Little River Trail Project

Environmentally Sensitive Habitat Areas
Screening Memorandum

Revision 1

August 24, 2021

Prepared for:

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Prepared by  _____
(signature)

Sarah Tona

Reviewed by _____
(signature)

Sheryl Creer

Approved by _____
(signature)

Connie MacGregor

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1.0 INTRODUCTION

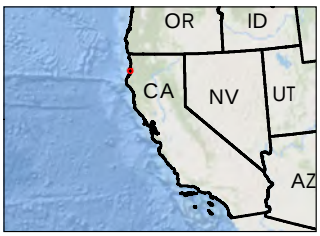
The Redwood Community Action Agency is working in collaboration with California Department of Transportation to complete the PA&ED phase of the Little River Trail Project (project) located between the communities of McKinleyville and Trinidad in Humboldt County, California. The project study area is between U.S. Route 101 and the Pacific Ocean and it is shown on the *Crannell, California* United States Geological Service 7.5' quadrangle (Figure 1). The project would construct about 1 mile of paved pedestrian and bicycle trail to connect the Hammond Coastal Trail at Clam Beach at the southern end to Scenic Drive at the northern end. The project would include a bridge crossing over Little River. This section of trail would complete an important connection in the statewide California Coastal Trail, which aims to be a continuous stretch of trail along the entire California coastline. The study area is 22.32 acres and encompasses all project components.

Stantec Consulting Services Inc. (Stantec) biologists mapped vegetation communities in the project study area September 1-3, 2020. Since the project is within the Coastal Zone, the project must conform with standards provided in the Coastal Act. Section 30240 of the Coastal Act prohibits significant disruption of Environmentally Sensitive Habitat Areas (ESHAs). Stantec mapped vegetation communities with the goal of identifying upland ESHAs to assess potential project impacts on the sensitive resource. The purpose of this report is to provide the results of the vegetation mapping, identify sensitive natural communities as defined by California Department of Fish and Wildlife (CDFW), and assess potential upland ESHAs within the study area.

ESHA mapped during this review is subject to verification by the California Coastal Commission (CCC). ESHA boundaries should be considered preliminary until the CCC verifies the boundaries and determinations.

2.0 ENVIRONMENTAL SETTING

The study area is divided into two areas by the Little River, a wide and slow-moving estuarine perennial stream bisecting the center of the study area. The northern upland terrace is located directly adjacent to U.S. Route 101 and occurs from Little River north to Scenic Drive. It is forested and dominated by mature Sitka spruce (*Picea sitchensis*) and red alder (*Alnus rubra*) with an understory of dense Himalayan blackberry (*Rubus armeniacus*), California blackberry (*Rubus ursinus*), and English ivy (*Helix hedera*). Extensive fresh emergent vegetation and riparian wetlands are located adjacent to the Little River and are downslope from the upland terrace. This estuarine area is dominated by red alder, Hooker's willow (*Salix hookeriana*), skunk cabbage (*Lysichiton americanus*), and slough sedge (*Carex obnupta*). The hydrology in this area is tidally influenced due to the proximity to Little River and the Pacific Ocean.



Study Area (22.32 acres)

Map Reference Point

0 1,000 2,000 Feet

(At original document size of 8.5x11)
1:24,000

N

Stantec

Prepared by ST on 2020-09-10
IR by GY on 2020-09-10

Project Location
T08N, R01E, Sec. 31, T07N, R01E,
Sec. 6 and 7 Crannell, California USGS 7.5' Quad

Client/Project 185705051
Redwood Community Action Agency
Little River Trail Project

Figure No.
1

Title
Project Location

Notes
1. Coordinate System: NAD 1983 StatePlane California I FIPS 0401 Feet
2. Sources: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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The southern section of the study area includes stabilized dune habitat located on a hillslope above the active dunes at Little River Beach. The herbaceous layer of the stabilized dune habitat is dominated by European beachgrass (*Ammophila arenaria*) and sword fern (*Polystichum munitum*), while coyote brush (*Baccharis pilularis*) and Hooker's willow are common taxa in the shrub layer. It is common for coyote brush to occupy dune habitats after yellow bush lupine (*Lupinus arboreus*) or European beachgrass invasion (Pickart and Sawyer 1998). The overstory is sparse at about 10 percent absolute cover and it is dominated by Sitka spruce and Monterey pine (*Pinus radiata*).

3.0 REGULATORY BACKGROUND

The CCC through the Coastal Act, and Humboldt County through the Local Coastal Program are the jurisdictional agencies that exert authority in identifying and protecting ESHA.

