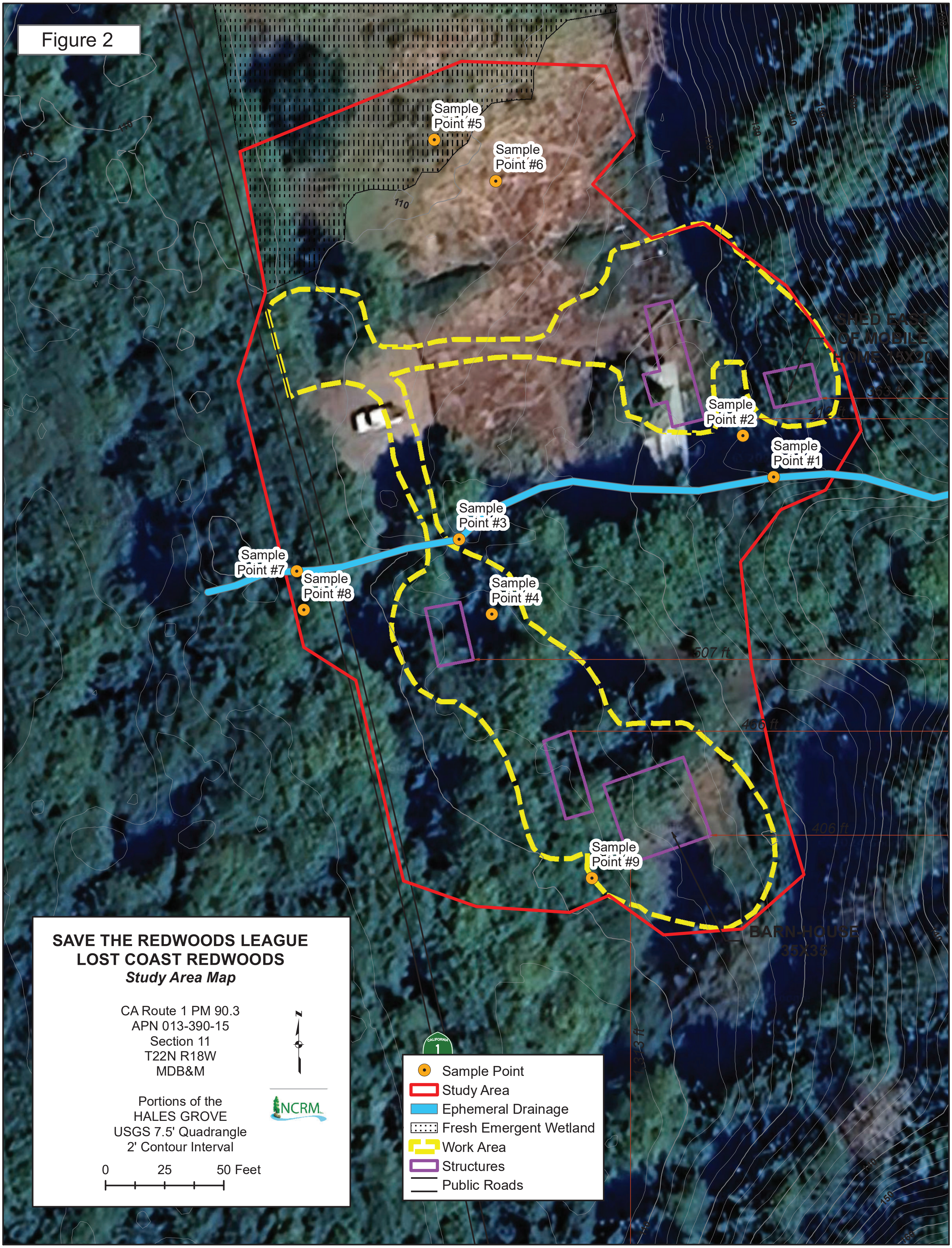
Figure 2
Sample Point #5
Sample Point #6
110
Sample Point #2
Sample Point #1
Sample Point #3
Sample Point #7
Sample Point #8
Sample Point #4
Sample Point #9
BARN-HOUSE 35X35
507 ft
406 ft
SAVE THE REDWOODS LEAGUE
LOST COAST REDWOODS
Study Area Map
CA Route 1 PM 90.3
APN 013-390-15
Section 11
T22N R18W
MDB&M
Portions of the
HALES GROVE
USGS 7.5' Quadrangle
2' Contour Interval
0
25
50 Feet
N
NCRM
Sample Point
Study Area
Ephemeral Drainage
Fresh Emergent Wetland
Work Area
Structures
Public Roads

