



with Guide and/or Field Notes

Low Lie + Lance Down
CORNELIA : CORNEDGE
HOMES.

Biological Scoping Survey – 321 W. Bush Street, Fort Bragg CA 95437

December 16, 2022

Introduction:

A biological scoping survey was conducted on 16 December 2022, by Principal Consulting Biologist Sarah Bradley in which the Study Area was found to be covered with non-native plant species and little habitat were noted on the parcel. The entire Study Area, as shown in Figure 1, is a highly disturbed habitat that is described as landscaped and developed. While there is a potential for 84 species of special concern to occur on or near the Study Area, the highly disturbed nature of the site does not provide habitat to support these species. The Study Area is a city lot that once was built up with a single-family home. In the past, the home was deemed uninhabitable and was subsequently used as a training burn for the local fire department. The foundation has also been removed, leaving a bare lot. The vegetation is kept mowed monthly and is low to the ground. The vegetation is non-native in nature and is comprised of “weedy” species. Many of the prevalent species are identified as invasive species, including cheatgrass (*Bromus tectorum*) and strawberry clover (*Trifolium fragiferum*). These species, as well as many others identified, are on the Cal-IPC Inventory.

The Manual of California Vegetation (CNPS 2022) the California Natural Community List (CDFW 2022) and the California Natural Diversity Database (CNDDB) (CDFW 2022) were used to identify potential species that might occur within the Study Area. The CNDDB recognizes all communities and plants ranked at a State level of S3 or lower as sensitive.

Procedure:

Prior to a site visit, all pertinent databases were queried to gather information regarding the Study Area. This includes the above-referenced sites as well as the US Fish and Wildlife Wetlands Mapper and UC Davis’s Soils Web. All information was compiled and reviewed prior to the site visit to give the biologist the best understanding of the potential occurrences and factors that could affect the development of this project. A site visit was made, and the Study Area was thoroughly reviewed, and photographs were taken as references. Finally, all queries from CNDDB were analyzed and the potential for occurrence was determined based on the condition of the Study Area. A final determination was made after all data was reviewed and comparison of the site photographs were made.

Proposed Project:

This report is being prepared as a review of the potential biological and botanical impacts prior to purchase. The potential buyers intend to build a single-family home on the property, a use that is consistent with the zoning and similar to other properties within the immediate vicinity.

Habitat Integrity:

Habitat integrity is defined as the ability of an ecological system to support and maintain a community of organisms that has species composition, diversity, and functional organization comparable to those of natural habitats within a region. The Study Area lacks habitat integrity. It is questionable if the Study Area can support a community of organisms and is quite different than any natural habitats that exist in the region.



Figure 2: Photo of vegetation and view to the northeast



Figure 3: View to north west



Figure 4: Vegetation and view of the entire parcel



Figure 5: Example of vegetation; this photo is indicative of all vegetation throughout the Study Area.

Results

The Study Area is a normal city lot, with species that are consistent with other lots in the area. The entire Study Area is classified as landscaped and developed and lacks habitat integrity. The high level of disturbance favors r-selected species and therefore provides a favorable growing environment for invasive and non-native species. Therefore, it is determined that this Study Area lacks native environment. No avoidance or mitigation measures are suggested due to the current conditions of the Study Area.

Attachments:

Attached is a wetland map, showing the location of the Study Area, Table A outlining all potentially occurring sensitive plant species and Table B outlining all potentially occurring wildlife species.