Section 30107.5 of the Coastal Act defines ESHA as:

> *"Any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments."*

Section 30240 of the Coastal Act calls for the protection of ESHAs during development:

> *"(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.*
>
> *(b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas."*

The Humboldt County General Plan is divided into several areas; the study area occurs in the McKinleyville Area. The McKinleyville Area Plan of the Humboldt County Local Coastal Program (Volume II of the Humboldt County General Plan) (Humboldt County 2007) identifies ESHAs as the following:

> *"Environmentally sensitive habitats within the County McKinleyville planning area shall include:*
>
> *(a) Rivers, creeks, and associated riparian habitats including Little River, Widow White Creek, and other streams.*
>
> *(b) Wetlands, estuaries, including the Clam Beach ponds and the mouths of Little River, Widow White Creek, and Mad River.*
>
> *(c) Vegetated dunes at Clam Beach, Little River Beach, and the banks of the Mad River.*
>
> *(d) Other critical habitats for rare or endangered species listed on state or federal lists."*

Additionally, the McKinleyville Area Plan more generally defines ESHAs as:

> *"…any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments (Coastal Act Section 30107.5), including: areas*

> *of special biological significance as identified by the State Water Resources Control Board; rare and endangered species habitat identified by the State Department of Fish and Game; all coastal wetlands and lagoons; all marine, wildlife and education and research reserves; nearshore reefs; tidepools; sea caves; islets and offshore rocks; kelp beds; indigenous dune plant habitats; and wilderness and primitive areas."*

CDFW lists sensitive natural communities, which includes natural communities that are rare in the state or throughout its entire range. Sensitive natural communities as defined by CDFW are vegetation alliances with a state rarity ranking of S1 (critically imperiled), S2 (imperiled), or S3 (vulnerable). CDFW has not yet provided state rarity rankings for all associations; associations not yet ranked but considered sensitive are included in the current CDFW Natural Communities List. Communities with a state ranking of S4 (apparently secure) or S5 (secure) are not considered sensitive. Since Section 30107.5 of the Coastal Act indicates ESHA include rare habitats, sensitive natural communities as defined by CDFW qualify as ESHA.

4.0 METHODS

4.1 REFERENCE REVIEW

Prior to the field work, Stantec used several resources to identify and classify vegetation communities within the study area. These resources included the Manual of California Vegetation (California Native Plant Society [CNPS] 2020); U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (USFWS 2020), and Google Earth aerial imagery dating back to 1989. Stantec also reviewed regulatory guidance on ESHAs to better determine what areas may qualify as upland ESHA during the vegetation mapping field work.

California Department of Fish and Wildlife (CDFW) includes legacy sensitive natural community data based on Holland's classification in the California Natural Diversity Database (CNDDB) (Holland 1986; CDFW 2020a). No new occurrences have been added to CNDDB since the 1990's; however, Stantec reviewed CNDDB for mapped sensitive natural communities in or near the study area. Stantec also reviewed the current *California Natural Community List* (CDFW 2020b).

4.2 FIELD SURVEYS

Stantec biologists Sarah Tona and Jacqueline Phipps conducted surveys to characterize vegetation communities and describe the existing environment on September 1-3, 2020. The biologists also conducted a delineation of wetlands and other waters as defined by the U.S. Army Corps of Engineers (USACE) and the CCC during the same visit. The results of the delineation were summarized in separate deliverables.