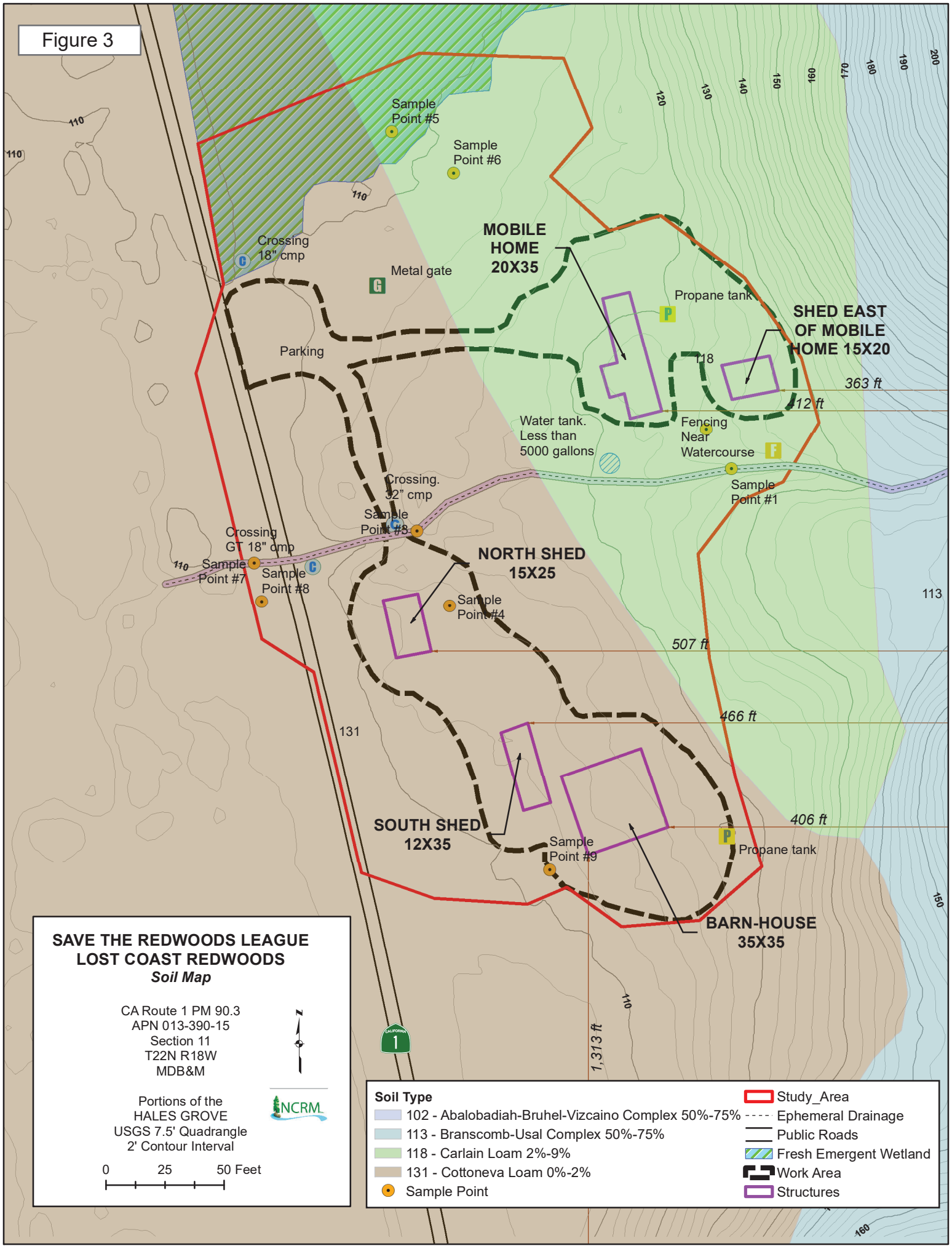
Figure 3
Sample Point #5
Sample Point #6
MOBILE HOME 20X35
Crossing 18" cmp
Metal gate
Propane tank
SHED EAST OF MOBILE HOME 15X20
Parking
363 ft
12 ft
Water tank. Less than 5000 gallons
Fencing Near Watercourse
Sample Point #1
Crossing. 32" cmp
Sample Point #3
Crossing GT 18" cmp
Sample Point #7
Sample Point #8
NORTH SHED 15X25
Sample Point #4
507 ft
466 ft
131
SOUTH SHED 12X35
Sample Point #9
406 ft
Propane tank
BARN-HOUSE 35X35
1,313 ft
SAVE THE REDWOODS LEAGUE
LOST COAST REDWOODS
Soil Map
CA Route 1 PM 90.3
APN 013-390-15
Section 11
T22N R18W
MDB&M
Portions of the HALES GROVE USGS 7.5' Quadrangle 2' Contour Interval
0 25 50 Feet
Soil Type
102 - Abalobadiah-Bruhel-Vizcaino Complex 50%-75%
113 - Branscomb-Usal Complex 50%-75%
118 - Carlain Loam 2%-9%
131 - Cottoneva Loam 0%-2%
Sample Point
Study_Area
Ephemeral Drainage
Public Roads
Fresh Emergent Wetland
Work Area
Structures