100ft Wetlands Buffer



Dark Gulch
Environmental
Consulting



West St

W Bush St

W Bush St



321 W Bush Street Parcel

Table A-1. Special-status plant and wildlife species habitat suitability and survey results for 321 W. Bush Street (Study Area). List compiled from California Department of Fish and Wildlife (CDFW) Natural Diversity Database (CNDDB) and California Native Plant Society (CNPS) Electronic Inventory searches (December 2022) of the Fort Bragg, Inglenook, Dutchmans Knoll, Noyo Hill, Mendocino and Mathison Peak USGS 7.5' quadrangles.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN STUDY AREA	SURVEY RESULTS
Plants				
pink sand verbena <i>Abronia umbellata</i> var. <i>breviflora</i>	Rank 1B	A perennial herb found on coastal dunes, coastal strand; located on foredunes and interdunes with low vegetation cover. Elevation range: 0 – 10 meters. Blooms: June – October.	No Potential. The Study Area does not contain coastal dune habitat necessary to support this species.	Not Present. No suitable habitat present.
Blasdale's bent grass <i>Agrostis blasdalei</i>	Rank 1B	A perennial rhizomatous herb found on coastal dunes, coastal bluff scrub, coastal prairie; located on sandy to gravelly substrate close to rocks of bluff faces; typically located in nutrient poor areas with sparse vegetation cover. Elevation range: 0 – 150 meters. Blooms: May – July.	No Potential. The Study Area does not contain the necessary habitat for this species.	Not Present. No suitable habitat present.
pygmy manzanita <i>Arctostaphylos nummularia</i> ssp. <i>mendocinoensis</i>	Rank 1B	A perennial evergreen shrub found in closed-cone coniferous forests with acidic sandy clay. Typically found in pygmy-pine forest or chaparral. Elevation range: 50 – 200 meters. Blooms: January	No Potential. The Study Area lacks appropriate soil type and habitat for this species.	Not Present. No suitable habitat present.
Humboldt County. milk-vetch <i>Astragalus agnicidus</i>	Rank 1B	A perennial herb found in broadleaved upland forest, North coast coniferous forests; openings and disturbed areas. Elevation range: 120 – 800 meters. Blooms: April – September	No Potential. The Study Area is below the appropriate elevation.	Not Present. No suitable habitat present.
Point Reyes blennosperma <i>Blennosperma nanum</i> var. <i>robustum</i>	Rank 1B	An annual herb found on coastal prairie and coastal scrub, sandy bluffs and grassy places among shrubs. Elevation range: 10 – 120 meters. Blooms: January – April.	Low Potential. The Study Area does contain appropriate habitat but is highly disturbed.	Not Present. No individuals were found during the required scoping survey.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN STUDY AREA	SURVEY RESULTS
Thurber's reed grass	Rank 2B	This annual rhizomatous herb is found in coast scrub (mesic) and freshwater marshes and swamps. Elevation range: 10 – 60 meters. Blooms: May – August.	No Potential. The Study Area does not contain appropriate habitat; no wetlands are present	Not Present. No suitable habitat present.
<i>Calamagrostis crassiglumis</i>				
coastal bluff morning-glory <i>Calystegia purpurata</i> ssp. <i>saxicola</i>	Rank 1B	A perennial herb found in coastal dunes, coastal scrub; located on coastal bluffs. Elevation range: 0 – 105 meters. Blooms: May – September.	Moderate Potential. The Study area contains appropriate habitat but there are no known occurrences in the area.	Not Observed. This species was not observed during the scoping survey.
swamp harebell <i>Campanula californica</i>	Rank 1B	A perennial rhizomatous herb found in bogs and fens, closed-cone coniferous forest, coastal prairie, meadows, freshwater marsh, North Coast coniferous forest; typically located in wetlands within a variety of surrounding habitats. Elevation range: 1 - 405 meters. Blooms: June – October.	No Potential. The Study Area does not contain wetland habitat.	Not Present. No suitable habitat present
California sedge <i>Carex californica</i>	Rank 2	A perennial rhizomatous herb found in bogs and fens, closed-cone coniferous forest, coastal prairie, meadows, marshes and swamps; located in drier areas of swamps, bogs, and marsh margins. Elevation range: 90 – 335 meters. Blooms: May – August.	No Potential. The Study Area lacks appropriate habitat.	Not Present. No suitable habitat present
Lagoon sedge <i>Carex lenticularis</i> var. <i>limnophila</i>	Rank 2B	A perennial herb found on gravelly shores and beaches, bogs and fens, marshes and swamps in the north coast coniferous forest. Elevation range: 0 – 6 meters. Blooms: June – August.	No Potential. The Study Area lacks appropriate habitat is and well above the accepted elevation of this species.	Not Present. No suitable habitat present
livid sedge <i>Carex livida</i>	Rank 2A	A perennial rhizomatous herb found in bogs and fens. Typically associated with sphagnum swamps and peatlands. Elevation range: unknown. Blooms: unknown	No Potential. The Study Area lacks appropriate habitat.	Not Present. No suitable habitat present
Lyngbye's sedge <i>Carex lyngbyei</i>	Rank 2B	A perennial rhizomatous herb found in marshes and swamps, brackish or freshwater. Elevation: 0 -10 meters. Blooms April – August	No Potential. The Study Area lacks appropriate habitat.	Not Present. No suitable habitat present

