BIOLOGICAL SCOPING & BOTANICAL SURVEY REPORT

for

Proposed Vegetation Management

for
Lands of Spring Pond Properties
100 West Cypress Avenue
Fort Bragg, CA 95437
APNs: 018-010-67-00, -020-01-00, & -030-45-00
Mendocino County

Property Owners:
Spring Pond Properties, LLC
171 Boatyard Drive
Fort Bragg, CA 95437

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1. PROJECT SUMMARY

A biological and botanical survey was conducted on the parcel with APNs: 018-010-67-00, -020-01-00, & - 030-45-00, by Wynn Coastal Planning & Biology to locate potential Environmentally Sensitive Habitat Areas (ESHAs) - special status plants and communities, wetlands and riparian areas, and special status animals and/or their habitats and to determine if they would be directly or indirectly impacted by the proposed development. The proposed development consists of:

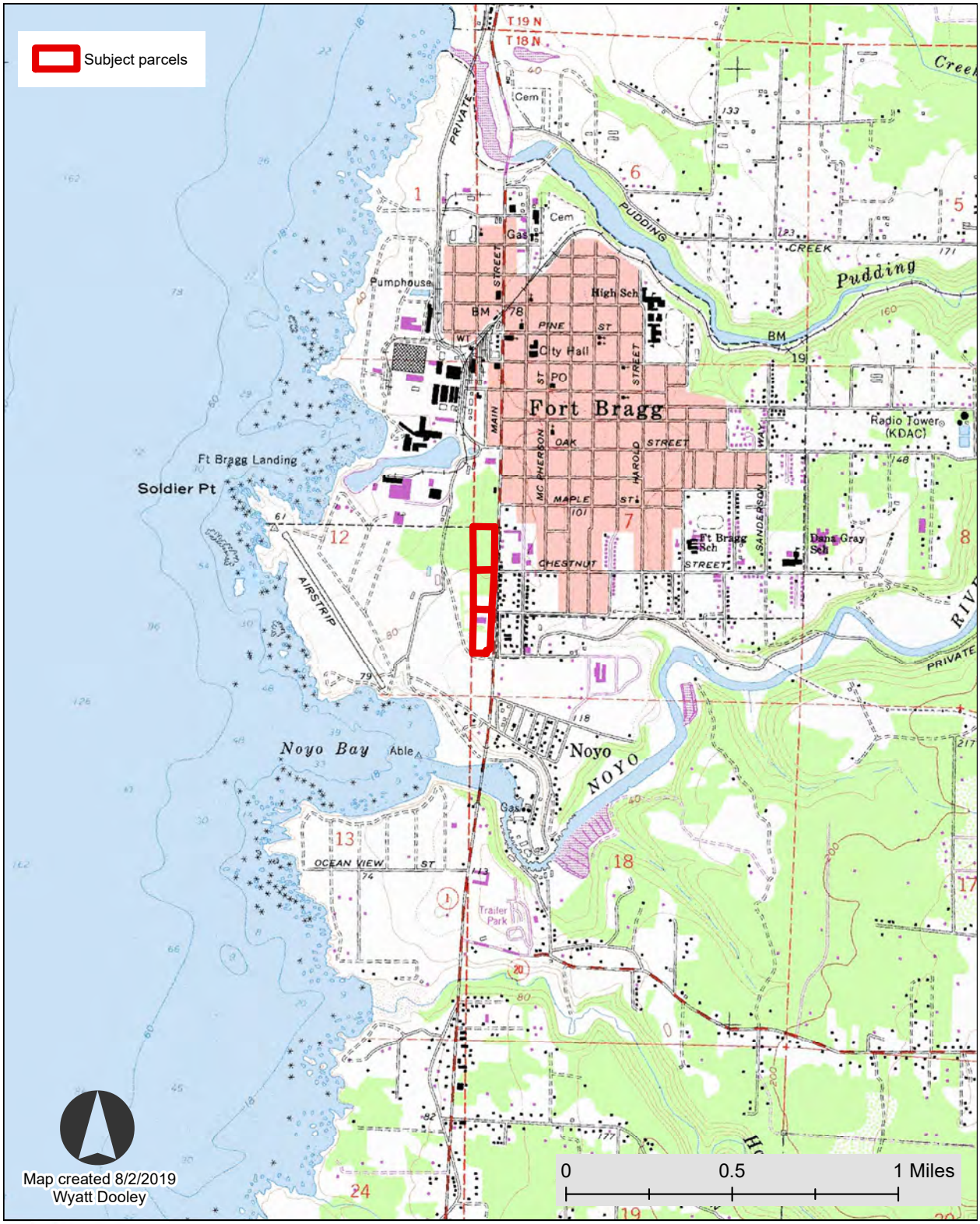
> Perform limited vegetation removal for maintenance and safety. Mow grasses and non-native shrubs to maintain open areas. Remove brush, stump sprouts and limb lower branches within forested areas to maintain open understory for visibility and ladder fuel removal, and to discourage trespass camping. Remove four trees identified as hazards leaning toward Main Street. Remove dead limbs that pose a hazard. This proposal is designed to remain under the threshold of the need for a Coastal Development Permit. No construction or other activities defined as "development" are proposed at this time.

The study area (**Figure 1**) is located west and adjacent to Highway One in the City of Fort Bragg. The single parcel, which has three different parcel numbers due to its configuration and the way parcels are recorded, is located on the old GP Mill site and covers approximately 14.5 acres. Discussion in portions of this report refer to the parcel as if it were three parcels because it is mapped that way and makes location descriptions more plain.

Wynn Coastal Planning & Biology's staff biologists conducted floristic and potential ESHA surveys on April 26, May 6, June 4, June 21, July 16, July 22, July 25, and August 15, 2019, for a total of 22.75 person hours. Three types of potential or presumed ESHAs were identified within the study area according to the definitions by the California Coastal Act (CCA) and Mendocino County Local Coastal Plan (LCP) (**Figure 2**).

> **Wetland and Riparian ESHA** – Much of the northern half of the parcel was vegetated primarily by riparian trees and areas dominated by plants that can occur as hydrophytes. Protocol level wetland delineation was not necessary because these areas are more than 100 feet from any proposed activities. Wetland and riparian habitat was presumed and mapped based on vegetation present. These areas totaled approximately 5.67 acres. **Red alder forest** (*Alnus rubra* forest alliance G5 S4) and **coastal brambles** (*Rubus* [*parviflorus*, *spectabilis*, *ursinus*] Shrubland Alliance G4 S3) are included within this ESHA type.
>
> **Special Status Plant Community ESHA** –Three special status plant communities were identified on the property: **Bishop pine forest** (*Pinus muricata* Forest Alliance G3 S3.2), **grand fir forest** (*Abies grandis* Forest Alliance G2 S2), **coastal brambles** (*Rubus* [*parviflorus*, *spectabilis*, *ursinus*] Shrubland Alliance G4 S3)
>
> **Special Status Animal Habitat** – A **northern red-legged frog** was observed in a wetland area on the northern half of the study area. Breeding habitat occurs within the wetland and riparian habitat. These frogs can also move overland through upland areas between wet areas. A large nest that may be used by red shouldered hawks during the nesting season was observed within the Eucalyptus grove near the center of the study area. Raptor, and other bird nests, must be protected when they are actively being used during the nesting season.

This analysis has been performed by Wynn Coastal Planning & Biology, and is the culmination of our professional opinion, research, and data collection. The City of Fort Bragg (City), California Department of Fish and Wildlife (CDFW), and U.S. Fish and Wildlife Service (USFWS) should also be consulted regarding this project to obtain all necessary permits and obtain their concurrence with our findings and recommendations, and to make recommendations of their own, including concurrence of the boundaries of the sensitive areas and appropriate avoidance and protective measures.
The avoidance and minimization measures recommended address only potential impacts posed by the proposed vegetation maintenance and may not be adequate for other activities not proposed at this time.



OWNER: Spring Pond Properties, LLC
APN: 018-030-45-00, -020-01-00, -010-67-00
ADDRESS: 100 West Cypress St. Fort Bragg, CA

Location Map

Figure 1. Location of the parcel in relation to the City of Fort Bragg.

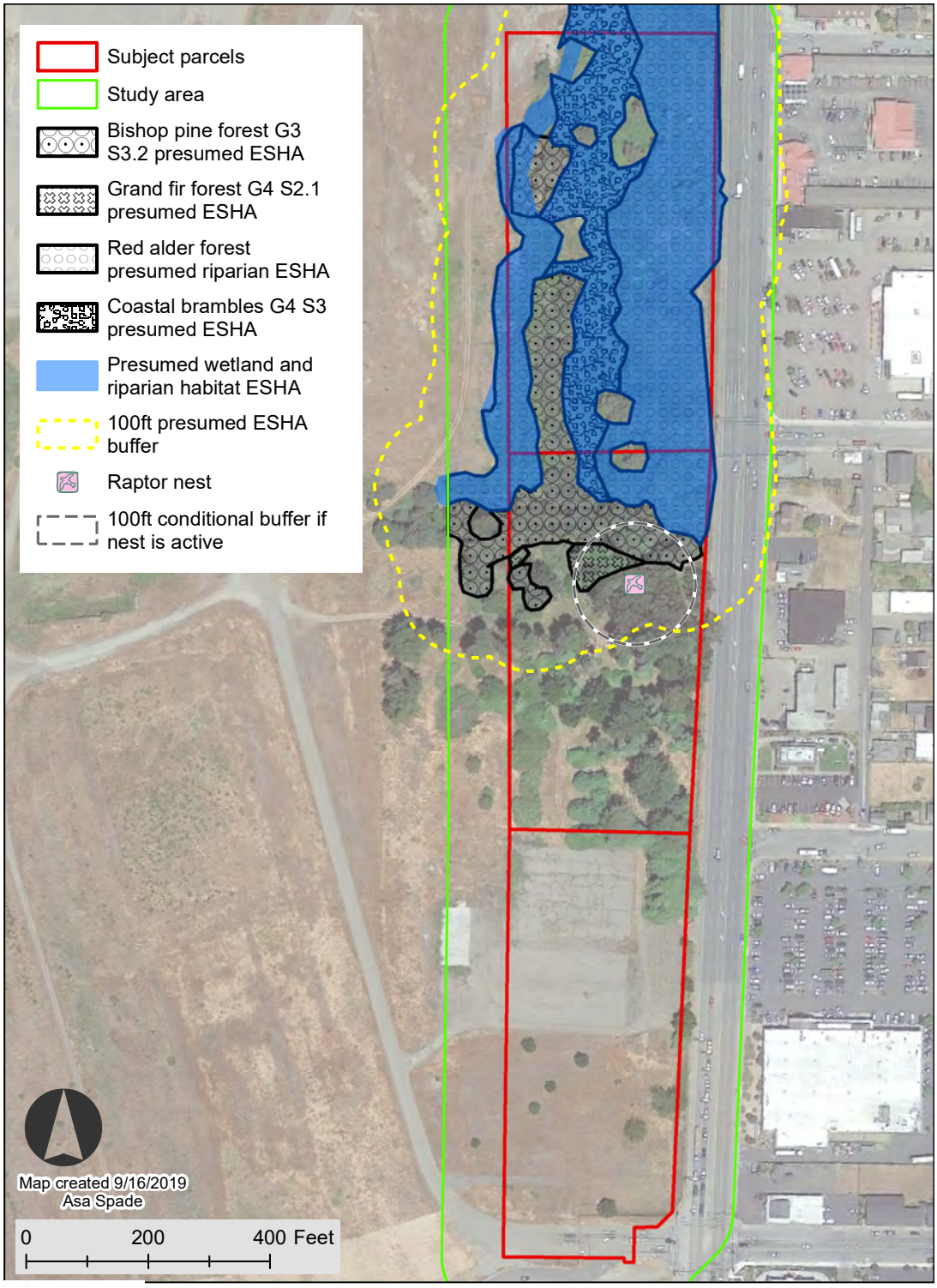


Figure 2. Presumed Environmental Sensitive Habitat Areas (ESHAs) identified in the study area with 100ft buffers depicted. A 100ft conditional buffer is also depicted around a raptor nest observed. This nest should not be considered an ESHA if it remains unoccupied but should be treated as ESHA during active nesting if birds nest there in the future.

