

**ATTACHMENT 3A**

**Natural Environment Report**

# Natural Environment Report

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*Prepared for Project:*  
**1785 Raineri Drive - Remodel**

1785 Raineri Dr.  
Arcata, CA 95521  
APN: 400-071-025

*Prepared by:*  
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August 2022



## **Introduction**

A biological assessment was conducted to evaluate the extent and quality of the natural environment surrounding the existing home located in Humboldt County at 1785 Raineri Drive, APN 400-071-025. The parcel is 0.23 acres and is located in the unincorporated community of Manila (Figure 1). The parcel is zoned Residential Single Family and is located in the Coastal Zone in an established neighborhood surrounded by existing developed parcels, where development is generally characterized by single family homes and yards, but also includes livestock (horses, cattle, and sheep). Horses are pastured in the area immediately west of the Graydon-Osborne home, cattle to the southwest, and sheep to the north.

## **Project Description**

The proposed project (Project) consists of a remodel of an existing home and a second story addition on the back (west) ½ of the existing single story home. The Project would increase the existing 2 bedroom/1 bath structure of 1060 ft<sup>2</sup> to a slightly larger 3 bedroom/2 bath structure of 1500 ft<sup>2</sup> with proposed maximum roof elevation increase from 15 feet tall to 24-feet 2-inches at the 2<sup>nd</sup> story peak. New roof and Breckenridge board and batten siding is to be installed over the entire house. The existing attached garage would also be re-roofed and sided and a deck is proposed to be installed over the footprint of the existing concrete slab (patio) at the back (west) of the house. The preexisting front deck would be reduced from approximately 330 ft<sup>2</sup> to 80 ft<sup>2</sup>.

Propane tank would be removed from the southwest edge of the driveway and relocated to the NE corner of the front yard. All construction would stay within the confines of the existing footprint. Water and sewer are, and will continue to be, provided through the Manila Community Services District. No grading is required or proposed, and no trees would be removed.

The Project confines development of the parcel to the area currently impacted by the existing footprint of the home, including the front and back decks. The capacity of the home (single family) would not change from existing and there would be no increase in the intensity of use.

## *Existing Conditions & Recent History of Home and Property*

The existing structure was built prior to 1975 (estimated based personal communication with neighbors). It has 2 main bedrooms, one full bathroom and a partially constructed 2<sup>nd</sup> bath. The single story structure is set on a concrete perimeter foundation and the existing attached garage has a concrete slab floor.

19XX – 2021: Various owners lived in the home with their family and also rented the home out to families and college students (personal communication with neighbors).

2021 – Prior owner began remodel. Front deck was removed, siding and sheeting was removed from the south and eastern house sides. Interior sheetrock and insulation was removed from many of the exterior walls and a bathroom remodel initiate-current condition of home is as shown in cover photo.

May 2022 - Aaron Osborne and Dawn Graydon purchased the house. The backyard was full of debris, including concrete rubble, broken windows and glass, disintegrating plastic tarps, plastic tubing, creosote logs, asphalt shingles, old metal trash, and miscellaneous garbage.

August 2022 – Much of the large amount of glass, rusty metal and environmental hazards covering the back portion of the property has been removed This was done for the immediate and long-term safety of the owners and their children, as well as with the health of the surrounding environment and wildlife in mind (micro plastics and creosote). Creosote treated wood and Pressure treated lumber were stacked in one location and will be taken to the hazardous waste facility at the Hawthorn Street transfer station in Eureka (HWMA); some PT will be reused when the permitted remodel begins. Additional nonhazardous waste was recycled (concrete rubble and metal) or removed to HWMA (old plastic tarps, tubing, asphalt shingles, etc.).



Figure 1. Vicinity Map of Project Parcel

## **Biological Assessment - Methods and Environmental Setting**

The house is located on the North Peninsula, approximately 0.30 mile inland (east) of the Pacific Ocean and 0.27 mile west of Humboldt Bay. The parcel is in the middle of a residential development and surrounded by existing homes on all sides except the west where the wetland connects to the larger wetland toe the southwest creek is located. To the north and south of the Project site there are many more residences, highway 255 bisects the community to the east, and there is a clearing for a horse pasture, forested wetlands, and the dunes and ocean to the west of the parcel (Figure 2). The project parcel has a high elevation of 19 feet with low slopes, 0-2%; the elevation decreases from east to west with a low elevation of 17 feet at the western project boundary (Figure 2).



**Figure 2. Project Site Topography**

A preliminary survey of the non-developed sections of the parcel was performed by a qualified botanist (Dawn Graydon, for Qualifications see Appendix D) in May 2022, prior to purchase. This survey was a general assessment of the project area – performed for the purpose of identifying the presence of rare plants, rare plant habitat, and potential for the surrounding environment to support special status plant and animal species. In addition, the proximity and condition of mapped or unmapped wetlands areas to the existing home was recorded. A second survey was conducted on August 7, 2022 to record plant species, evaluate habitat within the Project area, and to delineate the limits of wetland vegetation. Results of botanical inventory are provided in Appendix A.

Prior to conducting the August 7<sup>th</sup> field survey, a query of the California Department of Fish and Wildlife (CDFW) database (California Natural Diversity Database, Quick view)(Appendix B) and California Native Plant Society (CNPS)(Appendix C) was initiated. This query area encompasses the nine topographical maps surrounding the parcel (the parcel occurs on the Eureka 7.5' USGS map) to generate a species list for which to evaluate project impacts. The list includes records for all species, from common to special status (CDFW Species of Special Concern [SSC], Fully Protected [FP], Watch List [WL]; Federal and State Threatened, Endangered, Candidate).

Based on the records search described above, a list of special status plant species and animal species known to occur, or with potential to occur within the project region is provided in Table 1 below. Those species that were determined to have both special status habitat and potential to occur within the Project parcel and adjacent habitats are discussed in further detail.

There are no watercourses on or near the Project location; however, there are wetlands recorded by the National Wetland Inventory (NWI) at the southwest and western edges of the Project parcel.

**Table 1. Special Status Species**

Scientific Name	Common name	Status <sup>1</sup>	General Habitat Description	Presence of Suitable Habitat on Parcel?	Determination /Rationale
		Federal/State/CNPS			
<i>Ascaphus truei</i>	Pacific tailed frog	-/SSC	Perennial cold water montane streams. Montane hardwood-conifer, redwood, Douglas-fir and ponderosa pine habitats.	Absent	<b>No impact.</b> No suitable habitat present in project area
<i>Rana aurora</i>	northern red-legged frog	-/SSC	Permanent and semi-permanent aquatic habitats such as creeks and cold water ponds, with emergent and submergent vegetation.	Present	<b>No impact.</b> No breeding habitat onsite, but frogs may move overland through the project parcel to disperse or to forage from nearby suitable breeding habitat.
<i>Rana boylei</i>	Foothill yellow-legged frog, NC population	-/SSC	Creeks or rivers in woodlands or forests with rock and gravel substrate and low overhanging vegetation along the edge.	Absent	<b>No impact.</b> Suitable habitat not present within the project area.
<i>Rhyacotriton variegatus</i>	Southern torrent salamander	-/SSC	Shallow, cold, clear, well-shaded streams, waterfalls and seepages, particularly those running through mature to old-growth forests. Occasionally found in riparian vegetation adjacent to water, found in contact with water.	Absent	<b>No impact.</b> Suitable habitat not present within the project area.



Scientific Name	Common name	Status <sup>1</sup>	General Habitat Description	Presence of Suitable Habitat on Parcel?	Determination /Rationale
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<i>Accipiter cooperii</i>	Cooper's hawk	-/WL	Mature forests, open woodlands, wood edges, river groves. Nests in coniferous deciduous and mixed woods, in tall trees with openings nearby.	Absent	<b>No Impact.</b> Suitable habitat not present within the project area.
<i>Accipiter striatus</i>	Sharp-shinned hawk	-/WL	Mixed or coniferous forests, open deciduous woodlands, thickets, edges. Nests in groves of coniferous trees in mixed woods.	Absent	<b>No Impact.</b> Suitable habitat not present within the project area.
<i>Aquila chrysaetos</i>	Golden eagle	-/FP	Open mountains, foothills, plains, open country. Requires open terrain, found over tundra, prairie, rangeland, or desert; very wide ranging in winter, more restricted to areas with good nest sites in summer.	Absent	<b>No effect.</b> Suitable habitat not present within the project area.
<i>Ardea alba</i>	Great egret	-/-	Freshwater, brackish, and marine wetlands. During the breeding season they live in colonies in trees or shrubs with other waterbirds	Absent	<b>No Impact.</b> Suitable habitat not present within the project area.

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<i>Ardea Herodias</i>	Great blue heron	-/-	Great blue herons live in both freshwater and saltwater habitats, and also forage in grasslands and agricultural fields. Most breeding colonies are located within 2 to 4 miles of feeding areas, often in isolated swamps or on islands, and near lakes and ponds bordered by forests	Absent	<b>No impact.</b> No breeding habitat and the Project backyard does not provide enough undisturbed grassy areas as to be considered potentially suitable foraging habitat.
<i>Asio flammeus</i>	Short-eared owl	-/SSC	Occupy large, open areas with low vegetation, including prairie and coastal grasslands, heathlands, meadows, shrubsteppe, savanna, tundra, marshes, dunes, and agricultural areas. Nest on the ground amid grasses and low plants.	Absent	<b>No impact.</b> Project backyard does not provide enough undisturbed grassy area as to be considered potentially suitable habitat.
<i>Botaurus lentiginosus</i>	American bittern	-/-	Breeding habitat includes freshwater marshes with tall vegetation. Overwintering habitat includes areas where water bodies don't freeze, especially near the coast, where they occasionally use brackish marshes and dry grasslands and other terrestrial habitats,	Absent	<b>No impact.</b> Suitable habitat not present within the project area.

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<i>Brachyramphus marmoratus</i>	Marbled Murrelet	T/E	Feeds near shore; Nests in old growth redwood-dominated forests, up to 6 miles inland, often in Douglas-fir.	Absent	<b>No Effect.</b> Suitable habitat not present within the project area.
<i>Chaetura vauxi</i>	Vaux's swift	-/SSC	Vaux's swifts require large cavities in redwoods and other conifers and occasionally sycamores, chimneys, and buildings.	Absent	<b>No Impact.</b> Suitable habitat not present within the project area
<i>Charadrius alexandrinus nivosus</i>	Western snowy plover	T/SSC	Coastal beaches above the normal high tide limit with wood or other debris for cover. Inland shores of salt ponds and alkali or brackish inland lakes.	Absent	<b>No Effect.</b> Suitable habitat not present within the project area.
<i>Charadrius montanus</i>	Mountain plover	-/SSC	Semi-arid plains, grasslands, plateaus. Typically found far from water.	Absent	<b>No Impact.</b> Suitable habitat not present within the project parcel

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<i>Circus hudsonius</i>	Northern harrier	-/SSC	Occupy large, undisturbed tracts of wetlands and grasslands with low, thick vegetation. They breed in freshwater and brackish marshes, lightly grazed meadows, old fields, tundra, dry upland prairies, drained marshlands, high-desert shrubsteppe, and riverside woodlands. Western populations tend to breed in dry upland habitats	Absent	<b>No Impact.</b> Suitable habitat not present within the project parcel. No breeding habitat and the open grassy area within the project parcel is small and surrounded by existing and occupied homes.
<i>Contopus cooperi</i>	Olive-sided flycatcher	-/SSC	Nest in western coniferous forests, from sea level to over 10,000 feet elevation in some parts of the Rockies: found in forests of spruce, fir, Douglas-fir, hemlock, western redcedar, and tamarack or larch. Found in semi-open and edge habitats with prominent features from which they can forage.	Absent	<b>No Impact.</b> Suitable habitat not present within the project parcel.

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<i>Coturnicops noveboracensis</i>	Yellow rail	-/SSC	Grassy marshes, meadows on the coast. Occur in shallow marshes with fairly short vegetation; often nest among sedges of the genus <i>Carex</i> .	Absent	<b>No Impact.</b> Suitable habitat not present within the project parcel. No carex on Project parcel, Marginal habitat may exist on neighboring parcel.
<i>Egretta thula</i>	Snowy egret	-/-	Foraging habitat includes estuaries, salt marshes, tidal channels, and shallow bays, grassy ponds, shallow reefs, and wet fields. Nest sites are located within the thick vegetation of a breeding colony site.	Absent	<b>No Impact.</b> Suitable habitat not present within the Project parcel. Neighboring parcel may provide marginal habitat.
<i>Elanus leucurus</i>	White-tailed kite	-/FP	Resident on the CA coast, found in a variety of habitats with abundant prey. Builds nests in forks of trees or shrubs. Forages in open meadows.	Present	<b>No Impact.</b> Marginal nesting habitat within the project area. Grassy open area within western parcel boundaries could provide foraging habitat.

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<i>Empidonax traillii</i>	Willow flycatcher	-/E	Typically found in areas with willows or other shrubs near standing or running water. In the Pacific Northwest, they may also breed in drier scrubby areas. Nests are often near the outer edge. Most nests are in willow, about 2–5 feet above the ground	Present	<b>No Impact.</b> Trees on the edge of the parcel and neighboring parcels may provide suitable nesting and foraging habitat. No trees would be removed and no impacts to habitat are proposed.
<i>Falco columbarius</i>	Merlin	-/WL	Nest in abandoned nests of crows and hawks, in either conifers or deciduous trees of semiopen habitats.	Absent	<b>No Impact.</b> No suitable nesting habitat within project area.
<i>Falco peregrinus</i>	American peregrine	D/FP	This species nests predominantly on cliff faces but is also known to utilize buildings, bridges, and transmission structures	Absent	<b>No Impact.</b> No suitable nesting habitat within project area.
<i>Haliaeetus leucocephalus</i>	Bald eagle	D/E	Coasts, rivers, large lakes; in migration, also mountain, open country.	Absent	<b>No Impact.</b> Suitable habitat not present within or adjacent to the Project parcel.

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<i>Pandion haliaetus</i>	Osprey	-/WL	Rivers, lakes, coast. Found near water, either fresh or salt, where large numbers of fish are present.	Absent	<b>No impact.</b> Species observed flying overhead, but there is no suitable foraging, perching, or nesting habitat not present within Project parcel.
<i>Passerculus sandwichensis</i>	Bryant's savannah sparrow	-/SSC	This species can be found in tidal wetlands and adjacent ruderal areas, grasslands, and pasture. They breed in vegetation along levee banks and are mostly found within and near the fog belt.	Absent	<b>No impact.</b> Suitable habitat not present within Project parcel
<i>Pelecanus occidentalis</i>	California brown pelican	D/FP	Nests on coastal islands lacking ground predators; roosts on piers, buoys, and structures near water and the coast.	Absent	<b>No impact.</b> Suitable habitat not present within Project parcel
<i>Phalacrocorax auritus</i>	Double-crested cormorant	-/WL	Coasts, bays, lakes, rivers. Very adaptable.	Absent	<b>No impact.</b> Suitable habitat not present within Project parcel.

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<i>Poecile atricapillus</i>	Black-capped chickadee	-/WL	Deciduous and mixed forests, open woods, parks, willow thickets, cottonwood groves, and disturbed areas; nest in man-made nest boxes, small natural cavities in snags.	Present	<b>No impact.</b> Suitable nesting habitat may be found in older trees or snags adjacent to or within the parcel. However, no trees would be removed as part of the proposed project.
<i>Rallus obsoletus obsoletus</i>	California Ridgeway's rail	E/E	Salty and brackish water marshes with pickleweed and cordgrass	Absent	<b>No effect.</b> Suitable habitat not present within Project parcel.
<i>Riparia riparia</i>	Bank swallow	-/T	Riparian scrub and woodland, nests in vertical banks/cliffs with fine soils near streams, rivers, lakes, ocean	Absent	<b>No impact.</b> Suitable nesting habitat not present within Project parcel or nearby.
<i>Numenius americanus</i>	Long-billed curlew	-/WL	Ground nests are placed in areas with sparse, short grasses, including shortgrass and mixed-grass prairies as well as agricultural fields. Forage in shortgrass prairies, alkali lakes, wet pastures, tidal mudflats, and agricultural fields. In winter you can find them in wetlands, tidal estuaries, mudflats, flooded fields	Absent	<b>No impact.</b> Suitable habitat not present within Project parcel.



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<i>Nycticorax nycticorax</i>	Black-crowned night heron	-/-	Common in wetlands across North America, including salt marshes, freshwater marshes, swamps, streams, rivers, lakes, ponds, lagoons, tidal mudflats, canals, reservoirs, and wet agricultural fields. They use aquatic habitat for foraging and terrestrial vegetation for cover.	Absent	<b>No impact.</b> Suitable habitat not present within Project parcel.
<i>Strix occidentalis caurina</i>	Northern spotted owl	T/C	Dense old-growth or mature forests dominated by conifers with topped trees or oaks available for nesting crevices.	Absent	<b>No effect.</b> Suitable habitat not present within Project parcel.
<i>Acipenser medirostris</i>	North American green sturgeon (Northern and Southern DPS's)	T/SSC	In coastal bays and estuaries and freshwater rivers.	Absent	<b>No effect.</b> Suitable habitat not present within the Project site.
<i>Acipenser transmontanus</i>	White sturgeon	-/SSC	Anadromous fish that spend most of their lives within an estuary of larger rivers, usually returning to freshwater only to spawn.	Absent	<b>No Impact.</b> Suitable habitat not present within the Project parcel.

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<i>Eucyclogobius newberryi</i>	Tidewater goby	E/SSC	On bottom or existing on submerged plants in shallow weedy areas of coastal lagoons and estuaries.	Absent	<b>No effect.</b> Suitable habitat not present within the site.
<i>Entosphenus tridentatus</i>	Pacific lamprey	-/SSC	In coastal bays and estuaries and freshwater rivers.	Absent	<b>No impact.</b> Suitable habitat not present in or near the Project parcel.
<i>Lampetra richardsoni</i>	Western brook lamprey	-/SSC	Coastal rivers and their tributaries. Larval Brook Lampreys, ammocoetes, are typically found in slackwater areas or pools where they burrow tail first into soft substrate	Absent	<b>No impact.</b> Suitable habitat not present in or near the Project parcel.
<i>Oncorhynchus clarkii clarkii</i>	Coast cutthroat trout	-/SSC	Coastal marine to freshwater streams and rivers, with gravel substrate.	Absent	<b>No impact.</b> Suitable habitat not present in or near the Project parcel.
<i>Oncorhynchus kisutch pop. 2</i>	Coho salmon, Southern Oregon/Northern California ESU	T/T	Cool freshwater streams and rivers, require sand and gravel for spawning.	Absent	<b>No effect.</b> Suitable habitat not present within the site.
<i>Oncorhynchus mykiss irideus pop. 10</i>	Steelhead, Southern California DPS	E/-	Cool freshwater streams and rivers, require sand and gravel for spawning.	Absent	<b>No effect.</b> Suitable habitat not present within the site.
<i>Oncorhynchus mykiss irideus pop. 16</i>	Steelhead, Northern California DPS	T/-	Cool freshwater streams and rivers, require sand and gravel for spawning.	Absent	<b>No effect.</b> Suitable habitat not present within the site.

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<i>Oncorhynchus mykiss irideus</i> pop. 36	Summer-run steelhead trout	-/SSC	Cool freshwater streams and rivers, require sand and gravel for spawning.	Absent	<b>No impact.</b> Suitable habitat not present within the site.
<i>Oncorhynchus tshawytscha</i>	Chinook salmon	T/-	Coastal streams from Redwood creek in Humboldt County to the Russian River in Sonoma County. Cold, clean water and gravel for spawning and rearing, with cover for refuge.	Absent	<b>No effect.</b> Suitable habitat not present within or near the Project parcel.
<i>Spirinchus thaleichthys</i>	Longfin smelt	C/T	Freshwater to estuarine habitats. Require sand and gravel for spawning.	Absent	<b>No effect.</b> Suitable habitat not present within or near the Project parcel.
<i>Thaleichthys pacificus</i>	Eulachon	T/-	Freshwater to estuarine habitats. Require sand and gravel for spawning.	Absent	<b>No effect.</b> Suitable habitat not present within or near the Project parcel.
<i>Anodonta californiensis</i>	California floater	-/-	Shallow freshwater habitats.	Absent	<b>No impact.</b> Suitable habitat not present within or near the Project site.

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<i>Margaritifera falcate</i>	Western pearlshell	-/-	Freshwater streams and rivers	Absent	<b>No impact.</b> Suitable habitat not present within or near the Project site.
<i>Bombus caliginosus</i>	Obscure bumble bee	-/-	Inhabits open grassy coastal prairies and Coast Range meadows. Nesting occurs underground as well as above ground in abandoned bird nests. Generalist foragers.	Present	<b>No impact.</b> Marginal habitat at the edge of the species range. No proposed grading.
<i>Bombus crotchii</i>	Crotch bumble bee	-/-	Open grassland and scrub habitats. Typically nests in underground abandoned rodent burrows or cavities.	Present	<b>No impact.</b> Marginal habitat present within the site. No proposed grading or vegetation removal so no impact to nests.
<i>Bombus occidentalis</i>	Western bumble bee	-/-	Typically nests underground in abandoned rodent burrows or other cavities, mostly in open west-southwest slopes bordered by trees although a few nests have been reported from above ground locations such as in logs among railroad ties. Generalist foragers.	Present	<b>No impact.</b> This species has been extirpated from most of its historic range in California, particularly from lower elevations. In addition, there is no proposed grading or vegetation removal.