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Deceiving sedge <i>Carex saliniiformis</i>	Rank 1B	A perennial rhizomatous herb found in coastal prairie, coastal scrub, marsh & swamp, meadow & seep, pond shores, wet openings. Elevation range: 3 - 230 meters. Blooms May – July.	No Potential. The Study Area lacks appropriate habitat.	Not Present. No suitable habitat present
green-yellow sedge <i>Carex viridula</i> ssp. <i>Viridula</i>	Rank 2B	This perennial herb is found in bogs and fens, freshwater marshes and swamps associated with the north coast coniferous forest (mesic). Elevation range: 0 - 1600 meters. Blooms: June – November.	No Potential. The Study Area lacks appropriate habitat.	Not Present. No suitable habitat present
Humboldt Bay owl's-clover <i>Castilleja ambigua</i> var. <i>humboldtiensis</i>	Rank 1B	An annual semiparasitic herb found in marsh and swamp, salt marsh, wetland. Elevation range: 0 – 3 meters. Blooms April – August.	No Potential. The Study Area does not contain any marsh or swamp habitat and the elevation is too high	Not Present. No suitable habitat present
Oregon coast paintbrush <i>Castilleja littoralis</i>	Rank 2B	A perennial hemiparasitic herb found in sandy soils associated with coastal bluff scrub, dunes, and scrub. Elevation range: 15 – 100 meters. Blooms: June.	No Potential. The Study Area lacks appropriate habitat.	Not Present. No suitable habitat present
Mendocino Coast paintbrush <i>Castilleja mendocinensis</i>	Rank 1B	A perennial hemiparasitic herb found in coastal bluff scrub, coastal scrub, coastal prairie, closed-cone coniferous forest, coastal dune; typically located on open sea bluffs and cliffs. Elevation range: 0 – 160 meters. Blooms: April – August.	No Potential. The Study Area lacks appropriate habitat.	Not Present. No suitable habitat present.
Howell's spineflower <i>Chorizanthe howellii</i>	Rank 1B	This annual herb is found in sandy areas of coastal dunes, coastal prairies and coastal scrub. Elevation range: 0 – 45 meters. Blooms: May – July.	No Potential. The Study Area lacks appropriate habitat.	Not Present. No suitable habitat present.
Whitney's farewell-to-spring <i>Clarkia amoena</i> ssp. <i>whitneyi</i>	Rank 1B	This annual herb is found in coastal bluff scrub and coastal scrub. Elevation range: 10 – 100 meters. Blooms: June – August.	No Potential. The Study Area lacks appropriate habitat.	Not Present. No suitable habitat present.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN STUDY AREA	SURVEY RESULTS
round-headed Chinese-houses <i>Collinsia corymbosa</i>	Rank 1B	An annual herb found in coastal dunes. Elevation range: 0 – 20 meters. Blooms: April – June.	No Potential. The Study Area lacks suitable habitat and is located well above the accepted elevation range.	Not Present. No suitable habitat present
Oregon goldthread <i>Coptis laciniata</i>	Rank 4.2	A perennial rhizomatous herb found in meadows and seeps, North coast coniferous forest, wetlands, streambanks. Elevation range: 500 – 2000 meters. Blooms February – November.	No Potential. The Study Area is well below the accepted elevation range for this species.	Not Present. No suitable habitat present
bunchberry <i>Cornus canadensis</i>	Rank 2B	A perennial rhizomatous herb found in bogs and seeps, meadows and fens associated with north coast coniferous forests. Elevation range: 60 – 1920 meters. Blooms: May – July.	No Potential. The Study Area is well below the accepted elevation range for this species and no suitable wetland habitat exists.	Not Present. No suitable habitat present
Mendocino dodder <i>Cuscuta pacifica</i> var. <i>papillata</i>	Rank 1B	An annual parasitic vine found on coastal dunes. Elevation range: 0 – 50 meters. Blooms June – October.	No Potential. The Study Area lacks coastal dune habitat.	Not Present. No suitable habitat present
Supple daisy <i>Erigeron supplex</i>	Rank 1B	A perennial herb found on coastal bluff scrub, coastal prairie. Elevation range: 10 – 50 meters. Blooms: May – July.	No Potential. The Study Area lacks appropriate habitat for this species.	Not Present. No suitable habitat present
bluff wallflower <i>Erysimum concinnum</i>	Rank 1B	An annual/perennial herb found on cliffs, coastal bluffs, dunes and prairies. Elevation: 0 – 185 meters. Blooms March – June.	Moderate Potential. The Study Area contains coastal prairie habitat; however, this species is typically located on looser sands than are present in the Study Area.	Not Observed. This species was not observed during the scoping survey.
Menzies' wallflower <i>Erysimum menziesii</i>	Rank 1B	A perennial herb found in coastal dune habitat. Elevation range: 0 – 35 meters. Blooms: March – September.	No Potential. The Study Area lacks appropriate habitat for this species.	Not Present. No suitable habitat present