Appendix B

Routine Wetland Delineation Data Forms

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Devlbiss City/County: Rockport / Mendocino Sampling Date: 5/26/24

Applicant/Owner: SRL State: _____ Sampling Point: 1

Investigator(s): R. Kobayashi Section, Township, Range: 11, T22N R18W

Landform (hillslope, terrace, etc.): Drainage Local relief (concave, convex, none): concave Slope (%): 5%

Subregion (LRR): C Lat: 39.772426 Long: 123.830888 Datum: NAD 83

Soil Map Unit Name: Carlain loam 2-9% NWI classification: no data available

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X
Hydric Soil Present?	Yes _____	No X
Wetland Hydrology Present?	Yes X	No _____

Is the Sampled Area within a Wetland? Yes _____ No X

Remarks: Ephemeral stream, tributary to Cottaneva Creek. substrate of gravel, approximately 1-3 ft wide, 1 ft. Deep.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 1)	Absolute % Cover	Dominant Species?	Indicator Status
1. No vegetation - channel			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	= Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)

Total Number of Dominant Species Across All Strata: _____ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No _____

Remarks:

SOIL

Sampling Point: _____

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
	no pit, scoured channel							

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: N/A

Depth (inches): N/A

n/a

Hydric Soil Present? Yes _____ No _____

Remarks: no pit, scoured channel. Bed & bank present. still flowing

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- X Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) **(Riverine)**
- X Sediment Deposits (B2) **(Riverine)**
- X Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes X No ____ Depth (inches): 3 inches

Water Table Present? Yes ____ No X Depth (inches): ____

Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): ____

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: sufficient hydrology indicators

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Devilbiss Ranch City/County: Rockport/California Sampling Date: 5/26/24

Applicant/Owner: SRL State: _____ Sampling Point: 2

Investigator(s): R. Kobayashi Section, Township, Range: 11, T22N, R18W

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 5

Subregion (LRR): C Lat: 39.772471 Long: 123.830925 Datum: NAD83

Soil Map Unit Name: Carlain loam 2-9% NWI classification: no data available

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation Yes, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: Companion point to sample point 1