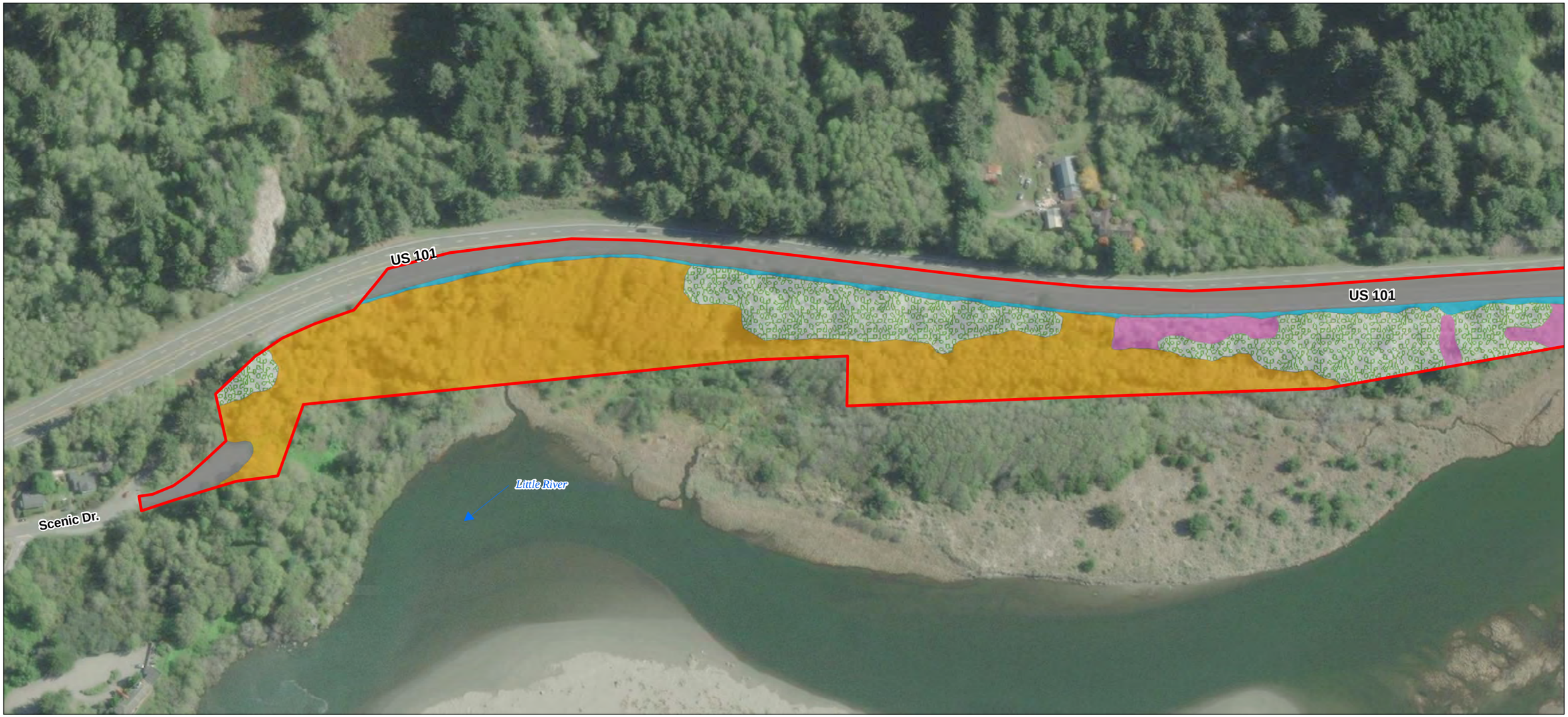
Vegetation mapping followed the technical approach and vegetation alliance classification system described in *A Manual of California Vegetation, Second Edition* (MCV) (Sawyer et al. 2009) and updated in the current online edition (CNPS 2020). The MCV represents the most recent efforts to provide a common and accepted vegetation classification system for use throughout California and classifies

vegetation into a set of plant alliances, associations, special stands, or semi-natural stands. A plant species' dominance or importance in the stratum (i.e., tree, woody shrub/subshrub, or non-woody herbaceous) with the greatest amount of cover generally determines the vegetation alliance classification. The MCV includes a classification system that complies with the National Vegetation Classification Standard (Federal Geographic Data Committee 2008).

The mapping effort also included identifying and documenting all CDFW Sensitive Natural Communities in the study area. To identify sensitive natural communities within the study area, Stantec reviewed each natural community identified during field mapping against the *California Natural Community List* dated September 9, 2020 (CDFW 2020b). Stantec also considered other factors to determine the ecological quality of individual stands, including the proportion of native plants versus invasive, the stand size, location, and disturbances.

Stantec biologists mapped vegetation in the field by walking meandering transects and assessing plant species composition and vegetative cover within stands. Stantec used the Collector for ArcGIS application on tablets and phones to collect vegetation data in the field. The tablets were paired with global positioning system receivers for increased accuracy. All stands were classified to the alliance level and species composition information was collected to review if an association was present as well. During field assessments, Stantec biologists identified and delineated community types onto field maps with aerial imagery. Stantec also delineated the boundaries of natural communities based on characteristics observed in the field and vegetation signatures observed on aerial imagery during the desktop review. Information was collected to document each mapped vegetation community, including plant species composition (i.e., percent relative cover of dominant and sub-dominant species within each stratum), stand structure, regional occurrence, and other notable characteristics. Stantec then digitized the delineated boundaries in current ArcGIS software for display and data query purposes. The natural community boundaries are shown in Figure 2.

