Biotic Resources Group
Biotic Assessments ◆ Resource Management ◆ Permitting

Pacific Coast Hardwoods
(APN 052-511-06, 052-511-08)
1400 Ranport Road
Watsonville, CA

Biotic Report

Prepared for
Pacific Coast Hardwoods

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October 20, 2016

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INTRODUCTION

Pacific Coast Hardwoods proposes to utilize portions of two parcels on Ranport Road for lumber mill operations. The proposed project will occur on APN 052-511-06 and 052-511-08, two properties that also support operations of Williams Tree Service. The parcels are located in the southern portion of Santa Cruz County, with access from Ranport Road, a public roadway located between Buena Vista Drive and Airport Boulevard. The two parcels encompass approximately 8.4 acres and are located in an unincorporated portion of the County that is within the Highway 1 scenic corridor and the coastal zone (Figure 1). The parcels have a general plan designation of agriculture (AG).

Pacific Coast Hardwoods proposes to obtain a permit from the County to construct a lumber mill, office, and two storage buildings on a portion of APN 052-511-08. The lumber mill, storage buildings, and office are proposed for an area currently used by Williams Tree Service for downed tree storage and mulching operation. Additional lumber storage will occur on APN 052-511-06; this parcel currently supports a shop/warehouse and storage buildings that will continue to be utilized by Williams Tree Service. Other existing facilities on site that are part of the Williams Tree Services will be retained and are not part of this biological review.

The purpose of this report is to evaluate potential impacts to sensitive habitats, plants and wildlife from the proposed Pacific Coast Hardwoods use. A previous biotic report prepared for the property in 2008 (Williams Tree Service Biotic Report, November 2008) was reviewed.

Project Background

The two parcels, located east of Ranport Road, consist of 8.3 acres in an upper and lower area. The site is fenced along Ranport Road and the Highway 1 right-of way. The parcels support asphalt and gravel roads and parking areas. According to the 2008 biotic report, there are monitoring wells that belong to Shell Oil Company pursuant to a completed toxic clean-up and closure plan.

The lower area abuts a portion of Harkins Slough. The creek flows in a predominately east-west direction, eventually reaching Watsonville Slough near Beach Road. Existing tree service activities by Williams Tree Service (i.e., wood storage and chipping) occur in the lower area. The lower area also includes an office building and gravel parking areas. A man-made depression was located east of the office and a storage building in April 2016, yet the area was re-sloped and the depression was absent in October 2016.

The upper area is utilized primarily for equipment storage, with some storage of chip material. The upper area includes an existing warehouse, workshop and storage area for equipment and materials. There are several portable sea/land containers, also used for storage.

The two parcels support native and non-native landscape trees and shrubs, primarily around existing buildings and along Ranport Road. Native riparian vegetation occurs along Harkins Slough. Recent native tree and shrub plantings occur within the 50-foot creek setback area. These planting were installed pursuant to a recommendation in the 2008 biotic report.

The proposed project retains a 50-foot riparian setback between tree company activities and the creek (Harkins Slough) that traverses the lower parcel (052-511-08).

The Biotic Resources Group and Dana Bland & Associates assessed the biotic resources of the project site in March 2016. Biotic Resources Group conducted another site visit in October 2016. These visits were in addition to previous site visits conducted for the Williams Tree Service in 2005, 2007 and 2008. The focus of the assessment was to identify sensitive biotic resources on the two parcels and evaluate the proposed activities relative to such resources.

Intended Use of this Report

The findings presented in this biological report are intended for the sole use of Pacific Coast Hardwoods, their representatives, and the County of Santa Cruz in evaluating the proposed development activities for the two parcels. The findings presented by the Biotic Resources Group in this report are for information purposes only; they are not intended to represent the interpretation of any State, Federal or County law or ordinance pertaining to permitting actions within sensitive habitat or endangered species. The interpretation of such laws and/or ordinances is the responsibility of the applicable governing body.

EXISTING BIOTIC RESOURCES

METHODOLOGY

The biotic resources of the two parcels were assessed through literature review and field observations. The site was surveyed in March 2016 and was visited again in October 2016. Previous vegetation mapping of the area from 2008 was re-checked. Modifications to the 2008 map were made to accurately depict the current condition. The plant communities were mapped onto the survey topographic map (Figure 2). The *Jepson Manual* (2012) was the principal taxonomic references used for the botanical work.