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 15 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Alnus Rubra	50	Yes	FACW
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. Sambucus racemosa	25	Yes	FACU
2. Salix sitchensis	25	Yes	FACW
3.			
4.			
5.			
	50 = Total Cover		
Herb Stratum (Plot size: 15 ft radius)			
1. rubus ursinus	40	Yes	FAC
2. Urtica dioica	40	Yes	FAC
3. Rubus parviflorus	10	No	FAC
4. Polystichum munitum	5	No	FACU
5.			
6.			
7.			
8.			
	95 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust Ø

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species _____	x 1 =	_____
FACW species _____	x 2 =	_____
FAC species _____	x 3 =	_____
FACU species _____	x 4 =	_____
UPL species _____	x 5 =	_____
Column Totals: _____ (A)		_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

X Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: _____

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-1	7.5YR 2.5/2	100					loam	
1-14	7.5YR 2.5/3	100					loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: rock / gravel

Depth (inches): 14 inches

Hydric Soil Present? Yes _____ No X

Remarks: This pit is close to structures.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: no indicators of hydrology

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Devilbiss Ranch City/County: Rockport/Mendocino Sampling Date: 5/26/24
Applicant/Owner: SRL State: CA Sampling Point: 3
Investigator(s): R. Kobayashi Section, Township, Range: 11, T22N, R 18W
Landform (hillslope, terrace, etc.): Drainage Local relief (concave, convex, none): concave Slope (%): 5%
Subregion (LRR): C Lat: 39.772350 Long: 123.831360 Datum: NAD 83
Soil Map Unit Name: Cottoneva Loam 0-2% NWI classification: no data available
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____ No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____ No X	
Wetland Hydrology Present?	Yes X No ____	

Remarks: Ephemeral stream. Tributary to Cottoneva Ck approx. 150 ft downstream channel has gravel substrate, approximately 3 ft wide by 1 ft deep.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1. no vegetation in channel			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	= Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum ____ % Cover of Biotic Crust ____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: ____ (A)
Total Number of Dominant Species Across All Strata: ____ (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:
__ Dominance Test is >50%
__ Prevalence Index is ≤3.0[1]
__ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
__ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No ____

Remarks:

SOIL

Sampling Point: _____

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
	no pit -		scoured channel					

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: N/a

Depth (inches): N/a

n/a

Hydric Soil Present? Yes _____ No _____

Remarks: no pit, scoured channel, Bed & bank present, still flowing

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- X Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- X Sediment Deposits (B2) (**Riverine**)
- X Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes X No ____ Depth (inches): 3 inches

Water Table Present? Yes ____ No X Depth (inches): ____

Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): ____

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Sufficient hydrology indicators

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Devilbiss Ranch City/County: Rockport / Mendocino Sampling Date: 5/26/24

Applicant/Owner: SRL State: CA Sampling Point: 4

Investigator(s): R. Kobayashi Section, Township, Range: 11, T22N, R18W

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 5

Subregion (LRR): C Lat: 39.772263 Long: 123.831311 Datum: NAD83

Soil Map Unit Name: Cottoneva Loam 0-2% NWI classification: no data

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No ____	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____ No X	
Wetland Hydrology Present?	Yes ____ No X	

Remarks: companion point to sample point #3

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 15 ft rad)	Absolute % Cover	Dominant Species?	Indicator Status
1. Alnus rubra	80	Yes	FACW
2.			
3.			
4.			
	80 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft rad.)			
1. rubus ursinus	25	Yes	FAC
2. Acer macrophyllum	10	Yes	FAC
3.			
4.			
5.			
	35 = Total Cover		
Herb Stratum (Plot size: 15 ft. rad)			
1. Galium aparine	40	Yes	FACU
2. Urtica dioica	30	Yes	FAC
3. Tellima grandiflora	30	Yes	FACU
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: \)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum ____ % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species ____	x 1 = ____
FACW species ____	x 2 = ____
FAC species ____	x 3 = ____
FACU species ____	x 4 = ____
UPL species ____	x 5 = ____
Column Totals: ____ (A)	____ (B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:

SOIL

Sampling Point: _____

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-1	7.5YR 2.5/2	100					Loam	root zone
1-12	7.5YR 2.5/3	100					Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: rock

Depth (inches): 12

Hydric Soil Present? Yes _____ No X

Remarks: pit is close to structure ~ 15 ft away.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: no indicators of hydrology

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Devilbiss Ranch City/County: Rockport / Mendocino Sampling Date: 5/26/24
Applicant/Owner: SRL State: CA Sampling Point: 5
Investigator(s): R. Kobayashi Section, Township, Range: 11, T22N R18W
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 0-5%
Subregion (LRR): C Lat: 39.772813 Long: -123.831405 Datum: NAD83
Soil Map Unit Name: Carlain loam 2-9% NWI classification: no data available
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)
Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 15' rad)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15' rad.)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 15' rad)			
1. Anthoxanthum ordoratum	40%	Yes	FAC
2. Lazula comosa	30%	Yes	FAC
3. Geranium dissectum	30%	Yes	–
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 % (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:
___ Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: _____

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 3/3	60	10R 4/6	40	RM	M	Loam	redox roots
2-4	7.5 YR 3/2	70	10R 4/6	30	RM	M	Loam	
4-10	7.5 YR 2.5/3	75	10R 4/6	25	RM	M	Loam	
10-16	10YR 3/4	75	10R 4/6	25	RM	M	Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- X Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Devilbiss Ranch City/County: Rockport / Mendocino Sampling Date: 5/26/24
Applicant/Owner: SRL State: CA Sampling Point: 6
Investigator(s): R. Kobayashi Section, Township, Range: 11, T22N, R18W
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 0-5%
Subregion (LRR): C Lat: 39.772767 Long: -123.831310 Datum: NAD 83
Soil Map Unit Name: Carlain Loam 2-9% NWI classification: no data available
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No ____	Is the Sampled Area within a Wetland? Yes ____ No X
Hydric Soil Present?	Yes ____ No X	
Wetland Hydrology Present?	Yes ____ No X	

Remarks: companion sample point to point #5

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: 15' rad.)			
1. Anthoxanthum odoratum	90	Yes	FAC
2. Geranium dissectum	10	No	—
3.			
4.			
5.			
6.			
7.			
8.			
	____ = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum ____ % Cover of Biotic Crust ____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:
___ Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:

SOIL

Sampling Point: _____

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	2.5 Y 3/2	100						
4-14	2.5 Y 3/3	100						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Devilbiss Ranch City/County: Rockport / Mendocino Sampling Date: 5/26/24
Applicant/Owner: SRL State: CA Sampling Point: 7
Investigator(s): R. Kobayashi Section, Township, Range: 11, T12N R18W
Landform (hillslope, terrace, etc.): Drainage Local relief (concave, convex, none): none Slope (%): 0
Subregion (LRR): C Lat: 39.772311 Long: -123.831614 Datum: NAD 83
Soil Map Unit Name: Cotteneva Loam 0-2% NWI classification: Fo - Forested
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes X	No ____	

Remarks: scoured channel of ephemeral creek

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: ____)			
1. scoured channel			
2.			
3.			
4.			
= Total Cover			
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
= Total Cover			
Herb Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
= Total Cover			
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
= Total Cover			

% Bare Ground in Herb Stratum ____ % Cover of Biotic Crust ____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: ____ (A)
Total Number of Dominant Species Across All Strata: ____ (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:
__ Dominance Test is >50%
__ Prevalence Index is ≤3.0[1]
__ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
__ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No ____

Remarks:

SOIL

Sampling Point: _____

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
	no pit - scoured channel							

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- X Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes X No _____ Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Sufficient Hydrology Indicators