Stantec biologists encountered one community in the study area that is not currently described in the MCV. This may be because the study area occurs in an unclassified area of the state (CDFW 2020c) or because the vegetation was mowed adjacent to the highway and plant identification was minimal; therefore, it is not one of the natural communities. The undescribed community used the corresponding vegetation type and listing status provided in *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986) and was classified as a non-native grassland.



Notes
1. Coordinate System: NAD 1983 StatePlane California I FIPS 0401 Feet
NAD 1983 StatePlane California I FIPS 0401 Feet
2. Data Sources: Aerial Imagery: Vivid Maxar 11/7/2018

- Study Area (22.32 acres)
- Riverine
- Barren

Vegetation Communities

- Coastal dune willow thickets
- Coyote brush scrub
- Non-native grassland
- Pacific silverweed marshes
- Red alder forest
- Sitka spruce forest
- Slough sedge swards

0 100 200 Feet
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Stantec

Project Location
Humboldt County, California

Prepared by ST on 2020-09-10
IR by GY on 2020-09-10

Client/Project
Redwood Community Action Agency
Little River Trail Project

185705051

Figure No.
2

Title
Vegetation Communities

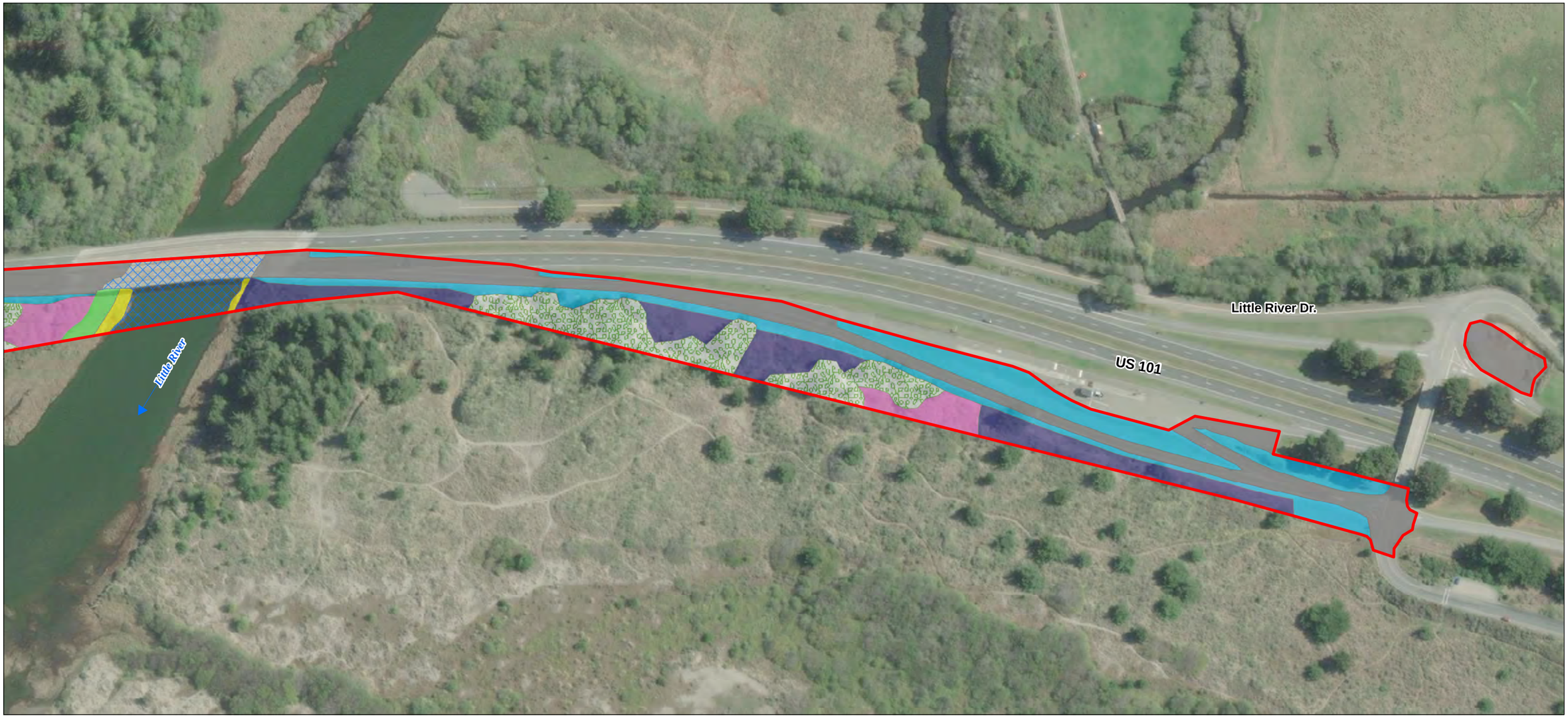

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Figure No.
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Title
Vegetation Communities