2. PROJECT DESCRIPTION

Perform limited vegetation removal for maintenance and safety. Mow grasses and non-native shrubs to maintain open areas. Remove brush, stump sprouts and limb lower branches within forested areas to maintain open understory for visibility, ladder fuel removal, and to discourage trespass camping. Remove four trees identified as hazards leaning toward Main Street. Remove dead limbs that pose a hazard. Locations of the four hazard trees are shown in Figure 3. All four trees are within the area vegetated by the non-native nursery trees, not within natural vegetation areas.

This proposal is designed to remain under the threshold of the need for a Coastal Development Permit. No construction or other activities defined as “development” are proposed at this time.

3. STUDY AREA DESCRIPTION

3.1. General Site Description

The parcel is approximately 14.5 acres in size and is located on the headlands adjacent to Highway One (AKA Main Street). The elevation of the parcels is approximately 80ft above sea level. The parcels are relatively flat with the southernmost portion of the property containing a large asphalt/cement slab. Much of the southern portion of the property is vegetated with non-native grassland and ruderal habitat due to the previously disturbed nature of the site. The northern two thirds of the parcel are vegetated with shrubs and trees with non-native grasses in between stands. Many of the trees and shrubs on the middle of the parcel are planted non-natives such as Monterey cypress (*Hesperocyparis macrocarpa*), blue gum eucalyptus (*Eucalyptus globulus*), Monterey pines (*Pinus radiata*) and Chinese privet (*Ligustrum sinense*). Some native trees did occur in this area including coast redwoods (*Sequoia sempervirens*) and several Bishop pine trees (*Pinus muricata*). The redwood trees are planted in several rows. An east to west road just north of a row of Monterey cypress trees bisects the property, dividing nursery trees south of the road from natural vegetation north of the road. North of the Monterey cypress row vegetation transitions to Bishop pine forest (*Pinus muricata* forest alliance) with other regions containing riparian areas dominated by red alder forest (*Alnus rubra* forest alliance). Also present on the northern half of the parcel are areas dominated by native and non-native black berry brambles (*Rubus ursinus* & *R. armeniacus*). On the western parcel boundary of the northern half of the property was what appears to be a manmade ditch. Surface water and wetland vegetation were present within portions of the ditch.

3.2. Land-Use History

The land was previously owned by GP Lumber Company. The southern half of the parcel was at one time a nursery with a plant propagation area and with greenhouses that were recently removed. The middle area of the parcel has a number of planted trees and shrubs associated with the nursery operation and that were at one time used for educational purposes such as school tours. A road and row of planted Monterey cypress trees roughly divides the property in half, separating the southern developed portion of the property from the northern portion where little or no development was visible in an aerial photographs (**Figure 4**) taken in 1998.

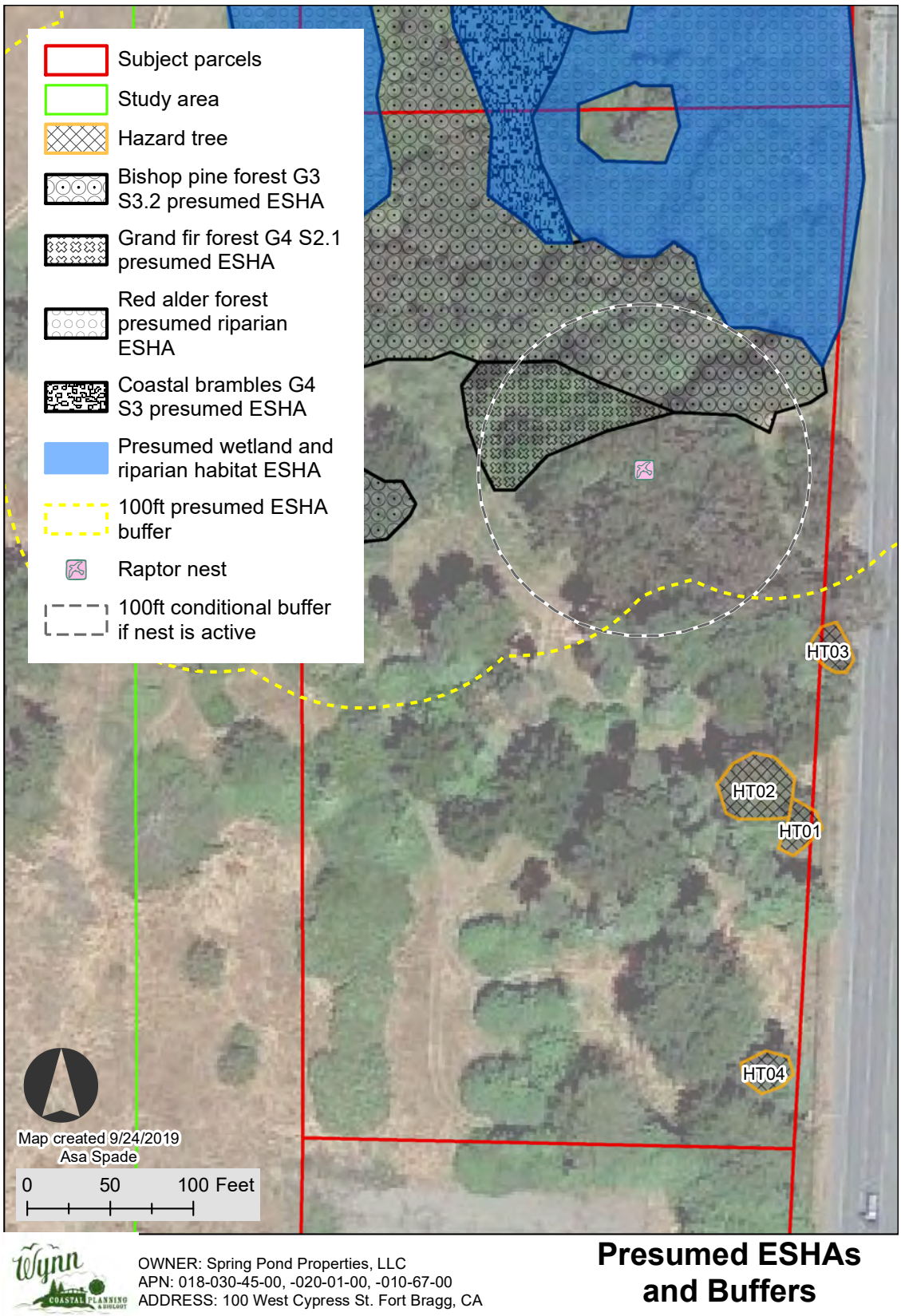


Figure 3. Locations of hazard trees proposed for removal. All four trees are within the nursery area of the middle parcel.

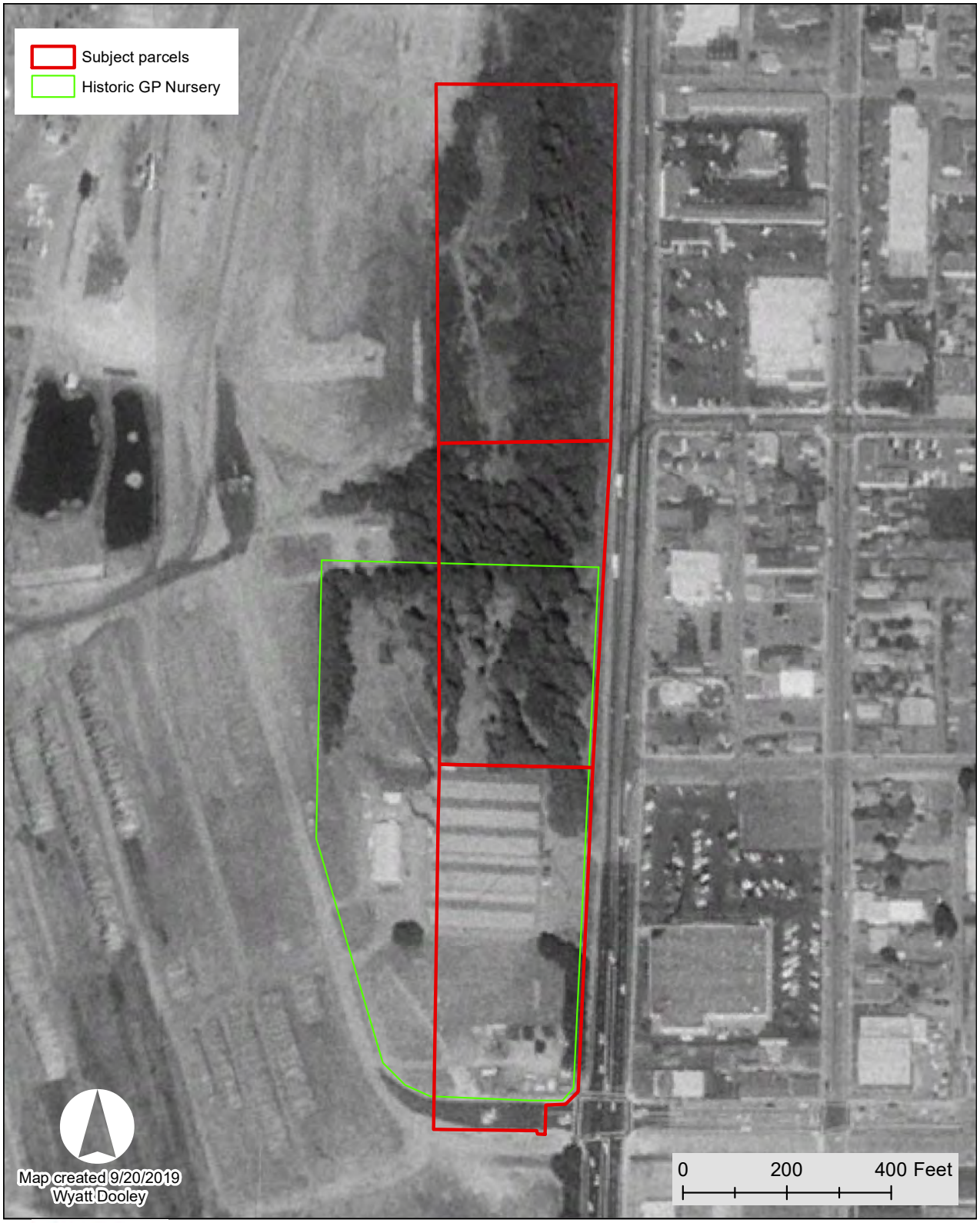


Figure 4. Map of Study Area with 1998 Aerial Photo.

3.3. Topography and Soils

The elevation of the study area is about 80 feet above sea level. The Natural Resource Conservation Service mapped the soil in the study area as “Urban land”. According to the NRCS mapping results, none of the soil types within the study area meet hydric soil criteria (USDA Natural Resource Conservation Service, 2001; **Appendix A**). It should be noted that when a given soil is listed on the National Hydric Soils List as a hydric soil, that does not necessarily mean a wetland is present. Soil complexes are mapped at a coarse resolution and contain a number of components, any one of which may or may not be hydric, and may or may not be present in the particular mapped location. Likewise, wetlands can occur in soils units not listed in the National Hydric Soils List.

3.4. Climate and Hydrology

The Mendocino Coast has a Mediterranean climate with average annual precipitation of 40.24 inches (WRCC, Station Fort Bragg 5N, average for years 1895-2016), with the majority of rain occurring in winter months (November through March).

The USFWS National Wetlands Inventory (NWI) was consulted and does not show any wetlands within 100ft of the property boundary (**Appendix B**). It should be noted that NWI mapping is done at a course resolution and may or may not show wetlands at a particular location.