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<i>Cicindela hirticollis gravida</i>	Sandy beach tiger beetle	-/-	Found in moist sand near the ocean, such as swales behind dunes or upper beaches beyond normal high tides.	Absent	<b>No impact.</b> Suitable habitat not present within the site.
<i>Aplodontia ruda humboldtiana</i>	Humboldt mountain beaver	-/-	North-facing, wooded slopes of ridges or gullies where there is abundant moisture, thick under-growth, and soft soil for burrowing.	Absent	<b>No impact.</b> Suitable habitat not present within the site.
<i>Arborimus albipes</i>	White-footed vole	-/SSC	Small clearings, alder-lined streams in redwood forest.	Absent	<b>No impact.</b> Suitable habitat not present within the site.
<i>Arborimus pomo</i>	Sonoma tree vole	-/SSC	Inhabits old-growth forests of Douglas-fir, redwood, or montane hardwood-conifer species.	Absent	<b>No impact.</b> Suitable habitat not present within the site and no trees would be removed.
<i>Corynorhinus townsendii</i>	Townsend's big-eared bat	C/SSC	Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in caves, tunnels, mines, and dark attics of abandoned buildings or other manmade structures; has been known to use bridges. Sensitive to disturbance.	Present	<b>No impact.</b> Suitable habitat may occur within the structure, but the house has been occupied and no bat sign (guano, sounds of roosting colonies) was observed.

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<i>Eptesicus fuscus</i>	Big brown bat	-/-	A colonial species. This species is well known for its propensity to roost in anthropomorphic structures, including buildings, mines, and bridges, but it has also been found in caves, crevices in cliff faces, and trees (particularly in large diameter snags). Bridges are commonly used as night roosts by males and pre-parturition and post-lactating females	Present	<b>No impact.</b> Suitable habitat may occur within the structures, but the house has been occupied and no bat sign (guano, sounds of maternity colonies) was observed. No large snags, or trees would be removed.
<i>Enhydra lutris nereis</i>	Southern sea otter	T/FP	Found along the California coastline from half-moon bay south to Santa Barbara. The animals live in the kelp forest in water as cold as 35° to 60° F (2° to 16°C).	Absent	<b>No effect.</b> Suitable habitat not present within the site.
<i>Erethizon dorsatum</i>	North American porcupine	-/-	An herbivore, this species inhabits coniferous, deciduous and mixed forests as well as scrubby areas across North America between the Arctic Ocean and northern Mexico. Generally found in coniferous forests.	Absent	<b>No impact.</b> Suitable habitat not present within the site.

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<i>Lasiurus cinereus</i>	Hoary bat	-/-	A forest-dwelling, transcontinental species Hoary bats roost in trees at the edge of clearings, but have been found in trees in heavy forests, open wooded glades, and shade trees along urban streets. Typically roosts singly in deciduous or coniferous tree foliage 3–19 m above the ground and often near the edge of a clearing.	Present	<b>No impact.</b> Suitable habitat within the project parcel. No trees or snags would be removed as a result of project construction.
<i>Martes caurina humboldtensis</i>	Humboldt martin	-/CE	Typically associated with closed canopy, late-successional, mesic coniferous forests with complex physical structure near the ground.	Absent	<b>No impact.</b> Suitable habitat not present within the site.
<i>Myotis evotis</i>	Long-eared myotis	-/-	Occupy wide range of habitats, but is most commonly found in mixed coniferous forests, from humid coastal areas to montane forests; day roosts can be abandoned buildings, cracks in the ground, caves, mines, large snags, and loose bark on living and dead trees.	Present	<b>No impact.</b> Suitable habitat may occur within the structures, but the house has been occupied and no bat sign (guano, sounds of maternity colonies) was observed. No large snags on the parcel and no trees would be removed.

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		Federal/State/CNPS			
<i>Myotis yumanensis</i>	Yuma myotis	-/-	Occurring in a variety of habitats, species is usually associated with permanent sources of water, typically rivers and streams. Roosts in bridges, buildings, cliff crevices, caves, mines, and trees. Individuals become active and forage just after sunset, feeding primarily on aquatic emergent insects.	Present	<b>No impact.</b> Suitable habitat may occur within the structures, but the house has been occupied and no bat sign (guano, sounds of maternity colonies) was observed. No large snags on the parcel and no trees would be removed.
<i>Pekania pennant</i>	Fisher	-/SSC	Mature coniferous forests and deciduous-riparian areas with high canopy closure. Uses cavities, snags, logs and rocky areas for cover and denning.	Absent	<b>No impact.</b> Suitable habitat not present within the site.
<i>Chelonia mydas</i>	Green sea turtle, East Pacific DPS	T/-	Occupies three different ecosystems: oceanic beaches (nesting), convergence zones in open ocean and benthic feeding grounds in coastal areas.	Absent	<b>No effect.</b> Suitable habitat not present within the site.



Scientific Name	Common name	Status <sup>1</sup>	General Habitat Description	Presence of Suitable Habitat on Parcel?	Determination /Rationale
		Federal/State/CNPS			
<i>Emys marmorata</i>	Western pond turtle	-/SSC	Ponds, lakes, rivers, streams, creeks, marshes, irrigation ditches with abundant vegetation and either rocky or muddy bottoms, in woodland, forest, and grassland. Logs, cattail mats and exposed banks are required for basking. May enter brackish water and even seawater.	Absent	<b>No impact.</b> Suitable habitat not present within the site.
<b>PLANTS</b>					
<i>Abronia umbellata</i> var. <i>breviflora</i>	pink sand-verbena	-/-1B.1	Coastal dunes	Absent	<b>No impact.</b> Suitable habitat not present within project site. Species not found during botanical surveys
<i>Astragalus pycnostachyus</i> var. <i>pycnostachyus</i>	coastal marsh milk-vetch	-/-1B.2	Coastal dunes (mesic), coastal scrub, marshes and swamps (coastal salt, streamsides)	Absent	<b>No impact.</b> Suitable habitat not present within project site. Species not found during botanical surveys
<i>Bryoria spiralifera</i>	twisted horsehair lichen	-/-1B.1	North Coast coniferous forest (immediate coast)	Absent	<b>No impact.</b> Suitable habitat not present within project site.

Scientific Name	Common name	Status <sup>1</sup>	General Habitat Description	Presence of Suitable Habitat on Parcel?	Determination /Rationale
		Federal/State/CNPS			
<i>Cardamine angulata</i>	seaside bittercress	-/-/2B.2	Lower montane coniferous forest, North Coast coniferous forest	Absent	<b>No impact.</b> Suitable habitat not present within project site.
<i>Carex arcta</i>	northern clustered sedge	-/-/2B.2	Bogs and fens, North Coast coniferous forest (mesic)	Absent	<b>No impact.</b> Suitable habitat not present within project site.
<i>Carex leptalea</i>	bristle-stalked sedge	-/-/2B.2	Bogs and fens, meadows and seeps (mesic), marshes and swamps	Absent	<b>No impact.</b> Suitable habitat not present within project parcel. No <i>carex</i> species observed within project parcel.
<i>Carex lyngbyei</i>	Lyngbye's sedge	-/-/2B.2	Marshes and swamps (brackish or freshwater)	Absent	<b>No impact.</b> Suitable habitat not present within project parcel. No <i>carex</i> species observed within project parcel.

Scientific Name	Common name	Status <sup>1</sup>	General Habitat Description	Presence of Suitable Habitat on Parcel?	Determination /Rationale
		Federal/State/CNPS			
<i>Carex praticola</i>	Meadow sedge	-/-/2B.2	Moist to wet meadows, riparian edges, open forest; Elevation 500--3200 m	Present	<b>No impact.</b> Potential habitat within western section of property, but no carex species found and Project parcel is below typical elevation range..
<i>Castilleja ambigua</i> var. <i>humboldtensis</i>	Humboldt Bay owl's-clover	-/-/1B.2	Marshes and swamps (coastal salt)	Absent	<b>No impact.</b> Suitable habitat not present within project parcel.
<i>Castilleja litoralis</i>	Oregon coast paintbrush	-/-/2B.2	Coastal bluff scrub, coastal dunes, coastal scrub	Absent	<b>No impact.</b> Suitable habitat not present within project parcel.
<i>Chloropyron maritimum</i> ssp. <i>palustre</i>	Point Reyes bird's-beak	-/-/1B.2	Marshes and swamps (coastal salt)	Absent	<b>No impact.</b> Suitable habitat not present within project parcel.
<i>Collinsia corymbosa</i>	round-headed Chinese houses	-/-/1B.2	Coastal dunes; known from scattered locations in San Francisco Bay, Mendocino county, and one record in Humboldt County.	Absent	<b>No impact.</b> Nodune habitat; species not observed within the site. And No grading/clearing is proposed.

Scientific Name	Common name	Status <sup>1</sup>	General Habitat Description	Presence of Suitable Habitat on Parcel?	Determination /Rationale
		Federal/State/CNPS			
<i>Erysimum menziesii</i>	Menzies' wallflower	E/E/1B.1	Coastal dunes, headlands, cliffs; Elevation: < 300 m. Several occurrences within the dunes west of the project parcel.	Absent	<b>No effect.</b> No dune habitat; species not observed within the site. And no grading/clearing is proposed.
<i>Erythronium revolutum</i>	Coast fawn lily	-/-/2B.2	Bogs and fens, broadleaf upland forest, North Coast coniferous forest	Absent	<b>No impact.</b> Suitable habitat not present within project parcel.
<i>Fissidens pauperculus</i>	Minute pocket moss	-/-/1B.2	North Coast coniferous forest (damp coastal soil)	Absent	<b>No impact.</b> Suitable habitat not present within project parcel.
<i>Gilia capitata ssp. pacifica</i>	Pacific gilia	-/-/1B.2	Steep slopes, ravines, open flats, chaparral openings, or coastal bluffs, valley and foothill grassland.	Absent	<b>No impact.</b> Suitable habitat not present within project parcel.
<i>Gilia millefoliata</i>	Dark-eyed gilia	-/-/1B.2	Stabilized coastal dunes; Elevation: < 10	Absent	<b>No impact.</b> Suitable habitat not present within project parcel.
<i>Hesperevax sparsiflora var. brevifolia</i>	Short-leaved evax	-/-/1B.2	Coastal bluff scrub (sandy), coastal dunes, coastal prairie or wooded coastal bluffs, dunes.	Absent	<b>No impact.</b> Suitable habitat not present within project parcel.

Scientific Name	Common name	Status <sup>1</sup>	General Habitat Description	Presence of Suitable Habitat on Parcel?	Determination /Rationale
		Federal/State/CNPS			
<i>Lasthenia californica</i> ssp. <i>macrantha</i>	Perennial goldfields	-/-/1B.2	Coastal bluff scrub, coastal dunes, coastal scrub	Absent	<b>No impact.</b> Suitable habitat not present within project parcel.
<i>Lathyrus japonicus</i>	Seaside pea	-/-/2B.1	Coastal beaches, dunes. Found at elevations < 30 m within Del Norte and Humboldt counties	Absent	<b>No impact.</b> Suitable habitat not present within project parcel.
<i>Lathyrus palustris</i>	Marsh pea	-/-/2B.2	Bogs and fens, coastal prairie, coastal scrub, lower montane and North Coast coniferous forest, marshes, swamps	Absent	<b>No impact.</b> Suitable habitat not present within project parcel.
<i>Layia carnosa</i>	Beach layia	E/E/1B.1	Coastal dunes, coastal scrub (sandy)	Absent	<b>No effect.</b> Suitable habitat not present within project parcel.
<i>Lilium occidentale</i>	Western lily	E/E/1B.1	Bogs and fens, coastal bluff scrub, coastal prairie, coastal scrub, freshwater marshes and swamps, North Coast coniferous forest openings	Absent	<b>No effect.</b> Suitable habitat not present within project parcel.
<i>Monotropa uniflora</i>	Ghost-pipe	-/-/2B.2	Broadleaf upland forest, North Coast coniferous forest	Absent	<b>No impact.</b> Suitable habitat not present within project parcel.

Scientific Name	Common name	Status <sup>1</sup>	General Habitat Description	Presence of Suitable Habitat on Parcel?	Determination /Rationale
		Federal/State/CNPS			
<i>Montia howellii</i>	Howell's montia	-/-/2B.2	Meadows and seeps, North Coast coniferous forest, vernal pools, and mesic seasonally wet dirt roadsides.	Absent	<b>No impact.</b> Suitable habitat not present within project parcel.
<i>Oenothera wolfii</i>	Wolf's evening-primrose	-/-/1B.1	Typically found in mesic and sandy coastal bluff scrub, dunes, coastal prairie, and lower montane coniferous forest	Absent	<b>No impact.</b> Suitable habitat not present within project parcel.
<i>Puccinellia pumila</i>	Dwarf alkali grass	-/-/2B.2	Marshes and swamps	Absent	<b>No impact.</b> Suitable habitat not present within project parcel.
<i>Sidalcea malviflora ssp. patula</i>	Siskiyou checkerbloom	-/-/1B.2	Coastal bluff scrub, coastal prairie, North Coast coniferous forest	Absent	<b>No impact.</b> Suitable habitat not present within project parcel.
<i>Sidalcea oregana ssp. eximia</i>	Coast checkerbloom	-/-/1B.2	Lower montane coniferous forest, meadows and seeps, North Coast coniferous forest	Absent	<b>No impact.</b> Suitable habitat not present within project parcel.
<i>Silene scouleri ssp. scouleri</i>	Scouler's catchfly	-/-/2B.2	Rocky coastal bluff scrub, coastal prairie, valley and foothill grassland	Absent	<b>No impact.</b> Suitable habitat not present within project parcel.

Scientific Name	Common name	Status <sup>1</sup>	General Habitat Description	Presence of Suitable Habitat on Parcel?	Determination /Rationale
		Federal/State/CNPS			
<i>Spergularia candensis var. occidentalis</i>	Western sand-spurrey	-/-/2B.1	Marshes and swamps (coastal salt)	Absent	<b>No impact.</b> Suitable habitat not present within project parcel.
<i>Trichodon cylindricus</i>	Cylindrical trichodon	-/-/2B.2	Broadleafed upland forest, meadows and seeps, upper montane coniferous forest; common on roadsides and exposed soils; elevation: 50 -2002 meters.	Absent	<b>No impact.</b> Suitable habitat not present within project parcel.
<i>Viola palustris</i>	Alpine marsh violet	-/-/2B.2	Perennial rhizomatous herb found in bogs and fens (coastal), coastal scrub (mesic)	Absent	<b>No impact.</b> Suitable habitat not present within project parcel.

State: FP Fully protected (legally protected), SC Candidate: (T)hreatened or (E)ndangered, SE Endangered (legally protected), SSC Species of special concern (no formal protection other than CEQA consideration), ST Threatened (legally protected). Federal: FE Endangered (legally protected), FT Threatened (legally protected), FP Proposed. For plant species : CRPR 1B = rare, threatened, or endangered in CA and elsewhere; CRPR 2B = rare, threatened, or endangered in CA, but more common elsewhere; CRPR 3 = plants about which more information is needed; a review list; CRPR 4 = of limited distribution or infrequent throughout a broader area in California. Ranks at each level also include a threat rank and are determined as follows: 0.1-Seriously threatened in California; 0.2-Moderately threatened in California; 0.3-Not very threatened in California

## **Results and Discussion**

In general, the habitat within the parcel boundaries has been highly disturbed over many years – which is not unexpected given that the parcel is relatively small, and the existing house has been continuously occupied for > 40 years. The western (backyard) and eastern (front yard) sections of the parcel are dominated by a variety of non-native and invasive plant species. The majority of the habitat within the parcel boundaries of the backyard consists of a non-native fuchsia species (likely *Fuchsia magellanica*), Japanese honeysuckle (*Lonicera japonica*), sweet vernal grass (*Anthoxanthum odoratum*), *Crocsmia Xcrocosmiiiflora*, Himalayan blackberry (*Rubus armeniacus*), and California blackberry (*Rubus ursinus*). The front yard is dominated by fuchsia at the northern edge and Bermuda grass (*Cynodon dactylon*). Very few trees are growing from within the property boundaries – the notable exception is the 2 willows, coastal willow (*Salix hookeriana*) and pacific willow (*Salix lasiandra var. lasiandra*), at the western edge of the property, a large coast willow (approx 20 inches dbh) on the southern property line and a wax myrtle on the northern property line. A number of coastal willow branches overhand the southern property boundary from trees growing within the forested wetland adjacent the Project parcel, but only 4 trees total are growing from within the parcel lines.

No natural dune habitat exists on the project parcel; the entire community of Manila may once have been a mosaic of wetland and dune habitat, but current conditions are much different. The substrate is still sand, but the high density of invasive and non-native plants on the Project parcel and adjacent parcels – introduced from decades of human use and habitation in the area, mean that the existing natural ecology within the project parcel is significantly altered from its historic state; the plant community would now be considered ruderal: which is defined as an area where weedy and commonly introduced plant grow where the natural vegetation cover has been interrupted. Except for California blackberry, the majority of the plant species on the Project parcel, approximately 80% of existing ground cover, is dominated y non-native and highly invasive plant species.

### *Sensitive Plant Species*

No rare or sensitive plant species were found on the project parcel and there is currently very low potential for any species to be present (Table 1) given the highly disturbed nature of the site and dominance of non-native grasses and invasive species. The proposed Project would not impact any sensitive plant species and would not change the current conditions of the site. Proposed Project actions and future maintenance of the proposed structure would be consistent with the Humboldt County zoning use for a single family home and use and occupation of the front and backyard and in addition, would be consistent with past and present home occupation.

### *Wetlands and Waters*

Forested wetlands mapped by United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) on the property are classified as palustrine, scrub-shrub broadleaf deciduous seasonally flooded (PSSIC) and are based on the Classification of Wetlands and Deepwater Habitats of the United States (Cowardin et al. 1979); these wetlands would be considered jurisdictional to the State.



The California Coastal Commission’s regulations (California Code of Regulations Title 14 (14 CCR)) establish a “one parameter definition” that only requires evidence of a single parameter to establish wetland conditions:

“Wetland shall be defined as land where the water table is at, near, or above the land surface long enough to promote the formation of hydric soils or to support the growth of hydrophytes, and shall also include those types of wetlands where vegetation is lacking and soil is poorly developed or absent as a result of frequent and drastic fluctuations of surface water levels, wave action, water flow, turbidity or high concentrations of salts or other substances in the substrate. Such wetlands can be recognized by the presence of surface water or saturated substrate at some time during each year and their location within, or adjacent to, vegetated wetlands or deep-water habitats. (14 CCR Section 13577)”

The definition of a hydrophyte is “a plant growing in (1) water or (2) a substrate that is periodically deficient in oxygen during the growing season because of excessive water content.” This definition is used by the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, and the California Coastal Commission; plants are given indicator status and listed in the National Wetland Plant List (NWPL).

**Table 2. Description of NWPL Indicator Status and Description**

Indicator Status	Designation	Description
Obligate (OBL)	Hydrophyte	Almost always occur in wetland
Facultative Wetland (FACW)	Hydrophyte	Usually occur in wetland, but may occur in non-wetland
facultative (FAC)	Hydrophyte	Occur in wetland and non-wetland
Facultative Upland (FACU)	Nonhydrophyte	Usually occur in non-wetland, but may occur in wetland
Upland (UPL)	Nonhydrophyte	Almost never occur in wetland

A wetland delineation was not conducted for the Project parcel because there would be no expansion of the existing house footprint and intensity of use would not change. However, a careful desk-top analysis was combined with field observations of the site topography and plant species composition to assess potential for 1-parameter and 3-parameter wetlands (1987 Army Corps of Engineers Wetland Delineation Manual) to occur onsite.

The Project parcel supports a very limited area of buffer, or 1-parameter wetland as defined above. Based primarily on elevation data and density of willow within the lower elevation areas adjacent to the parcel, the 3-parameter wetland area occurs adjacent to, but not within the Project parcel

The topography (Figure 2, data from Humboldt County Planning GIS) shows that there is a clear transition at the southern property line where the elevation declines abruptly from 19 feet to 15 feet. Herbaceous wetland vegetation does not extend significantly beyond the mapped NWI wetland edges (edge of willow branches) and this vegetation is dominated by facultative wetland species such as

Himalayan blackberry (FAC)(50%), curly dock (*Rumex crispus*) (FAC) (5%), and scattered velvet grass (FACW) (10%) growing below several coast willow (FACW) that are growing over the parcel boundary at this southern edge (Figure 3). California blackberry (FACU) also grows on this western boundary, but is not as dominant as the Himalayan blackberry, composing only approx. 25% of the herbaceous layer.

The Western parcel edge is similar in that there is a canopy formed by wetland tree species (both pacific willow and coast willow, FACW); but the understory here is dominated by California blackberry (FACU)(75%) with patches of velvet grass (FAC)(20%).

On both parcel lines, the NWI delineation is accurate in delineating the upland boundary of the hydrophytic vegetation, and therefore, the limits of the 1-parameter buffer wetlands. The clear change in topography combined with a dense occurrence of willow as well as previous observations of hydrology within the lower elevation basin on the parcel south and west of the Project - also indicates that the 3-parameter wetland and the animal and plant species found within, occur outside of the project parcel limits.



**Figure 3. Coast Willow Growing along the Southern Parcel Boundary; Himalayan blackberry shown growing with California Blackberry in the Understory and over existing fence.**



**Figure 4. Pacific Willow and PSSIC Mapped NWI Wetland within Western Project Parcel Boundary**

The proposed project will not impact the adjacent wetland in any way. No earthwork is proposed, and no tree removal would occur as a result of the proposed project. Project related vegetation impacts are limited to trimming a limited area of invasive vegetation (Himalayan blackberry and fuchsia) from contacting the house itself in order to provide for access for people and tools needed to rehabilitate the structure and construct the 2<sup>nd</sup> story addition; however, this proposed minor vegetation trimming would be consistent with normal impacts associated with past and future home occupancy and maintenance and would not include impacts to any native wetland species. In addition, the existing house is, and would continue to be, connected to community water and sewer through the Manila Community Services District. Therefore, there would be no changes to hydrology and no hydrological impacts, temporary or otherwise, would occur as a result of project construction.

The existing house is located 27.7 feet from the closest edge of the structure (garage) to the wetland and the proposed deck, located over an existing concrete slab, is located approximately 20.4 feet from the wetland. There are 6 houses located near the same NWI mapped PSSIC wetland; of these, the Project house, at 1785 Raineri, is itself situated at the greatest distance as compared to the other 5 houses (Figure 5), while the proposed deck (over the existing concrete slab) is at almost the same distance as 2 homes and at a greater distance than 2 other homes (Figures 5 and 6).