To assess the potential occurrence of special status biotic resources, two electronic databases were accessed to determine recorded occurrences of sensitive plant communities and sensitive species. Information was obtained from the California Native Plant Society's (CNPS) Electronic Inventory (2016), and California Department of Fish & Wildlife (CDFW) RareFind database (CDFW, 2016) for the Watsonville West USGS quadrangle and surrounding eight quadrangles.

This report summarizes the findings of the biotic assessment for the proposed project. The potential impacts of the proposed development (i.e., use of the parcels for lumber mill, office storage buildings and timber storage) on sensitive resources are discussed below. Measures to reduce significant impacts to a level of less-than-significant are recommended, as applicable.

EXISTING BIOTIC RESOURCES

The two parcels lie within the outer Central Coast geographic region (Sawyer and Keeler-Wolf, 1995). The property currently supports several buildings, trailers and storage/warehouse facilities. The site also supports areas of tree mulch, downed tree trunks, and related tree service facilities. The eastern portion of the lower parcel (APN 052-511-08) supports a portion of the upper section of Harkins Slough; the creek area and lands within the 50-foot wide riparian setback area are undeveloped and support willow riparian woodland.

Collectively, the two parcels support bare/developed areas (some comprised of wood chips), riparian woodland, landscape trees/tree groves, oak trees/tree groves, riparian woodland, and ruderal (weedy) areas. A small man-made depression, located near the Williams Tree Service office, supported seasonal open water and a mosaic of native and non-native wet-tolerant plants in March 2016; however, this feature was absent in October 2016. These communities are listed in Table 1.

The distribution of plant community types on the two parcels is depicted on Figure 2.

Table 1. Vegetation Types on APN 052-511-06 and 052-511-08

CNDDB Code[1]	Plant Community Type	Alliance [1]	Rarity Rank[3]
61.201.00	Riparian Woodland	*Salix lasiolepis* alliance	S-3
71.060.00	Oak Trees/Tree Groves	*Quercus agrifolia* alliance	S-4
None[2]	Landscape Trees/Tree Groves	*Sequoia sempervirens, Pinus attenuata, Cupressus macrocarpa* [2]	None
44.150.00	California Annual Grassland/Ruderal	*Avena – Bromus* semi – natural non-native alliance	None

[1] List of California Vegetation Alliances, CDFG December 2010
[2] Vegetation type /alliance not recorded by CDFG
[3] Alliances ranked S1 - S3 are considered of high inventory priority; S4-S5 alliances are generally considered common (CDFG, 2010)

Two soil types are mapped in the project area. The soil on the lower parcel abutting Harkins Slough is identified as Clear Lake clay, moderately wet (119). The upper parcel is mapped as Tierra-Watsonville complex, 15-30% slopes (174) (Soil Survey of Santa Cruz County, USDA/SCS).

Riparian Woodland

In the upper watershed area, Harkins Slough flows as a stream within Larkin Valley, a narrow, linear valley. The upper portion of Harkins Slough enters APN 052-511-08 from culverts beneath Highway 1 and continues as a riparian forest-lined creek channel until Ranport Road. The creek then opens into a low-gradient, perennially open water slough. In this area the valley floor is underlain by peat soils (*Watsonville Slough Resource Enhancement Plan, 2011).*

On APN 052-511-08 the creek channel supports riparian woodland. The woodland is dominated by arroyo willow (*Salix lasiolepis)*, yellow willow (*S. lucida ssp. lasiandra),* California blackberry (*Rubus ursinus)*, stinging nettle (*Urtica dioica),* and poison oak (*Toxicodendron diversilobum)*. Herbaceous plant species grow along the creek channel edge and include water smartweed (*Polygonum persicaria)*, water hemlock (*Ciscuta douglasii)*, and velvet grass (*Holcus lanatus)*. The riparian woodland also supports stands of poison hemlock (*Conium maculatum)*, periwinkle (*Vinca major)*, and Himalaya berry (*Rubus discolor)*, three invasive, non-native species. Figures 3 and 4 shows the character of the riparian woodland. Recent tree and shrub plantings have occurred within the creek's 50-foot wide setback area. Willow, blue elderberry (*Sambucus mexicana)*, twinberry (*Lonicera involucrata),* coast live oak (*Quercus agrifolia)*, coffee berry (*Frangula californica)*, sedge (*Carex sp.),* and rush (*Juncus patens)* were observed in this area.