3.5. Vegetation and Natural Communities

The southern parcel was primarily non-native grassland and ruderal habitat, with extensive areas of pavement. Areas north of the paved area were forested with a combination of non-native and native vegetation. The middle parcel was a mixed assemblage of planted species, which did not necessarily fit within a plant community, association, or alliance as described by Holland or *The Manual of California Vegetation*. Other areas did contain plant communities that fit within *The Manual of California Vegetation*. These plant communities included red alder forest (*Alnus rubra* forest alliance), Bishop pine forest (*Pinus muricata* forest alliance), Eucalyptus grove (*Eucalyptus globulus* woodland semi-natural alliance), coastal brambles (*Rubus* spp. shrubland alliance), and Himalayan blackberry riparian scrub (*Rubus armeniacus* shrubland semi-natural alliance).

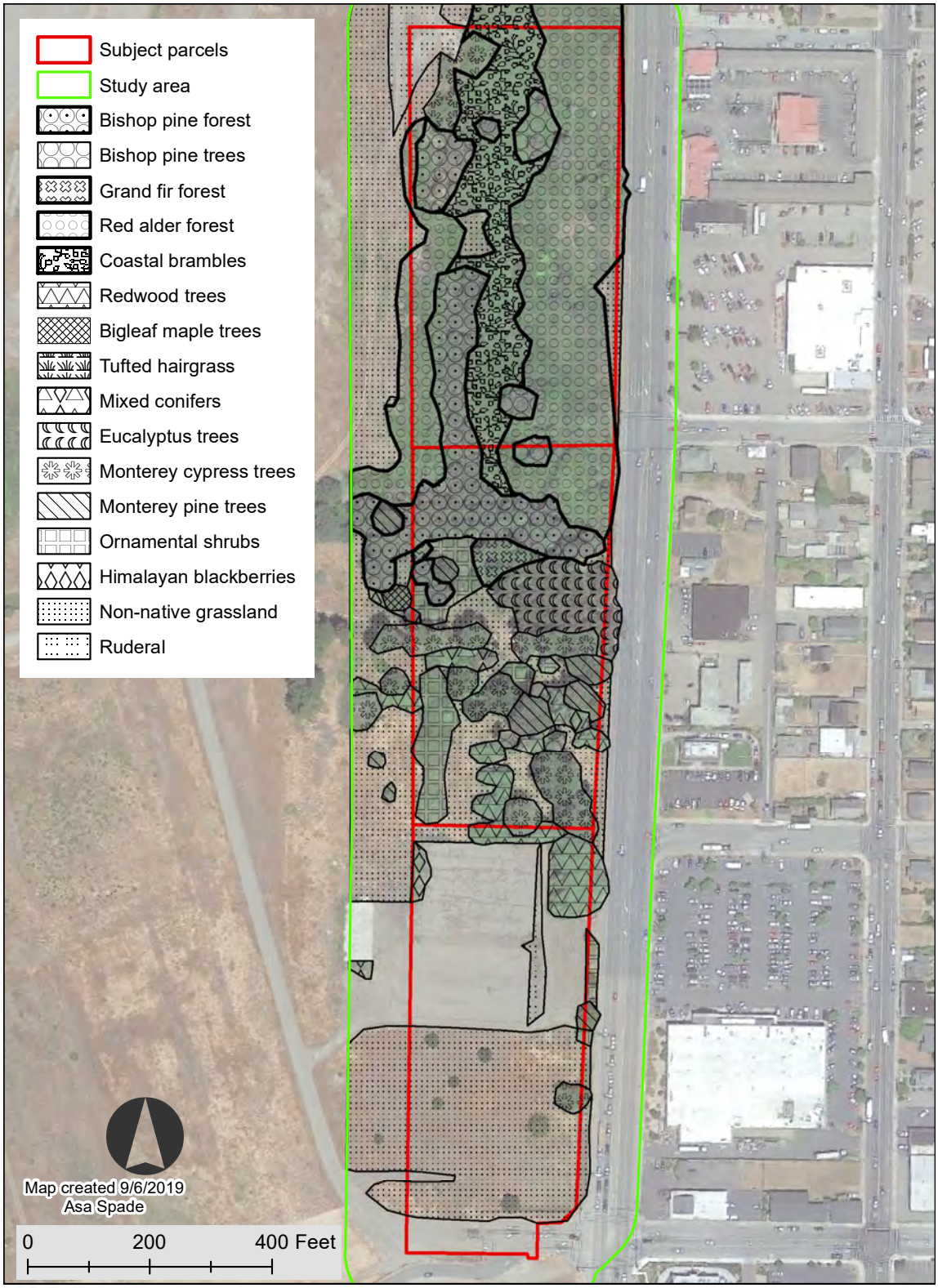


Figure 5. Plant communities map. (Note that the only patch of tufted hairgrass mapped, but too small to be seen clearly.)

3.6. Adjacent Lands

Lands surrounding the study area include: Highway One and commercial buildings to the east, and ruderal non-native grassland to the west. The Fort Bragg Coastal Trail is located along the edge of the headlands.

3.7. Existing Development

An asphalt/cement slab is located on the southern parcel and can be observed on aerial imagery. A fence runs along the southern and eastern property boundary. On the northern parcel, a well head and wooden foot bridge were present.

4. SURVEY METHODOLOGY

4.1. Scoping Tables

Scoping tables were created for the special-status plant species and wildlife with the potential to occur in the Study Area by reviewing the most up-to-date species lists for the California Department of Fish and Wildlife (CDFW), California Natural Diversity Database (CNDDB) and the California Native Plant Society (CNPS).

For purposes of this evaluation, special-status plant species are vascular plants that are (1) designated as rare, threatened, or endangered by the state or federal governments; or (2) are proposed for rare, threatened, or endangered status; and/or (3) are state or federal candidate species, and/or (4) considered species of concern by the USFWS and/or (5) are included on the California Native Plant Society (CNPS) List 1A, 1B, & 2.

Maps were created using the California Natural Diversity Database CNDDB for records within 1 mile of the study area **(Figure 6 and Figure 7)**. The CNDDB is a database consisting of historical observations of special-status plant species, wildlife species, and natural plant communities. CNDDB was used to help compile a list of special status plants and animals with potential to occur in the Study Area. This list was not limited to species presented in the maps, it includes all species indicated by a search of all quads with similar geology, habitats, and vegetation to those found in the project area. Because the CNDDB is limited to reported sightings, it is not a comprehensive list of plant or animal species that may occur in a particular area. However, it is useful in refining the list of special-status plant species that have the potential to occur on a particular site.

A database search was performed using the CNPS *Electronic Inventory*, which allows users to query the *Inventory of Rare and Endangered Plants of California* using a set of search criteria (e.g., quad name, habitat type). A target list of special-status plant species with the potential to occur on the site was developed through interpretation of the CNDDB and CNPS query results. The biological scoping tables with special status resources potential occurrences in the study area are presented in **Appendix C: Tables 1, 2, and 3.** While directed by query results, surveys were not restricted only to those species indicated by this literature review. Field surveys and subsequent reporting were comprehensive and floristic in nature.

Additional information (e.g. morphological characteristics, range, habitat and bloom period) was collected for each of the special-status plant species that had the potential to occur within the study area. Wynn Coastal Planning & Biology's staff botanist reviewed these characteristics for each of the plants on the target list prior to initiating fieldwork.

The botanical survey of the study area was conducted primarily adhering to the protocol described by the California Department of Fish and Wildlife in *Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities.*

Additional database review was conducted to assess the potential for wetlands to occur in the area prior to field work. Aerial photography was assessed for features with "wet" characteristics and the Inventory of National Wetlands database was viewed with the subject parcel boundaries to see if any predetermined wetlands occur in the study area.

4.2. Field Surveys

Wynn Coastal Planning & Biology's staff biologists conducted surveys on April 26, May 6, June 4, June 21, July 16, July 22, July 25, and August 15, 2019, for a total of 22.75 person hours, to compile a full floristic list of plants occurring in the study area and to identify any rare resources having the potential to meet the LCP ESHA definitions. To ensure potential ESHA plants were evident and identifiable, offsite **reference plant populations** were visited prior to the project field surveys. Verified offsite reference site plants observed by WCPlan staff during the 2019 floristic seasons included: short-leaved evax (*Hesperevax sparsiflora var. brevifolia*), Mendocino coast paintbrush (*Castilleja mendocinensis*), harlequin lotus (*Hosackia gracilis*), headland wallflower (*Erysimum concinnum*), Menzies' wallflower (*Erysimum menziesii*), coastal bluff morning glory (*Calystegia purpurata* ssp. *saxicola*), Blasdale's bent grass *(Agrostis blasdalei*), Point Reyes blennosperma (*Blennosperma nanum var. robustum*), coast lily (*Lilium maritimum*), deceiving sedge (*Carex saliniformis*), Maple-leaved checkerbloom (*Sidalcea malachroides*), Howell's spineflower (*Chorizanthe howellii*), round-headed Chinese houses (*Collinsia corymbosa*), hair-leaved rush (*Juncus supiniformis*), swamp harebell (*Campanula californica),* Point Reyes horkelia (*Horkelia marinensis*), thin-lobed horkelia (*Horkelia tenuiloba*), Baker's goldfields (*Lasthenia californica ssp. bakeri*), perennial goldfields (*Lasthenia californica ssp. macrantha*), great burnet (*Sanguisorba officinalis*), early blue violet (*Viola adunca*), nodding-semaphore grass (*Pleuropogon refractus*), stag's-horn clubmoss (*Lycopodium clavatum*), north coast semaphore grass (*Pleuropogon hooverianus*), Canadian bunchberry (*Cornus canadensis*), Pacific blue field gilia (*Gilia capitata* ssp. *pacifica*), redwood lily (*Lilium rubescens*), pygmy manzanita (*Arctostaphylos nummularia* ssp. *mendocinensis*), manyleaf gilia (*Gilia millefoliata*), Bolander pine (*Pinus contorta* ssp. *bolanderi*), Mendocino cypress (*Hesperocyparis pygmaea*), leafy Bishop's cap (*Mitella caulescens*), California pitcher plant (*Darlingtonia californica*), Monterey mariposa lily (*Calochortus uniflorus*), Bolander's reed grass (*Calamagrostis bolanderi*), pink sand verbena (*Abronia umbellata* var. *beviflora),* Lyngbye's sedge (*Carex lyngbyei*), white beak sedge (*Rhynchospora alba*), Oregon goldthread (*Coptis laciniata*), Point Reyes sidalcea (*Sidalcea calycosa* ssp. *rhizomata*), Gairdner's yampah (*Perideridia gairdneri*), and corn lily *(Veratrum fimbriatum*).

All identifiable plant species located during the surveys were identified to the lowest taxonomic level necessary to determine the presence of special status plant species and are listed in **Table 1 (Appendix C**). *The Jepson Manual: Vascular Plants of California* (Baldwin 2012) was used to determine the taxonomic nomenclature. *A Manual of California Vegetation, Online Edition* (CNPS 2019), *Classification of the Vegetation Alliances and Associations of Sonoma County, CA, V. 2* (Klein 2015) and the *List of Vegetation Alliances and Associations* (CDFW 2010) were used to classify and describe representative plant communities present.