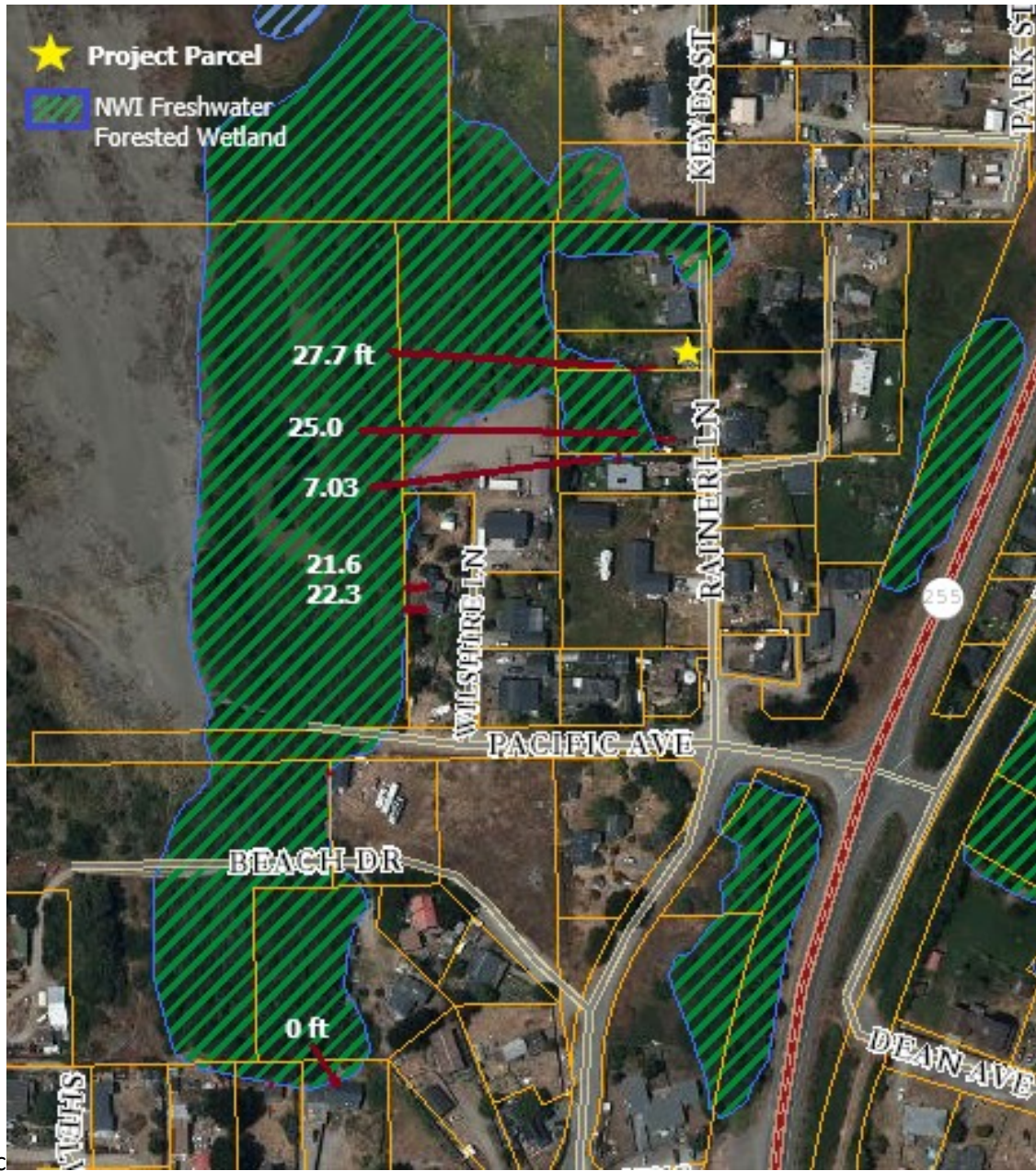


Figure 5. Proximity of NWI mapped Forested Wetland to Existing House structure at 1785 Raineri and Proximity of Neighboring Houses



Figure 5. Location of Existing 240 sqft Concrete Slab

#### *Discussion of northern red-legged frog*

The northern red legged frog (*Rana aurora*) is a Species of Special Concern in California. The northern red-legged frog is listed as Least Concern by International Union for Conservation of Nature (IUCN) in view of its wide distribution, numerous subpopulations, ability to use altered habitats, and presumed large population (IUCN 2019). However, it has experienced population declines attributed to wetland loss, degradation and fill, urbanization, residential development, stream channelization, livestock grazing of riparian vegetation, off-road vehicle activity, drought, and predation by exotic species such as the American bullfrog (*Lithobates catesbeiana*). The northern red-legged frog is found in humid forests, woodlands, grasslands, ponds and streamsides in northwestern California, usually near dense riparian cover. They are typically found in or near water but can be wide-ranging and highly terrestrial in damp woods and meadows during the non-breeding season. They require permanent water sources such as ponds and lakes for breeding, which occurs from late November through March. Egg masses are usually attached to herbaceous vegetation in areas with little or no flow. Eggs hatch in 4 to 6 weeks and tadpoles transform to adults in 11 to 14 weeks.

The existing freshwater wetlands within the project area, adjacent to the western parcel line and southwestern edge, support suitable dispersal and foraging habitat for northern red-legged frog. The California Natural Diversity Database (CNDDDB) shows northern red-legged frog has been documented to occur in the area.

There are no proposed project elements that would impact existing potential habitat for the northern red-legged frog; project construction would be limited to the disturbed areas immediately surrounding the house and would occur during the daylight hours, when frogs would be less likely to move through or within the parcel area. Additionally, no change or increase in intensity of use is proposed. There would be no impact on northern red-legged frog or existing northern red-legged frog habitat on the Project parcel.

#### *Discussion of Sensitive Bird Species and Migratory Birds*

The Federal Migratory Bird Treaty Act and California Fish and Game Code protect migratory birds, their occupied nests, and their eggs from disturbance or destruction. A complete inventory of bird species was not completed for the project; however, there is a potential that some migratory bird species, primarily ground nesting birds, may use tall herbaceous vegetation as nesting sites. In addition, the project site may provide very limited foraging habitat for sensitive bird species such as the white-tailed kite (*Elanus leucurus*). Trees located on and adjacent to the parcel could also provide habitat for nesting birds, including black-capped chickadee (*Poecile atricapillus*), willow flycatcher (*Empidonax traillii*).

No trees would be removed as part of the proposed Project and no direct harm to nesting birds or their young would occur. In addition, loud noises are common in the surrounding and active neighborhood area, these include noise from the use of maintenance tools (chainsaws, lawn mowers, weed trimmers, etc.), project/hobby noises (skill saw, hammering, sawing, etc.), as well as everyday noise from occupancy (music, loud talking, playing children, etc.). Therefore, the potential increase in noise from demolition and construction work would be temporary and would not result in a significantly louder environment than ambient. No change or increase in intensity of use of the Project parcel is proposed. There would be no impact to any potentially occurring bird species or habitat on or adjacent to the Project parcel.

#### *Discussion of Bats*

Several bat species may occur within the project vicinity, these include tree and structure roosting bats such as the brown bat (*Eptesicus fuscus*), long-eared myotis (*Myotis evotis*), and the Townsend's big-eared bat (*Corynorhinus townsendii*). Suitable day or night roosting habitat may occur within the structure attic and eaves or loose siding as there are several uncovered entrance points and spaces within the siding. Project construction activities, such as demolition of the existing roof and removal of the siding could harm roosting bats if present.

While the structure could provide day and night roosting for individual bats, no bats or bat sign (guano, sounds) has been observed within the house attic, and no guano has been observed on the siding, or on the ground below potential entrance points. In addition, abundant rat droppings have been found within the walls and attic which supports the conclusion that bats are not present as bats and rats don't typically coexist. It is also true that many bat species, such as the Townsend's big-eared bat, are highly sensitive to disturbance and would not be expected to choose occupied homes or homes in busy neighborhoods in which to establish day roots.

Brown bat, long-eared myotis, and hoary bats (*Lasiurus cinereus*) may also roost in snags with cavities, under peeling bark, or in foliage of trees on and adjacent to the project parcel and impacts to trees could result in adverse impacts to roosting bats. However, there are only 4 trees found on the parcel and of these, there are no large snags or old dying trees; and, no trees would be removed or trimmed as part of the proposed Project, therefore there would be no impacts to bats roosting in trees.

There is no evidence of bat occupancy in the existing house. No impacts to bats from Project construction are anticipated.

#### *Discussion of Native Bumble Bee Species*

Obscure bumble bee (*Bombus caliginosus*), Crotch bumble bee (*Bombus crotchii*), and the Western bumble bee (*Bombus occidentalis*) all have limited potential to occur in the project area; although the marginal habitat and limited nectar resources present within the Project parcel are not ideal conditions for either species. Additionally, the substrate is sand, and limited duff layer would limit nesting on site. However, since no surveys to determine presence or absence of these species foraging or nesting habitat was conducted, potential presence is assumed. There would be no grading or vegetation clearing proposed as part of the Project and existing land use would remain the same as existing. Therefore, construction of the proposed Project poses is no potential impact nesting or foraging sensitive bumble bee species.

#### **Conclusions**

No Special status plant species were located on the Parcel. The Project parcel supports potential habitat for several special status wildlife species, including northern red-legged frog, white-tailed kite, black-capped chickadee, willow flycatcher, four species of bat and three species of bumble bees. No direct or indirect impacts to these species would occur as a result of the proposed project because there would be no expansion of the existing house footprint, no trees would be removed, and there would be no change or increase in intensity of use.

The Project parcel is dominated by non-native and invasive plant species. No dune habitat or other sensitive natural community occurs within the project parcel. Single parameter (hydrophytic plants) buffer wetlands dominated by willow occur at the south and western parcel edges. Project work would avoid impacts to wetlands because construction would be limited to the area immediately surrounding the house and no grading or vegetation removal is proposed. Construction of the proposed Project and would not result in any direct impacts to existing wetland habitat and would have no impacts to special status species; nor would project construction have any immediate or future indirect impact on the existing site hydrology.

The proposed Project is limited to the existing home footprint and would not result in an increase in the proximity of potential disturbance as compared to existing conditions. Overall, there would be no increase in intensity of use and the proposed Project would be consistent with the intent of the site: single family residential within a dense area of existing residential single family homes.

Site Photos



**Figure 6. Non-native fuchsia hedge along the northeastern parcel boundary adjacent to existing structure**





**Figure 7. Fuchsia on northern fence line at the central project parcel boundary.**



**Figure 8. Japanese honeysuckle along the western section of the northern fence line/parcel edge.**



## Appendix A

Inventory List of Botanical species found during May review and August 7, 2022 site survey

Scientific Name	Common Name	Lifeform	Status	Cal-IPC Rating	Family
<i>Anthoxanthum odoratum</i>	Sweet vernal grass	Annual, Perennial grass	Invasive	Limited	POACEAE
<i>Avena barbata</i>	Slim oat	Annual, Perennial grass	Invasive	Moderate	POACEAE
<i>Briza maxima</i>	Rattlesnake grass	Annual grass	Invasive	Limited	POACEAE
<i>Bromus diandrus</i>	Ripgut brome	Annual grass	Invasive	Moderate	POACEAE
<i>Cynodon dactylon</i>	Bermuda grass	Annual grass	Non-native	Moderate	POACEAE
<i>Cynosurus echinatus</i>	Dogtail grass	Annual grass	Invasive	Moderate	POACEAE
<i>Fuchsia magellanica</i>	Hardy fuchsia	Shrub	Non-native, Escaped cultivar	-	Onegraceae
<i>Hedera helix</i>	English ivy	Vine, Shrub	Invasive	High	ARALIACEAE
<i>Holcus lanatus</i>	Common velvet grass	Perennial grass	Non-native	Moderate	POACEAE
<i>Lonicera japonica</i>	Japanese honeysuckle	Vine, Shrub	Non-native	-	CAPRIFOLIACEAE
<i>Lotus corniculatus</i>	Bird's foot trefoil	Perennial herb	Non-native	-	FABACEAE
<i>Lupinus arboreus</i>	Yellow bush lupine	Perennial shrub	Non-native	-	FABACEAE
<i>Lysimachia arvensis</i>	Scarlet pimpernel	Annual herb	Non-native	-	MYRSINACEAE
<i>Medicago polymorpha</i>	Burclover	Annual herb	Non-native	Limited	Fabaceae
<i>Plantago lanceolata</i>	Ribwort	Perennial herb	Non-native	Limited	PLANTAGINACEAE
<i>Rubus armeniacus</i>	Himalayan blackberry	Perennial vine, Shrub	Invasive	High	ROSACEAE
<i>Rubus ursinus</i>	California blackberry	Vine, Shrub	Native	n/a	ROSACEAE
<i>Rumex acetosella</i>	Sheep sorrel	Perennial herb	Invasive	Moderate	POLYGONACEAE
<i>Rumex crispus</i>	Curly dock		Non-native	Limited	
<i>Salix hookeriana</i>	Coast willow	Tree, shrub	Native	n/a	Salicaceae
<i>Salix lasioliipis</i>	Pacific willow	Tree, shrub	Native	n/a	Salicaceae

## CNDDDB 9-Quad Species List 379 records.

Element Type	Scientific Name	Common Name	Element Code	Federal Status	State Status	CDFW Status	CA Rare Plant Rank	Quad Code	Quad Name	Data Status	Taxonomic Sort
Animals - Amphibians	<i>Ascaphus truei</i>	Pacific tailed frog	AAABA01010	None	None	SSC	-	4012481	ARCATA NORTH	Mapped and Unprocessed	Animals - Amphibians - Ascaphidae - <i>Ascaphus truei</i>
Animals - Amphibians	<i>Ascaphus truei</i>	Pacific tailed frog	AAABA01010	None	None	SSC	-	4012471	ARCATA SOUTH	Mapped and Unprocessed	Animals - Amphibians - Ascaphidae - <i>Ascaphus truei</i>
Animals - Amphibians	<i>Ascaphus truei</i>	Pacific tailed frog	AAABA01010	None	None	SSC	-	4012462	FIELDS LANDING	Mapped	Animals - Amphibians - Ascaphidae - <i>Ascaphus truei</i>
Animals - Amphibians	<i>Ascaphus truei</i>	Pacific tailed frog	AAABA01010	None	None	SSC	-	4012461	MCWHINNEY CREEK	Mapped	Animals - Amphibians - Ascaphidae - <i>Ascaphus truei</i>
Animals - Amphibians	<i>Rana aurora</i>	northern red-legged frog	AAABH01021	None	None	SSC	-	4012461	MCWHINNEY CREEK	Mapped	Animals - Amphibians - Ranidae - <i>Rana aurora</i>
Animals - Amphibians	<i>Rana aurora</i>	northern red-legged frog	AAABH01021	None	None	SSC	-	4012462	FIELDS LANDING	Mapped and Unprocessed	Animals - Amphibians - Ranidae - <i>Rana aurora</i>
Animals - Amphibians	<i>Rana aurora</i>	northern red-legged frog	AAABH01021	None	None	SSC	-	4012463	CANNIBAL ISLAND	Mapped	Animals - Amphibians - Ranidae - <i>Rana aurora</i>
Animals - Amphibians	<i>Rana aurora</i>	northern red-legged frog	AAABH01021	None	None	SSC	-	4012471	ARCATA SOUTH	Mapped and Unprocessed	Animals - Amphibians - Ranidae - <i>Rana aurora</i>
Animals - Amphibians	<i>Rana aurora</i>	northern red-legged frog	AAABH01021	None	None	SSC	-	4012481	ARCATA NORTH	Mapped and Unprocessed	Animals - Amphibians - Ranidae - <i>Rana aurora</i>
Animals - Amphibians	<i>Rana aurora</i>	northern red-legged frog	AAABH01021	None	None	SSC	-	4012482	TYEE CITY	Mapped	Animals - Amphibians - Ranidae - <i>Rana aurora</i>
Animals - Amphibians	<i>Rana aurora</i>	northern red-legged frog	AAABH01021	None	None	SSC	-	4012472	EUREKA	Mapped	Animals - Amphibians - Ranidae - <i>Rana aurora</i>
Animals - Amphibians	<i>Rana boylei</i>	foothill yellow-legged frog	AAABH01050	None	Endangered	SSC	-	4012481	ARCATA NORTH	Mapped and Unprocessed	Animals - Amphibians - Ranidae - <i>Rana boylei</i>
Animals - Amphibians	<i>Rana boylei</i>	foothill yellow-legged frog	AAABH01050	None	Endangered	SSC	-	4012471	ARCATA SOUTH	Mapped	Animals - Amphibians - Ranidae - <i>Rana boylei</i>
Animals - Amphibians	<i>Rana boylei</i>	foothill yellow-legged frog	AAABH01050	None	Endangered	SSC	-	4012462	FIELDS LANDING	Mapped	Animals - Amphibians - Ranidae - <i>Rana boylei</i>
Animals - Amphibians	<i>Rana boylei</i>	foothill yellow-legged frog	AAABH01050	None	Endangered	SSC	-	4012461	MCWHINNEY CREEK	Mapped	Animals - Amphibians - Ranidae - <i>Rana boylei</i>
Animals - Amphibians	<i>Rhyacotriton variegatus</i>	southern torrent salamander	AAAAJ01020	None	None	SSC	-	4012461	MCWHINNEY CREEK	Mapped	Animals - Amphibians - Rhyacotritonidae - <i>Rhyacotriton variegatus</i>
Animals - Amphibians	<i>Rhyacotriton variegatus</i>	southern torrent salamander	AAAAJ01020	None	None	SSC	-	4012471	ARCATA SOUTH	Mapped and Unprocessed	Animals - Amphibians - Rhyacotritonidae - <i>Rhyacotriton variegatus</i>
Animals - Amphibians	<i>Rhyacotriton variegatus</i>	southern torrent salamander	AAAAJ01020	None	None	SSC	-	4012481	ARCATA NORTH	Mapped and Unprocessed	Animals - Amphibians - Rhyacotritonidae - <i>Rhyacotriton variegatus</i>

Animals - Birds	Accipiter cooperii	Cooper's hawk	ABNKC12040	None	None	WL	-	4012482	TYEE CITY	Unprocessed	Animals - Birds - Accipitridae - Accipiter cooperii
Animals - Birds	Accipiter cooperii	Cooper's hawk	ABNKC12040	None	None	WL	-	4012472	EUREKA	Unprocessed	Animals - Birds - Accipitridae - Accipiter cooperii
Animals - Birds	Accipiter cooperii	Cooper's hawk	ABNKC12040	None	None	WL	-	4012462	FIELDS LANDING	Unprocessed	Animals - Birds - Accipitridae - Accipiter cooperii
Animals - Birds	Accipiter cooperii	Cooper's hawk	ABNKC12040	None	None	WL	-	4012461	MCWHINNEY CREEK	Unprocessed	Animals - Birds - Accipitridae - Accipiter cooperii
Animals - Birds	Accipiter striatus	sharp-shinned hawk	ABNKC12020	None	None	WL	-	4012462	FIELDS LANDING	Mapped	Animals - Birds - Accipitridae - Accipiter striatus
Animals - Birds	Accipiter striatus	sharp-shinned hawk	ABNKC12020	None	None	WL	-	4012481	ARCATA NORTH	Unprocessed	Animals - Birds - Accipitridae - Accipiter striatus
Animals - Birds	Circus hudsonius	northern harrier	ABNKC11011	None	None	SSC	-	4012481	ARCATA NORTH	Unprocessed	Animals - Birds - Accipitridae - Circus hudsonius
Animals - Birds	Circus hudsonius	northern harrier	ABNKC11011	None	None	SSC	-	4012482	TYEE CITY	Unprocessed	Animals - Birds - Accipitridae - Circus hudsonius
Animals - Birds	Circus hudsonius	northern harrier	ABNKC11011	None	None	SSC	-	4012472	EUREKA	Mapped and Unprocessed	Animals - Birds - Accipitridae - Circus hudsonius
Animals - Birds	Circus hudsonius	northern harrier	ABNKC11011	None	None	SSC	-	4012471	ARCATA SOUTH	Unprocessed	Animals - Birds - Accipitridae - Circus hudsonius
Animals - Birds	Elanus leucurus	white-tailed kite	ABNKC06010	None	None	FP	-	4012471	ARCATA SOUTH	Unprocessed	Animals - Birds - Accipitridae - Elanus leucurus
Animals - Birds	Elanus leucurus	white-tailed kite	ABNKC06010	None	None	FP	-	4012472	EUREKA	Mapped	Animals - Birds - Accipitridae - Elanus leucurus
Animals - Birds	Elanus leucurus	white-tailed kite	ABNKC06010	None	None	FP	-	4012481	ARCATA NORTH	Mapped and Unprocessed	Animals - Birds - Accipitridae - Elanus leucurus
Animals - Birds	Haliaeetus leucocephalus	bald eagle	ABNKC10010	Delisted	Endangered	FP	-	4012471	ARCATA SOUTH	Mapped and Unprocessed	Animals - Birds - Accipitridae - Haliaeetus leucocephalus
Animals - Birds	Haliaeetus leucocephalus	bald eagle	ABNKC10010	Delisted	Endangered	FP	-	4012462	FIELDS LANDING	Mapped and Unprocessed	Animals - Birds - Accipitridae - Haliaeetus leucocephalus
Animals - Birds	Brachyramphus marmoratus	marbled murrelet	ABNNN06010	Threatened	Endangered	-	-	4012472	EUREKA	Unprocessed	Animals - Birds - Alcidae - Brachyramphus marmoratus