The riparian habitat is one of the highest value habitats for wildlife species diversity and abundance in California. Factors which contribute to the high wildlife value include the presence of surface water, the variety of niches provided by the high structural complexity of the habitat, and the abundance of plant growth. Riparian habitat along the project site may be used by a diversity of wildlife species for food, water, escape cover, nesting, migration and dispersal corridors, and thermal cover. The value of riparian areas to wildlife is underscored by the limited amount of remaining habitat which has not been disturbed or substantially altered by flood control projects, agriculture, and urbanization.

Common wildlife species that are expected to inhabit the riparian habitat include Pacific treefrog *(Hyla regilla),* bullfrog (*Rana catesbeiana*), western aquatic garter snake (*Thamnophis couchii*), Wilson's warbler *(Wilsonia pusilla),* Bewick's wren (*Thryomanes bewickii*), several species of swallows, red-shouldered hawk (*Buteo lineatus*), raccoon (*Procyon lotor*), opossum (*Didelphis virginiana*), and California myotis (*Myotis californicus*).

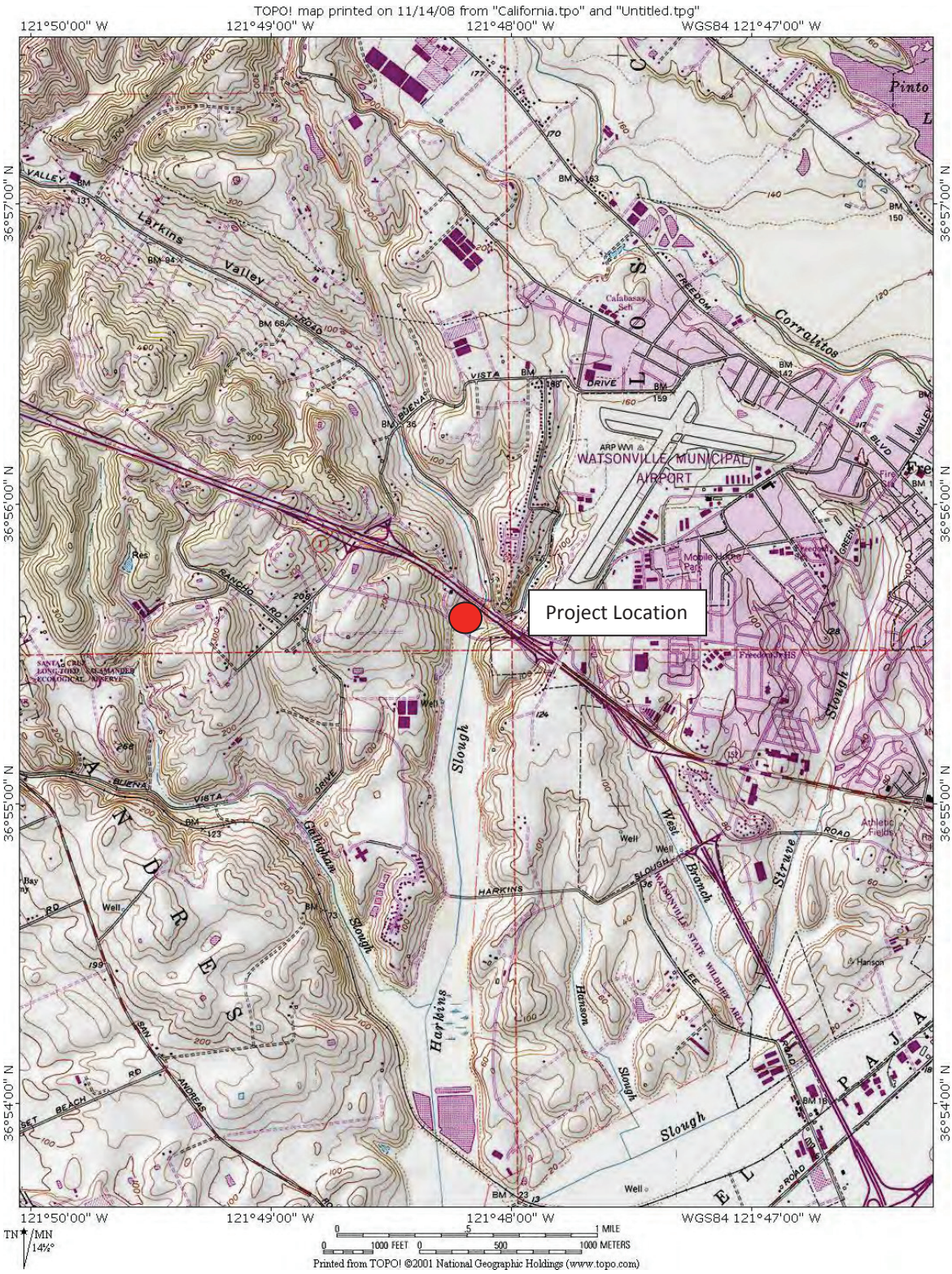

Figure 1. Project Location

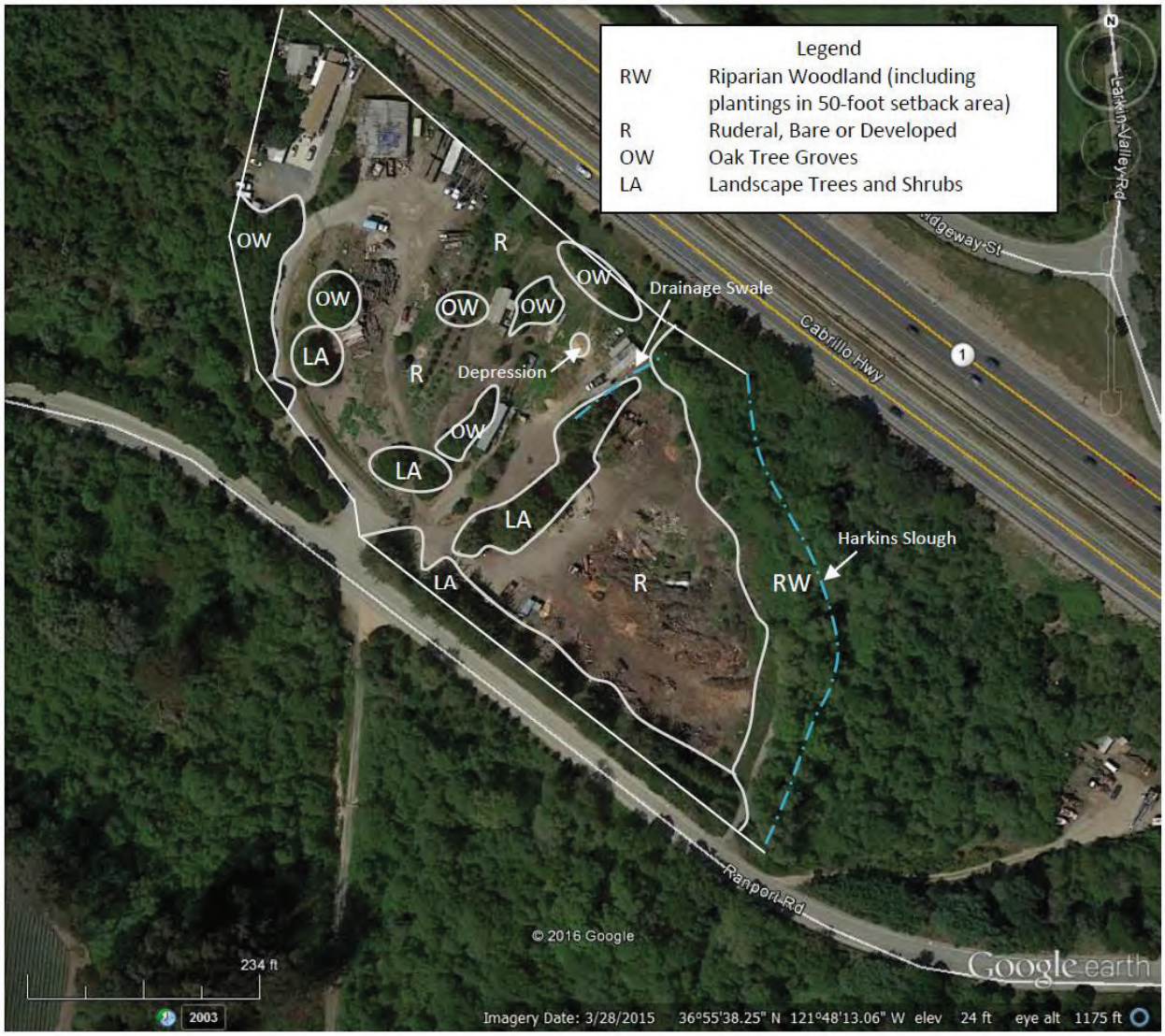

Figure 2. Distribution of Vegetation Types, April 2016

Figure 3. Willow riparian woodland along Harkins Slough on APN 052-511-08

Figure 4. Willow riparian woodland along west bank of Harkins Slough on APN 052-511-08