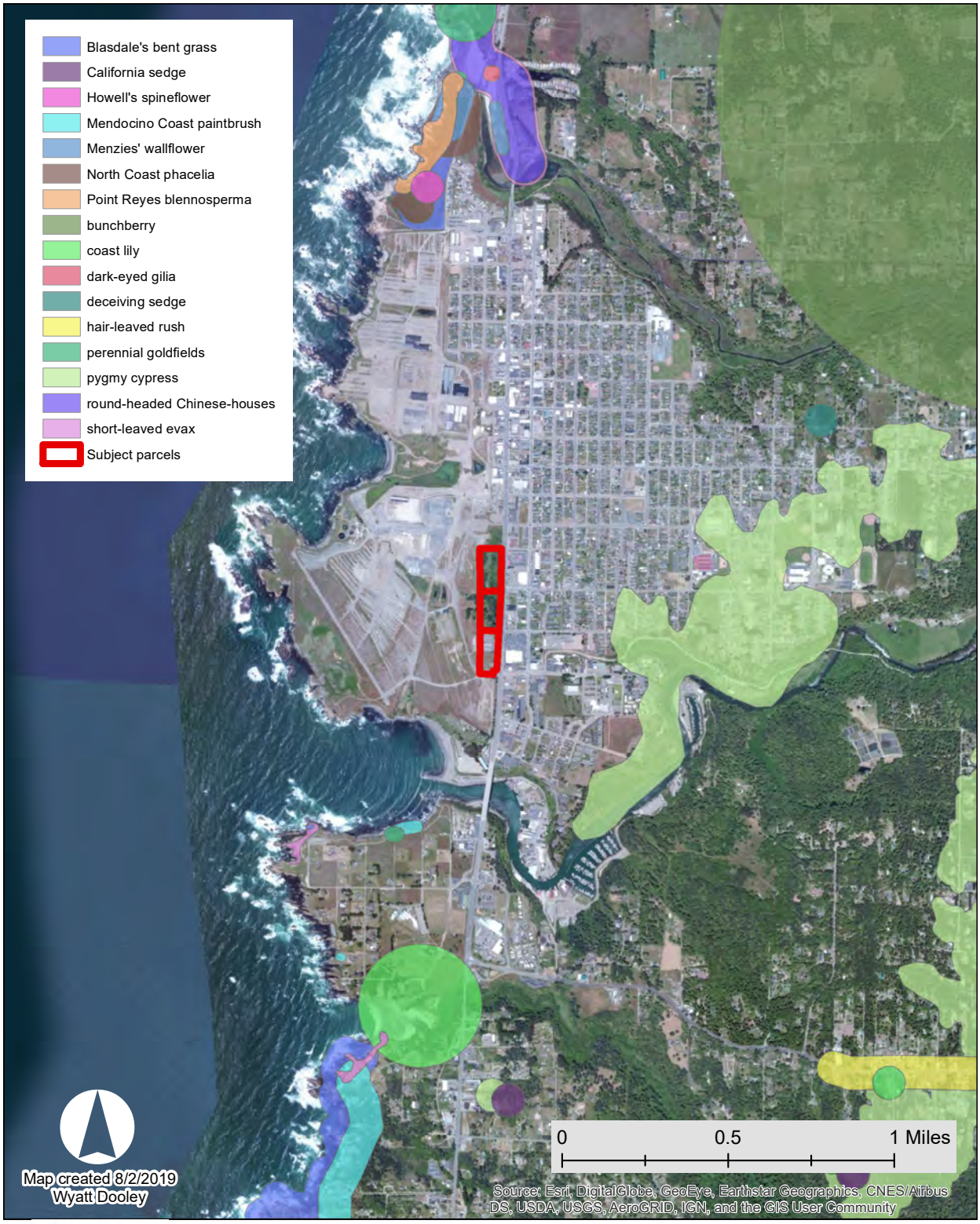


Figure 6. Special status flora reported to CDFW in the proximity of the study area and recorded in the CNDDB database.

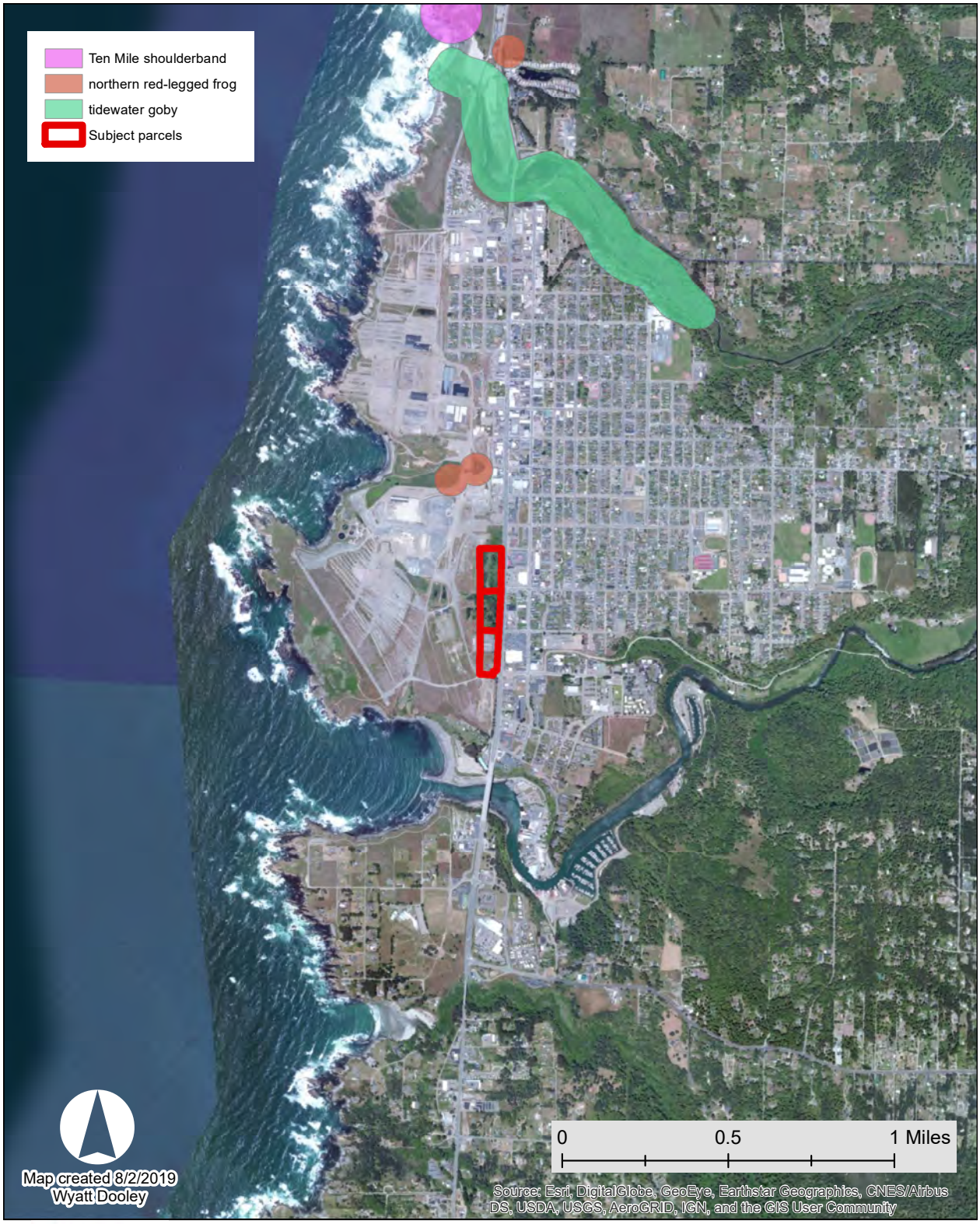


Figure 7. Special status fauna reported to CDFW in the proximity of the study area and recorded in the CNDDB database.

5. SURVEY RESULTS

Biological Field Surveys were performed that identified the following: plants, plant communities, wetlands, special status animals and animal habitat in the study area.

5.1. Plants – No Special Status Species Observed

The CDFW's California Native Diversity Database (CNDDB) BIOS, *Version 5* (2016), was used to inform the search on special status flora previously reported in the vicinity of the project area. Surveys were floristic in nature. 139 species of herbs, grasses, sedges, rushes, ferns, shrubs, and trees were identified in the study area and are listed in **Appendix D**. No special status plant species were observed onsite.

5.2. Plant Communities Observed

5.2.1. Non-Native Grassland: Common velvet grass - sweet vernal grass meadows (*Holcus lanatus* – *Anthoxanthum odoratum* Herbaceous Semi-Natural Alliance) and Wild oats – annual brome grasslands (*Avena* spp. – *Bromus* spp. Provisional Semi-Natural Alliance)

Non-native grassland was present on the southern parcel as well as west of the forested areas of the parcels and within much of the interstitial space between trees and shrubs. Portions of the study area were vegetated with a mosaic of sweet vernal grass (*Anthoxanthum odoratum*), common velvet grass (*Holcus lanatus*) and colonial bentgrass (*Agrostis capillaris*) **(Figure 8)**. Other areas were dominated by rattlesnake grass (*Briza maxima*), wild oats (Avena barbata), and purple awned wallaby grass (*Rytidosperma penicillatum*) (**Figure 9**). Some portions of the grassland had a relatively high cover of non-native forbs (**Figure 10**) such as English plantain (*Plantago lanceolata*), hairy cat's ear (*Hypochaeris radicata*), and wild radish (*Raphanus sativa*).
Other species present within the mosaic of non-native grassland habitat included: Bird's foot trefoil (*Lotus corniculatus*), bracken fern (*Pteridium aquilinum*), yarrow (*Achillea millefoliata*), Italian thistle (*Carduus pycnocephalus*), bull thistle (*Cirsium vulgare*), rough cat's ear (*Hypochaeris radicata*), subterranean clover (*Trifolium subterraneum*), common vetch (*Vicia sativa*), pale flax (*Linum bienne*), California poppy (*Eschscholzia californica*), buckhorn plantain (*Plantago coronopus*), English plantain (*P. lanceolata*), miniature lupine (*Lupinus bicolor*), spotted burclover (Medicago arabica), European centaury (*Centaurium erythraea*), yellow glandweed (*Parentucellia viscosa*), common sheep sorrel (*Rumex acetosella*), scarlet pimpernel (*Lysimachia arvensis*), beach strawberry (*Fragaria chiloensis*), California blackberry (*Rubus ursinus*), field madder (*Sherardia arvensis*), Douglas iris (*Iris douglasiana*), Queen Anne's lace (*Daucus carota*), pearly everlasting, (*Anaphalis margaritacea*), ox eye daisy (*Leucanthemum vulgare*), coast tarweed (*Madia sativa*), Jersey cudweed (Pseudognaphalium luteoalbum), tansy ragwort (*Senecio jacobaea*), prickly sowthistle (*Sonchus asper* ssp. *asper*), ripgut brome (*Bromus diandrus*), soft chess (*B. hordeaceus*), hedgehog dogtail grass (*Cynosurus echinatus*), smooth barley (*Hordeum murinum*), blue wildrye (*Elymus glaucus*), tall fescue (*Festuca arundinacea*), brome fescue (*F. bromoides*), and Italian ryegrass (*F. perennis*). A number of young emergent Monterey pine (*Pinus radiata*) trees were present within the grassland area on the southern parcel but did not have high enough cover to affect the classification of the habitat present. Areas mapped as non-native grassland did not have a component of native plants greater than 10% cover that would qualify them for classification as a native grassland alliance. One small area with a dominance of native tufted hairgrass (Deschampsia caespitosa) was present within the study area and is classified and mapped separately from the non-native grassland.

Figure 8. Non-native grassland dominated by common velvet grass and sweet vernal grass.

Figure 9. Non-native grassland dominated by rattlesnake grass, purple awned wallaby grass, and wild oats. A few young emergent Monterey pine trees can also be seen.

Figure 10. Non-native grassland with a mix of non-native grasses and a relatively high cover of non-native forbs such as English plantain and rough cat's ear.

5.2.2. Tufted hairgrass meadow (*Deschampsia caespitosa* Herbaceous Alliance G5 S4?) Presumed wetland ESHA

One small area (~200sqft) just northwest of the northwestern corner of the middle parcel, just outside of red alder riparian forest habitat, but still within wetter soils, was vegetated with a dominance of tufted hairgrass (*Deschampsia caespitosa* ssp. *caespitosa*). Other vegetation in this area was primarily non-native ruderal plants that are adapted to poor or wetter soils including pennyroyal (*Mentha pulegium*), bird's foot trefoil, buckhorn plantain, bull thistle, hairy cat's ear, and other species present in the non-native grassland areas described above. While this community is mapped on the vegetation and plant community map, it is small enough that the symbology cannot be seen within the area depicted at the scale of this map. Tufted hairgrass meadow is not rare enough to be considered a "sensitive natural community" but was included in the area presumed to be wetland ESHA.