Animals - Birds	Brachyramphus marmoratus	marbled murrelet	ABNNN06010	Threatened	Endangered	-	-	4012461	MCWHINNEY CREEK	Mapped and Unprocessed	Animals - Birds - Alcidae - Brachyramphus marmoratus
Animals - Birds	Chaetura vauxi	Vaux's swift	ABNUA03020	None	None	SSC	-	4012472	EUREKA	Unprocessed	Animals - Birds - Apodidae - Chaetura vauxi
Animals - Birds	Ardea alba	great egret	ABNGA04040	None	None	-	-	4012472	EUREKA	Mapped and Unprocessed	Animals - Birds - Ardeidae - Ardea alba
Animals - Birds	Ardea alba	great egret	ABNGA04040	None	None	-	-	4012462	FIELDS LANDING	Mapped and Unprocessed	Animals - Birds - Ardeidae - Ardea alba
Animals - Birds	Ardea alba	great egret	ABNGA04040	None	None	-	-	4012463	CANNIBAL ISLAND	Mapped	Animals - Birds - Ardeidae - Ardea alba
Animals - Birds	Ardea herodias	great blue heron	ABNGA04010	None	None	-	-	4012463	CANNIBAL ISLAND	Mapped	Animals - Birds - Ardeidae - Ardea herodias
Animals - Birds	Ardea herodias	great blue heron	ABNGA04010	None	None	-	-	4012462	FIELDS LANDING	Mapped and Unprocessed	Animals - Birds - Ardeidae - Ardea herodias
Animals - Birds	Ardea herodias	great blue heron	ABNGA04010	None	None	-	-	4012471	ARCATA SOUTH	Mapped	Animals - Birds - Ardeidae - Ardea herodias
Animals - Birds	Ardea herodias	great blue heron	ABNGA04010	None	None	-	-	4012472	EUREKA	Mapped and Unprocessed	Animals - Birds - Ardeidae - Ardea herodias
Animals - Birds	Ardea herodias	great blue heron	ABNGA04010	None	None	-	-	4012481	ARCATA NORTH	Mapped and Unprocessed	Animals - Birds - Ardeidae - Ardea herodias
Animals - Birds	Ardea herodias	great blue heron	ABNGA04010	None	None	-	-	4012482	TYEE CITY	Unprocessed	Animals - Birds - Ardeidae - Ardea herodias
Animals - Birds	Botaurus lentiginosus	American bittern	ABNGA01020	None	None	-	-	4012481	ARCATA NORTH	Unprocessed	Animals - Birds - Ardeidae - Botaurus lentiginosus
Animals - Birds	Botaurus lentiginosus	American bittern	ABNGA01020	None	None	-	-	4012471	ARCATA SOUTH	Unprocessed	Animals - Birds - Ardeidae - Botaurus lentiginosus
Animals - Birds	Egretta thula	snowy egret	ABNGA06030	None	None	-	-	4012462	FIELDS LANDING	Mapped and Unprocessed	Animals - Birds - Ardeidae - Egretta thula
Animals - Birds	Egretta thula	snowy egret	ABNGA06030	None	None	-	-	4012482	TYEE CITY	Unprocessed	Animals - Birds - Ardeidae - Egretta thula
Animals - Birds	Egretta thula	snowy egret	ABNGA06030	None	None	-	-	4012472	EUREKA	Mapped and Unprocessed	Animals - Birds - Ardeidae - Egretta thula
Animals - Birds	Nycticorax nycticorax	black-crowned night heron	ABNGA11010	None	None	-	-	4012472	EUREKA	Mapped and Unprocessed	Animals - Birds - Ardeidae - Nycticorax nycticorax
Animals - Birds	Nycticorax nycticorax	black-crowned night heron	ABNGA11010	None	None	-	-	4012482	TYEE CITY	Unprocessed	Animals - Birds - Ardeidae - Nycticorax nycticorax

Animals - Birds	Nycticorax nycticorax	black-crowned night heron	ABNGA11010	None	None	-	-	4012462	FIELDS LANDING	Mapped and Unprocessed	Animals - Birds - Ardeidae - Nycticorax nycticorax
Animals - Birds	Nycticorax nycticorax	black-crowned night heron	ABNGA11010	None	None	-	-	4012463	CANNIBAL ISLAND	Mapped	Animals - Birds - Ardeidae - Nycticorax nycticorax
Animals - Birds	Nycticorax nycticorax	black-crowned night heron	ABNGA11010	None	None	-	-	4012471	ARCATA SOUTH	Mapped	Animals - Birds - Ardeidae - Nycticorax nycticorax
Animals - Birds	Charadrius montanus	mountain plover	ABNNB03100	None	None	SSC	-	4012471	ARCATA SOUTH	Mapped	Animals - Birds - Charadriidae - Charadrius montanus
Animals - Birds	Charadrius montanus	mountain plover	ABNNB03100	None	None	SSC	-	4012463	CANNIBAL ISLAND	Mapped and Unprocessed	Animals - Birds - Charadriidae - Charadrius montanus
Animals - Birds	Charadrius montanus	mountain plover	ABNNB03100	None	None	SSC	-	4012462	FIELDS LANDING	Mapped	Animals - Birds - Charadriidae - Charadrius montanus
Animals - Birds	Charadrius montanus	mountain plover	ABNNB03100	None	None	SSC	-	4012482	TYEE CITY	Unprocessed	Animals - Birds - Charadriidae - Charadrius montanus
Animals - Birds	Charadrius montanus	mountain plover	ABNNB03100	None	None	SSC	-	4012481	ARCATA NORTH	Unprocessed	Animals - Birds - Charadriidae - Charadrius montanus
Animals - Birds	Charadrius montanus	mountain plover	ABNNB03100	None	None	SSC	-	4012472	EUREKA	Mapped and Unprocessed	Animals - Birds - Charadriidae - Charadrius montanus
Animals - Birds	Charadrius nivosus nivosus	western snowy plover	ABNNB03031	Threatened	None	SSC	-	4012472	EUREKA	Mapped and Unprocessed	Animals - Birds - Charadriidae - Charadrius nivosus nivosus
Animals - Birds	Charadrius nivosus nivosus	western snowy plover	ABNNB03031	Threatened	None	SSC	-	4012481	ARCATA NORTH	Mapped and Unprocessed	Animals - Birds - Charadriidae - Charadrius nivosus nivosus
Animals - Birds	Charadrius nivosus nivosus	western snowy plover	ABNNB03031	Threatened	None	SSC	-	4012482	TYEE CITY	Mapped and Unprocessed	Animals - Birds - Charadriidae - Charadrius nivosus nivosus
Animals - Birds	Charadrius nivosus nivosus	western snowy plover	ABNNB03031	Threatened	None	SSC	-	4012463	CANNIBAL ISLAND	Mapped and Unprocessed	Animals - Birds - Charadriidae - Charadrius nivosus nivosus
Animals - Birds	Charadrius nivosus nivosus	western snowy plover	ABNNB03031	Threatened	None	SSC	-	4012462	FIELDS LANDING	Mapped and Unprocessed	Animals - Birds - Charadriidae - Charadrius nivosus nivosus
Animals - Birds	Falco columbarius	merlin	ABNKD06030	None	None	WL	-	4012472	EUREKA	Unprocessed	Animals - Birds - Falconidae - Falco columbarius



Animals - Birds	Falco peregrinus anatum	American peregrine falcon	ABNKD06071	Delisted	Delisted	FP	-	4012472	EUREKA	Mapped	Animals - Birds - Falconidae - Falco peregrinus anatum
Animals - Birds	Falco peregrinus anatum	American peregrine falcon	ABNKD06071	Delisted	Delisted	FP	-	4012481	ARCATA NORTH	Mapped	Animals - Birds - Falconidae - Falco peregrinus anatum
Animals - Birds	Falco peregrinus anatum	American peregrine falcon	ABNKD06071	Delisted	Delisted	FP	-	4012462	FIELDS LANDING	Mapped	Animals - Birds - Falconidae - Falco peregrinus anatum
Animals - Birds	Falco peregrinus anatum	American peregrine falcon	ABNKD06071	Delisted	Delisted	FP	-	4012471	ARCATA SOUTH	Mapped and Unprocessed	Animals - Birds - Falconidae - Falco peregrinus anatum
Animals - Birds	Falco peregrinus anatum	American peregrine falcon	ABNKD06071	Delisted	Delisted	FP	-	4012461	MCWHINNEY CREEK	Mapped	Animals - Birds - Falconidae - Falco peregrinus anatum
Animals - Birds	Riparia riparia	bank swallow	ABPAU08010	None	Threatened	-	-	4012481	ARCATA NORTH	Mapped and Unprocessed	Animals - Birds - Hirundinidae - Riparia riparia
Animals - Birds	Riparia riparia	bank swallow	ABPAU08010	None	Threatened	-	-	4012472	EUREKA	Mapped	Animals - Birds - Hirundinidae - Riparia riparia
Animals - Birds	Pandion haliaetus	osprey	ABNKC01010	None	None	WL	-	4012472	EUREKA	Mapped and Unprocessed	Animals - Birds - Pandionidae - Pandion haliaetus
Animals - Birds	Pandion haliaetus	osprey	ABNKC01010	None	None	WL	-	4012481	ARCATA NORTH	Mapped and Unprocessed	Animals - Birds - Pandionidae - Pandion haliaetus
Animals - Birds	Pandion haliaetus	osprey	ABNKC01010	None	None	WL	-	4012482	TYEE CITY	Unprocessed	Animals - Birds - Pandionidae - Pandion haliaetus
Animals - Birds	Pandion haliaetus	osprey	ABNKC01010	None	None	WL	-	4012471	ARCATA SOUTH	Mapped and Unprocessed	Animals - Birds - Pandionidae - Pandion haliaetus
Animals - Birds	Pandion haliaetus	osprey	ABNKC01010	None	None	WL	-	4012462	FIELDS LANDING	Mapped and Unprocessed	Animals - Birds - Pandionidae - Pandion haliaetus
Animals - Birds	Pandion haliaetus	osprey	ABNKC01010	None	None	WL	-	4012463	CANNIBAL ISLAND	Unprocessed	Animals - Birds - Pandionidae - Pandion haliaetus
Animals - Birds	Pandion haliaetus	osprey	ABNKC01010	None	None	WL	-	4012461	MCWHINNEY CREEK	Mapped and Unprocessed	Animals - Birds - Pandionidae - Pandion haliaetus
Animals - Birds	Poecile atricapillus	black-capped chickadee	ABPAW01010	None	None	WL	-	4012481	ARCATA NORTH	Unprocessed	Animals - Birds - Paridae - Poecile atricapillus
Animals - Birds	Poecile atricapillus	black-capped chickadee	ABPAW01010	None	None	WL	-	4012472	EUREKA	Unprocessed	Animals - Birds - Paridae - Poecile atricapillus
Animals - Birds	Passerculus sandwichensis alaudinus	Bryant's savannah sparrow	ABPBX99011	None	None	SSC	-	4012481	ARCATA NORTH	Unprocessed	Animals - Birds - Passerellidae - Passerculus sandwichensis alaudinus

Animals - Birds	<i>Passerculus sandwichensis alaudinus</i>	Bryant's savannah sparrow	ABPBX99011	None	None	SSC	-	4012471	ARCATA SOUTH	Unprocessed	Animals - Birds - Passerellidae - <i>Passerculus sandwichensis alaudinus</i>
Animals - Birds	<i>Pelecanus occidentalis californicus</i>	California brown pelican	ABNFC01021	Delisted	Delisted	FP	-	4012471	ARCATA SOUTH	Unprocessed	Animals - Birds - Pelecanidae - <i>Pelecanus occidentalis californicus</i>
Animals - Birds	<i>Pelecanus occidentalis californicus</i>	California brown pelican	ABNFC01021	Delisted	Delisted	FP	-	4012463	CANNIBAL ISLAND	Unprocessed	Animals - Birds - Pelecanidae - <i>Pelecanus occidentalis californicus</i>
Animals - Birds	<i>Pelecanus occidentalis californicus</i>	California brown pelican	ABNFC01021	Delisted	Delisted	FP	-	4012462	FIELDS LANDING	Unprocessed	Animals - Birds - Pelecanidae - <i>Pelecanus occidentalis californicus</i>
Animals - Birds	<i>Pelecanus occidentalis californicus</i>	California brown pelican	ABNFC01021	Delisted	Delisted	FP	-	4012482	TYEE CITY	Unprocessed	Animals - Birds - Pelecanidae - <i>Pelecanus occidentalis californicus</i>
Animals - Birds	<i>Pelecanus occidentalis californicus</i>	California brown pelican	ABNFC01021	Delisted	Delisted	FP	-	4012472	EUREKA	Unprocessed	Animals - Birds - Pelecanidae - <i>Pelecanus occidentalis californicus</i>
Animals - Birds	<i>Nannopterum auritum</i>	double-crested cormorant	ABNFD01020	None	None	WL	-	4012472	EUREKA	Unprocessed	Animals - Birds - Phalacrocoracidae - <i>Nannopterum auritum</i>
Animals - Birds	<i>Nannopterum auritum</i>	double-crested cormorant	ABNFD01020	None	None	WL	-	4012462	FIELDS LANDING	Unprocessed	Animals - Birds - Phalacrocoracidae - <i>Nannopterum auritum</i>
Animals - Birds	<i>Nannopterum auritum</i>	double-crested cormorant	ABNFD01020	None	None	WL	-	4012471	ARCATA SOUTH	Mapped	Animals - Birds - Phalacrocoracidae - <i>Nannopterum auritum</i>
Animals - Birds	<i>Coturnicops noveboracensis</i>	yellow rail	ABNME01010	None	None	SSC	-	4012471	ARCATA SOUTH	Mapped and Unprocessed	Animals - Birds - Rallidae - <i>Coturnicops noveboracensis</i>
Animals - Birds	<i>Coturnicops noveboracensis</i>	yellow rail	ABNME01010	None	None	SSC	-	4012463	CANNIBAL ISLAND	Mapped and Unprocessed	Animals - Birds - Rallidae - <i>Coturnicops noveboracensis</i>
Animals - Birds	<i>Coturnicops noveboracensis</i>	yellow rail	ABNME01010	None	None	SSC	-	4012472	EUREKA	Mapped and Unprocessed	Animals - Birds - Rallidae - <i>Coturnicops noveboracensis</i>
Animals - Birds	<i>Rallus obsoletus obsoletus</i>	California Ridgway's rail	ABNME05011	Endangered	Endangered	FP	-	4012472	EUREKA	Mapped and Unprocessed	Animals - Birds - Rallidae - <i>Rallus obsoletus obsoletus</i>
Animals - Birds	<i>Rallus obsoletus obsoletus</i>	California Ridgway's rail	ABNME05011	Endangered	Endangered	FP	-	4012482	TYEE CITY	Mapped	Animals - Birds - Rallidae - <i>Rallus obsoletus obsoletus</i>
Animals - Birds	<i>Numenius americanus</i>	long-billed curlew	ABNNF07070	None	None	WL	-	4012471	ARCATA SOUTH	Unprocessed	Animals - Birds - Scolopacidae - <i>Numenius americanus</i>
Animals - Birds	<i>Asio flammeus</i>	short-eared owl	ABNSB13040	None	None	SSC	-	4012471	ARCATA SOUTH	Unprocessed	Animals - Birds - Strigidae - <i>Asio flammeus</i>

Animals - Birds	<i>Asio flammeus</i>	short-eared owl	ABNSB13040	None	None	SSC	-	4012481	ARCATA NORTH	Unprocessed	Animals - Birds - Strigidae - <i>Asio flammeus</i>
Animals - Birds	<i>Asio flammeus</i>	short-eared owl	ABNSB13040	None	None	SSC	-	4012472	EUREKA	Unprocessed	Animals - Birds - Strigidae - <i>Asio flammeus</i>
Animals - Birds	<i>Strix occidentalis caurina</i>	Northern Spotted Owl	ABNSB12011	Threatened	Threatened	-	-	4012461	MCWHINNEY CREEK	Mapped	Animals - Birds - Strigidae - <i>Strix occidentalis caurina</i>
Animals - Birds	<i>Strix occidentalis caurina</i>	Northern Spotted Owl	ABNSB12011	Threatened	Threatened	-	-	4012462	FIELDS LANDING	Mapped	Animals - Birds - Strigidae - <i>Strix occidentalis caurina</i>
Animals - Birds	<i>Strix occidentalis caurina</i>	Northern Spotted Owl	ABNSB12011	Threatened	Threatened	-	-	4012471	ARCATA SOUTH	Mapped	Animals - Birds - Strigidae - <i>Strix occidentalis caurina</i>
Animals - Birds	<i>Strix occidentalis caurina</i>	Northern Spotted Owl	ABNSB12011	Threatened	Threatened	-	-	4012472	EUREKA	Mapped	Animals - Birds - Strigidae - <i>Strix occidentalis caurina</i>
Animals - Birds	<i>Strix occidentalis caurina</i>	Northern Spotted Owl	ABNSB12011	Threatened	Threatened	-	-	4012481	ARCATA NORTH	Mapped	Animals - Birds - Strigidae - <i>Strix occidentalis caurina</i>
Animals - Birds	<i>Contopus cooperi</i>	olive-sided flycatcher	ABPAE32010	None	None	SSC	-	4012481	ARCATA NORTH	Unprocessed	Animals - Birds - Tyrannidae - <i>Contopus cooperi</i>
Animals - Birds	<i>Empidonax traillii</i>	willow flycatcher	ABPAE33040	None	Endangered	-	-	4012463	CANNIBAL ISLAND	Unprocessed	Animals - Birds - Tyrannidae - <i>Empidonax traillii</i>
Animals - Fish	<i>Acipenser medirostris</i> pop. 1	green sturgeon - southern DPS	AFCAA01031	Threatened	None	-	-	4012463	CANNIBAL ISLAND	Mapped	Animals - Fish - Acipenseridae - <i>Acipenser medirostris</i> pop. 1
Animals - Fish	<i>Acipenser medirostris</i> pop. 1	green sturgeon - southern DPS	AFCAA01031	Threatened	None	-	-	4012462	FIELDS LANDING	Mapped	Animals - Fish - Acipenseridae - <i>Acipenser medirostris</i> pop. 1
Animals - Fish	<i>Acipenser medirostris</i> pop. 1	green sturgeon - southern DPS	AFCAA01031	Threatened	None	-	-	4012471	ARCATA SOUTH	Mapped	Animals - Fish - Acipenseridae - <i>Acipenser medirostris</i> pop. 1
Animals - Fish	<i>Acipenser medirostris</i> pop. 1	green sturgeon - southern DPS	AFCAA01031	Threatened	None	-	-	4012472	EUREKA	Mapped	Animals - Fish - Acipenseridae - <i>Acipenser medirostris</i> pop. 1
Animals - Fish	<i>Acipenser medirostris</i> pop. 2	green sturgeon - northern DPS	AFCAA01032	None	None	SSC	-	4012472	EUREKA	Unprocessed	Animals - Fish - Acipenseridae - <i>Acipenser medirostris</i> pop. 2
Animals - Fish	<i>Acipenser medirostris</i> pop. 2	green sturgeon - northern DPS	AFCAA01032	None	None	SSC	-	4012462	FIELDS LANDING	Unprocessed	Animals - Fish - Acipenseridae - <i>Acipenser medirostris</i> pop. 2

Animals - Fish	Acipenser medirostris pop. 2	green sturgeon - northern DPS	AFCAA01032	None	None	SSC	-	4012463	CANNIBAL ISLAND	Unprocessed	Animals - Fish - Acipenseridae - Acipenser medirostris pop. 2
Animals - Fish	Acipenser transmontanus	white sturgeon	AFCAA01050	None	None	SSC	-	4012472	EUREKA	Unprocessed	Animals - Fish - Acipenseridae - Acipenser transmontanus
Animals - Fish	Eucyclogobius newberryi	tidewater goby	AFCQN04010	Endangered	None	-	-	4012472	EUREKA	Mapped and Unprocessed	Animals - Fish - Gobiidae - Eucyclogobius newberryi
Animals - Fish	Eucyclogobius newberryi	tidewater goby	AFCQN04010	Endangered	None	-	-	4012463	CANNIBAL ISLAND	Mapped and Unprocessed	Animals - Fish - Gobiidae - Eucyclogobius newberryi
Animals - Fish	Eucyclogobius newberryi	tidewater goby	AFCQN04010	Endangered	None	-	-	4012462	FIELDS LANDING	Mapped	Animals - Fish - Gobiidae - Eucyclogobius newberryi
Animals - Fish	Eucyclogobius newberryi	tidewater goby	AFCQN04010	Endangered	None	-	-	4012471	ARCATA SOUTH	Mapped and Unprocessed	Animals - Fish - Gobiidae - Eucyclogobius newberryi
Animals - Fish	Spirinchus thaleichthys	longfin smelt	AFCHB03010	Candidate	Threatened	-	-	4012471	ARCATA SOUTH	Mapped and Unprocessed	Animals - Fish - Osmeridae - Spirinchus thaleichthys
Animals - Fish	Spirinchus thaleichthys	longfin smelt	AFCHB03010	Candidate	Threatened	-	-	4012462	FIELDS LANDING	Mapped and Unprocessed	Animals - Fish - Osmeridae - Spirinchus thaleichthys
Animals - Fish	Spirinchus thaleichthys	longfin smelt	AFCHB03010	Candidate	Threatened	-	-	4012463	CANNIBAL ISLAND	Mapped and Unprocessed	Animals - Fish - Osmeridae - Spirinchus thaleichthys
Animals - Fish	Spirinchus thaleichthys	longfin smelt	AFCHB03010	Candidate	Threatened	-	-	4012472	EUREKA	Mapped and Unprocessed	Animals - Fish - Osmeridae - Spirinchus thaleichthys
Animals - Fish	Spirinchus thaleichthys	longfin smelt	AFCHB03010	Candidate	Threatened	-	-	4012482	TYEE CITY	Unprocessed	Animals - Fish - Osmeridae - Spirinchus thaleichthys
Animals - Fish	Thaleichthys pacificus	eulachon	AFCHB04010	Threatened	None	-	-	4012482	TYEE CITY	Mapped	Animals - Fish - Osmeridae - Thaleichthys pacificus
Animals - Fish	Thaleichthys pacificus	eulachon	AFCHB04010	Threatened	None	-	-	4012481	ARCATA NORTH	Mapped and Unprocessed	Animals - Fish - Osmeridae - Thaleichthys pacificus
Animals - Fish	Thaleichthys pacificus	eulachon	AFCHB04010	Threatened	None	-	-	4012472	EUREKA	Mapped	Animals - Fish - Osmeridae - Thaleichthys pacificus
Animals - Fish	Thaleichthys pacificus	eulachon	AFCHB04010	Threatened	None	-	-	4012462	FIELDS LANDING	Mapped	Animals - Fish - Osmeridae - Thaleichthys pacificus
Animals - Fish	Thaleichthys pacificus	eulachon	AFCHB04010	Threatened	None	-	-	4012471	ARCATA SOUTH	Mapped	Animals - Fish - Osmeridae - Thaleichthys pacificus