Ruderal

Ruderal (weedy) areas occur on the upper parcel and in some areas on the lower parcel. The areas are dominated by annual, non-native grasses and forbs typical of previously disturbed areas. The most commonly observed plant species is poison hemlock. Other species include wild oat (*Avena fatua)*, ripgut brome (*Bromus diandrus)*, Italian ryegrass (*Lolium multiflorum)*, rattail fescue (*Festuca myuros),* Bermuda grass (*Cynodon dactylon)*, soft chess (*Bromus hordeaceus)*, wild radish (*Raphanus sativa)*, narrow-leaved clover (*Trifolium angustifolium)*, bur clover (*Medicago polymorpha)*, mallow (*Malva sp.)*, wild mustard (*Brassica sp.)*, and ice plant (*Carpobrotus edulis)*. Native plant species are limited; deerweed (*Acmispon glaber)*, bracken fern (*Pteridium aquilinum)*, coyote brush (*Baccharis pilularis),* and young coast live oak (*Quercus agrifolia)* were observed. Figure 5 shows a typical ruderal area on APN 052-511-06.

Figure 5. Ruderal vegetation on slope on APN 052-511-06

A drainage swale travels along the boundary of APN 052-511-08 and empties into a drainage ditch within the CalTrans Highway 1 right-of-way. This swale supports ruderal vegetation, such as poison hemlock and Italian thistle (*Carduus sp.)* A wetland delineation was conducted in October 2016, wherein a portion of the swale was found to support an herbaceous component of a riparian corridor. Most of the corridor exhibits intermittent flow; however, a short section (20 feet) in the central portion has perennial flow. Saturated soil and shallow water (0.5 inch) was observed in October 2016. Wetland plant species were observed in this area, such as pennyroyal (*Mentha pulegium)*, rabbitsfoot grass (*Polypogon monspeliensis)*, and nutsedge (*Cyperus eragrostis)*. The condition of the swale is depicted in Figures 6 and 7. The wetland delineation is on file with the County of Santa Cruz Planning Department.

Figure 6. Condition of drainage swale, October 2016

Figure 7. Character of area with perennial flow and wetland vegetation in drainage swale

A man-made depression was located on APN 052-511-06, north of the existing Williams tree Service office (observed in March 2016). This low area collects rainwater and was found to support weedy wet-tolerant plant species, such as rabbitsfoot grass, brass buttons (*Cotula coronopifolia)*, and willow lettuce (*Lactuca sp.)*. Figure 8 shows the ruderal condition around the man-made depression in March. The depression was filled and condition of the area in October 2016 is depicted in Figure 9.

The ruderal grassland areas on the project site are highly disturbed by current and past land use, and provide only marginal habitat for native wildlife species. Adaptable wildlife such as white-crowned sparrow (*Zonotrichia leucophrys*) and American goldfinch (*Carduelis tristis*) may occasionally find seed forage in the predominantly non-native, ruderal grassland areas on the site. Small mammals such as California meadow vole (*Microtus californicus*) and Botta's pocket gopher (*Thomomys bottae*) may inhabit the more open, undisturbed portions of the grassland where plant roots and seeds are abundant.