Figure 11. Small patch of tufted hairgrass adjacent to red alder riparian habitat.

5.2.3. Planted Non-Native Trees and Ornamental Shrubs

Within the middle parcel there are a number of areas vegetated with an overstory made up of planted non-native trees and ornamental shrubs. Two rows of Monterey cypress (*Hesperocyparis macrocarpa*), trees (**Figure 12**) were present within the study area. These trees were likely planted as windrows. Traditionally, Monterey cypress were planted in rows in this area and were cut and replaced when they grew too tall to effectively block wind. Many of these rows of trees remain in Mendocino County. Monterey cypress are native to the Monterey peninsula but not to Mendocino County, where they can be invasive. This tree's specific epithet, *macrocarpa*, refers to its relatively large seed cones (**Figure 13**). The dense root system of Monterey cypresses can prevent native plants from becoming established beneath them.

Figure 12. Monterey cypress trees.

Figure 13. Large cones indicative of Monterey cypress.

A stand of mature blue-gum eucalyptus (Eucalyptus globulus) was present near the eastern edge of the middle of the subject parcel. Eucalyptus trees are not native to North America and can cause a number of problems. They are invasive, becoming established outside of areas where

they were intentionally planted. They use a lot of water, leading to the ground below them becoming drier than it otherwise would be. Eucalyptus leaves contain volatile chemicals making them inedible to native insects that would in turn feed native birds. The leaves also poison the soil below the trees, changing the soil microflora and making the soil less suitable for native plants. They are highly flammable due to their high oil content.

Figure 14. Eucalyptus stand.

Some very large and a number of smaller Monterey pine (*Pinus radiata*) trees were present on the middle parcel, primarily within the nursery area south of the east to west row of Monterey cypresses. There were also a number of young trees and seedlings within the non-native grassland on the southern parcel. Monterey pines are native to Monterey County but not to Mendocino County, where they are considered to be invasive. Monterey pines are the most widely planted pine throughout the world. Some of the Monterey pines at the site showed signs of disease, including *Phaeolus schweinitzii* (butt rot) disease that can result in these trees breaking near the base and falling over in high wind. Monterey pines do seem relatively compatible with our local native flora and fauna, assuming the niche of Bishop pines (*Pinus muricata*) in some stands. This can be problematic in that Bishop pines are unlikely to become established in areas where the taller, longer lived, Monterey pines dominate. There is potential for Monterey pines to harbor pathogens that affect native Bishop pine and other native conifers. Monterey pine cones are facultatively serotinous, remaining closed until opened by the heat of a fire or a hot sunny day during the summer.

Figure 15. Monterey pines.

A row of planted ornamental rhododendrons is present along the eastern fence line of the southern parcel.

A number of non-native shrubs are present on the middle parcel. Chinese privet (*Ligustrum sinense*) shrubs cover more than a quarter acre along the western side of the middle parcel and are also present in an area between the grand fir and Bishop pine forest near the northern end of the middle parcel. Areas vegetated with non-native plants may provide structure and cover for wildlife but can negatively affect habitat values due to their chemical incompatibility with native flora and fauna. Ornamental shrubs are often chosen due to their immunity to insect attack; this feature is bad for wildlife that depend upon insects for food. Insectivorous birds and even birds that eat primarily seeds when adult often depend on an abundance of insects during the nesting season to feed their young.

Figure 16. Chinese privet covered over a quarter acre of the site.

Additional non-native ornamental species found primarily within the middle parcel but also other locations, included mattress vine (*Muehlenbeckia complexa*) (**Figure 17**), Darwin's barberry (*Berberis darwinii*), English holly (*Ilex aquifolium*), English ivy (*Hedera helix*), cotoneaster (*Cotoneaster franchetii* & *C. coriaceus*), and lollypop tree (*Myoporum laetum*).

Figure 17. Mattress vine covering the ground below, and climbing up into planted redwood trees.

5.2.4. Planted Coast Redwoods

Coast redwood trees were present in the northeast corner of the southern parcel and in four rows on the southern part of the middle parcel, just to the north of the asphalt pad where nursey greenhouses were recently removed. The trees are relatively small in diameter and are growing closely together (**Figure 18**). The dense canopy of the small stand blocks much of the sunlight into the grove limiting understory vegetation and diversity. Vegetation observed within the redwood stand included red elderberry (*Sambucus racemosa*) and caracara buckthorn (*Frangula purshiana*). A portion of the redwood stand was covered in invasive mattress vine and English ivy was present in another portion.

Figure 18. Planted redwood grove.

Some of the coast redwood foliage (**Figure 19**) appeared to be suffering from wind and salt exposure. Typically, coast redwood trees do not grow directly adjacent to the ocean. Before their removal, the greenhouse buildings that were on site may have provided some protection from exposure of the redwood trees to wind and salt spray.

Figure 19. burned redwood foliage.

Coast redwood forest (*Sequoia sempervirens* Forest Alliance) has a state ranking of S3, which is rare enough to justify consideration as ESHA; however, this ranking is based on counting only old growth occurrences of this plant community within California. An S3 ranking indicates that a plant community totals between 6,400 to 32,000 acres in California (Keeler-Wolf 2008). Early to mid-seral redwood forest, like that on the parcel, occupies approximately 643,000 acres in California (Burns & Honkala 1990), which far exceeds the membership rule to qualify as a state ranked population with S3 status. The redwood forest within the study area does not exhibit rare plant community characteristics of a mature redwood forest and was not treated as a potential ESHA for the purpose of this report.

5.2.5. Bishop Pine Forest (*Pinus muricata* Forest Alliance G3 S3.2)

Bishop pine trees were the predominant overstory in a relatively linear stand running north to south along the western edge of the northern parcel and then continuing toward the west at the north western corner of the middle parcel. A few additional Bishop pine trees occurred in small patches on other portions of the parcel, including drier locations within the coastal bramble and red alder riparian habitat present on the northern parcel.

Diversity and understory vegetation was relatively sparse in the Bishop pine forest understory, with needle thatch making up most of the ground cover. Plants present through much of the forest included Douglas iris, California blackberry, rough hedge nettle (*Stachys rigida*), and western bracken. Patches of vegetation in some locations included sweet vernal grass, common velvet grass, ox eye daisy, and common vetch.

Figure 20. Bishop pine forest.

Figure 21. Bishop pine forest understory.

5.2.6. Grand Fir Forest (*Abies grandis* Forest Alliance G2 S2) Presumed ESHA

A relatively small area, ~5,000sqft, just south of the southern extent of the Bishop pine forest on the middle parcel, had an overstory dominated by grand fir (*Abies grandis*) trees. Understory vegetation was significantly different than the adjacent Bishop pine forest. Understory vegetation was dominated by starry false lily of the valley (*Maianthemum stellatum*), with Chinook brome (*Bromus laevipes*), rough hedge nettle, Pacific reed grass (*Calamagrostis nutkaensis*), cotoneaster, English holly, and monbretia (*Crocosmia* ×*crocosmiiflora*). The overstory of this small stand of trees (less than ¼ acre) is contiguous with the Bishop pine forest. The stand has a well-developed understory. While small, the grand fir stand is high quality native habitat and was treated as presumed ESHA in this report.

Figure 22. Small stand of grand fir trees along the southern edge of the Bishop pine forest.

5.2.7. Red Alder Forest (*Alnus rubra* Forest Alliance G5 S4) Presumed Riparian ESHA

Riparian forest, dominated in most areas by red alder (*Alnus rubra*), occurred along the western and eastern sides of the northern parcel, down into a portion of the middle parcel. Other trees and shrubs occurring in this very dense plant community included Pacific willow (*Salix lasiandra*), red elderberry (*Sambucus racemosa*), wax myrtle (*Morella californica*), thimbleberry (Rubus parviflorus) salmonberry (R. spectabilis), and twinberry (*Lonicera involucrata*). Understory vegetation included slough sedge (*Carex obnupta*), coast hedge nettle (*Stachys chamissonis*), sword fern (Polystichum munitum), and tall fescue. Invasive plants in this community included English ivy, English holly, and Himalayan blackberry.

This forest alliance is common enough that it does not have rarity ranking that would qualify it as a sensitive natural community under CDFW's sense of the term; however, riparian habitat is considered an ESHA under the City of Fort Bragg CLUDC and therefore the Red alder riparian forest is treated as such.

Figure 23. Red alder riparian forest.

Figure 24. Red alder riparian forest.

A few areas within or directly adjacent to the red alder riparian area had fewer overstory plants, some ponded surface water present, and an additional palette of plants present consistent with freshwater emergent wetland habitat. These areas were generally too small to map as separate plant communities and were therefore considered to be a part of the red alder forest community. Plants present included willow herb (*Epilobium ciliatum*), tall flatsedge (*Cyperus eragrostis*),

Bolander's rush (*Juncus bolanderi*), water fern (*Azolla filiculoides*), musk monkeyflower (*Erythranthe moschata*), Pacific oenanthe (*Oenanthe sarmentosa*), yellow glandweed (*Parentucellia viscosa*), sheep sorrel (*Rumex acetosella*), brass buttons (*Cotula coronopifolia*), pennyroyal, toad rush (*Juncus bufonius*), sharp fruited rush (*J. acuminatus*), low bulrush (*Isolepis cernua*), duckweed (*Lemna minor*), buckhorn plantain, broadleaf cattail (*Typha latifolia*), rabbitsfoot grass (*Polypogon monspeliensis*), and clustered dock (*Rumex conglomeratus*).

Figure 25. Shallow ponded water adjacent to red alder riparian habitat.

5.2.8. Coastal Brambles (*Rubus [parviflorus, spectabilis, ursinus]* Shrubland Alliance G4 S3 Potential ESHA)

An extensive area, running primarily north-south through the middle of the northern parcel and slightly onto the middle parcel, was characterized by the dominance of blackberry brambles (**Figure 26**). These brambles were mostly native California blackberry (*Rubus ursinus*) but there was a significant component of invasive Himalayan blackberry (*R. armeniacus*) (**Figure 27**) as well as minor components of thimbleberry (*R. parviflorus*) and salmonberry (R*. spectabilis*). Other vegetation characterizing this plant community included stinging nettle (*Urtica dioica*), red elderberry, wild radish, western bracken, sweet vernal grass and common velvet grass. Much of this area had dense impassible vegetation but some trails through the bramble were present.

Figure 26. Coastal brambles.

Figure 27. Invasive Himalayan blackberry component of coastal brambles.

5.2.9. Himalayan blackberry (*Rubus armeniacus*)

A few patches of almost purely Himalayan blackberry (**Figure 28**) were present on the southern parcel and were large enough to include on the vegetation map. For the most part, these patches occurred within non-native grassland or in areas with asphalt left from the previous use of the parcel as a plant nursery. These patches appear to be growing in size and a number of newer patches too small to map may dominate additional areas in the near future.

Figure 28. Himalayan blackberry.

5.2.10. Ruderal habitat

In the northwestern corner of the study area, as well as a few small areas of compacted soil and between areas of asphalt on the southern parcel, vegetation was limited and ruderal in nature. Vegetation was composed of species better adapted to survive in compacted, low nutrient soils and bare soil made up a majority of the ground cover. Plants characteristically present within this habitat type included: buckhorn plantain, Canada horseweed (*Erigeron canadensis*), coast tarweed (*Madia sativa*), Jersey cudweed (*Pseudognaphalium luteoalbum*), red sandspurry (*Spergularia rubra*), field bindweed (*Convolvulus arvensis*), European centaury (*Centaurium erythraea*), yellow glandweed (*Parentucellia viscosa*), scarlet pimpernel (*Lysimachia arvensis*), toad rush (*Juncus bufonius*), and hedgehog dogtail grass (*Cynosurus echinatus*).

Figure 29. Ruderal habitat at the north west corner of the study area.