Notes
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2. Data Sources: Aerial Imagery: Vivid Maxar 11/7/2018

5.0 RESULTS: VEGETATION MAPPING AND SENSITVE NATURAL COMMUNITIES

Stantec mapped seven vegetation communities in the study area to the alliance level or its associated vegetation type under Holland (1986) (Figure 2 and Table 1). Stantec reviewed associations listed under each alliance type. No associations applied to the community assemblages; therefore, only the alliances are provided. It is possible that more associations will be described after the region is classified by CDFW. Stantec also designated non-vegetated areas (e.g., pavement) in the study area as barren and the open water portions of Little River as riverine.

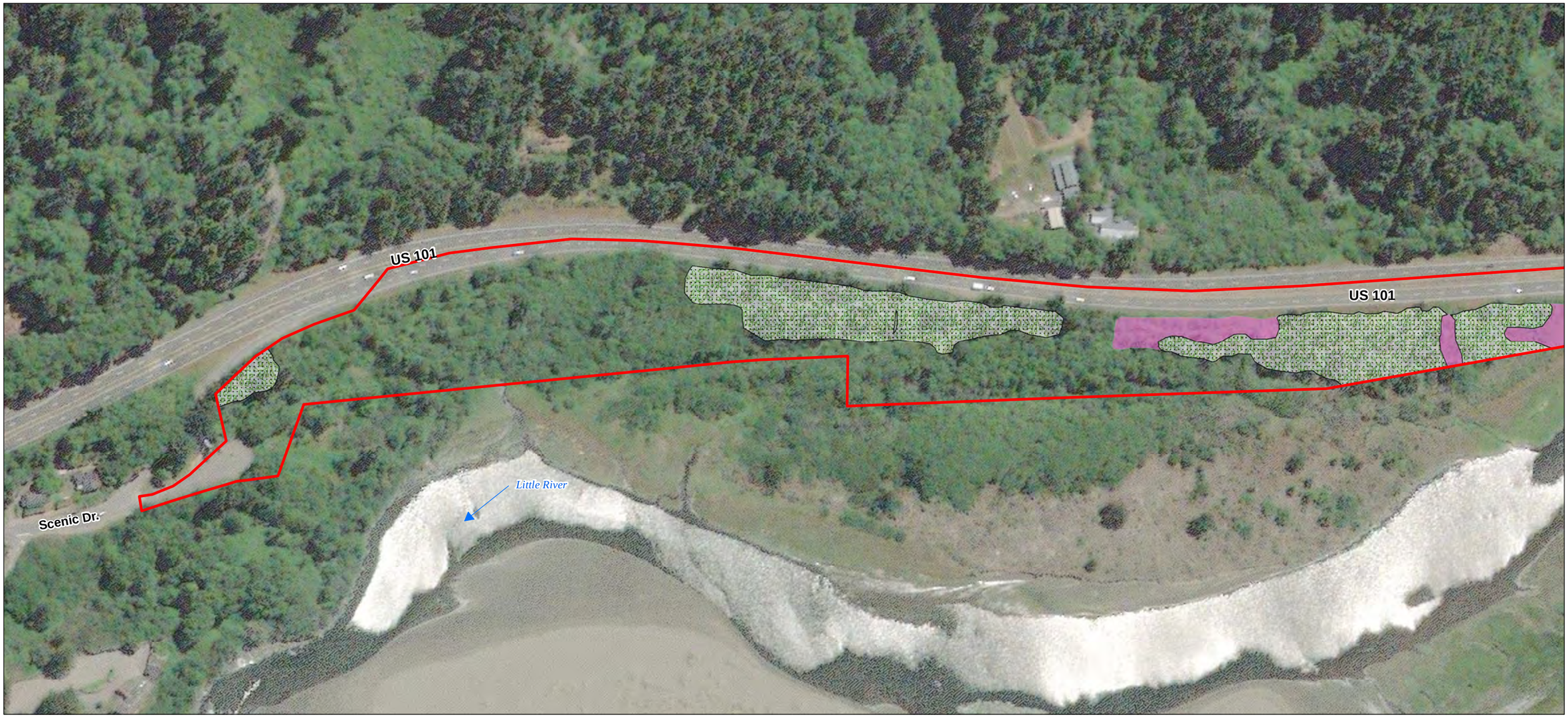
Three of the seven vegetation communities mapped in the study area are categorized as sensitive natural communities by CDFW. Two of the sensitive natural communities, (Sitka spruce forest and coastal willow thickets) are further separated into high- and low- quality stands. Low-quality stands are not considered sensitive (Figure 3, Table 1). Each mapped vegetation alliance is further described below. Representative photographs of each alliance are provided in Appendix A.