Animals - Fish	Entosphenus tridentatus	Pacific lamprey	AFBAA02100	None	None	SSC	-	4012471	ARCATA SOUTH	Mapped and Unprocessed	Animals - Fish - Petromyzontidae - Entosphenus tridentatus
Animals - Fish	Entosphenus tridentatus	Pacific lamprey	AFBAA02100	None	None	SSC	-	4012462	FIELDS LANDING	Mapped	Animals - Fish - Petromyzontidae - Entosphenus tridentatus
Animals - Fish	Entosphenus tridentatus	Pacific lamprey	AFBAA02100	None	None	SSC	-	4012472	EUREKA	Mapped and Unprocessed	Animals - Fish - Petromyzontidae - Entosphenus tridentatus
Animals - Fish	Entosphenus tridentatus	Pacific lamprey	AFBAA02100	None	None	SSC	-	4012481	ARCATA NORTH	Mapped and Unprocessed	Animals - Fish - Petromyzontidae - Entosphenus tridentatus
Animals - Fish	Entosphenus tridentatus	Pacific lamprey	AFBAA02100	None	None	SSC	-	4012461	MCWHINNEY CREEK	Mapped and Unprocessed	Animals - Fish - Petromyzontidae - Entosphenus tridentatus
Animals - Fish	Lampetra richardsoni	western brook lamprey	AFBAA02180	None	None	SSC	-	4012461	MCWHINNEY CREEK	Mapped and Unprocessed	Animals - Fish - Petromyzontidae - Lampetra richardsoni
Animals - Fish	Lampetra richardsoni	western brook lamprey	AFBAA02180	None	None	SSC	-	4012481	ARCATA NORTH	Mapped and Unprocessed	Animals - Fish - Petromyzontidae - Lampetra richardsoni
Animals - Fish	Lampetra richardsoni	western brook lamprey	AFBAA02180	None	None	SSC	-	4012472	EUREKA	Mapped and Unprocessed	Animals - Fish - Petromyzontidae - Lampetra richardsoni
Animals - Fish	Lampetra richardsoni	western brook lamprey	AFBAA02180	None	None	SSC	-	4012462	FIELDS LANDING	Mapped	Animals - Fish - Petromyzontidae - Lampetra richardsoni
Animals - Fish	Lampetra richardsoni	western brook lamprey	AFBAA02180	None	None	SSC	-	4012471	ARCATA SOUTH	Mapped	Animals - Fish - Petromyzontidae - Lampetra richardsoni
Animals - Fish	Oncorhynchus clarkii clarkii	coast cutthroat trout	AFCHA0208A	None	None	SSC	-	4012471	ARCATA SOUTH	Mapped and Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus clarkii clarkii
Animals - Fish	Oncorhynchus clarkii clarkii	coast cutthroat trout	AFCHA0208A	None	None	SSC	-	4012462	FIELDS LANDING	Mapped and Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus clarkii clarkii
Animals - Fish	Oncorhynchus clarkii clarkii	coast cutthroat trout	AFCHA0208A	None	None	SSC	-	4012463	CANNIBAL ISLAND	Mapped and Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus clarkii clarkii
Animals - Fish	Oncorhynchus clarkii clarkii	coast cutthroat trout	AFCHA0208A	None	None	SSC	-	4012472	EUREKA	Mapped and Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus clarkii clarkii
Animals - Fish	Oncorhynchus clarkii clarkii	coast cutthroat trout	AFCHA0208A	None	None	SSC	-	4012481	ARCATA NORTH	Mapped and Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus clarkii clarkii

Animals - Fish	Oncorhynchus clarkii clarkii	coast cutthroat trout	AFCHA0208A	None	None	SSC	-	4012461	MCWHINNEY CREEK	Mapped and Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus clarkii clarkii
Animals - Fish	Oncorhynchus kisutch pop. 2	coho salmon - southern Oregon / northern California ESU	AFCHA02032	Threatened	Threatened	-	-	4012461	MCWHINNEY CREEK	Mapped and Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus kisutch pop. 2
Animals - Fish	Oncorhynchus kisutch pop. 2	coho salmon - southern Oregon / northern California ESU	AFCHA02032	Threatened	Threatened	-	-	4012481	ARCATA NORTH	Mapped and Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus kisutch pop. 2
Animals - Fish	Oncorhynchus kisutch pop. 2	coho salmon - southern Oregon / northern California ESU	AFCHA02032	Threatened	Threatened	-	-	4012472	EUREKA	Mapped and Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus kisutch pop. 2
Animals - Fish	Oncorhynchus kisutch pop. 2	coho salmon - southern Oregon / northern California ESU	AFCHA02032	Threatened	Threatened	-	-	4012463	CANNIBAL ISLAND	Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus kisutch pop. 2
Animals - Fish	Oncorhynchus kisutch pop. 2	coho salmon - southern Oregon / northern California ESU	AFCHA02032	Threatened	Threatened	-	-	4012462	FIELDS LANDING	Mapped and Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus kisutch pop. 2
Animals - Fish	Oncorhynchus kisutch pop. 2	coho salmon - southern Oregon / northern California ESU	AFCHA02032	Threatened	Threatened	-	-	4012471	ARCATA SOUTH	Mapped and Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus kisutch pop. 2
Animals - Fish	Oncorhynchus mykiss irideus pop. 16	steelhead - northern California DPS	AFCHA0209Q	Threatened	None	-	-	4012471	ARCATA SOUTH	Mapped and Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus pop. 16
Animals - Fish	Oncorhynchus mykiss irideus pop. 16	steelhead - northern California DPS	AFCHA0209Q	Threatened	None	-	-	4012462	FIELDS LANDING	Mapped and Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus pop. 16
Animals - Fish	Oncorhynchus mykiss irideus pop. 16	steelhead - northern California DPS	AFCHA0209Q	Threatened	None	-	-	4012463	CANNIBAL ISLAND	Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus pop. 16
Animals - Fish	Oncorhynchus mykiss irideus pop. 16	steelhead - northern California DPS	AFCHA0209Q	Threatened	None	-	-	4012472	EUREKA	Mapped and Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus pop. 16
Animals - Fish	Oncorhynchus mykiss irideus pop. 16	steelhead - northern California DPS	AFCHA0209Q	Threatened	None	-	-	4012481	ARCATA NORTH	Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus pop. 16
Animals - Fish	Oncorhynchus mykiss irideus pop. 16	steelhead - northern California DPS	AFCHA0209Q	Threatened	None	-	-	4012461	MCWHINNEY CREEK	Mapped and Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus pop. 16

Animals - Fish	Oncorhynchus mykiss irideus pop. 36	summer-run steelhead trout	AFCHA0213B	None	Candidate Endangered	SSC	-	4012481	ARCATA NORTH	Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus pop. 36
Animals - Fish	Oncorhynchus mykiss irideus pop. 36	summer-run steelhead trout	AFCHA0213B	None	Candidate Endangered	SSC	-	4012463	CANNIBAL ISLAND	Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus pop. 36
Animals - Fish	Oncorhynchus tshawytscha pop. 17	chinook salmon - California coastal ESU	AFCHA0205S	Threatened	None	-	-	4012462	FIELDS LANDING	Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus tshawytscha pop. 17
Animals - Fish	Oncorhynchus tshawytscha pop. 17	chinook salmon - California coastal ESU	AFCHA0205S	Threatened	None	-	-	4012471	ARCATA SOUTH	Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus tshawytscha pop. 17
Animals - Fish	Oncorhynchus tshawytscha pop. 17	chinook salmon - California coastal ESU	AFCHA0205S	Threatened	None	-	-	4012472	EUREKA	Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus tshawytscha pop. 17
Animals - Fish	Oncorhynchus tshawytscha pop. 17	chinook salmon - California coastal ESU	AFCHA0205S	Threatened	None	-	-	4012461	MCWHINNEY CREEK	Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus tshawytscha pop. 17
Animals - Insects	Bombus caliginosus	obscure bumble bee	IIHYM24380	None	None	-	-	4012461	MCWHINNEY CREEK	Mapped	Animals - Insects - Apidae - Bombus caliginosus
Animals - Insects	Bombus caliginosus	obscure bumble bee	IIHYM24380	None	None	-	-	4012462	FIELDS LANDING	Mapped	Animals - Insects - Apidae - Bombus caliginosus
Animals - Insects	Bombus caliginosus	obscure bumble bee	IIHYM24380	None	None	-	-	4012472	EUREKA	Mapped	Animals - Insects - Apidae - Bombus caliginosus
Animals - Insects	Bombus caliginosus	obscure bumble bee	IIHYM24380	None	None	-	-	4012481	ARCATA NORTH	Mapped	Animals - Insects - Apidae - Bombus caliginosus
Animals - Insects	Bombus caliginosus	obscure bumble bee	IIHYM24380	None	None	-	-	4012482	TYEE CITY	Mapped	Animals - Insects - Apidae - Bombus caliginosus
Animals - Insects	Bombus caliginosus	obscure bumble bee	IIHYM24380	None	None	-	-	4012471	ARCATA SOUTH	Mapped	Animals - Insects - Apidae - Bombus caliginosus
Animals - Insects	Bombus crotchii	Crotch bumble bee	IIHYM24480	None	None	-	-	4012482	TYEE CITY	Mapped	Animals - Insects - Apidae - Bombus crotchii
Animals - Insects	Bombus crotchii	Crotch bumble bee	IIHYM24480	None	None	-	-	4012481	ARCATA NORTH	Mapped	Animals - Insects - Apidae - Bombus crotchii
Animals - Insects	Bombus occidentalis	western bumble bee	IIHYM24250	None	None	-	-	4012482	TYEE CITY	Mapped and Unprocessed	Animals - Insects - Apidae - Bombus occidentalis

Animals - Insects	<i>Bombus occidentalis</i>	western bumble bee	IIHYM24250	None	None	-	-	4012472	EUREKA	Mapped and Unprocessed	Animals - Insects - Apidae - <i>Bombus occidentalis</i>
Animals - Insects	<i>Bombus occidentalis</i>	western bumble bee	IIHYM24250	None	None	-	-	4012481	ARCATA NORTH	Mapped and Unprocessed	Animals - Insects - Apidae - <i>Bombus occidentalis</i>
Animals - Insects	<i>Bombus occidentalis</i>	western bumble bee	IIHYM24250	None	None	-	-	4012471	ARCATA SOUTH	Mapped and Unprocessed	Animals - Insects - Apidae - <i>Bombus occidentalis</i>
Animals - Insects	<i>Bombus occidentalis</i>	western bumble bee	IIHYM24250	None	None	-	-	4012462	FIELDS LANDING	Mapped and Unprocessed	Animals - Insects - Apidae - <i>Bombus occidentalis</i>
Animals - Insects	<i>Bombus occidentalis</i>	western bumble bee	IIHYM24250	None	None	-	-	4012461	MCWHINNEY CREEK	Mapped	Animals - Insects - Apidae - <i>Bombus occidentalis</i>
Animals - Insects	<i>Cicindela hirticollis gravida</i>	sandy beach tiger beetle	IICOL02101	None	None	-	-	4012471	ARCATA SOUTH	Mapped	Animals - Insects - Carabidae - <i>Cicindela hirticollis gravida</i>
Animals - Insects	<i>Cicindela hirticollis gravida</i>	sandy beach tiger beetle	IICOL02101	None	None	-	-	4012472	EUREKA	Mapped	Animals - Insects - Carabidae - <i>Cicindela hirticollis gravida</i>
Animals - Insects	<i>Scaphinotus behrensi</i>	Behrens' snail-eating beetle	IICOL4L070	None	None	-	-	4012481	ARCATA NORTH	Mapped	Animals - Insects - Carabidae - <i>Scaphinotus behrensi</i>
Animals - Insects	<i>Scaphinotus behrensi</i>	Behrens' snail-eating beetle	IICOL4L070	None	None	-	-	4012471	ARCATA SOUTH	Mapped	Animals - Insects - Carabidae - <i>Scaphinotus behrensi</i>
Animals - Mammals	<i>Aplodontia rufa humboldtiana</i>	Humboldt mountain beaver	AMAF01017	None	None	-	-	4012471	ARCATA SOUTH	Mapped	Animals - Mammals - Aplodontiidae - <i>Aplodontia rufa humboldtiana</i>
Animals - Mammals	<i>Aplodontia rufa humboldtiana</i>	Humboldt mountain beaver	AMAF01017	None	None	-	-	4012472	EUREKA	Mapped	Animals - Mammals - Aplodontiidae - <i>Aplodontia rufa humboldtiana</i>
Animals - Mammals	<i>Aplodontia rufa humboldtiana</i>	Humboldt mountain beaver	AMAF01017	None	None	-	-	4012481	ARCATA NORTH	Mapped	Animals - Mammals - Aplodontiidae - <i>Aplodontia rufa humboldtiana</i>
Animals - Mammals	<i>Aplodontia rufa humboldtiana</i>	Humboldt mountain beaver	AMAF01017	None	None	-	-	4012461	MCWHINNEY CREEK	Mapped	Animals - Mammals - Aplodontiidae - <i>Aplodontia rufa humboldtiana</i>
Animals - Mammals	<i>Aplodontia rufa humboldtiana</i>	Humboldt mountain beaver	AMAF01017	None	None	-	-	4012462	FIELDS LANDING	Mapped	Animals - Mammals - Aplodontiidae - <i>Aplodontia rufa humboldtiana</i>
Animals - Mammals	<i>Arborimus albipes</i>	white-footed vole	AMAFF23010	None	None	SSC	-	4012482	TYEE CITY	Mapped	Animals - Mammals - Cricetidae - <i>Arborimus albipes</i>



Animals - Mammals	Arborimus pomo	Sonoma tree vole	AMAFF23030	None	None	SSC	-	4012481	ARCATA NORTH	Mapped	Animals - Mammals - Cricetidae - Arborimus pomo
Animals - Mammals	Arborimus pomo	Sonoma tree vole	AMAFF23030	None	None	SSC	-	4012471	ARCATA SOUTH	Mapped and Unprocessed	Animals - Mammals - Cricetidae - Arborimus pomo
Animals - Mammals	Arborimus pomo	Sonoma tree vole	AMAFF23030	None	None	SSC	-	4012462	FIELDS LANDING	Mapped and Unprocessed	Animals - Mammals - Cricetidae - Arborimus pomo
Animals - Mammals	Arborimus pomo	Sonoma tree vole	AMAFF23030	None	None	SSC	-	4012461	MCWHINNEY CREEK	Mapped and Unprocessed	Animals - Mammals - Cricetidae - Arborimus pomo
Animals - Mammals	Erethizon dorsatum	North American porcupine	AMAFJ01010	None	None	-	-	4012461	MCWHINNEY CREEK	Mapped and Unprocessed	Animals - Mammals - Erethizontidae - Erethizon dorsatum
Animals - Mammals	Erethizon dorsatum	North American porcupine	AMAFJ01010	None	None	-	-	4012462	FIELDS LANDING	Mapped and Unprocessed	Animals - Mammals - Erethizontidae - Erethizon dorsatum
Animals - Mammals	Erethizon dorsatum	North American porcupine	AMAFJ01010	None	None	-	-	4012471	ARCATA SOUTH	Mapped	Animals - Mammals - Erethizontidae - Erethizon dorsatum
Animals - Mammals	Erethizon dorsatum	North American porcupine	AMAFJ01010	None	None	-	-	4012463	CANNIBAL ISLAND	Mapped and Unprocessed	Animals - Mammals - Erethizontidae - Erethizon dorsatum
Animals - Mammals	Erethizon dorsatum	North American porcupine	AMAFJ01010	None	None	-	-	4012481	ARCATA NORTH	Mapped and Unprocessed	Animals - Mammals - Erethizontidae - Erethizon dorsatum
Animals - Mammals	Erethizon dorsatum	North American porcupine	AMAFJ01010	None	None	-	-	4012482	TYEE CITY	Unprocessed	Animals - Mammals - Erethizontidae - Erethizon dorsatum
Animals - Mammals	Erethizon dorsatum	North American porcupine	AMAFJ01010	None	None	-	-	4012472	EUREKA	Mapped and Unprocessed	Animals - Mammals - Erethizontidae - Erethizon dorsatum
Animals - Mammals	Enhydra lutris nereis	southern sea otter	AMAJF09012	Threatened	None	FP	-	4012472	EUREKA	Unprocessed	Animals - Mammals - Mustelidae - Enhydra lutris nereis
Animals - Mammals	Martes caurina humboldtensis	Humboldt marten	AMAJF01012	Threatened	Endangered	SSC	-	4012461	MCWHINNEY CREEK	Mapped	Animals - Mammals - Mustelidae - Martes caurina humboldtensis
Animals - Mammals	Pekania pennanti	Fisher	AMAJF01020	None	None	SSC	-	4012481	ARCATA NORTH	Mapped and Unprocessed	Animals - Mammals - Mustelidae - Pekania pennanti
Animals - Mammals	Pekania pennanti	Fisher	AMAJF01020	None	None	SSC	-	4012471	ARCATA SOUTH	Mapped and Unprocessed	Animals - Mammals - Mustelidae - Pekania pennanti
Animals - Mammals	Corynorhinus townsendii	Townsend's big-eared bat	AMACC08010	None	None	SSC	-	4012471	ARCATA SOUTH	Mapped	Animals - Mammals - Vespertilionidae - Corynorhinus townsendii

Animals - Mammals	Corynorhinus townsendii	Townsend's big-eared bat	AMACC08010	None	None	SSC	-	4012462	FIELDS LANDING	Mapped	Animals - Mammals - Vespertilionidae - Corynorhinus townsendii
Animals - Mammals	Corynorhinus townsendii	Townsend's big-eared bat	AMACC08010	None	None	SSC	-	4012461	MCWHINNEY CREEK	Mapped	Animals - Mammals - Vespertilionidae - Corynorhinus townsendii
Animals - Mammals	Lasiurus cinereus	hoary bat	AMACC05030	None	None	-	-	4012471	ARCATA SOUTH	Unprocessed	Animals - Mammals - Vespertilionidae - Lasiurus cinereus
Animals - Mammals	Myotis evotis	long-eared myotis	AMACC01070	None	None	-	-	4012471	ARCATA SOUTH	Mapped	Animals - Mammals - Vespertilionidae - Myotis evotis
Animals - Mammals	Myotis evotis	long-eared myotis	AMACC01070	None	None	-	-	4012481	ARCATA NORTH	Mapped	Animals - Mammals - Vespertilionidae - Myotis evotis
Animals - Mollusks	Littorina subrotundata	Newcomb's littorine snail	IMGASR3010	None	None	-	-	4012472	EUREKA	Unprocessed	Animals - Mollusks - Littorinidae - Littorina subrotundata
Animals - Mollusks	Littorina subrotundata	Newcomb's littorine snail	IMGASR3010	None	None	-	-	4012471	ARCATA SOUTH	Unprocessed	Animals - Mollusks - Littorinidae - Littorina subrotundata
Animals - Mollusks	Littorina subrotundata	Newcomb's littorine snail	IMGASR3010	None	None	-	-	4012463	CANNIBAL ISLAND	Unprocessed	Animals - Mollusks - Littorinidae - Littorina subrotundata
Animals - Mollusks	Littorina subrotundata	Newcomb's littorine snail	IMGASR3010	None	None	-	-	4012462	FIELDS LANDING	Unprocessed	Animals - Mollusks - Littorinidae - Littorina subrotundata
Animals - Mollusks	Margaritifera falcata	western pearlshell	IMBIV27020	None	None	-	-	4012462	FIELDS LANDING	Mapped	Animals - Mollusks - Margaritiferidae - Margaritifera falcata
Animals - Mollusks	Margaritifera falcata	western pearlshell	IMBIV27020	None	None	-	-	4012461	MCWHINNEY CREEK	Mapped	Animals - Mollusks - Margaritiferidae - Margaritifera falcata
Animals - Mollusks	Margaritifera falcata	western pearlshell	IMBIV27020	None	None	-	-	4012471	ARCATA SOUTH	Unprocessed	Animals - Mollusks - Margaritiferidae - Margaritifera falcata
Animals - Mollusks	Margaritifera falcata	western pearlshell	IMBIV27020	None	None	-	-	4012481	ARCATA NORTH	Mapped	Animals - Mollusks - Margaritiferidae - Margaritifera falcata
Animals - Mollusks	Anodonta californiensis	California floater	IMBIV04220	None	None	-	-	4012472	EUREKA	Mapped and Unprocessed	Animals - Mollusks - Unionidae - Anodonta californiensis
Animals - Mollusks	Anodonta californiensis	California floater	IMBIV04220	None	None	-	-	4012461	MCWHINNEY CREEK	Mapped	Animals - Mollusks - Unionidae - Anodonta californiensis
Animals - Mollusks	Anodonta californiensis	California floater	IMBIV04220	None	None	-	-	4012462	FIELDS LANDING	Mapped	Animals - Mollusks - Unionidae - Anodonta californiensis