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN STUDY AREA	SURVEY RESULTS
Pacific gilia	Rank 1B	An annual herb found in the chaparral, Coastal bluff scrub, Coastal prairie, Valley and foothill grassland. Elevation: 5 – 1665 meters. Blooms April – August.	No Potential. The Study Area lacks appropriate habitat for this species.	Not Observed. This species was not observed during scoping survey.
dark-eyed gilia	Rank 1B	An annual herb found in coastal dune habitat. Elevation: 2 – 30 meters. Blooms: April – June.	No Potential. The Study Area lacks appropriate habitat for this species	Not Present. No suitable habitat present
<i>Gilia millefoliata</i>				
congested-headed hayfield tarplant	Rank 1B	An annual herb found along roadsides in valley and foothill grasslands. Elevation: 20 – 560 meters. Blooms: April – November.	No Potential. The Study Area lacks appropriate habitat for this species	Not Present. No suitable habitat present
<i>Hemizonia congesta</i> ssp. <i>congesta</i>				
short-leaved evax	Rank 1B	An annual herb found in coastal bluff scrub, coastal dune; located on sandy bluffs and flats near the immediate coastline. Elevation range: 0 – 215 meters. Blooms: March – June.	No Potential. The Study Area does not contain appropriate habitat for this species.	Not Present. No suitable habitat present
<i>Hesperervax sparsiflora</i> var. <i>brevifolia</i>				
pygmy cypress	Rank 1B	A perennial evergreen tree found in a closed-cone coniferous forest; located on podzol-like soils (Blacklock series). Elevation range: 30 – 600 meters	No Potential. The Study Area does not contain pygmy forest or podzol-like soils necessary to support this species.	Not Present. No suitable habitat present
<i>Hesperocyparis pygmaea</i>				
Point Reyes horkelia	Rank 1B	A perennial herb found on sandy coastal flats. Elevation: 5 – 755 meters. Blooms May – September.	No Potential. The Study Area does not contain coastal dune habitat necessary to support this species.	Not Present. No suitable habitat present.
<i>Horkelia marinensis</i>				
hair-leaved rush	Rank 2B	A perennial rhizomatous herb found near the coast in bogs and fens and freshwater marshes and swamps. Elevation range: 20 – 100 meters. Blooms: April – May.	No Potential. The Study Area lacks appropriate habitat for this species; no wetlands are present.	Not Present. No suitable habitat present
<i>Juncus supiniiformis</i>				