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Devilbiss Ranch City/County: Rockport / Mendocino Sampling Date: 5/26/24
Applicant/Owner: SRL State: CA Sampling Point: 8
Investigator(s): R. Kobayashi Section, Township, Range: 11, T22N R 18W
Landform (hillslope, terrace, etc.): floodplain Local relief (concave, convex, none): concave Slope (%): 0
Subregion (LRR): C Lat: 39.772265 Long: -123.831598 Datum: NAD 83
Soil Map Unit Name: Cottoneva Loam 0-2% NWI classification: PFO - Forested
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No ____	Is the Sampled Area within a Wetland? Yes ____ No X
Hydric Soil Present?	Yes ____ No X	
Wetland Hydrology Present?	Yes ____ No X	

Remarks: companion pt. to sample point #7

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 15' rad)	Absolute % Cover	Dominant Species?	Indicator Status
1. Alnus Rubra	100	Yes	FACW
2.			
3.			
4.			
	100 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15' rad)			
1. Sambucus racemosa	25	Yes	FACU
2.			
3.			
4.			
5.			
	25 = Total Cover		
Herb Stratum (Plot size: 15' rad)			
1. Urtica dioica	30	Yes	FAC
2. rubus ursinus	30	Yes	FAC
3. Galium aparine	10	Yes	FACU
4. Equisetum telmateia	20	Yes	FACW
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum ____ % Cover of Biotic Crust ____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)
Total Number of Dominant Species Across All Strata: 6 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:
__ Dominance Test is >50%
__ Prevalence Index is ≤3.0[1]
__ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
__ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:

SOIL

Sampling Point: _____

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	7.5YR 2.5/2	100						
3-12	5YR 3/2	100						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Devilbiss Ranch City/County: Rockport / Mendocino Sampling Date: 5/26/24

Applicant/Owner: SRL State: CA Sampling Point: 9

Investigator(s): R. Kobayashi Section, Township, Range: sec 11. T22N, R18W

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): convex Slope (%): 0-5%

Subregion (LRR): C Lat: 39.771957 W Long: -123.831163 Datum: NAD 83

Soil Map Unit Name: Cottoneva Loam 0-2% NWI classification: no data available

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 15' rad.)	Absolute % Cover	Dominant Species?	Indicator Status
1. Alnus rubra	50	Yes	FACW
2. Abies grandis	25	Yes	FACU
3. Salix sitchensis	25	Yes	FACW
4.			
	100	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' rad.)			
1. Sambucus racemosa	10	Yes	FACU
2. Salix sitchensis	10	Yes	FACW
3.			
4.			
5.			
	20	= Total Cover	
Herb Stratum (Plot size: 15' rad.)			
1. Urtica dioica	30	Yes	FAC
2. Rubus ursinus	30	Yes	FAC
3. Galium aparine	10	No	FACU
4. Equisetum telmateia	10	No	FACW
5.			
6.			
7.			
8.			
	80	= Total Cover	
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
		= Total Cover	

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 85% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: _____

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	7.5 YR 3/2	100						
3-15	10 YR 3/2	100						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Appendix C

Representative Photographs

Devilbiss Ranch Demolition Project
Delineation of Waters of the United States

Photographs Taken May of 2024

Photo #1

Photo#2

Photo #1: Photo taken looking south towards ephemeral creek, located approximately 15 feet from post. Sample Point #2 is near metal post.

Photo #2: Ephemeral creek channel. Location of Sample Point #1.

Photo #3

Photo #4

Photograph #3 - Sample Point #4 at flag.
Photograph #4 – Location of Sample Point #3, in channel.

Photo #5

Photo #6

Photo #5 – Sample Point #5 looking South.
Photo #6 – Sample Point #6 looking East.

Photo #7

Photo #8

Photo #7 – Photograph of Sample Points #7 (channel) and #8 (upland), taken looking north towards ephemeral creek.

Photo #8 – Sample Point #9.