5.3. Wetland and Riparian Habitat - presumed ESHA

No protocol level wetland delineation was performed or deemed necessary because all areas identified as potential wetland and/or riparian habitat were more than 100ft from any area proposed for development. **Figure 30** is a map of the presumed wetland and riparian habitat that likely meets the Coastal Act Wetland definition. This map was based on interpolation of topography based on LiDAR data, observations of a dominance of vegetation that can occur as hydrophytes, observations of surface water, examination of topography at the site, and other wetland indicators. No examination of soil pits was conducted.

Flowing water enters the site through a group of culverts (**Figure 31**) on the west side of Main Street across from Maple Street. This appears to be a location where trespassers enter the subject parcel and quite a bit of garbage was found in and around the creek (**Figure 32**).

Figure 30. Map depicting areas of riparian vegetation and presumed wetland habitat.

Figure 31. Culverts draining water onto the subject parcel from beneath Main Street.

Figure 32. Garbage on the western side of the fence at Maple Creek where people have trespassed.

5.4. Wildlife - Potential Occurrences

The California Department of Fish and Wildlife (CDFW) California Native Diversity Database (CNDDB) BIOS, Version 5 (2016), was used to inform the search on fauna previously reported in the vicinity of the project area, however, other potential species were also considered. One species of special-status wildlife, Northern red-legged frog, was observed during the field biological surveys and suitable habitat for special status wildlife species was identified.Descriptions below are for wildlife species with moderate to high potential to occur, and for State or Federally Endangered or Threatened Species with potential to occur. A complete list of special status wildlife with the potential to occur at the project site can be found in **Table 3 of Appendix C**.

5.4.1. Invertebrates

5.4.1.1. Lotis Blue butterfly (Lycaeides argyrognomon lotis) (G5TH SH)

This Federally Endangered butterfly species has not been seen since 1983. It is primarily from Mendocino County, but historically recorded in northern Sonoma and possibly Marin Counties. This species inhabits wet meadows, damp coastal prairie, and potentially bogs or poorly-drained sphagnum-willow bogs where soils are waterlogged and acidic. The presumed host plant is Harlequin lotus (*Hosackia gracilis*), which was not observed in within the Study Area. Because the habitat requirements of this butterfly are not well known, there is some potential for occurrence within the study area, primarily on the northern portion where riparian and other natural habitat is present. No further surveys are recommended for this species if no development is proposed within the northern portion of the parcel.

5.4.1.2. Behren's silverspot butterfly (*Speyeria zerene behrensii*) (G5T1 S1)

Behren's silverspot is known historically from the town of Mendocino, Mendocino County, south to the area of Salt Point State Park, Sonoma County. Now presumed to be from Manchester south to the Salt Point area. This species inhabits coastal terrace prairie with caterpillar host plant western dog violet, and adult nectar sources such as thistles, asters, etc. No appropriate coastal terrace prairie habitat, nor western dog violet (*Viola adunca*) was found in the study area and therefore no further surveys are recommended at this time.

5.4.1.3. Western Bumblebee (*Bombus occidentalis*) (G2G3 S1)

Western bumblebee (*Bombus occidentalis*) is not a Federal or State protected species but is listed as a California Natural Diversity Database S1 species, an indication that there are limited known occurrences in California. The project area is in the former historical range of this species. Bumblebees observed during botanical surveys did not demonstrate the field markings of the western bumblebee, which include a conspicuous white tip of the abdomen. No further surveys are recommended at this time.

5.4.2. Fish

5.4.2.1.

No aquatic habitat capable of supporting special status fish was observed within the Study Area.

5.4.3. Amphibians

5.4.3.1. Northern red-legged frog (*Rana aurora aurora*) (G4T2T3 S2S3) Present

Northern red-legged frog (*Rana aurora*) is listed as a California Department of Fish and Wildlife Species of Special Concern. The range extends from the southwest British Colombia coast to central Mendocino County. Often found in woods adjacent to streams and streamsides with plant cover, northern red-legged frog breeds in permanent water sources, including lakes, ponds, reservoirs, slow streams, marshes, bogs, and swamps. Maple creek, at the north eastern corner of the parcel, and ponded areas within the red alder riparian area, are breeding habitat for Northern red-legged frog, and the rest of the parcel has the potential

for the presence of the frog during their overland movements between water sources.

A juvenile red legged frog (Figure 33) was observed in a small ponded area on the western side of the red alder riparian habitat. This location is mapped in **Figure 34**.

Figure 33. Juvenile northern red-legged frog observed in a ponded area along the parcel boundary on the western side of the red alder riparian habitat.

Mitigation and Avoidance measures in **Section 7** address how to avoid and minimize impacts to all potentially occurring amphibians, including prohibiting sediment transport into the streams to protect potential frog and salamander habitat. It is also recommended that the contractor be trained to recognize amphibians and contact a qualified biologist if any are found onsite during construction activities.

5.4.3.2. Red-bellied newt (*Taricha rivularis*) (G4 S2)

This Species of Special Concern inhabits primarily redwood forest, but also found within mixed conifer, valley-foothill woodland, montane hardwood and hardwood-conifer habitats. Rapid-flowing, permanent streams are required for breeding and larval development. Maple creek is unlikely to be suitable breeding habitat, but has some potential to support this species if restoration occurs. This species may range up to a mile from streams and may therefore be found in upland habitat during some times of the year. Identification and avoidance training for construction workers should include a discussion of this species despite the relatively low likelihood of its occurrence within the study area.

5.4.3.3. Western pond turtle (*Emys marmorata marmorata*) (G3G4 S3)

This Species of Special Concern is associated with permanent or nearly permanent water in a wide variety of habitats. Requires basking sites. Nests sites may be found up to 0.5 km from water. Maple Creek flows out of a culvert near the north eastern corner of the subject parcel and enters an elongated depression toward the north. This area is heavily vegetated with no open water observed. This area could support western pond turtles.

Figure 34. Locations of special status wildlife observations. A juvenile northern red-legged frog was observed in a shallow ponded area along the parcels western boundary. A large nest with potential for use by red shouldered hawks was present within the Eucalyptus grove near the middle of the property.

5.4.4. Birds

5.4.4.1. Nesting birds

Resident and migratory birds that are present during the nesting season may nest in the habitat present within the Study Area. Nesting requirements are highly variable. Some birds nest in burrows, others on the ground, in vegetation, brush, trees, rocky outcrops, or on man-made structures. The bird nesting season typically extends from February to August. The Migratory Bird Treaty Act protects special status and common birds and their nests while they are in the process of nesting. If construction or vegetation removal is to occur during the breeding season (February to August), a pre-construction survey is recommended to ensure that no nesting birds will be disturbed during development (**Table 1**). No nesting surveys are recommended if activity occurs in the non-breeding season.

A large nest (**Figure 35**) was observed within the eucalyptus stand on the middle parcel. The nest was not in use during the multiple site visits. A red shouldered hawk (*Buteo lineatus*) was observed within the riparian habitat on the parcel. The nest in the eucalyptus stand is consistent with the features of this species – built of twigs and strips of bark within the major fork of a tree within habitat having mixed species of trees and near water. Red-shouldered hawks may use the same nest year after year or choose another site. Only one hawk was seen, not a pair, nor any juveniles. Red-shouldered hawks are not listed as a species of special concern but are protected by the Migratory Bird Treaty Act and as birds of prey.

Common ravens (*Corvus corax*) were also observed at the subject parcel and also have large nests built of twigs but generally bind them with mud and moss, which was not present in this nest.

Figure 35. Nest in the eucalyptus stand.

5.4.4.2. Burrowing Owl (*Athene cunicularia*) (G4 S2)

Wintering burrowing owls have been observed at the GP mill site in the past. This species is not known to nest in Mendocino County. Requirements for nesting sites and wintering burrows are somewhat different, with more variety found in wintering sites. Burrow sites are typically located in open, dry annual or perennial grasslands, deserts and scrublands, and dunes characterized by low-growing vegetation. The burrowing owl is a subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.

A small amount of suitable habitat was present on the subject parcel, with more appropriate grassland habitat to the west. No ground squirrels or their burrows were observed in the

study area. Burrowing owls may be present during the winter in the Fort Bragg area, which is an atypical time to conduct bird surveys. If vegetation removal or ground disturbance within open habitat occurs during the winter, then a pre-activity survey should be conducted.

5.4.4.3. Bryant's Savannah Sparrow (*Passerculus sandwichensis alaudinus* G5T2T3 S2S3)

Bryant's Savannah Sparrow is a California Department of Fish and Wildlife Species of Special Concern. This bird is a year-round resident and is endemic to the California coast. It ranges from Humboldt County down to Santa Barbara County and is considered common within tidal marshes and grasslands in the coastal fog belt. Bryant's savannah sparrow breeds mainly from early April to early July in grassy areas usually near water.

This species was not observed within the Study Area but has the potential to occur there. Special attention should be applied to nesting bird surveys with concern to this species which nests in grassy areas and may therefore be affected by the proposed project. WCPlan Senior Biologist Asa Spade observed this bird unbothered by the construction of the Fort Bragg Coastal Trail project. They happily picked seeds out of straw wattles while heavy equipment worked a short distance away.

5.4.5. Mammals

5.4.5.1. Sonoma Tree Vole (*Arborimus pomo*) (G3 S3)

Inhabits north coast fog belt from Oregon border to Sonoma Co. in old-growth and other forests, mainly Douglas-fir, redwood, and montane hardwood-conifer habitats. Feeds almost exclusively on Douglas-fir needles. Will occasionally take needles of pine, grand fir, hemlock or spruce.

No indications of this arboreal rodent were observed in the study area, but coniferous trees that are potential food plants are present. It is unlikely this species occurs on the subject parcel because the forested area is made up of relatively young trees and is disconnected from other forest habitat. Sonoma tree vole would have to cross ~1/3 mile of urban developed area to get to the site from the nearest forested area. No further surveys are recommended.

6. MITIGATION AND AVOIDANCE MEASURES

The proposed project has been analyzed relative to its proximity to natural resources to determine its potential disturbance to sensitive species, utilizing the methods and results gathered above. As a result of those analyses, we believe that potential impacts to ESHAs (riparian, stream, wetland, forest alliances, coastal brambles, and special status wildlife) can be avoided or minimized if the project utilizes the Mitigation and Avoidance Measures we recommend below.

The following mitigation measures are recommended to avoid and minimize impacts for development to Coastal Act wetlands, riparian habitat, Bishop pine forest, grand fir forest, coastal brambles, nesting birds and special status amphibians. These measures will serve to prevent negative impacts to potential resources located within 100 feet from the proposed vegetation management. These measures are specified for the proposed project and may not be adequate to prevent negative impacts to resources from other activities not currently proposed. If other activities are proposed, such as structural development, then additional measures must be considered and implemented.

6.1. Potential Impact 1: Potential impact to nesting birds

Vegetation removal in the Study Area has the potential to disturb the nesting efforts of special status birds during the nesting season.

6.1.1. Measure 1a: Seasonal avoidance

No additional surveys are recommended if vegetation removal occurs in the **non-breeding**

season (September to January). If development is to occur during the **breeding season** (February to August), a pre-construction survey is recommended within 14 days of the onset of construction to ensure that no nesting birds will be disturbed during the effort (**Table 1**).

6.1.2. Measure 1b: Nest avoidance

If active special status bird nests are observed, no activities with potential to impact the birds or their nesting efforts shall occur within a 100-foot exclusion zone. These exclusion zones may vary depending on species, habitat and level of disturbance. The exclusion zone shall remain in place around the active nest until all young are no longer dependent upon the nest. A biologist should monitor the nest site weekly during the breeding season to ensure the buffer is sufficient to protect the nest site from potential disturbance.

6.1.3. Measure 1c: Vegetation removal activities during daylight

Vegetation removal should occur during daylight hours to limit disturbing noise and minimize artificial lights.

6.2. Potential Impact 2: Potential impact to raptors

Construction in the Study Area has the potential to impact the breeding success of raptor species. A red-shouldered hawk was observed in the study area and a large nest potentially usable by the hawk was observed within the eucalyptus grove. Burrowing owls have been recorded over-wintering on the greater GP mill site, but are unlikely to nest in Mendocino County.