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN STUDY AREA	SURVEY RESULTS
Baker's goldfields	Rank 1B	A perennial herb found in closed-cone coniferous forest, coastal scrub; located in openings in scrub and coastal forest habitat. Elevation range: 60 – 520 meters. Blooms: April – October.	No Potential. The Study Area does not have the appropriate habitat for this particular species.	Not Present. No suitable habitat present
<i>Lasthenia californica</i> ssp. <i>Bakeri</i>				
perennial goldfields	Rank 1B	Coastal bluff scrub, coastal dune, coastal scrub. Elevation range: 15 – 1690 feet. Blooms: January – November.	No Potential. The Study Area does not have the appropriate habitat for this particular species.	Not Present. No suitable habitat present
<i>Lasthenia californica</i> ssp. <i>macrantha</i>				
marsh pea	Rank 2B	A perennial herb found in bogs and fens, coastal prairie, coastal scrub, lower montane coniferous forest. Marsh and swamp, North coast coniferous forest, wetlands. Elevation: 1 – 100 meters. Blooms March – August.	No Potential. The Study Area does not contain the necessary wet habitat for this particular species.	Not Present. No suitable habitat present.
<i>Lathyrus palustris</i>				
coast lily	Rank 1B	A perennial bulbiferous herb found in closed-cone coniferous forest, coastal prairie, coastal scrub, broadleaf upland forest, North Coast coniferous forest; typically located on sandy soils, often in raised hummocks or bogs, and roadside ditches. Elevation range: 5 – 475 meters. Blooms: May – August.	No Potential. The Study Area does not have the appropriate habitat for this particular species.	Not Present. No suitable habitat present.
<i>Lilium maritimum</i>				
running-pine	Rank 1B	A perennial rhizomatous herb found in north coast coniferous forests, often along edges, openings or on roadsides. Associated with marshes and swamps. Elevation range: 45 – 1225 meters. Blooms: June - August.	No Potential. The Study Area does not have the appropriate habitat for this particular species.	Not Present. No suitable habitat present.
<i>Lycopodium clavatum</i>				
northern microseris	Rank 2B	This perennial herb is found in bogs and fens and meadows and seeps associated with lower montane coniferous forests. Elevation range: 1000 – 2000 meters. Blooms: June – September.	No Potential. The Study Area is well below the accepted range for this species as well as lacking wetland habitat.	Not Present. No suitable habitat present.
<i>Microseris borealis</i>				
leafy- stemmed mitrewort	Rank 4.2	This perennial rhizomatous herb is found in mesic habitats associated with broadleafed upland forests, lower montane coniferous forests and the north coast coniferous forests. It is usually found in meadows and seeps. Elevation range: 5 – 1700 meters. Blooms: March – October.	No Potential. The Study Area lacks appropriate habitat for this species.	Not Present. No suitable habitat present.
<i>Mitella caulescens</i>				

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN STUDY AREA	SURVEY RESULTS
Wolf's evening-primrose	Rank 1B	Perennial herb that grows in sandy usually mesic soil. Coastal bluff scrub, coastal dunes, coastal prairie, lower montane coniferous forest. Elevation range: 3 – 800 meters. Blooms May – October	No Potential. The Study Area does not contain the necessary wet habitat for this particular species.	Not Present. No suitable habitat present.
<i>Oenothera wolfii</i> seacoast ragwort	Rank 2B	A perennial rhizomatous herb found in north coast coniferous forests and coastal scrub habitats. Elevation range: 30 – 650 meters. Blooms: January – August.	No Potential. The Study Area does not contain the appropriate habitat for this particular species	Not Present. No suitable habitat present
<i>Packera bolandi</i> var. <i>bolanderi</i>	Rank 1B	An annual herb found in sandy and sometimes rocky soils in coastal bluff scrub and coastal dunes. Elevation range: 10 – 170 meters. Blooms: March – May.	No Potential. The Study Area does not contain the appropriate habitat for this particular species	Not Present. No suitable habitat present
<i>Phacelia insularis</i> var. <i>continentis</i>	Rank 1B	A perennial evergreen tree that is found in closed-cone coniferous forests with podzol-like soils. Elevation range: 75 – 250 meters. Blooms: unknown.	No Potential. The Study Area does not contain the appropriate habitat for this particular species	Not Present. No suitable habitat present
<i>Bolander's</i> beach pine	Rank 1B	Perennial herb that sometimes exists in serpentinite soil. Broad leaved upland forest, lower montane coniferous forest, North coast coniferous forest. Elevation range: 30-1310 meters. Blooms March – May.	No Potential. The Study Area does not contain the necessary wet habitat for this particular species.	Not Present. No suitable habitat present.
White-flowered rein orchid	Rank 2B	A perennial herb found in coastal salt marshes and swamps. Elevation range: 1 – 10 meters. Blooms: July	No Potential. The Study Area is located well above the accepted elevation range for this species and lacks any salt water wetlands.	Not Present. No suitable habitat present
<i>Piperia candida</i>	Rank 2B	An epiphytic fruticose lichen found on dead twigs and other lichen in north coast coniferous forests. Elevation range: 75 – 430 meters.	No Potential. The Study Area is located well below the accepted elevation range for this species.	Not Present. No suitable habitat present.