Animals - Reptiles	Emys marmorata	western pond turtle	ARAAD02030	None	None	SSC	-	4012462	FIELDS LANDING	Mapped	Animals - Reptiles - Emydidae - Emys marmorata
Animals - Reptiles	Emys marmorata	western pond turtle	ARAAD02030	None	None	SSC	-	4012461	MCWHINNEY CREEK	Mapped	Animals - Reptiles - Emydidae - Emys marmorata
Animals - Reptiles	Emys marmorata	western pond turtle	ARAAD02030	None	None	SSC	-	4012472	EUREKA	Mapped and Unprocessed	Animals - Reptiles - Emydidae - Emys marmorata
Animals - Reptiles	Emys marmorata	western pond turtle	ARAAD02030	None	None	SSC	-	4012481	ARCATA NORTH	Mapped	Animals - Reptiles - Emydidae - Emys marmorata
Animals - Reptiles	Emys marmorata	western pond turtle	ARAAD02030	None	None	SSC	-	4012471	ARCATA SOUTH	Mapped and Unprocessed	Animals - Reptiles - Emydidae - Emys marmorata
Animals - Reptiles	Emys marmorata	western pond turtle	ARAAD02030	None	None	SSC	-	4012463	CANNIBAL ISLAND	Mapped	Animals - Reptiles - Emydidae - Emys marmorata
Community - Terrestrial	Coastal Terrace Prairie	Coastal Terrace Prairie	CTT41100CA	None	None	-	-	4012463	CANNIBAL ISLAND	Mapped	Community - Terrestrial - Coastal Terrace Prairie
Community - Terrestrial	Northern Coastal Salt Marsh	Northern Coastal Salt Marsh	CTT52110CA	None	None	-	-	4012463	CANNIBAL ISLAND	Mapped	Community - Terrestrial - Northern Coastal Salt Marsh
Community - Terrestrial	Northern Coastal Salt Marsh	Northern Coastal Salt Marsh	CTT52110CA	None	None	-	-	4012471	ARCATA SOUTH	Mapped	Community - Terrestrial - Northern Coastal Salt Marsh
Community - Terrestrial	Northern Coastal Salt Marsh	Northern Coastal Salt Marsh	CTT52110CA	None	None	-	-	4012482	TYEE CITY	Mapped	Community - Terrestrial - Northern Coastal Salt Marsh
Community - Terrestrial	Northern Coastal Salt Marsh	Northern Coastal Salt Marsh	CTT52110CA	None	None	-	-	4012472	EUREKA	Mapped	Community - Terrestrial - Northern Coastal Salt Marsh
Community - Terrestrial	Northern Coastal Salt Marsh	Northern Coastal Salt Marsh	CTT52110CA	None	None	-	-	4012462	FIELDS LANDING	Mapped	Community - Terrestrial - Northern Coastal Salt Marsh
Community - Terrestrial	Northern Foredune Grassland	Northern Foredune Grassland	CTT21211CA	None	None	-	-	4012482	TYEE CITY	Mapped	Community - Terrestrial - Northern Foredune Grassland
Community - Terrestrial	Sitka Spruce Forest	Sitka Spruce Forest	CTT82110CA	None	None	-	-	4012463	CANNIBAL ISLAND	Mapped	Community - Terrestrial - Sitka Spruce Forest
Plants - Bryophytes	Trichodon cylindricus	cylindrical trichodon	NBMUS7N020	None	None	-	2B.2	4012481	ARCATA NORTH	Mapped	Plants - Bryophytes - Ditrichaceae - Trichodon cylindricus
Plants - Bryophytes	Fissidens pauperculus	minute pocket moss	NBMUS2W0U0	None	None	-	1B.2	4012481	ARCATA NORTH	Mapped	Plants - Bryophytes - Fissidentaceae - Fissidens pauperculus
Plants - Bryophytes	Fissidens pauperculus	minute pocket moss	NBMUS2W0U0	None	None	-	1B.2	4012471	ARCATA SOUTH	Mapped	Plants - Bryophytes - Fissidentaceae - Fissidens pauperculus

Plants - Lichens	<i>Sulcaria spiralifera</i>	twisted horsehair lichen	NLT0042560	None	None	-	1B.2	4012482	TYEE CITY	Mapped	Plants - Lichens - Alectoriaceae - <i>Sulcaria spiralifera</i>
Plants - Lichens	<i>Sulcaria spiralifera</i>	twisted horsehair lichen	NLT0042560	None	None	-	1B.2	4012472	EUREKA	Mapped	Plants - Lichens - Alectoriaceae - <i>Sulcaria spiralifera</i>
Plants - Lichens	<i>Usnea longissima</i>	Methuselah's beard lichen	NLLEC5P420	None	None	-	4.2	4012471	ARCATA SOUTH	Mapped	Plants - Lichens - Parmeliaceae - <i>Usnea longissima</i>
Plants - Lichens	<i>Usnea longissima</i>	Methuselah's beard lichen	NLLEC5P420	None	None	-	4.2	4012461	MCWHINNEY CREEK	Mapped and Unprocessed	Plants - Lichens - Parmeliaceae - <i>Usnea longissima</i>
Plants - Vascular	<i>Angelica lucida</i>	sea-watch	PDAPI070G0	None	None	-	4.2	4012462	FIELDS LANDING	Unprocessed	Plants - Vascular - Apiaceae - <i>Angelica lucida</i>
Plants - Vascular	<i>Angelica lucida</i>	sea-watch	PDAPI070G0	None	None	-	4.2	4012471	ARCATA SOUTH	Unprocessed	Plants - Vascular - Apiaceae - <i>Angelica lucida</i>
Plants - Vascular	<i>Angelica lucida</i>	sea-watch	PDAPI070G0	None	None	-	4.2	4012463	CANNIBAL ISLAND	Unprocessed	Plants - Vascular - Apiaceae - <i>Angelica lucida</i>
Plants - Vascular	<i>Angelica lucida</i>	sea-watch	PDAPI070G0	None	None	-	4.2	4012472	EUREKA	Unprocessed	Plants - Vascular - Apiaceae - <i>Angelica lucida</i>
Plants - Vascular	<i>Angelica lucida</i>	sea-watch	PDAPI070G0	None	None	-	4.2	4012482	TYEE CITY	Unprocessed	Plants - Vascular - Apiaceae - <i>Angelica lucida</i>
Plants - Vascular	<i>Angelica lucida</i>	sea-watch	PDAPI070G0	None	None	-	4.2	4012481	ARCATA NORTH	Unprocessed	Plants - Vascular - Apiaceae - <i>Angelica lucida</i>
Plants - Vascular	<i>Glehnia littoralis</i> ssp. <i>leiocarpa</i>	American glehnia	PDAPI13011	None	None	-	4.2	4012481	ARCATA NORTH	Unprocessed	Plants - Vascular - Apiaceae - <i>Glehnia littoralis</i> ssp. <i>leiocarpa</i>
Plants - Vascular	<i>Glehnia littoralis</i> ssp. <i>leiocarpa</i>	American glehnia	PDAPI13011	None	None	-	4.2	4012482	TYEE CITY	Unprocessed	Plants - Vascular - Apiaceae - <i>Glehnia littoralis</i> ssp. <i>leiocarpa</i>
Plants - Vascular	<i>Glehnia littoralis</i> ssp. <i>leiocarpa</i>	American glehnia	PDAPI13011	None	None	-	4.2	4012472	EUREKA	Unprocessed	Plants - Vascular - Apiaceae - <i>Glehnia littoralis</i> ssp. <i>leiocarpa</i>
Plants - Vascular	<i>Glehnia littoralis</i> ssp. <i>leiocarpa</i>	American glehnia	PDAPI13011	None	None	-	4.2	4012463	CANNIBAL ISLAND	Unprocessed	Plants - Vascular - Apiaceae - <i>Glehnia littoralis</i> ssp. <i>leiocarpa</i>
Plants - Vascular	<i>Glehnia littoralis</i> ssp. <i>leiocarpa</i>	American glehnia	PDAPI13011	None	None	-	4.2	4012462	FIELDS LANDING	Unprocessed	Plants - Vascular - Apiaceae - <i>Glehnia littoralis</i> ssp. <i>leiocarpa</i>
Plants - Vascular	<i>Hesperervax sparsiflora</i> var. <i>brevifolia</i>	short-leaved evax	PDASTE5011	None	None	-	1B.2	4012463	CANNIBAL ISLAND	Mapped	Plants - Vascular - Asteraceae - <i>Hesperervax sparsiflora</i> var. <i>brevifolia</i>

Plants - Vascular	<i>Hesperivax sparsiflora</i> var. <i>brevifolia</i>	short-leaved evax	PDASTE5011	None	None	-	1B.2	4012472	EUREKA	Mapped and Unprocessed	Plants - Vascular - Asteraceae - <i>Hesperivax sparsiflora</i> var. <i>brevifolia</i>
Plants - Vascular	<i>Lasthenia californica</i> ssp. <i>macrantha</i>	perennial goldfields	PDAST5L0C5	None	None	-	1B.2	4012472	EUREKA	Mapped	Plants - Vascular - Asteraceae - <i>Lasthenia californica</i> ssp. <i>macrantha</i>
Plants - Vascular	<i>Layia carnosa</i>	beach layia	PDAST5N010	Threatened	Endangered	-	1B.1	4012472	EUREKA	Mapped and Unprocessed	Plants - Vascular - Asteraceae - <i>Layia carnosa</i>
Plants - Vascular	<i>Layia carnosa</i>	beach layia	PDAST5N010	Threatened	Endangered	-	1B.1	4012482	TYEE CITY	Mapped and Unprocessed	Plants - Vascular - Asteraceae - <i>Layia carnosa</i>
Plants - Vascular	<i>Layia carnosa</i>	beach layia	PDAST5N010	Threatened	Endangered	-	1B.1	4012463	CANNIBAL ISLAND	Mapped and Unprocessed	Plants - Vascular - Asteraceae - <i>Layia carnosa</i>
Plants - Vascular	<i>Layia carnosa</i>	beach layia	PDAST5N010	Threatened	Endangered	-	1B.1	4012462	FIELDS LANDING	Mapped	Plants - Vascular - Asteraceae - <i>Layia carnosa</i>
Plants - Vascular	<i>Cardamine angulata</i>	seaside bittercress	PDBRA0K010	None	None	-	2B.1	4012461	MCWHINNEY CREEK	Mapped	Plants - Vascular - Brassicaceae - <i>Cardamine angulata</i>
Plants - Vascular	<i>Cardamine angulata</i>	seaside bittercress	PDBRA0K010	None	None	-	2B.1	4012471	ARCATA SOUTH	Mapped	Plants - Vascular - Brassicaceae - <i>Cardamine angulata</i>
Plants - Vascular	<i>Erysimum menziesii</i>	Menzies' wallflower	PDBRA160R0	Endangered	Endangered	-	1B.1	4012463	CANNIBAL ISLAND	Mapped	Plants - Vascular - Brassicaceae - <i>Erysimum menziesii</i>
Plants - Vascular	<i>Erysimum menziesii</i>	Menzies' wallflower	PDBRA160R0	Endangered	Endangered	-	1B.1	4012482	TYEE CITY	Mapped and Unprocessed	Plants - Vascular - Brassicaceae - <i>Erysimum menziesii</i>
Plants - Vascular	<i>Erysimum menziesii</i>	Menzies' wallflower	PDBRA160R0	Endangered	Endangered	-	1B.1	4012472	EUREKA	Mapped	Plants - Vascular - Brassicaceae - <i>Erysimum menziesii</i>
Plants - Vascular	<i>Silene scouleri</i> ssp. <i>scouleri</i>	Scouler's catchfly	PDCAR0U1MC	None	None	-	2B.2	4012472	EUREKA	Mapped	Plants - Vascular - Caryophyllaceae - <i>Silene scouleri</i> ssp. <i>scouleri</i>
Plants - Vascular	<i>Spergularia canadensis</i> var. <i>occidentalis</i>	western sand-spurrey	PDCAR0W032	None	None	-	2B.1	4012472	EUREKA	Mapped and Unprocessed	Plants - Vascular - Caryophyllaceae - <i>Spergularia canadensis</i> var. <i>occidentalis</i>
Plants - Vascular	<i>Spergularia canadensis</i> var. <i>occidentalis</i>	western sand-spurrey	PDCAR0W032	None	None	-	2B.1	4012463	CANNIBAL ISLAND	Mapped	Plants - Vascular - Caryophyllaceae - <i>Spergularia canadensis</i> var. <i>occidentalis</i>
Plants - Vascular	<i>Spergularia canadensis</i> var. <i>occidentalis</i>	western sand-spurrey	PDCAR0W032	None	None	-	2B.1	4012471	ARCATA SOUTH	Mapped	Plants - Vascular - Caryophyllaceae - <i>Spergularia canadensis</i> var. <i>occidentalis</i>

Plants - Vascular	<i>Spergularia canadensis</i> var. <i>occidentalis</i>	western sand-spurrey	PDCAR0W032	None	None	-	2B.1	4012462	FIELDS LANDING	Mapped	Plants - Vascular - Caryophyllaceae - <i>Spergularia canadensis</i> var. <i>occidentalis</i>
Plants - Vascular	<i>Carex arcta</i>	northern clustered sedge	PMCYP030X0	None	None	-	2B.2	4012472	EUREKA	Mapped	Plants - Vascular - Cyperaceae - <i>Carex arcta</i>
Plants - Vascular	<i>Carex arcta</i>	northern clustered sedge	PMCYP030X0	None	None	-	2B.2	4012481	ARCATA NORTH	Mapped	Plants - Vascular - Cyperaceae - <i>Carex arcta</i>
Plants - Vascular	<i>Carex leptalea</i>	bristle-stalked sedge	PMCYP037E0	None	None	-	2B.2	4012462	FIELDS LANDING	Mapped	Plants - Vascular - Cyperaceae - <i>Carex leptalea</i>
Plants - Vascular	<i>Carex lyngbyei</i>	Lyngbye's sedge	PMCYP037Y0	None	None	-	2B.2	4012481	ARCATA NORTH	Mapped	Plants - Vascular - Cyperaceae - <i>Carex lyngbyei</i>
Plants - Vascular	<i>Carex lyngbyei</i>	Lyngbye's sedge	PMCYP037Y0	None	None	-	2B.2	4012482	TYEE CITY	Mapped	Plants - Vascular - Cyperaceae - <i>Carex lyngbyei</i>
Plants - Vascular	<i>Carex lyngbyei</i>	Lyngbye's sedge	PMCYP037Y0	None	None	-	2B.2	4012472	EUREKA	Mapped	Plants - Vascular - Cyperaceae - <i>Carex lyngbyei</i>
Plants - Vascular	<i>Carex lyngbyei</i>	Lyngbye's sedge	PMCYP037Y0	None	None	-	2B.2	4012471	ARCATA SOUTH	Mapped and Unprocessed	Plants - Vascular - Cyperaceae - <i>Carex lyngbyei</i>
Plants - Vascular	<i>Carex lyngbyei</i>	Lyngbye's sedge	PMCYP037Y0	None	None	-	2B.2	4012463	CANNIBAL ISLAND	Mapped	Plants - Vascular - Cyperaceae - <i>Carex lyngbyei</i>
Plants - Vascular	<i>Carex praticola</i>	northern meadow sedge	PMCYP03B20	None	None	-	2B.2	4012471	ARCATA SOUTH	Mapped	Plants - Vascular - Cyperaceae - <i>Carex praticola</i>
Plants - Vascular	<i>Carex praticola</i>	northern meadow sedge	PMCYP03B20	None	None	-	2B.2	4012472	EUREKA	Mapped	Plants - Vascular - Cyperaceae - <i>Carex praticola</i>
Plants - Vascular	<i>Eleocharis parvula</i>	small spikerush	PMCYP091G0	None	None	-	4.3	4012471	ARCATA SOUTH	Unprocessed	Plants - Vascular - Cyperaceae - <i>Eleocharis parvula</i>
Plants - Vascular	<i>Astragalus pycnostachyus</i> var. <i>pycnostachyus</i>	coastal marsh milk-vetch	PDFAB0F7B2	None	None	-	1B.2	4012472	EUREKA	Mapped	Plants - Vascular - Fabaceae - <i>Astragalus pycnostachyus</i> var. <i>pycnostachyus</i>
Plants - Vascular	<i>Astragalus rattanii</i> var. <i>rattanii</i>	Rattan's milk-vetch	PDFAB0F7E2	None	None	-	4.3	4012481	ARCATA NORTH	Unprocessed	Plants - Vascular - Fabaceae - <i>Astragalus rattanii</i> var. <i>rattanii</i>
Plants - Vascular	<i>Hosackia gracilis</i>	harlequin lotus	PDFAB2A0D0	None	None	-	4.2	4012463	CANNIBAL ISLAND	Unprocessed	Plants - Vascular - Fabaceae - <i>Hosackia gracilis</i>
Plants - Vascular	<i>Hosackia gracilis</i>	harlequin lotus	PDFAB2A0D0	None	None	-	4.2	4012472	EUREKA	Unprocessed	Plants - Vascular - Fabaceae - <i>Hosackia gracilis</i>

Plants - Vascular	Hosackia gracilis	harlequin lotus	PDFAB2A0D0	None	None	-	4.2	4012471	ARCATA SOUTH	Unprocessed	Plants - Vascular - Fabaceae - Hosackia gracilis
Plants - Vascular	Hosackia gracilis	harlequin lotus	PDFAB2A0D0	None	None	-	4.2	4012462	FIELDS LANDING	Unprocessed	Plants - Vascular - Fabaceae - Hosackia gracilis
Plants - Vascular	Lathyrus glandulosus	sticky pea	PDFAB251A0	None	None	-	4.3	4012471	ARCATA SOUTH	Unprocessed	Plants - Vascular - Fabaceae - Lathyrus glandulosus
Plants - Vascular	Lathyrus glandulosus	sticky pea	PDFAB251A0	None	None	-	4.3	4012481	ARCATA NORTH	Unprocessed	Plants - Vascular - Fabaceae - Lathyrus glandulosus
Plants - Vascular	Lathyrus japonicus	seaside pea	PDFAB250C0	None	None	-	2B.1	4012472	EUREKA	Mapped	Plants - Vascular - Fabaceae - Lathyrus japonicus
Plants - Vascular	Lathyrus japonicus	seaside pea	PDFAB250C0	None	None	-	2B.1	4012481	ARCATA NORTH	Mapped	Plants - Vascular - Fabaceae - Lathyrus japonicus
Plants - Vascular	Lathyrus japonicus	seaside pea	PDFAB250C0	None	None	-	2B.1	4012471	ARCATA SOUTH	Mapped	Plants - Vascular - Fabaceae - Lathyrus japonicus
Plants - Vascular	Lathyrus palustris	marsh pea	PDFAB250P0	None	None	-	2B.2	4012472	EUREKA	Mapped	Plants - Vascular - Fabaceae - Lathyrus palustris
Plants - Vascular	Ribes laxiflorum	trailing black currant	PDGRO020V0	None	None	-	4.3	4012481	ARCATA NORTH	Unprocessed	Plants - Vascular - Grossulariaceae - Ribes laxiflorum
Plants - Vascular	Ribes laxiflorum	trailing black currant	PDGRO020V0	None	None	-	4.3	4012471	ARCATA SOUTH	Unprocessed	Plants - Vascular - Grossulariaceae - Ribes laxiflorum
Plants - Vascular	Ribes laxiflorum	trailing black currant	PDGRO020V0	None	None	-	4.3	4012462	FIELDS LANDING	Unprocessed	Plants - Vascular - Grossulariaceae - Ribes laxiflorum
Plants - Vascular	Ribes laxiflorum	trailing black currant	PDGRO020V0	None	None	-	4.3	4012461	MCWHINNEY CREEK	Unprocessed	Plants - Vascular - Grossulariaceae - Ribes laxiflorum
Plants - Vascular	Erythronium revolutum	coast fawn lily	PMLIL0U0F0	None	None	-	2B.2	4012472	EUREKA	Mapped	Plants - Vascular - Liliaceae - Erythronium revolutum
Plants - Vascular	Lilium kelloggii	Kellogg's lily	PMLIL1A0A0	None	None	-	4.3	4012471	ARCATA SOUTH	Unprocessed	Plants - Vascular - Liliaceae - Lilium kelloggii
Plants - Vascular	Lilium kelloggii	Kellogg's lily	PMLIL1A0A0	None	None	-	4.3	4012461	MCWHINNEY CREEK	Unprocessed	Plants - Vascular - Liliaceae - Lilium kelloggii
Plants - Vascular	Lilium occidentale	western lily	PMLIL1A0G0	Endangered	Endangered	-	1B.1	4012462	FIELDS LANDING	Mapped	Plants - Vascular - Liliaceae - Lilium occidentale
Plants - Vascular	Lilium occidentale	western lily	PMLIL1A0G0	Endangered	Endangered	-	1B.1	4012471	ARCATA SOUTH	Mapped	Plants - Vascular - Liliaceae - Lilium occidentale