6.2.1. Measure 2a: Pre-construction surveys for raptor nests within ¼ mile

If vegetation removal occurs during the bird breeding season, (February to August) a pre-construction survey should occur within a maximum of 14 days prior to the start of activities with the potential to impact nesting raptors. Areas within ¼ mile of the vegetation removal activities should be surveyed, directly if accessible or viewed from accessible areas when in inaccessible areas.

6.2.2. Measure 2b: Seasonal avoidance of active raptor nests

An unoccupied nest large enough for raptors was found within the study area. If active raptor nests are present within ¼ mile of the project area, then CDFW should be consulted to determine an appropriate buffer distance. No activities with potential to impact the raptors or their nesting efforts shall occur within the exclusion zone determined. These exclusion zones may vary depending on species, habitat and level of disturbance. The exclusion zone shall remain in place around the active nest until all young are no longer dependent upon the nest. A biologist should monitor the nest site weekly while vegetation removal activities are occurring during breeding season to ensure the buffer is sufficient to protect the nest site from potential disturbance. If it is necessary to conduct vegetation removal or construction activates within ¼ mile of an active raptor nest, and if deemed appropriate by CDFW, a biological monitor may make observations during activities to ensure that the raptors' behavior is not affected. The biological monitor shall have the authority to suspend any activities negatively impacting the active nest.

6.3. Potential Impact 3: Potential impact to bats

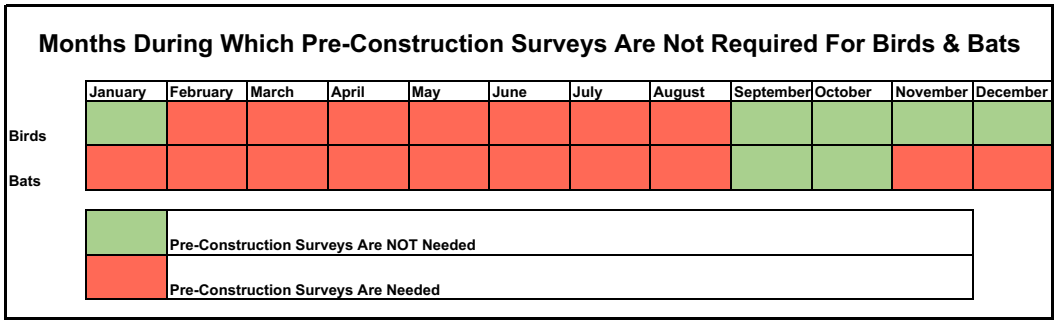
Vegetation removal in the study area has the potential to impact special status bat species. No special features such as hollow trees, abandoned buildings or other cave analogs, which could serve as roosting or hibernation refugium, were observed; therefore the potential for negative impacts to bats is minimal.

6.3.1. Measure 3a: Pre-construction surveys for bats

Vegetation removal will ideally occur between September 1st and October 31, after the young have matured and prior to the bat hibernation period. **If it is necessary to disturb potential bat roost sites between November 1 and August 31**, pre-construction surveys should be performed by a qualified biologist 14 days prior to the onset if development activities. If active bat

roosts are observed, no vegetation removal or other activities with potential to disturb bats shall occur within a minimum 100-foot exclusion zone. These exclusion zones may vary depending on species, habitat and level of disturbance. The exclusion zone shall remain in place around the active roost until all young are no longer dependent upon the roost.

Table 1 Months surveys are or are not needed for birds and bats.



6.3.2. Measure 3b: Construction activities during daylight hours

Construction should occur during daylight hours to limit disturbing construction noise and minimize artificial lights.

6.4. Potential Impact 4: Potential impact to riparian and wetland areas

Vegetation removal in wetland and/or riparian areas has the potential to degrade habitat, to damage soils, and contribute sediment to the water within them. Vegetation removal is not proposed to occur within more than 100ft away from the wetland and riparian areas within the study area, therefor the potential for impact is very low.

6.4.1. Measure 4a: 100ft buffer

No vegetation removal shall occur within 100ft of the wetland and/or riparian habitat.

6.5. Potential Impact 5: Potential impact to special status amphibians in upland areas

Construction activities will involve walking across areas where amphibians may be traveling. Staging of equipment and removal of debris could also disturb special status amphibians that may be hiding underneath these materials. To minimize impacts to amphibians, the following avoidance measures should be followed.

6.5.1. Measure 5a: Contractor education

Within two weeks prior to construction activities, project contractors will be trained by a qualified biologist in the identification of the frogs and salamanders that occur along the Mendocino County coast. Workers will be trained to differentiate between special status and common species and instructed on actions and communications required to be conducted in the event that a special status amphibians are observed during construction.

6.5.2. Measure 5b: Pre-construction search

During ground disturbing activities, construction crews will begin each day with a visual search around the staging and impact area to detect the presence of amphibians.

6.5.3. Measure 5c: Careful debris removal

During debris removal, any wood stockpiles should be moved carefully by hand in order to avoid accidental crushing or other damage to amphibians.

6.5.4. Measure 5d: No heavy equipment during rain event

If a rain event occurs during the ground disturbance period, all ground disturbing activities will cease for a period of 48 hours, starting after the rain stops.

Prior to resuming project activities, trained construction crew member(s) will examine the site for the presence of special status amphibians.

If no special status amphibians are found during inspections, project activities may resume.

If a special status amphibian is detected, crews will stop all ground disturbing work and will contact the California Department of Fish and Wildlife (CDFW) or a qualified biologist. Clearance from CDFW will then be needed prior to reinitiating work. CDFW will need to be consulted and will need to be in agreement with protective measures needed for any potential special status amphibians.

6.6. Potential Impact 6: Potential Impact to Soil and Vegetation

There is a potential for ground compaction and vegetation disturbance from materials and vehicles. This potential is relatively low considering much of the site has previously been developed.

6.6.1. Mitigation 6a: Staging area limitations

Stage all materials and equipment in upland areas greater than 100 feet from all ESHAs. Stage equipment on existing asphalts or concrete pads whenever feasible.

6.7. Potential Impact 7: Potential impact to special status Bishop pine and Grand Fir Forest Alliances

There is a potential for vegetation removal within or adjacent to the Bishop pine forest and/or grand fir forest to negatively impact these plant communities. Tree removal has the potential to make adjacent trees vulnerable to wind and salt spray from the ocean. Trees which are cut and fall near Bishop pine and/or grand fir trees have the potential to contact the other trees and create wounds which make them vulnerable to disease pathogens.

6.7.1. Vegetation removal limitations within 100ft of Bishop pine and Grand fir communities

No trees shall be removed within 100ft of the Bishop pine and Grand fir forest plant communities. This will preserve canopy microclimate and prevent trees being exposed to wind from directions they were previously not. No standing dead trees shall be removed within 100ft of the Bishop pine and grand fir forests. Vegetation removal within 100ft of the Bishop pine and grand fir forest shall be limited to mowing of herbaceous vegetation, the removal of non-native shrubs, and limbing up of trees only as necessary for ladder fuel removal, fire suppression, and health and human safety.

7. DISCUSSION

Three types of potential ESHAs were identified within the Study Area:

Wetland and Riparian ESHA – Areas of presumed wetlands and areas vegetated with riparian tree species were present on the northern portion of the parcel

Rare Plant Community ESHA – Three special status plant communities were identified on the property: **Bishop pine forest**, **grand fir forest**, and **coastal brambles**.

Special Status Wildlife Habitat – A potential raptor nest was observed within the eucalyptus grove in the middle parcel. This feature should only be considered an ESHA if and when it is occupied by nesting birds. Wetland and riparian habitat within the study area is potential breeding habitat for northern red-legged frogs. A juvenile northern red-legged frog was observed in a wetland area.

The vegetation management project proposed was designed to avoid all special status resources by at least 100ft and all wetland/riparian areas by more than 100ft. The proposed project is not expected to have any significant negative impact on any of the special status natural resources present.

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9. INVESTIGATOR BIOGRAPHIES

Contributing Biologists

Asa B Spade graduated from Humboldt State University with a Bachelor's Degree in Environmental Science, with a concentration in Landscape Ecosystems as well as a minor in Botany. Since that time, he has been working in the natural resources field, first with Mendocino County Environmental Health and later with California State Parks and the Department of Fish and Game. He has been trained in Army Corps wetland delineation by the Coastal Training Program at Elkhorn Slough and in Advanced Wetland Delineation by the Wetland Science and Coastal Training Program. He has been trained in the environmental compliance process for wetland projects in San Francisco bay and outer coastal areas. Asa has trained with the Carex Working Group in identifying grasses and sedges of Northern California as well as a CNPS sedge workshop taught by CA Fish and Wildlife staff biologist Gordon Leppig. In 2019, he completed a training for burrowing owls taught by Dr. Lynne Trulio through the Elkhorn Slough Coastal Training Program. He is on the Fish and Wildlife Service approved list for Point Arena mountain beaver surveys and has done surveys for Behren's silverspot butterfly, Northern spotted owl, Sonoma tree vole, and the California red-legged frog. He has contributed to more than 150 coastal development projects in Mendocino County.

Wyatt Dooley graduated from University of California Santa Barbara with a Bachelor's of Science in Environmental Studies and a minor in Geology. After graduating, he worked for Fish and Wildlife and Pacific States Marine Fisheries as a technician researching salmon. He has also worked abroad in New Zealand as a conservation ranger helping on restoration projects and controlling invasive species. Additionally, he has received training in Army Corp wetland delineation by San Francisco State University and the Wetland Science and Coastal Training Program, training from CNPS-CDFW on vegetation rapid assessment and relevé methods, is on the US Fish and Wildlife Service's approved list for Point Arena Mountain Beaver Surveys, and received a specialization in ArcGIS through University of California Davis.

Suzie E. W. Woolhouse received her BS degree in Environmental Studies and her M.S. degree in Biology both from San José State University. Her Masters was funded by the United States Forest Service to study rare plants that grow on serpentine soils. This work was done in the Northern Sierra Nevada and included field and lab studies of six rare plant species. She presented her work at the 7th International Conference on Serpentine Ecology in Coimbra, Portugal as well as numerous conferences throughout California. Suzie has worked as a biologist at the Santa Clara Valley Water district as the lead naturalist at the Mendocino Outdoor Science School, an instructor and assistant for Field Studies courses in France and Death Valley, and has also traveled for 2+ years doing volunteer work throughout Europe, New Zealand and the Philippines.

Wynn COASTAL PLANNING & BIOLOGY

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December 31, 2019

Tom Honer & Jennifer Bosma
Spring Pond Properties
171 Boatyard Drive
Fort Bragg, CA 95437

RE: Bat Survey – Additional Hazard Tree
100 West Cypress St.
Fort Bragg, CA 95437
APNs: 018-020-01-00

Dear Tom & Jennifer,

On November 15, and December 30, 2019, I conducted visual and ultrasonic auditory surveys for bats around five hazard trees proposed for removal at 100 West Cypress Street (**Figure 1**). No special status bats were detected. In my professional opinion no impact to special status bats will result from the removal of the five trees if it occurs within the next two weeks.

In a letter dated August 6, 2019, I identified four trees as hazards recommended for removal. One additional tree identified through concerns of a member of the public has been added to the request. This tree is pictured in **Figure 2** and is included on the map in **Figure 1**. The tree is standing dead with no foliage. It was not included in the previous request because I believed it was relatively insignificant and that its removal would be covered by general site maintenance. It is included now for full disclosure in case my presumption is incorrect.

Bat surveys were conducted by visually inspecting the trunk of each tree and the ground beneath them for guano during daylight hours and by making observations at dusk to see if any bats emerged from the tree trunks or foliage. Ultrasonic auditory recordings were made with a Wildlife Acoustics Echo Meter Touch 2 unit and software. Recordings were made from approximately sunset to one hour after sunset. Three detections of hoary bat (*Lasiurus cinereus*) individuals were made during the November 15 survey and two detections of the same species were made on December 30th. Hoary bats are the most widespread North American bats and are not a species of concern. They generally roost in the foliage of large or medium sized trees. No special status bats were detected.