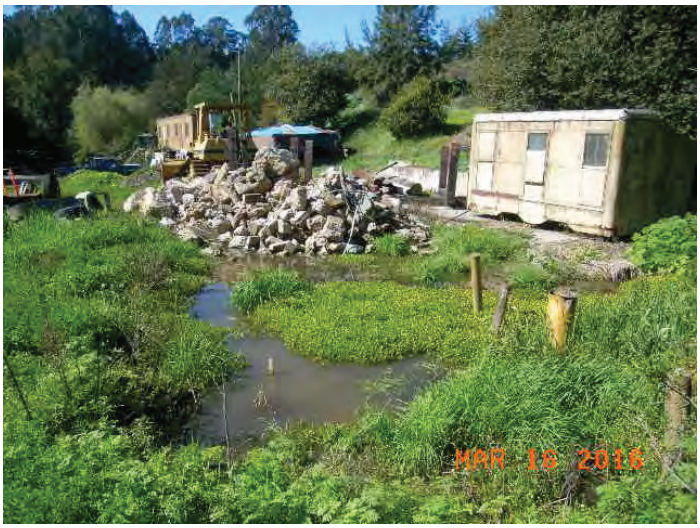

Figure 8. Wet-tolerant ruderal vegetation around man-made depression on APN 052-511-06, March 2016

Figure 9. Area of former depression, October 2016

Coast Live Oak Trees/Tree Groves
Coast live oak trees and oak tree groves occur on both parcels. Non-native annual grasses and forbs dominate the understory. A tree grove is depicted in Figure 5.

Use of the oak trees and groves by native wildlife is expected to be seasonal as acorns are available, and occasionally species more tolerant of surrounding human uses may nest in trees with denser canopy. The oak trees do not provide a uniform oak woodland habitat at this site, and as such are not expected to provide a habitat for a unique fauna, but wildlife from the surrounding areas of denser oak and riparian habitat are expected to occasional forage and nest in some oak trees on site. Common wildlife species expected to utilize the oaks on site for forage include acorn woodpecker (*Melanerpes formicivorus*), western scrub-jay (*Aphelocoma californica*), and black-tailed deer (*Odocoileus hemionus*). In addition, several common resident birds such as northern mockingbird (*Mimus polyglottos*) and spotted towhee *(Pipilo maculatus*) may find suitable nesting habitat in individual oak trees on the site.

Landscape Trees/Tree Groves
The two parcels support groves of planted landscape trees and shrubs. Planted trees occur along Ranport Road and elsewhere in the upper and lower parcels. Planted trees include Monterey cypress (*Cupressus macrocarpa)*, Monterey pine (*Pinus radiata)*, coast redwood (*Sequoia sempervirens)*, casuarina (*Casuarina sp.),* as well as other ornamental species.

The landscape trees on the site do not provide a unique habitat type for wildlife, but may be used by native wildlife, primarily birds, for roosting and nesting where canopy is dense and limb structure suitable for nest construction. As noted above for the oak trees, wildlife species tolerant of the surrounding human use are most likely to utilize the landscape trees.

SENSITIVE BIOTIC RESOURCES

Sensitive habitats are defined by local, State, or Federal agencies as those habitats that support special status species, provide important habitat values for wildlife, represent areas of unusual or regionally restricted habitat types, and/or provide high biological diversity. The project area is located within Santa Cruz County outside the urban and rural service lines, but within the coastal zone.

Regulated Habitats

The project area is located adjacent to a perennial waterway, Harkins Slough. According to County Code (Section 16.32), all lakes, wetlands, estuaries, lagoons, streams and rivers are considered sensitive habitat. According to County Code (Section 16.30) the riparian corridor along perennial channels extends 50 feet outward from the bank-full flow line or to the edge of riparian vegetation, whichever is greater. The proposed project is located outside the 50-foot riparian corridor along Harkins Slough Creek. Pending confirmation by the County, the intermittent/partially perennial drainage swale may also meet the definition of a riparian corridor. Under County Code development adjacent to this this swale may be subject to either a 30 or 50-foot setback.

California Department of Fish and Wildlife (CDFW) is a trustee agency that has jurisdiction under Section 1600 et seq. of the CDFW Code. Under Sections 1600-1603 of the California Fish and Game Code, CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel or bank of any river, stream or lake which supports fish or wildlife. CDFW also regulates alterations to ponds and impoundments. CDFW jurisdictional limits typically extend to the top of bank or to the edge of riparian habitat if such habitat extends beyond top of bank (outer drip line), whichever is greater. The proposed project is located outside CDFW's jurisdiction, as the project features area located outside of the Harkins Slough Creek corridor and outside the drainage swale.