Table 1 Vegetation Communities in the Study Area

Alliance	Total Area (acres)	Sensitive Stands (acres)
A Manual of California Vegetation Alliances[1]		
Forests and Woodlands		
Sitka spruce forest	4.42	3.19
Red alder forest	7.05	0
Shrublands		
Coastal dune willow thickets	0.96	0.71
Coyote brush scrub	1.36	0
Herbaceous Vegetation		
Slough sedge swards	0.08	0.08
Pacific silverweed marshes	0.11	0.11
Non-native grassland[2]	2.46	0

[1] A Manual of California Vegetation (CNPS 2020)

[2] Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland 1986)



Study Area (22.32 acres)

Upland ESHA (3.19 acres)

Sensitive Natural Communities

- Coastal dune willow thickets (0.71 acre)
- Pacific silverweed marshes (0.11 acre)
- Sitka spruce forest (3.19 acres)
- Slough sedge swards (0.08 acre)

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Notes

1. Coordinate System: NAD 1983 StatePlane California I FIPS 0401 Feet
NAD 1983 StatePlane California I FIPS 0401 Feet

2. Data Sources: Aerial Imagery: Vivid Maxar 11/7/2018

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Little River Trail Project

185705051

Figure No.
2

Title
Sensitive Natural Communities and Upland Environmentally Sensitive Habitat Areas

Study Area (22.32 acres)

Upland ESHA (3.19 acres)

Sensitive Natural Communities

- Coastal dune willow thickets (0.71 acre)
- Pacific silverweed marshes (0.11 acre)
- Sitka spruce forest (3.19 acres)
- Slough sedge swards (0.08 acre)

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(At original document size of 11x17)
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Stantec

Notes
1. Coordinate System: NAD 1983 StatePlane California I FIPS 0401 Feet
NAD 1983 StatePlane California I FIPS 0401 Feet
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Client/Project
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Redwood Community Action Agency
Little River Trail Project

Figure No.
2

Title
Sensitive Natural Communities and Upland Environmentally Sensitive Habitat Areas

5.1.1 Forests and Woodlands

5.1.1.1 Sitka Spruce Forest

Sitka spruce forest alliance occurs on stabilized dunes above Little River beach south of Little River, and as mature forest on an upland terrace north of Little River. This community is dominated by Sitka spruce with scattered Monterey pine and Douglas fir (*Pseudostuga menziesii*). The overstory is sparse in the southern portion of the study area, with only about 10 percent absolute tree cover. The shrub layer is dominated by about 8 percent absolute cover of coyote brush. The herbaceous layer is dense and dominated by European beachgrass, with yellow bush lupine and sword fern common as well.

The Sitka spruce forest north of Little River occurs on an upland terrace and is a high-quality intact stand dominated by mature Sitka spruce trees at approximately 30 percent absolute cover. Red alder and Hooker's willow occur to a small extent in the subcanopy. The herbaceous layer is dominated by sword fern, bracken fern (*Pteridium aquilinum*), slough sedge, and California blackberry.

The Sitka spruce forest alliance has an S2 ranking and is considered sensitive by CDFW. However, the Sitka spruce forest alliance mapped on stabilized dune habitat in the southern portion of the study area is relatively small and isolated. It does not appear to be connected to a larger forest system, and the overall tree cover is low. It includes a narrow band of scattered trees with an understory dominated by European beach grass, an invasive species. This small stand is not intact, low-quality, and should not be considered sensitive. Therefore, only the Sitka spruce forest mapped north of Little River should be considered sensitive natural communities (Figure 3).

5.1.1.2 Red Alder Forest

Red alder forest alliance occurs on the north side of Little River. Red alder is the sole dominant tree in the upland areas of the study area, while in the lower elevation areas red alder are co-dominant with Hooker's willow. Shrubs in the understory include red elderberry (*Sambucus racemosa*), California blackberry, and Himalyan blackberry. The herbaceous layer contains sword fern and bracken fern in the upland areas and skunk cabbage, slough sedge, and small fruited bulrush (*Scirpus microcarpus*) in the wetland areas.

The red alder forest alliance has an S4 ranking and is not considered sensitive by CDFW.