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white-beaked-rush <i>Rhynchospora alba</i>	Rank 2B	A perennial rhizomatous herb found in freshwater marshes and swamps, meadows and seeps and bogs and fens. Elevation range: 60 - 2040 meters. Blooms: June – August.	No Potential. The Study Area lacks wetlands.	Not Present. No suitable habitat present
great burnet <i>Sanguisorba officinalis</i>	Rank 2B	A perennial rhizomatous aquatic herb found in wetland habitats associated with the north coast coniferous forests: bogs and fens, meadows and seeps and marshes and swamps. Elevation range: 60 – 1400 meters. Blooms: July – October	No Potential. The Study Area lacks appropriate wetland habitat for this particular species.	Not Present. No suitable habitat present
Maple-leaved checkerbloom <i>Sidalcea malachroides</i>	Rank 4.2	A perennial herb often found in disturbed areas. Broad leaved upland forest, coastal prairie, coastal scrub, North coast coniferous forest, riparian woodland. Elevation range: 0 – 730 meters. Blooms March – August.	Moderate Potential. The Study Area contains appropriate habitat but the area is constantly disturbed therefore decreasing the chance of survival	Not Observed. This species was not observed during the rare plant surveys
Purple-stemmed checkerbloom <i>Sidalcea malviflora</i> ssp. <i>purpurea</i>	Rank 1B	A perennial rhizomatous herb that lives in broad leaved upland forest and coastal prairies. Elevation: 15 – 85 meters. Blooms: May – June.	No Potential. The Study Area lacks appropriate habitat for this species.	Not Present. No suitable habitat present.
Monterey clover <i>Trifolium trichocalyx</i>	Rank 1B	An annual herb that lives in closed-cone coniferous forest (sandy openings, burned areas). Elevation: 30 – 305 meters. Blooms: April – June	Moderate Potential. The Study Area contains appropriate habitat but there are no known occurrences within the immediate area.	Not Observed. This species was not observed during the rare plant surveys
coastal triquetrella <i>Triquetrella californica</i>	Rank 1B	An epiphytic fruticose lichen found on tree branches in old growth hardwoods and conifers. Elevation range: 50 – 1460 meters. Blooms: unknown	No Potential. The Study Area is well below the accepted elevation for this particular species; no old-growth trees are present.	Not Present. No suitable habitat present.

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Methuselah's beard lichen	Rank 4.2	A fruticose lichen found on tree branches, usually on old growth hardwoods and conifers, broad leaved upland forest, north coast coniferous forests. Elevation range: 50-1460 meters.	No Potential. The Study Area is well below the accepted elevation for this particular species; no old-growth trees are present.	Not Present. No suitable habitat present.
<i>Usnea longissima</i>				
alpine marsh violet	Rank 2B	A perennial rhizomatous herb found in mesic coastal scrub habitats and coastal fens and bogs. Elevation range: 0 – 150 meters. Blooms: March – August.	No Potential. The Study Area lacks appropriate habitat for this species.	Not Present. No suitable habitat present.
<i>Viola palustris</i>				