There is, of course, a possibility of a false negative result, bats could have flown out of one tree during times when I was visiting a different tree and if they were truly hibernating they may not make noises detectable and/or identifiable. The fact that a common species of bat was flying and detectable during the survey does suggest that hibernation conditions are not present at this time here on the coast. There are four species of special status bats documented in Mendocino County. Of these four only one, the Western red bat (*Lasiurus blossevillii*), would be potentially affected by the proposed tree removal. This species roosts primarily in trees and sometimes shrubs. According to information published by CDFW they have been seen at temperatures as low as 44°F. The three other species of special status bat would be unlikely to be affected by the tree removal. Pallid bats (*Antrozous pallidus*) hibernate in rock crevices. Silver-haired bats (*Lasionycteris noctivagans*) migrate to hibernation sites in southern California and Mexico. Townsend's big-eared bats (*Corynorhius townsendii*) require caves, mines, tunnels, buildings or other man-made structures.

It is my professional opinion that removal of the five trees specified within the next two weeks will not result in a negative impact to special status bats.

Please let us know if you have any questions.

Sincerely,

Asa B. Spade
Senior Biologist
Wynn Coastal Planning & Biology

Encl: n/a
CC: Scott Perkins, Planner, City of Fort Bragg

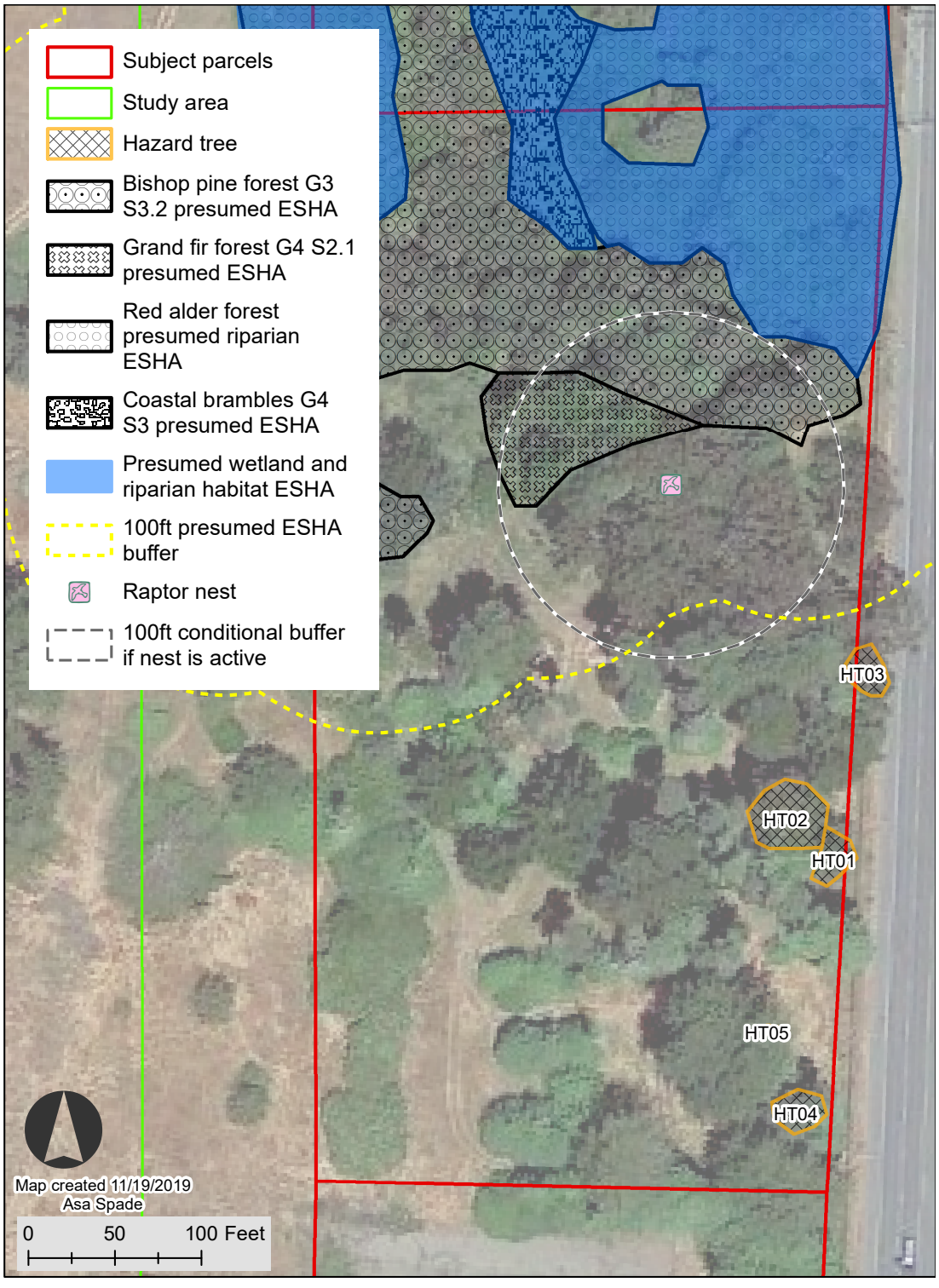

Figure 1. Locations of hazard trees proposed for removal. Note that HT05 has been added. Because the tree is dead with no canopy remaining its location is hidden by its label.

Figure 2. The dead tree in the center of the photo has been added to the proposal for removal.

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January 10, 2020

Tom Honer & Jennifer Bosma
Spring Pond Properties
171 Boatyard Drive
Fort Bragg, CA 95437

RE: Additional Hazard Trees - Spring Pond West
100 West Cypress St.
Fort Bragg, CA 95437
APNs: 018-020-01-00

Dear Tom & Jennifer,

On or around January 01, 2020, four hazard trees were removed at 100 West Cypress St. The precision logger that performed the tree removal identified two additional trees that pose a potential threat to Main Street due to their height, position relative to the road, and condition. These two trees were noted by Wynn Coastal Planning & Biology (WCPB) during our initial surveys but were not included in our recommendation because we believed the number of trees removed prior to a full CDP process should be minimized. With the new information provided by the tree workers, however, we agree that they pose an imminent hazard to the public and should be removed as soon as possible. A map showing the location of these two additional trees proposed for removal is presented as Figure 1 below.

The first tree, identified at HT05 (Figure 2) is a dead limbless pine tree that is partly decayed, with some bark missing. Due to its height, if it were to fall toward Main Street, a portion of the tree would fall into the road past the fog line. In addition to our office and the tree workers, members of the public have expressed concern about this tree.

The second additional tree, HT05 (Figure 3) is a large non-native Monterey pine located just north of one of the trees (HT02) removed during the initial work. This tree was apparently injured earlier in its life and consequently has a large scar on one side. The tree is leaning, but not directly toward the road. The concern expressed by the tree worker is that the removal of HT02 has exposed HT05 to wind from a new direction and that even if it were not to fall directly toward the road, it is large enough that it may knock down other trees on its way down which may fall toward, and into the road.

The map in Figure 1 shows that the two additional trees proposed for removal are more than 100ft from any Environmentally Sensitive Habitat Area (ESHA). Bat surveys were performed on November 15, and December 30, 2019, with no special status bats detected. It is our professional opinion that removal of these two additional trees will not present an impact to special status resources nor to nesting birds and/or roosting bats. It is our recommendation that the removal should be conducted as soon as possible; if the removal is delayed to February 01 or later then we recommend that nesting bird surveys should be conducted prior to the removal of the trees.

Please let us know if you have any questions.

Sincerely,

Asa B. Spade
Senior Biologist
Wynn Coastal Planning & Biology

Encl: n/a
CC: Scott Perkins, City Planner Fort Bragg; file

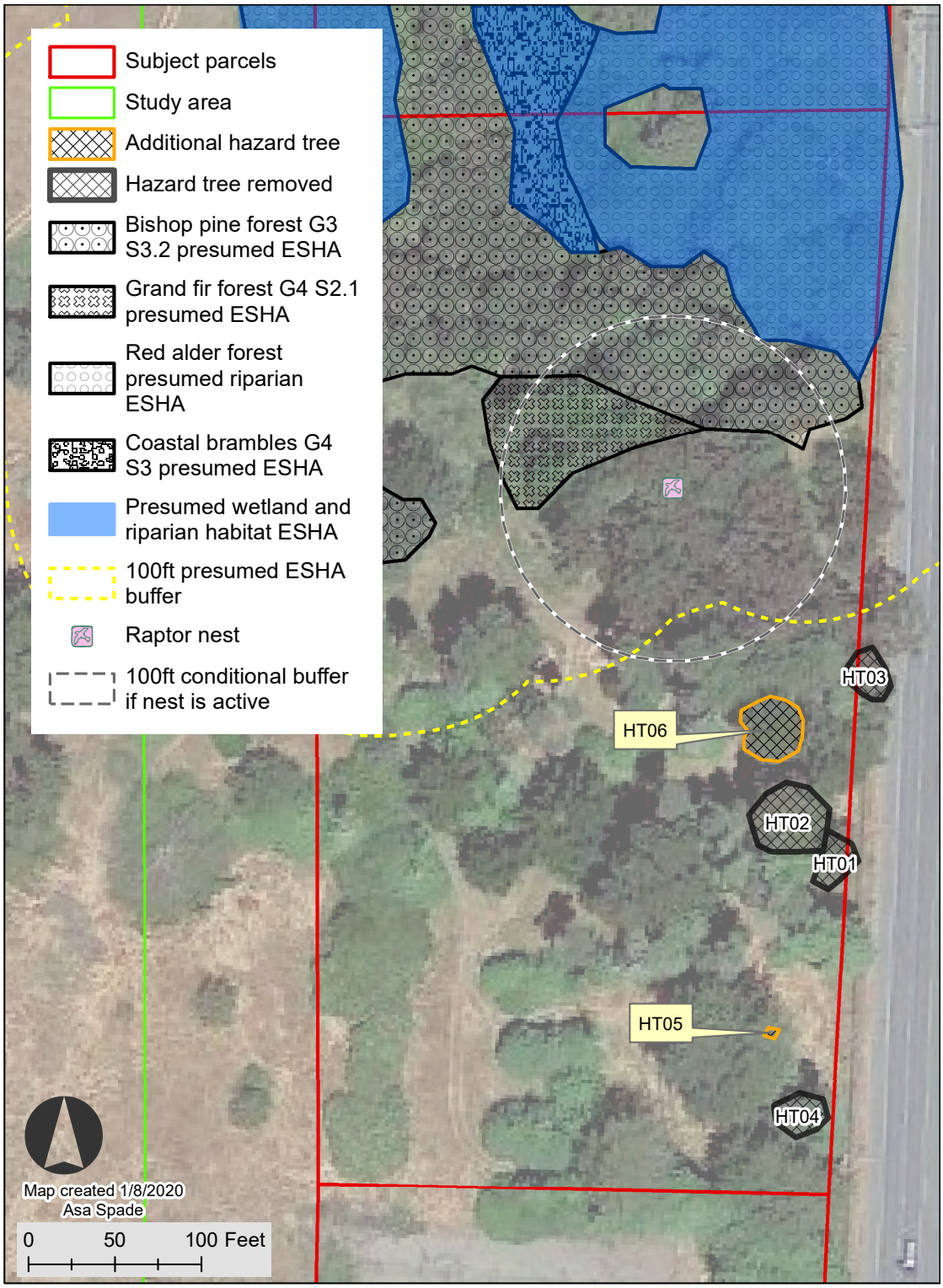

Figure 1. Locations of two additional hazard trees proposed for removal.

Figure 2. HT05 The dead tree in the center of the photo has been added to the proposal for removal.

Figure 3. HT06 Monterey pine with poorly healed trunk wound.