Plants - Vascular	<i>Lilium occidentale</i>	western lily	PMLIL1A0G0	Endangered	Endangered	-	1B.1	4012463	CANNIBAL ISLAND	Mapped	Plants - Vascular - Liliaceae - <i>Lilium occidentale</i>
Plants - Vascular	<i>Lilium occidentale</i>	western lily	PMLIL1A0G0	Endangered	Endangered	-	1B.1	4012472	EUREKA	Mapped	Plants - Vascular - Liliaceae - <i>Lilium occidentale</i>
Plants - Vascular	<i>Lilium occidentale</i>	western lily	PMLIL1A0G0	Endangered	Endangered	-	1B.1	4012481	ARCATA NORTH	Mapped	Plants - Vascular - Liliaceae - <i>Lilium occidentale</i>
Plants - Vascular	<i>Lycopodium clavatum</i>	running-pine	PPLYC01080	None	None	-	4.1	4012481	ARCATA NORTH	Mapped and Unprocessed	Plants - Vascular - Lycopodiaceae - <i>Lycopodium clavatum</i>
Plants - Vascular	<i>Lycopodium clavatum</i>	running-pine	PPLYC01080	None	None	-	4.1	4012472	EUREKA	Unprocessed	Plants - Vascular - Lycopodiaceae - <i>Lycopodium clavatum</i>
Plants - Vascular	<i>Lycopodium clavatum</i>	running-pine	PPLYC01080	None	None	-	4.1	4012471	ARCATA SOUTH	Mapped and Unprocessed	Plants - Vascular - Lycopodiaceae - <i>Lycopodium clavatum</i>
Plants - Vascular	<i>Lycopodium clavatum</i>	running-pine	PPLYC01080	None	None	-	4.1	4012462	FIELDS LANDING	Unprocessed	Plants - Vascular - Lycopodiaceae - <i>Lycopodium clavatum</i>
Plants - Vascular	<i>Lycopodium clavatum</i>	running-pine	PPLYC01080	None	None	-	4.1	4012461	MCWHINNEY CREEK	Mapped and Unprocessed	Plants - Vascular - Lycopodiaceae - <i>Lycopodium clavatum</i>
Plants - Vascular	<i>Sidalcea malachroides</i>	maple-leaved checkerbloom	PDMAL110E0	None	None	-	4.2	4012461	MCWHINNEY CREEK	Mapped and Unprocessed	Plants - Vascular - Malvaceae - <i>Sidalcea malachroides</i>
Plants - Vascular	<i>Sidalcea malachroides</i>	maple-leaved checkerbloom	PDMAL110E0	None	None	-	4.2	4012462	FIELDS LANDING	Mapped and Unprocessed	Plants - Vascular - Malvaceae - <i>Sidalcea malachroides</i>
Plants - Vascular	<i>Sidalcea malachroides</i>	maple-leaved checkerbloom	PDMAL110E0	None	None	-	4.2	4012472	EUREKA	Mapped and Unprocessed	Plants - Vascular - Malvaceae - <i>Sidalcea malachroides</i>
Plants - Vascular	<i>Sidalcea malachroides</i>	maple-leaved checkerbloom	PDMAL110E0	None	None	-	4.2	4012471	ARCATA SOUTH	Mapped and Unprocessed	Plants - Vascular - Malvaceae - <i>Sidalcea malachroides</i>
Plants - Vascular	<i>Sidalcea malachroides</i>	maple-leaved checkerbloom	PDMAL110E0	None	None	-	4.2	4012481	ARCATA NORTH	Mapped and Unprocessed	Plants - Vascular - Malvaceae - <i>Sidalcea malachroides</i>
Plants - Vascular	<i>Sidalcea malviflora</i> ssp. <i>patula</i>	Siskiyou checkerbloom	PDMAL110F9	None	None	-	1B.2	4012481	ARCATA NORTH	Mapped	Plants - Vascular - Malvaceae - <i>Sidalcea malviflora</i> ssp. <i>patula</i>
Plants - Vascular	<i>Sidalcea malviflora</i> ssp. <i>patula</i>	Siskiyou checkerbloom	PDMAL110F9	None	None	-	1B.2	4012472	EUREKA	Mapped	Plants - Vascular - Malvaceae - <i>Sidalcea malviflora</i> ssp. <i>patula</i>
Plants - Vascular	<i>Sidalcea malviflora</i> ssp. <i>patula</i>	Siskiyou checkerbloom	PDMAL110F9	None	None	-	1B.2	4012462	FIELDS LANDING	Mapped	Plants - Vascular - Malvaceae - <i>Sidalcea malviflora</i> ssp. <i>patula</i>



Plants - Vascular	<i>Sidalcea oregana</i> ssp. <i>eximia</i>	coast checkerbloom	PDMAL110K9	None	None	-	1B.2	4012462	FIELDS LANDING	Mapped	Plants - Vascular - Malvaceae - <i>Sidalcea oregana</i> ssp. <i>eximia</i>
Plants - Vascular	<i>Sidalcea oregana</i> ssp. <i>eximia</i>	coast checkerbloom	PDMAL110K9	None	None	-	1B.2	4012472	EUREKA	Mapped	Plants - Vascular - Malvaceae - <i>Sidalcea oregana</i> ssp. <i>eximia</i>
Plants - Vascular	<i>Sidalcea oregana</i> ssp. <i>eximia</i>	coast checkerbloom	PDMAL110K9	None	None	-	1B.2	4012463	CANNIBAL ISLAND	Mapped	Plants - Vascular - Malvaceae - <i>Sidalcea oregana</i> ssp. <i>eximia</i>
Plants - Vascular	<i>Sidalcea oregana</i> ssp. <i>eximia</i>	coast checkerbloom	PDMAL110K9	None	None	-	1B.2	4012481	ARCATA NORTH	Mapped	Plants - Vascular - Malvaceae - <i>Sidalcea oregana</i> ssp. <i>eximia</i>
Plants - Vascular	<i>Monotropa uniflora</i>	ghost-pipe	PDMON03030	None	None	-	2B.2	4012472	EUREKA	Mapped	Plants - Vascular - Monotropaceae - <i>Monotropa uniflora</i>
Plants - Vascular	<i>Monotropa uniflora</i>	ghost-pipe	PDMON03030	None	None	-	2B.2	4012471	ARCATA SOUTH	Mapped	Plants - Vascular - Monotropaceae - <i>Monotropa uniflora</i>
Plants - Vascular	<i>Pityopus californicus</i>	California pinefoot	PDMON05010	None	None	-	4.2	4012481	ARCATA NORTH	Unprocessed	Plants - Vascular - Monotropaceae - <i>Pityopus californicus</i>
Plants - Vascular	<i>Pityopus californicus</i>	California pinefoot	PDMON05010	None	None	-	4.2	4012462	FIELDS LANDING	Unprocessed	Plants - Vascular - Monotropaceae - <i>Pityopus californicus</i>
Plants - Vascular	<i>Pityopus californicus</i>	California pinefoot	PDMON05010	None	None	-	4.2	4012461	MCWHINNEY CREEK	Unprocessed	Plants - Vascular - Monotropaceae - <i>Pityopus californicus</i>
Plants - Vascular	<i>Montia howellii</i>	Howell's montia	PDPOR05070	None	None	-	2B.2	4012461	MCWHINNEY CREEK	Mapped and Unprocessed	Plants - Vascular - Montiaceae - <i>Montia howellii</i>
Plants - Vascular	<i>Montia howellii</i>	Howell's montia	PDPOR05070	None	None	-	2B.2	4012462	FIELDS LANDING	Mapped and Unprocessed	Plants - Vascular - Montiaceae - <i>Montia howellii</i>
Plants - Vascular	<i>Montia howellii</i>	Howell's montia	PDPOR05070	None	None	-	2B.2	4012481	ARCATA NORTH	Mapped	Plants - Vascular - Montiaceae - <i>Montia howellii</i>
Plants - Vascular	<i>Montia howellii</i>	Howell's montia	PDPOR05070	None	None	-	2B.2	4012471	ARCATA SOUTH	Mapped	Plants - Vascular - Montiaceae - <i>Montia howellii</i>
Plants - Vascular	<i>Montia howellii</i>	Howell's montia	PDPOR05070	None	None	-	2B.2	4012472	EUREKA	Mapped	Plants - Vascular - Montiaceae - <i>Montia howellii</i>
Plants - Vascular	<i>Abronia umbellata</i> var. <i>breviflora</i>	pink sand-verbena	PDNYC010N4	None	None	-	1B.1	4012472	EUREKA	Mapped and Unprocessed	Plants - Vascular - Nyctaginaceae - <i>Abronia umbellata</i> var. <i>breviflora</i>
Plants - Vascular	<i>Abronia umbellata</i> var. <i>breviflora</i>	pink sand-verbena	PDNYC010N4	None	None	-	1B.1	4012481	ARCATA NORTH	Mapped	Plants - Vascular - Nyctaginaceae - <i>Abronia umbellata</i> var. <i>breviflora</i>

Plants - Vascular	<i>Abronia umbellata</i> var. <i>breviflora</i>	pink sand-verbena	PDNYC010N4	None	None	-	1B.1	4012482	TYEE CITY	Mapped	Plants - Vascular - Nyctaginaceae - <i>Abronia umbellata</i> var. <i>breviflora</i>
Plants - Vascular	<i>Abronia umbellata</i> var. <i>breviflora</i>	pink sand-verbena	PDNYC010N4	None	None	-	1B.1	4012462	FIELDS LANDING	Mapped and Unprocessed	Plants - Vascular - Nyctaginaceae - <i>Abronia umbellata</i> var. <i>breviflora</i>
Plants - Vascular	<i>Oenothera wolfii</i>	Wolf's evening-primrose	PDONA0C1K0	None	None	-	1B.1	4012481	ARCATA NORTH	Mapped	Plants - Vascular - Onagraceae - <i>Oenothera wolfii</i>
Plants - Vascular	<i>Oenothera wolfii</i>	Wolf's evening-primrose	PDONA0C1K0	None	None	-	1B.1	4012472	EUREKA	Mapped	Plants - Vascular - Onagraceae - <i>Oenothera wolfii</i>
Plants - Vascular	<i>Listera cordata</i>	heart-leaved twayblade	PMORC1N060	None	None	-	4.2	4012471	ARCATA SOUTH	Unprocessed	Plants - Vascular - Orchidaceae - <i>Listera cordata</i>
Plants - Vascular	<i>Listera cordata</i>	heart-leaved twayblade	PMORC1N060	None	None	-	4.2	4012481	ARCATA NORTH	Unprocessed	Plants - Vascular - Orchidaceae - <i>Listera cordata</i>
Plants - Vascular	<i>Listera cordata</i>	heart-leaved twayblade	PMORC1N060	None	None	-	4.2	4012462	FIELDS LANDING	Unprocessed	Plants - Vascular - Orchidaceae - <i>Listera cordata</i>
Plants - Vascular	<i>Listera cordata</i>	heart-leaved twayblade	PMORC1N060	None	None	-	4.2	4012461	MCWHINNEY CREEK	Unprocessed	Plants - Vascular - Orchidaceae - <i>Listera cordata</i>
Plants - Vascular	<i>Castilleja ambigua</i> var. <i>humboldtiensis</i>	Humboldt Bay owl's-clover	PDSCR0D402	None	None	-	1B.2	4012462	FIELDS LANDING	Mapped	Plants - Vascular - Orobanchaceae - <i>Castilleja ambigua</i> var. <i>humboldtiensis</i>
Plants - Vascular	<i>Castilleja ambigua</i> var. <i>humboldtiensis</i>	Humboldt Bay owl's-clover	PDSCR0D402	None	None	-	1B.2	4012481	ARCATA NORTH	Mapped	Plants - Vascular - Orobanchaceae - <i>Castilleja ambigua</i> var. <i>humboldtiensis</i>
Plants - Vascular	<i>Castilleja ambigua</i> var. <i>humboldtiensis</i>	Humboldt Bay owl's-clover	PDSCR0D402	None	None	-	1B.2	4012482	TYEE CITY	Mapped	Plants - Vascular - Orobanchaceae - <i>Castilleja ambigua</i> var. <i>humboldtiensis</i>
Plants - Vascular	<i>Castilleja ambigua</i> var. <i>humboldtiensis</i>	Humboldt Bay owl's-clover	PDSCR0D402	None	None	-	1B.2	4012471	ARCATA SOUTH	Mapped and Unprocessed	Plants - Vascular - Orobanchaceae - <i>Castilleja ambigua</i> var. <i>humboldtiensis</i>
Plants - Vascular	<i>Castilleja ambigua</i> var. <i>humboldtiensis</i>	Humboldt Bay owl's-clover	PDSCR0D402	None	None	-	1B.2	4012463	CANNIBAL ISLAND	Mapped and Unprocessed	Plants - Vascular - Orobanchaceae - <i>Castilleja ambigua</i> var. <i>humboldtiensis</i>
Plants - Vascular	<i>Castilleja ambigua</i> var. <i>humboldtiensis</i>	Humboldt Bay owl's-clover	PDSCR0D402	None	None	-	1B.2	4012472	EUREKA	Mapped	Plants - Vascular - Orobanchaceae - <i>Castilleja ambigua</i> var. <i>humboldtiensis</i>
Plants - Vascular	<i>Castilleja litoralis</i>	Oregon coast paintbrush	PDSCR0D012	None	None	-	2B.2	4012472	EUREKA	Mapped	Plants - Vascular - Orobanchaceae - <i>Castilleja litoralis</i>

Plants - Vascular	<i>Castilleja litoralis</i>	Oregon coast paintbrush	PDSCR0D012	None	None	-	2B.2	4012463	CANNIBAL ISLAND	Mapped	Plants - Vascular - Orobanchaceae - <i>Castilleja litoralis</i>
Plants - Vascular	<i>Castilleja litoralis</i>	Oregon coast paintbrush	PDSCR0D012	None	None	-	2B.2	4012462	FIELDS LANDING	Mapped	Plants - Vascular - Orobanchaceae - <i>Castilleja litoralis</i>
Plants - Vascular	<i>Chloropyron maritimum</i> ssp. <i>palustre</i>	Point Reyes salty bird's-beak	PDSCR0J0C3	None	None	-	1B.2	4012462	FIELDS LANDING	Mapped	Plants - Vascular - Orobanchaceae - <i>Chloropyron maritimum</i> ssp. <i>palustre</i>
Plants - Vascular	<i>Chloropyron maritimum</i> ssp. <i>palustre</i>	Point Reyes salty bird's-beak	PDSCR0J0C3	None	None	-	1B.2	4012463	CANNIBAL ISLAND	Mapped and Unprocessed	Plants - Vascular - Orobanchaceae - <i>Chloropyron maritimum</i> ssp. <i>palustre</i>
Plants - Vascular	<i>Chloropyron maritimum</i> ssp. <i>palustre</i>	Point Reyes salty bird's-beak	PDSCR0J0C3	None	None	-	1B.2	4012471	ARCATA SOUTH	Mapped	Plants - Vascular - Orobanchaceae - <i>Chloropyron maritimum</i> ssp. <i>palustre</i>
Plants - Vascular	<i>Chloropyron maritimum</i> ssp. <i>palustre</i>	Point Reyes salty bird's-beak	PDSCR0J0C3	None	None	-	1B.2	4012472	EUREKA	Mapped and Unprocessed	Plants - Vascular - Orobanchaceae - <i>Chloropyron maritimum</i> ssp. <i>palustre</i>
Plants - Vascular	<i>Chloropyron maritimum</i> ssp. <i>palustre</i>	Point Reyes salty bird's-beak	PDSCR0J0C3	None	None	-	1B.2	4012482	TYEE CITY	Mapped	Plants - Vascular - Orobanchaceae - <i>Chloropyron maritimum</i> ssp. <i>palustre</i>
Plants - Vascular	<i>Collinsia corymbosa</i>	round-headed Chinese-houses	PDSCR0H060	None	None	-	1B.2	4012472	EUREKA	Mapped	Plants - Vascular - Plantaginaceae - <i>Collinsia corymbosa</i>
Plants - Vascular	<i>Pleuropogon refractus</i>	nodding semaphore grass	PMPOA4Y080	None	None	-	4.2	4012472	EUREKA	Unprocessed	Plants - Vascular - Poaceae - <i>Pleuropogon refractus</i>
Plants - Vascular	<i>Pleuropogon refractus</i>	nodding semaphore grass	PMPOA4Y080	None	None	-	4.2	4012471	ARCATA SOUTH	Unprocessed	Plants - Vascular - Poaceae - <i>Pleuropogon refractus</i>
Plants - Vascular	<i>Pleuropogon refractus</i>	nodding semaphore grass	PMPOA4Y080	None	None	-	4.2	4012481	ARCATA NORTH	Unprocessed	Plants - Vascular - Poaceae - <i>Pleuropogon refractus</i>
Plants - Vascular	<i>Pleuropogon refractus</i>	nodding semaphore grass	PMPOA4Y080	None	None	-	4.2	4012462	FIELDS LANDING	Unprocessed	Plants - Vascular - Poaceae - <i>Pleuropogon refractus</i>
Plants - Vascular	<i>Pleuropogon refractus</i>	nodding semaphore grass	PMPOA4Y080	None	None	-	4.2	4012461	MCWHINNEY CREEK	Unprocessed	Plants - Vascular - Poaceae - <i>Pleuropogon refractus</i>
Plants - Vascular	<i>Puccinellia pumila</i>	dwarf alkali grass	PMPOA531L0	None	None	-	2B.2	4012463	CANNIBAL ISLAND	Mapped	Plants - Vascular - Poaceae - <i>Puccinellia pumila</i>
Plants - Vascular	<i>Gilia capitata</i> ssp. <i>pacifica</i>	Pacific gilia	PDPLM040B6	None	None	-	1B.2	4012472	EUREKA	Mapped	Plants - Vascular - Polemoniaceae - <i>Gilia capitata</i> ssp. <i>pacifica</i>

Plants - Vascular	<i>Gilia millefoliata</i>	dark-eyed gilia	PDPLM04130	None	None	-	1B.2	4012472	EUREKA	Mapped and Unprocessed	Plants - Vascular - Polemoniaceae - <i>Gilia millefoliata</i>
Plants - Vascular	<i>Gilia millefoliata</i>	dark-eyed gilia	PDPLM04130	None	None	-	1B.2	4012463	CANNIBAL ISLAND	Mapped and Unprocessed	Plants - Vascular - Polemoniaceae - <i>Gilia millefoliata</i>
Plants - Vascular	<i>Gilia millefoliata</i>	dark-eyed gilia	PDPLM04130	None	None	-	1B.2	4012482	TYEE CITY	Mapped	Plants - Vascular - Polemoniaceae - <i>Gilia millefoliata</i>
Plants - Vascular	<i>Gilia millefoliata</i>	dark-eyed gilia	PDPLM04130	None	None	-	1B.2	4012462	FIELDS LANDING	Mapped	Plants - Vascular - Polemoniaceae - <i>Gilia millefoliata</i>
Plants - Vascular	<i>Chrysosplenium glechomifolium</i>	Pacific golden saxifrage	PDSAX07020	None	None	-	4.3	4012462	FIELDS LANDING	Unprocessed	Plants - Vascular - Saxifragaceae - <i>Chrysosplenium glechomifolium</i>
Plants - Vascular	<i>Chrysosplenium glechomifolium</i>	Pacific golden saxifrage	PDSAX07020	None	None	-	4.3	4012461	MCWHINNEY CREEK	Unprocessed	Plants - Vascular - Saxifragaceae - <i>Chrysosplenium glechomifolium</i>
Plants - Vascular	<i>Chrysosplenium glechomifolium</i>	Pacific golden saxifrage	PDSAX07020	None	None	-	4.3	4012481	ARCATA NORTH	Unprocessed	Plants - Vascular - Saxifragaceae - <i>Chrysosplenium glechomifolium</i>
Plants - Vascular	<i>Chrysosplenium glechomifolium</i>	Pacific golden saxifrage	PDSAX07020	None	None	-	4.3	4012472	EUREKA	Unprocessed	Plants - Vascular - Saxifragaceae - <i>Chrysosplenium glechomifolium</i>
Plants - Vascular	<i>Chrysosplenium glechomifolium</i>	Pacific golden saxifrage	PDSAX07020	None	None	-	4.3	4012471	ARCATA SOUTH	Unprocessed	Plants - Vascular - Saxifragaceae - <i>Chrysosplenium glechomifolium</i>
Plants - Vascular	<i>Mitellastra caulescens</i>	leafy-stemmed mitrewort	PDSAX0N020	None	None	-	4.2	4012471	ARCATA SOUTH	Mapped and Unprocessed	Plants - Vascular - Saxifragaceae - <i>Mitellastra caulescens</i>
Plants - Vascular	<i>Mitellastra caulescens</i>	leafy-stemmed mitrewort	PDSAX0N020	None	None	-	4.2	4012481	ARCATA NORTH	Unprocessed	Plants - Vascular - Saxifragaceae - <i>Mitellastra caulescens</i>
Plants - Vascular	<i>Mitellastra caulescens</i>	leafy-stemmed mitrewort	PDSAX0N020	None	None	-	4.2	4012461	MCWHINNEY CREEK	Unprocessed	Plants - Vascular - Saxifragaceae - <i>Mitellastra caulescens</i>
Plants - Vascular	<i>Mitellastra caulescens</i>	leafy-stemmed mitrewort	PDSAX0N020	None	None	-	4.2	4012462	FIELDS LANDING	Unprocessed	Plants - Vascular - Saxifragaceae - <i>Mitellastra caulescens</i>
Plants - Vascular	<i>Viola palustris</i>	alpine marsh violet	PDVIO041G0	None	None	-	2B.2	4012472	EUREKA	Mapped	Plants - Vascular - Violaceae - <i>Viola palustris</i>
Plants - Vascular	<i>Viola palustris</i>	alpine marsh violet	PDVIO041G0	None	None	-	2B.2	4012471	ARCATA SOUTH	Mapped	Plants - Vascular - Violaceae - <i>Viola palustris</i>