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN STUDY AREA
Wildlife			
Northern goshawk <i>Accipiter gentilis</i>	Species of Special Concern	Northern goshawks nest in mature and old-growth forest stands. They forest in mature and old-growth forests that have relatively dense canopies. They do also forage in meadow edges.	No Potential. The Study Area lacks forest stands of any sort, nor are any meadows present.
Sonoma tree vole <i>Arborimus poma</i>	Decreasing	Inhabits northwestern California, from Freestone, Sonoma County north through Mendocino, Humboldt and western Trinity counties to the South Fort of the Smith River, Del Norte County. Habitat consists of mixed evergreen forests, wet and mesic old-growth Douglas fir forests. Nests in trees 2 – 50 meters above the ground.	No Potential. The Study Area does not contain appropriate habitat for this particular species and there are no known occurrences in the surrounding area.
Great blue heron <i>Ardea Herodias</i>	Special Animal	Habitats include brackish marsh, estuary, freshwater marsh, marsh and swamp, riparian forest and wetlands.	No Potential. The Study Area lacks any appropriate habitat for this species.
Pacific tailed frog <i>Ascaphus truei</i>	Least Concern	Range includes Cascade Mountains and Pacific coastal areas of North America. Can be found in clear, cold swift-moving mountain streams with coarse substrates. Primarily in older forest sites, requires microclimatic and microhabitat conditions are more common in older forests.	No Potential. The Study Area does not contain appropriate habitat for this particular species
Obscure bumble bee <i>Bombus caliginosus</i>	Decreasing	Range includes Mediterranean California and the Pacific coast. Inhabits open grassy coastal prairies and the Coast Range meadows. Nesting occurs underground as well as above ground in abandoned bird nests.	No Potential. The Study Area lacks appropriate habitat for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN STUDY AREA
Western bumble bee <i>Bombus occidentalis</i>	Decreasing	Occurs along the West Coast and Mountain West of North America from Arizona, New Mexico and Mediterranean California, north through the Pacific Northwest. This species nests underground in cavities such as old squirrel and other animals nests	Low Potential. The Study Area contains appropriate habitat and there are no known occurrences in the surrounding area.
marbled murrelet <i>Brachyramphus marmoratus</i>	Endangered	Occurs in the shoreline regions along the north Pacific Ocean: Wester – Japan to Kamchatka, Russia, Eastern – central California to southern Alaska. Nesting is at higher elevations, exclusively in old growth forests of 175 – 600 years in age.	No Potential: The Study Area lacks appropriate habitat for this species.
Mendocino leptonetid spider <i>Calileptoneta wapiti</i>	Endangered	Occurs in caves along the coast.	No Potential: The Study Area lacks appropriate habitat for this species.
Western snowy plover <i>Charadrius alexandrinus nivosus</i>	Threatened	Great Basin standing waters, sand shore and wetland. Nests in wet or dry beach-sand, among tide-cast kelp and within low foredune vegetation.	No Potential. The Study Area does not have appropriate habitat and there are no known occurrences in the surrounding area.
Globose dune beetle <i>Coelus globosus</i>	Least Concern	Found in foredunes and sand hummocks.	No Potential. The Study Area does not have the appropriate sandy habitat and there are no known occurrences in the surrounding area.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN STUDY AREA
Townsend's big-eared bat <i>Corynorhinus townsendii</i>	Least Concern	Found in a variety of locations that range from coniferous forests and woodlands, deciduous riparian woodland, semi-desert and montane shrublands. The most common is evergreen forests.	No Potential. The Study Area lacks appropriate habitat for this species.
Western pond turtle <i>Emys marmorata</i>	Vulnerable	The western pond turtle occurs in both permanent and intermittent waters, including marshes, streams, rivers, ponds, and lakes. It favors habitats with large numbers of emergent logs or boulders, where individuals aggregate to bask. They also bask on top of aquatic vegetation	No Potential. The Study Area lacks appropriate habitat for this species.
Pacific lamprey <i>Entosphenus tridentatus</i>	Near Threatened	Aquatic Klamath/North coast flowing waters, Sacramento/San Joaquin flowing waters, South coast flowing waters	No Potential. No suitable flowing water exists in the Study Area and there are no known occurrences in the surrounding area.
North American porcupine <i>Erethizon dorsatum</i>	Vulnerable	Range includes forests and rangelands. Habitat can vary tremendously.	No Potential. While suitable habitat does exist, it is highly unlikely that this species would venture into this highly disturbed habitat where canines are present.