5.1.2 Shrublands

5.1.2.1 Coastal Dune Willow Thickets

Coastal dune willow shrubland alliance occurs in small patches throughout the study area. Hooker's willow is dominant in the shrub layer and moderate to dense at about 60 percent absolute cover. Scattered wax myrtle (*Morella californica*), coast twinberry (*Lonicera involucrata*), and Cascara sagrada (*Frangula purshiana*) are present as well. Slough sedge and sword fern are common in the herbaceous layer.

The Coastal dune willow shrubland alliance has an S3 ranking and is considered sensitive by CDFW. However, one stand of coastal dune willow thicket occurs in the southern portion of the study area on stabilized dune habitat. No trees are present, and the shrub layer is dominated by young Hooker's willow saplings with scattered European beach grass in the herbaceous layer. This small stand is isolated, low-quality, and should not be considered sensitive. Therefore, only the coastal willow thickets mapped north of Little River should be considered sensitive natural communities (Figure 3).

5.1.2.2 Coyote Brush Scrub

Coyote brush scrub alliance occurs intermixed with Sitka spruce forest and Coastal dune willow thickets south of Little River in stabilized dune habitat. The shrub layer is fairly sparse, with only 8-10 percent absolute cover of coyote brush. Himalayan blackberry and California blackberry are common in the shrub layer as well. The herbaceous layer is dominated by European beachgrass and sword fern.

The coyote brush scrub alliance has an S5 ranking and it is not considered sensitive by CDFW.

5.1.3 Herbaceous Vegetation

5.1.3.1 Slough Sedge Swards

Slough sedge herbaceous alliance occurs along the edge and within the ordinary high water mark of Little River. Little River is an estuarine feature adjacent to the Pacific Ocean and is tidally influenced. The slough sedge community is partially inundated by the Little River when the tide is high. The alliance is dominated by slough sedge and no other plant species occurs in the small area adjacent to the river.

The slough sedge herbaceous alliance has an S3 ranking and it is considered sensitive by CDFW.

5.1.3.2 Pacific Silverweed Marshes

Pacific silverweed (*Argentenia egedii*[1]) herbaceous alliance occurs on the north bank of the Little River, located between the slough sedge community and the Coastal dune willow community on the river terrace. The community is dominated by Pacific silverweed and redtop (*Agrostis stolonifera*). Other common plants in the herbaceous community include bird's foot trefoil (*Lotus corniculatus*), Pacific aster (*Symphyotrichum chilense*), and Baltic rush (*Juncus balticus*).

The Pacific silverweed herbaceous alliance has a S2 ranking and it is considered sensitive by CDFW.

5.1.3.3 Non-Native Grassland

Non-native grassland occurs in small patches alongside U.S. Route 101 and side roads in the southern portion of the study area. The vegetation was mowed, so plant identification was limited and is not categorized as a natural community. The community has a dense herbaceous cover dominated by fescue

[1] Synonym to *Potentilla anserina* in Jepson eflora (Jepson Flora Project 2020).

(*Festuca* sp.), carrot (*Daucus carota*), plantain (*Plantago* sp.), and bird's foot trefoil. This community also contains a narrow, vegetated ditch with hydrophytic vegetation, including rushes (*Juncus* spp.).

The community is not a high priority for inventory type in Holland (1986), which means that it is not considered sensitive by CDFW.

6.0 RESULTS: ENVIRONMENTALLY SENSITIVE HABITAT AREAS

According to the Coastal Act and Humboldt County General Plan definition, ESHAs include wetland and other water features, including streams, estuarine habitats, and riparian areas. However, the focus of this report is to identify any upland ESHAs, including rare habitats; habitats valuable because of their special nature or role in an ecosystem, or in the local area; or vegetated dunes at Clam Beach and the floodplain of the Little River.

Sensitive natural communities would likely be considered ESHAs because they are considered to be rare. No mapped sensitive natural communities are in the study area in CNDDB; however, the vegetation mapping data in CNDDB is out of date. The field-based vegetation mapping resulted in four sensitive natural communities: Sitka spruce forest, coastal dune willow thickets, slough sedge swards, and Pacific silverweed marshes. Two of the communities (Sitka spruce forest and coastal dune willow thickets) were further assessed based on marked differences in quality between mapped stands. As a result of this assessment, only high quality, intact stands of these communities mapped in the study area should be considered sensitive. The slough sedge swards and Pacific silverweed marshes were also mapped as wetlands by the USACE definition during the wetland delineation, so they are not considered upland ESHAs. All high-quality coastal dune willow thickets were mapped as wetlands under the USACE or CCC definition and are not considered upland ESHAs. Sitka spruce forest did not meet the CCC or USACE definition of a wetland. The high-quality upland Sitka spruce forest communities are considered sensitive and qualify as upland ESHAs.