## CNPS Rare Plant Inventory

### Search Results

49 matches found. Click on scientific name for details

Search Criteria: 9-Quad include [4012472:4012471:4012481:4012482:4012462:4012463:4012461]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK
<a href="#"><i>Abronia umbellata</i> var. <i>breviflora</i></a>	pink sand-verbena	Nyctaginaceae	annual herb	Jun-Oct	None	None	G4G5T2	S2	1B.1
<a href="#"><i>Angelica lucida</i></a>	sea-watch	Apiaceae	perennial herb	Apr-Sep	None	None	G5	S3	4.2
<a href="#"><i>Astragalus pycnostachyus</i> var. <i>pycnostachyus</i></a>	coastal marsh milk-vetch	Fabaceae	perennial herb	(Apr)Jun-Oct	None	None	G2T2	S2	1B.2
<a href="#"><i>Astragalus rattanii</i> var. <i>rattanii</i></a>	Rattan's milk-vetch	Fabaceae	perennial herb	Apr-Jul	None	None	G4T4	S4	4.3
<a href="#"><i>Cardamine angulata</i></a>	seaside bittercress	Brassicaceae	perennial herb	(Jan)Mar-Jul	None	None	G4G5	S3	2B.2
<a href="#"><i>Carex arcta</i></a>	northern clustered sedge	Cyperaceae	perennial herb	Jun-Sep	None	None	G5	S1	2B.2
<a href="#"><i>Carex leptalea</i></a>	bristle-stalked sedge	Cyperaceae	perennial rhizomatous herb	Mar-Jul	None	None	G5	S1	2B.2
<a href="#"><i>Carex lyngbyei</i></a>	Lyngbye's sedge	Cyperaceae	perennial rhizomatous herb	Apr-Aug	None	None	G5	S3	2B.2
<a href="#"><i>Carex praticola</i></a>	northern meadow sedge	Cyperaceae	perennial herb	May-Jul	None	None	G5	S2	2B.2
<a href="#"><i>Castilleja ambigua</i> var. <i>humboldtiensis</i></a>	Humboldt Bay owl's-clover	Orobanchaceae	annual herb (hemiparasitic)	Apr-Aug	None	None	G4T2	S2	1B.2
<a href="#"><i>Castilleja litoralis</i></a>	Oregon coast paintbrush	Orobanchaceae	perennial herb (hemiparasitic)	Jun	None	None	G3	S3	2B.2
<a href="#"><i>Chloropyron maritimum</i> ssp. <i>palustre</i></a>	Point Reyes salty bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	Jun-Oct	None	None	G4?T2	S2	1B.2
<a href="#"><i>Chrysosplenium glechomifolium</i></a>	Pacific golden saxifrage	Saxifragaceae	perennial herb	Feb-Jun	None	None	G5?	S3	4.3
<a href="#"><i>Collinsia corymbosa</i></a>	round-headed Chinese-houses	Plantaginaceae	annual herb	Apr-Jun	None	None	G1	S1	1B.2
<a href="#"><i>Eleocharis parvula</i></a>	small spikerush	Cyperaceae	perennial herb	(Apr)Jun-Aug(Sep)	None	None	G5	S3	4.3
<a href="#"><i>Erysimum menziesii</i></a>	Menzies' wallflower	Brassicaceae	perennial herb	Mar-Sep	FE	CE	G1	S1	1B.1
<a href="#"><i>Erythronium revolutum</i></a>	coast fawn lily	Liliaceae	perennial bulbiferous herb	Mar-Jul(Aug)	None	None	G4G5	S3	2B.2
<a href="#"><i>Fissidens pauperculus</i></a>	minute pocket moss	Fissidentaceae	moss		None	None	G3?	S2	1B.2

<a href="#"><i>Gilia capitata</i> ssp. <i>pacifica</i></a>	Pacific gilia	Polemoniaceae	annual herb	Apr-Aug	None	None	G5T3	S2	1B.2
<a href="#"><i>Gilia millefoliata</i></a>	dark-eyed gilia	Polemoniaceae	annual herb	Apr-Jul	None	None	G2	S2	1B.2
<a href="#"><i>Glehnia littoralis</i> ssp. <i>leiocarpa</i></a>	American glehnia	Apiaceae	perennial herb	May-Aug	None	None	G5T5	S2S3	4.2
<a href="#"><i>Hesperervax sparsiflora</i> var. <i>brevifolia</i></a>	short-leaved evax	Asteraceae	annual herb	Mar-Jun	None	None	G4T3	S3	1B.2
<a href="#"><i>Hosackia gracilis</i></a>	harlequin lotus	Fabaceae	perennial rhizomatous herb	Mar-Jul	None	None	G3G4	S3	4.2
<a href="#"><i>Lasthenia californica</i> ssp. <i>macrantha</i></a>	perennial goldfields	Asteraceae	perennial herb	Jan-Nov	None	None	G3T2	S2	1B.2
<a href="#"><i>Lathyrus glandulosus</i></a>	sticky pea	Fabaceae	perennial rhizomatous herb	Apr-Jun	None	None	G3	S3	4.3
<a href="#"><i>Lathyrus japonicus</i></a>	seaside pea	Fabaceae	perennial rhizomatous herb	May-Aug	None	None	G5	S2	2B.1
<a href="#"><i>Lathyrus palustris</i></a>	marsh pea	Fabaceae	perennial herb	Mar-Aug	None	None	G5	S2	2B.2
<a href="#"><i>Layia carnosa</i></a>	beach layia	Asteraceae	annual herb	Mar-Jul	FT	CE	G2	S2	1B.1
<a href="#"><i>Lilium kelloggii</i></a>	Kellogg's lily	Liliaceae	perennial bulbiferous herb	May-Aug	None	None	G3	S3	4.3
<a href="#"><i>Lilium occidentale</i></a>	western lily	Liliaceae	perennial bulbiferous herb	Jun-Jul	FE	CE	G1G2	S1	1B.1
<a href="#"><i>Listera cordata</i></a>	heart-leaved twayblade	Orchidaceae	perennial herb	Feb-Jul	None	None	G5	S4	4.2
<a href="#"><i>Lycopodium clavatum</i></a>	running-pine	Lycopodiaceae	perennial rhizomatous herb	Jun-Aug(Sep)	None	None	G5	S3	4.1
<a href="#"><i>Mitellastra caulescens</i></a>	leafy-stemmed mitrewort	Saxifragaceae	perennial rhizomatous herb	(Mar)Apr-Oct	None	None	G5	S4	4.2
<a href="#"><i>Monotropa uniflora</i></a>	ghost-pipe	Ericaceae	perennial herb (achlorophyllous)	Jun-Aug(Sep)	None	None	G5	S2	2B.2
<a href="#"><i>Montia howellii</i></a>	Howell's montia	Montiaceae	annual herb	(Feb)Mar-May	None	None	G3G4	S2	2B.2
<a href="#"><i>Oenothera wolfii</i></a>	Wolf's evening-primrose	Onagraceae	perennial herb	May-Oct	None	None	G2	S1	1B.1
<a href="#"><i>Pityopus californicus</i></a>	California pinefoot	Ericaceae	perennial herb (achlorophyllous)	(Mar-Apr)May-Aug	None	None	G4G5	S4	4.2
<a href="#"><i>Pleuropogon refractus</i></a>	nodding semaphore grass	Poaceae	perennial rhizomatous herb	(Mar)Apr-Aug	None	None	G4	S4	4.2
<a href="#"><i>Puccinellia pumila</i></a>	dwarf alkali grass	Poaceae	perennial herb	Jul	None	None	G5	SH	2B.2
<a href="#"><i>Ribes laxiflorum</i></a>	trailing black currant	Grossulariaceae	perennial deciduous shrub	Mar-Jul(Aug)	None	None	G5?	S3	4.3
<a href="#"><i>Sidalcea malachroides</i></a>	maple-leaved checkerbloom	Malvaceae	perennial herb	(Mar)Apr-Aug	None	None	G3	S3	4.2
<a href="#"><i>Sidalcea malviflora</i> ssp. <i>patula</i></a>	Siskiyou checkerbloom	Malvaceae	perennial rhizomatous herb	(Mar)May-Aug	None	None	G5T2	S2	1B.2
<a href="#"><i>Sidalcea oreana</i> ssp. <i>coast</i></a>	coast	Malvaceae	perennial herb	Jun-Aug	None	None	G5T1	S1	1B.2

<a href="#"><u>eximia</u></a>	checkerbloom									
<a href="#"><u>Silene scouleri ssp. scouleri</u></a>	Scouler's catchfly	Caryophyllaceae	perennial herb	(Mar-May)Jun-Aug(Sep)	None	None	G5T4T5	S2S3	2B.2	
<a href="#"><u>Spergularia canadensis var. occidentalis</u></a>	western sand-spurrey	Caryophyllaceae	annual herb	Jun-Aug	None	None	G5T4	S1	2B.1	
<a href="#"><u>Sulcaria spiralifera</u></a>	twisted horsehair lichen	Parmeliaceae	fruticose lichen (epiphytic)		None	None	G3G4	S2	1B.2	
<a href="#"><u>Trichodon cylindricus</u></a>	cylindrical trichodon	Ditrichaceae	moss		None	None	G4G5	S2	2B.2	
<a href="#"><u>Usnea longissima</u></a>	Methuselah's beard lichen	Parmeliaceae	fruticose lichen (epiphytic)		None	None	G4	S4	4.2	
<a href="#"><u>Viola palustris</u></a>	alpine marsh violet	Violaceae	perennial rhizomatous herb	Mar-Aug	None	None	G5	S1S2	2B.2	

Showing 1 to 49 of 49 entries

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#### CONTACT US

Send questions and comments to [rareplants@cnps.org](mailto:rareplants@cnps.org).

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## APPENDIX D

### DAWN JULIA GRAYDON

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dawn.j.graydon@gmail.com

#### **JOB OBJECTIVE:** Environmental Scientist, Environmental Resource Specialist (Transportation)

Work as part of an interdisciplinary team to evaluate and tackle challenges, share knowledge, and help each other, and our projects – to succeed.

#### **EDUCATION**

Sonoma State University – Rohnert Park, CA  
M.S. (May 2009) Biology (Ecology Emphasis)  
Humboldt State University – Arcata CA  
B.S. (2002) Wildlife Biology.  
Minors: Botany and Anthropology.

#### **PROFESSIONAL EXPERIENCE**

3/2018 – Present. Environmental Scientist (Biology). California Department of Transportation (Caltrans). Eureka, CA. Supervisor: Liza Walker, Senior Environmental Planner (707) 502-9657.

- Apply strong verbal and written communication skills to collaborate with state and federal Agencies and with the Project Development Team to facilitate success of transportation projects by working to develop approaches and innovate solutions that will benefit the proposed project and project timeline while simultaneously minimizing impacts to environmental resources. Anticipate and communicate future needs, identify potential conflicts and, with the help of the project team, discuss and innovate methods or approaches to surmount or preemptively mitigate conflicts.
- Prepare Section 404 and Section 1600 permit applications and support preparation of 401 Water Quality Certification and Coastal Development Permit applications.
- Review scientific literature and white papers, and search databases and agency reports to collect and analyze occurrence data (i.e. CNDDDB, CNPS, IPAC, e-bird, etc.); review aerial imagery to assess potential for environmental resources, including WOTUS, sensitive plant species and communities.
- Use experience and knowledge of ecology and environment to identify, plan, and lead technically complex protocol level field studies and follow established Agency guidelines (e.g. CDFW floristic surveys, USACE Wetland Delineation standards) to identify resources, potential habitat and either potential for or presence of rare or state and/or federally listed species within project areas.
- Write and review technical studies, environmental documents, analytical memos and reports to ensure compliance with CEQA/NEPA, Section 7 of FESA, CESA, Section 1600 of CA Fish and Game Code, and Sections 401 and 404 of the Clean Water Act. Documents and Studies include: Biological Assessments, Natural Environment Studies, Environmentally Sensitive Habitat Area (ESHA) Assessments, Aquatic Resource Delineations, and monitoring plans. Apply organizational, technical, and analytical skills to create GIS maps using field data and MicroStation engineering files; create figures, charts and tables, quantify impacts to habitats and species and make effects determinations.
- Identify resources and estimate environmental mitigation obligations, communicate project costs and anticipate and articulate potential for change to project managers and mitigation specialists.

- Manage environmental task orders for consultants providing technical expertise and reports; write work descriptions, coordinate with consultant project managers, estimate budgets, and review monthly expenditures

7/2017 – 2/2018. Planner 1. Full time (40+ hrs/week). Humboldt County Department of Planning and Building. Eureka, CA. Supervisor: Steve Werner, (707) 445-7245.

- Evaluated and reviewed applications for land use permits to determine need or ensure compliance with County Zoning and Ordinance regulations, the California Env. Quality Act (CEQA), and other applicable local, State and Federal laws.
- Assisted permit applicants in understanding directives or regulations imposed by the county or other jurisdictional agencies (i.e. California Coastal Commission, Regional Water Quality Control Board, and California Department of Fish and Wildlife).
- Provided information and assistance to property owners and the general public regarding laws policies, and regulations related to the submission of plans and processing of applications. Communicated frequently with applicants, agents, and agency personnel.
- Employed GIS, Terra-Server, and ground-truth photographs to evaluate potential impacts to riparian areas and wetlands. Provided clear and detailed information to land-use applicants regarding state and local laws governing water rights, and requirements when diverting water or conducting work adjacent to a water body.

7/2009 – 10/2010. Biological Science Technician, Botany. GS-7, Full time (40+hrs/week) Temporary position. USDA Forest Service, Six Rivers National Forest, Eureka CA. Supervisor: Lisa Hoover, Forest Botanist (707) 441-3612.

- Led and conducted field surveys for vascular and non-vascular plants. Measured, recorded, and analyzed ecological variables (phenology, density, canopy cover, etc.). Flagged and marked mitigation/protection boundaries for sensitive species and attended pre-harvest inspections on projects with listed species.
- Discussed priority populations if multiple occurrences on a Timber Harvest Plan and made recommendations.
- Worked internally with Botany team and employees from other field offices to plan, organize, and conduct biological monitoring of rare plant species across Forest lands.
  - Graphed and ran statistical analysis of survey and monitoring data and prepared technical reports for internal and external partner agency review.
  - Assisted botanists with the US Fish and Wildlife Service and California Native Plant Society to monitor long-term caging experiments and record data on at-risk plant species.
- Frequently used ArcMap to create maps for relocation of sensitive species within areas of proposed management. Input data and managed electronic databases (Access databases), ArcMap, and aerial photography to identify and locate areas of potential habitat.
- Contributed field and database research (USFS internal data, CNDDDB, CalFlora) on species status species for EIR/EIS (under CEQA/NEPA) on proposed timber harvest projects.
- Prioritized research and monitoring objectives.
  - Identified knowledge gaps for rare and threatened plant populations known on Six Rivers National Forest.
  - Planned and organized site surveys and summarized status of sensitive species populations. Updated and organized Access database, presented findings, and recommended future survey timelines.

8/2006 – 8/2009. Research Assistant. \$18.00/hr. Variable schedule, 25hrs/week average. Department of Biology, Sonoma State University in conjunction with The Nature Conservancy - Central Coast Ecoregion, California. PI: Dr. Hall Cushman, Professor Sonoma State University (707) 661-2142.

- Set up, coordinated, designed and collected field data for long-term research assessing impacts of cattle grazing on coastal grassland flora and resident invertebrates.

- Collaborated with ecologists from multiple agencies, employed an exclusion experiment to test for effects of cattle grazing on coastal vegetation – identified changes in species diversity, and compared changes in native and invasive grass abundance.
- Used exclusions to scientifically identify the long-term effects of cattle grazing on the host plant of the endangered Smith’s blue butterfly.
- Analyzed data using advanced statistical models (JMP and SAS).
  - Quantified, summarized, and articulated impacts of cattle grazing on native plant community and special status invertebrates and made recommendations for protection and management.
  - Gave presentations, composed technical reports and collaborated on peer-reviewed scientific publications.
- Managed project logistics.
  - Cooperated and communicated frequently with land-owners, cattle owners, and research partners to coordinate site visits and discuss land-use variables such as herd size and timing.
  - Hired, trained and supervised assistants and volunteers in field and lab work.
  - Balanced project budget and increase funding by securing grants in aid of research.
- Listed as an approved scientist on a USFWS 10(a)1(a) recovery permit and a CDFW Incidental Take Permit for research on the Smith’s blue butterfly.
  - Responsible for conducting abundance surveys, correctly identifying all species observed and sex of all SBB encountered during survey efforts. Collected, transported and reared egg and larvae in lab setting, and trained and supervised research assistants in surveys of larval abundance.

8/2007 – 12/2007. Teaching Associate. Part time (2 hrs/week), temporary position. Department of Biology, Sonoma State University, Rohnert Park, CA. Supervisor: Dr. Julie Bright.

- Undergraduate lab instructor of an introductory biology course: Biological Inquiry (Bio 110).
- Lectured and led students through activities, wrote and graded tests, demonstrated equipment use, held regular office hours and communicated with students daily.
- Recorded and entered grades on PeopleSoft grading software.

6/2005 – 10/2005. Biological Technician. GS 5. Full time, temporary. USDA Forest Service, Pacific Southwest Research Station, Berkeley, CA. Sierra Nevada Framework (SNF). PI: Dr. Cathy Brown, SNF Amphibian Monitoring leader (209) 532-3671.

- Collected data on location, abundance, population demographics, and micro-habitat parameters of sensitive and endangered Sierra Nevada amphibian species.
- Surveyed potential sites located in remote wilderness.
  - Mapped and delineated critical habitat throughout range of target species
  - Work required multiple days of backpacking to access and survey remote habitat sites.
- Evaluated evident and potential threats to species at each site, compiled data into site reports and recommended appropriate protection and management actions.
- Participated in public outreach – represented the US Forest Service at the Tuolumne County Fair
- USDA FS information booth.
  - Helped educate public on topics such as: Forest Service mission, timber harvest and public use, as well as special status species and current research on the forest.

1/2005 – 5/2005. Desert Biological Monitor. Full time, temporary. US Bureau of Land Management and the Ecological Careers Organization. Algodones Dunes, El Centro, CA. Project Leader: Chris Knauf (760) 337-4457.

- Led teams to survey dune habitat using specialized equipment (Ipad – ArcPad).
- Recorded data on location, abundance, and condition of sensitive plant species.
- Entered and summarized data into daily technical reports and discussed observations with supervisors.

5/2004 – 9/2004. Field Botanist. Full time, temporary. Green Diamond Resource Company. Korbel, CA.  
Contact: Cheri Sanville, Botanist (707) 441-5901

- Conducted comprehensive field surveys for listed plant species within proposed timber harvest areas and recorded population demographic variables for rare plant populations.
- Compiled reports on species diversity and habits, made mitigation decisions and delineations.
- Participated in pre-harvest inspections and met with foresters during pre-harvest inspections and to aid in identification of priority populations.
- Operated ATV's and hiked over steep and uneven terrain to reach otherwise inaccessible sites.
- Identified all plants encountered to species using the Jepson Manual.

1/2004 – 4/2004. Biological Science Intern. Full time, temporary. Biscayne Bay National Park. Homestead, Florida. PI: Sarah Bellmund, National Park Ecologist (305) 230-1144.

- Drafted progress reports, attended multi-agency meetings, and communicated with project partners – extensive inter-agency cooperation was required as part of the Biscayne SWIM Plan and Comprehensive Everglades Restoration Plan. Ensured compliance with State water laws.
- Operated 25ft Boston Whalers in the bay and on open sea; skin-dove to deploy and collect YSI/Endeco water quality data sondes – downloaded data and calibrated data-sondes in the lab.
- Conducted comprehensive literature search aimed at identification of possible sources of water contamination in Biscayne Bay.
  - Prioritized and evaluated available information, identified knowledge gaps, and summarized pertinent literature data into a comprehensive document. Included charts, citations, and recommendations for further research.

2001. Research Assistant. Full time, temporary appointment. Rocky Mountain Biological Lab. Gothic, CO.  
PIs: Dr. Mary Price and Dr. Nick Waser, University of Arizona (520) 621-7255.

- Conducted field research to establish correlation between pollen deposition and visitation rates to flowers of *Ipomopsis aggregata*.
- Observed and identified species of visiting insect and birds.
- Analyzed data and compiled PivotCharts PivotTables, graphs, and summary reports.

## RESEARCH

2006 – 2009. M.S. thesis research. Department of Biology. Sonoma State University. Advisor: Dr. Hall Cushman, Professor of Biology.

- Influence of cattle grazing on an endangered lycaenid butterfly (*Euphilotes enoptes smithi*) and its host plant (*Eriogonum parvifolium*) along the central coast of California.

2002. Honors undergraduate thesis. Department of Wildlife. Humboldt State University. Arcata, CA.

- Local prey type and foraging rate of the American Black Oystercatcher (*Haematopus Bachmani*) – assessing influence of prey densities on foraging success.

2001. Independent research. Rocky Mountain Biological Lab. Gothic, Colorado. PI: Dr. Mary Price, Adjunct Professor, University of Arizona.

- Flowering phenology of *Ipomopsis aggregata* along an elevation gradient.

## TRAINING

Bumblebee Ecology, Survey and ID Modules  
Butterfly Capture and Handling  
Biological Mitigation Training Practitioners  
Basic Wetland Delineation

February and March 2022, (4 hours)  
August 2021. USFWS (8-hours)  
December 2019, Caltrans (24 hours)  
April 2019, Wetland Institute (40 hours)

Federal Endangered Species Act Intensive  
CEQA/NEPA Basics and Beyond  
Foothill Yellow-Legged Frog Ecology  
Bat Ecology and Field Techniques

March 2019 Caltrans Training (24 hours)  
October 2018, Planning Society (24 hours)  
2018, Laguna de Santa Rosa (24 hours)  
2018; Dave Johnston, (30 hours)

## PERMITS

CDFW Scientific Collection Permit – 2022, approved through California Bumblebee Atlas  
CDFW Scientific Collection Permit, #SC-013943 2021 – Oregon & Behren’s silverspot butterflies  
Approved USFWS surveyor: Point Arena Mt. Beaver, Behren’s silverspot and lotis blue butterfly  
USFWS 10(a) 1(a) Recovery Permit – permittee 2006 – 2011; Smith’s blue butterfly  
Certified Motorboat Operator – 2005. National Park Service

## GRANTS

2008. American Museum of Natural History. Theodore Roosevelt Memorial – Research Grant  
2007, 2008. California Native Plant Society – Education & Research Grant

## PUBLICATIONS & REPORTS

2013. Skaer, M.J., D.J. Graydon, and J.H. Cushman. Community-level consequences of cattle grazing for an invaded grassland: variable responses of native and exotic vegetation. *Journal of Vegetation Science*. 24:332-343.

2007, 2007, 2009. Cushman, J.H., D.J. Graydon, and M.J. Skaer. Evaluating the impact of cattle grazing on the Smith's blue butterfly (*Euphilotes enoptes smithi*) and its host plant and habitat. Annual Reports prepared for The Nature Conservancy, Central Coast Ecoregion.

## RECENT AWARDS

November 2020. Superior Accomplishment Award. Caltrans North Region Environmental.

## REFERENCES

Liza Walker  
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Caltrans, North Region Environmental  
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