Tidewater goby <i>Eucyclogobius newberryi</i>	Vulnerable	Range includes discrete brackish coastal lagoons and coastal creeks in California from Tillas Slough to Cocklebur Canyon. Occurs in small coastal lagoons, lower reaches of streams, and uppermost portions of large pays. Occurs in fresh to brackish water.	No Potential. No suitable flowing water exists in the Study Area and there are no known occurrences in the surrounding area.
tufted puffin <i>Fratercula cirrhata</i>	Decreasing	This species has a very large range. Range includes islands and rocky outcroppings along the coastline.	Not Present. Not suitable habitat exists in the Study Area.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN STUDY AREA
ashy storm-petrel <i>Hydrobates homochroa</i>	Endangered	This species is found offshore and nests on rocks offshore.	Not Present. Not suitable habitat exists in the Study Area.
Hoary bat <i>Lasiurus cinereus</i>	Least Concern	Broadleaved upland forest, Cismontane woodland, lower montane coniferous forest, North coast coniferous forest. Prefers roost in dense foliage of medium to large trees.	No Potential. No suitable habitat exists in the Study Area and no known occurrences are in the surrounding areas.
Ten-mile shoulderband <i>Noyo intersessa</i>	Imperiled	Coastal dunes, coastal scrub, redwood riparian forest.	Not Present. Not suitable habitat exists in the Study Area and there are no known occurrences in the surrounding area.
Coho salmon – central California coast ESU <i>Oncorhynchus kisutch</i> pop. 4	Threatened	This species typically inhabit small coastal streams, as well as larger rivers, such as the Klamath River system, where they are currently found as far upstream as Iron Gate Dam and the Shasta River. Coho Salmon in northern California coastal streams are typically associated with low gradient reaches of tributary streams, which provide suitable spawning areas and good juvenile rearing habitat.	No Potential. No suitable habitat exists in the Study Area.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN STUDY AREA
Steelhead – northern California DPS <i>Oncorhynchus mykiss irideus</i> pop. 16	Threatened	Adult steelhead have been reported to spawn in substrates from 0.2 to 4.0 inches in diameter. Based on the Bovee (1978) classification, steelhead utilize mostly gravel-sized material for spawning but will also use mixtures of sand-gravel and gravel-cobble.	No Potential. No suitable habitat exists in the Study Area.
osprey <i>Pandion haliaetus</i>	Threatened	Habitat exists anywhere there are safe nest sites and shallow water with abundant fish.	No Potential. No suitable habitat exists in the Study Area.
lotis blue butterfly <i>Plebejus anna lotis</i>	Endangered	Habitat includes brushy and grassy areas, with appropriate food for larval individuals.	No Potential. No suitable habitat exists in the Study Area.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN STUDY AREA
Purple martin <i>Progne subis</i>	Least Concern	This species is widely but locally distributed in forest and woodland areas at low to intermediate elevations. They are found in broadleaved upland forest, lower montane coniferous forests.	No Potential. No suitable habitat exists in the Study Area and there are no known occurrences in the surrounding area.
Foothill yellow-legged frog <i>Rana boylei</i>	Decreasing	Range extends from Pacific drainages from the upper reaches of the Willamette River system, to the San Gabriel River. Inhabits partially shaded, rocky streams at low to moderate altitudes in areas of chaparral, open woodland and forest.	No Potential. No suitable habitat exists in the Study Area.
California red-legged frog <i>Rana draytonii</i>	Decreasing	Range extends from southern Mendocino County to northwestern Baja California. Inhabits in or near quiet permanent water of streams, marshes, ponds, lakes and other quiet bodies of water.	No Potential. No suitable habitat exists in the Study Area and there are no known occurrences in the surrounding area.
Southern torrent salamander <i>Rhyacotriton variegatus</i>	Stable	Range extends from southern Mendocino County through Polk, Tillamook, and Yamhill Counties Oregon. Inhabits coastal coniferous forests in small, cold, clear, high-gradient mountain streams and spring seepages.	No Potential. No suitable habitat exists in the Study Area and there are no known occurrences in the surrounding area.
Red-bellied newt <i>Taricha rivularis</i>	Least Concern	Range extends from Honeydew, Humboldt County to the Russian River, Sonoma County. Inhabits mountain streams and rivers in coastal woodlands and redwood forest.	No Potential. No suitable habitat exists in the Study Area and there are no known occurrences in the surrounding area.