The Sitka spruce forest alliance and coastal dune willow thicket alliance occurs on a stabilized dune above the Little River Beach in the southern half of the study area. They also occur in the northern half of the study area adjacent to U.S. Route 101 in a mature forested area. The southern stand of the Sitka spruce forest has scattered trees at approximately 10 percent absolute cover. The southern upland coastal dune willow thicket is composed of young willow saplings. They occur on stabilized dune habitat and the understory is dominated by invasive European beach grass.

As stated previously, Section 30107.5 of the Coastal Act defines ESHA as:

> *"Any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments."*

The Sitka spruce forest community and coastal dune willow thicket mapped on stabilized dune habitat in the southern portion of the study area are relatively small and isolated. They do not represent intact habitat and should not be considered sensitive. While the Coastal Act definition is general, Stantec's

interpretation is that the forest and shrubland mapped in the southern portion study area are not especially valuable due to their small area, low percent cover of trees and shrubs, isolated nature, and human disturbances. The McKinleyville Area Plan notes that it protects vegetated dunes at the Little River beach; however, in the plan's ESHA definition, it describes indigenous dune habitat. Since the southern area is dominated by European beach grass, it is not considered indigenous dune habitat. The communities mapped south of Little River should not be considered ESHAs.

The Sitka spruce forest community in the northern portion of the study area is a mature forest with a moderate cover of trees. It appears that the area was previously connected to conifer forests located east of U.S. Route 101 and was separated by the highway placement. While the portion of the community immediately adjacent to the highway is somewhat disturbed and likely influenced by highway fill, the remaining portion of the community is preserved from disturbance and is likely serving a natural function in the ecosystem. The coastal dune willow thicket in the northern portion of the study area contains mature willow shrubs and appears to be an intact community adjacent to riparian vegetation and mature Sitka spruce forest.

The Sitka spruce forest communities located north of Little River are sensitive and are also considered upland ESHAs. Upland ESHAs encompass 3.19 acres in the study area and the boundaries are shown on Figure 3.

According to the Coastal Act definition, ESHA includes habitat for rare plants and wildlife. A rare plant survey will be conducted in spring and summer of 2021. If rare plants are found in the study area during the protocol-level survey, the ESHA mapping may need to be reevaluated to include habitat for those rare plants.

7.0 CONCLUSION

Vegetation mapping conducted for the project resulted in seven communities mapped in the study area: Sitka spruce forest, red alder forest, coastal dune willow thickets, coyote brush scrub, slough sedge swards, Pacific silverweed marshes, and non-native grassland. Four of these communities are considered sensitive natural communities: Sitka spruce forest, coastal dune willow thickets, slough sedge swards, and Pacific silverweed marshes. After evaluating the ecological conditions of each community, Stantec determined that low-quality stands of the Sitka spruce forest and coastal dune willow thickets should not be considered sensitive and are therefore not upland ESHAs. The remaining coastal dune willow thicket communities as well as all slough sedge swards and Pacific silverweed marshes are mapped as wetlands under the USACE or CCC. The remaining intact stands of Sitka spruce forest mapped in the study area are considered upland ESHAs.

8.0 REFERENCES

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APPENDIX A

Representative Photographs

Photograph Log

Client	Redwood Community Action Agency	Project	Little River Trail Project

Photograph #: 1

Comments: Mature Sitka spruce forest located in the northern half of the study area. Orientation: north.

Photograph #: 2

Comments: Sitka spruce forest located on stabilized dune habitat in the southern portion of the study area. Orientation: south.

Client	Redwood Community Action Agency	Project	Little River Trail Project

Photograph #:3

Comments: Red alder forest located in the northern portion of the study area. Orientation: north.

Photograph #:4

Comments:

Coastal dune willow thickets and Pacific silverweed marshes on the north side of Little River. Orientation: west.

Client	Redwood Community Action Agency	Project	Little River Trail Project

Photograph #:5

Comments:
Coyote brush scrub located in the southern portion of the study area. Orientation: south

Photograph #:6

Comments:
Coastal dune willow thickets located in the southern portion of the study area. Orientation: west.

Client	Redwood Community Action Agency	Project	Little River Trail Project

Photograph #:7

Comments: Slough sedge swards on the south bank of Little River. Orientation: northeast.

Photograph #:8

Comments:

Non-native grassland adjacent to a U.S. Route 101 off-ramp. Orientation: north.