Water quality in California is governed by the Porter-Cologne Water Quality Control Act and certification authority under Section 401 of the Clean Water Act, as administered by the Regional Water Quality Control Board (RWQCB). The Section 401 water quality certification program allows the State to ensure that activities requiring a Federal permit or license comply with State water quality standards. Water quality certification must be based on a finding that the proposed discharge will comply with water quality standards which are in the regional board's basin plans. The Porter-Cologne Act requires any person discharging waste or proposing to discharge waste in any region that could affect the quality of the waters of the state to file a report of waste discharge. The RWQCB issues a permit or waiver that includes implementing water quality control plans that take into account the beneficial uses to be protected. Waters of the State subject to RWQCB regulation extend to the top of bank, as well as isolated water/wetland features and saline waters. Should there be no Section 404 nexus (i.e., isolated feature not subject to USACE jurisdiction), a report of waste discharge (ROWD) is filed with the RWQCB. The RWQCB interprets waste to include fill placed into water bodies. The proposed project is located outside RWQCB jurisdiction as the project features are located outside of the Harkins Slough Creek corridor and outside the drainage swale..

The US Army Corps of Engineers (USACE) regulates activities within waters of the United States pursuant to congressional acts: Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act (1977, as amended). Section 10 of the Rivers and Harbors Act requires a permit for any work in, over, or under navigable waters of the United States. Navigable waters are defined as those waters subject to the ebb and flow of the tide to the Mean High Water mark (tidal areas) or below the Ordinary High Water mark (freshwater areas). The proposed project is located above the Ordinary High Water Mark (OHWM) of the perennial creek and outside the drainage swale

Sensitive Habitats
CDFW classifies and ranks the State's natural communities to assist in the determining the level of rarity and imperilment. Vegetation types are ranked between S1 and S5. For vegetation types with ranks of S1-S3, all associations within the type are considered to be highly imperiled. If a vegetation alliance is ranked as S4 or S5, these alliances are generally considered common enough to not be of concern; however, it does not mean that certain associations contained within them are not rare (CDFW, 2007 and 2010). APN 052-511-08 supports arroyo willow riparian woodland that is ranked S3 (sensitive) (see Table 1).

According to County Code, development activities shall conform to permitted uses and impacts to sensitive habitat be avoided. If development occurs within any sensitive habitat area the County requires projects mitigate significant environmental impacts and restoration of any area which is degraded sensitive habitat or has caused or is causing the degradation, with restoration commensurate with the scale of the development.

Special Status Plant Species
Plant species of concern include those listed by either the Federal or State resource agencies as well as those identified as rare by CNPS (List 1B). The search of the CNPS and CNDDB inventories identified the special status plant species with potential to occur in the project area. These species are listed on Table 2. Surveys for rare plants were conducted for Williams Tree Service in spring 2007. Site visits were made in April, May, June and July 2007 to assess the proposed development areas for potential rare plant habitat and presence/absence of special status plant species. No special status plant species were detected within the project site. No suitable habitat for species status plant species was found on site during the 2016 re-evaluation.

Table 2. List of Special Status Plant Species with Potential to Occur in the Vicinity of APN 052-511-06 and 052-511-08, October 2016

Species	CNPS	State Status	Federal Status	Habitat Preference Observed on Site?
Watsonville West Quadrangle				
Anderson's manzanita *(Arctostaphylos andersonii)*	List 1B.2	None	None	Sandy slopes, often intermixed with chaparral; not observed
Hooker's manzanita *(Arctostaphylos hookeri)*	List 1B.2	None	None	Sandy slopes, often intermixed with oak woodland; known from Buena Vista area; not observed
Pajaro manzanita *(Arctostaphylos pajaroensis)*	List 1B.1	None	None	Sandy slopes, often intermixed with oak woodland; recorded from NW of Watsonville and in Prunedale area; not observed
Congdon's tarplant (*Centromadia parryi ssp. congdonii)*	List 1B.1	None	None	Mesic grassland, heavy clay; not observed
Monterey spineflower *(Chorizanthe pungens var. pungens)*	List 1B.2	None	Threatened	Sandy slopes, can be intermixed with oak woodland/maritime chaparral; recorded from Manresa and Sunset State beaches; Day Valley area; Pajaro Dunes; not observed

Table 2. List of Special Status Plant Species with Potential to Occur in the Vicinity of APN 052-511-06 and 052-511-08, October 2016

Species	CNPS	State Status	Federal Status	Habitat Preference Observed on Site?
Robust spineflower *(Chorizanthe robusta var. robusta)*	List 1B.1	None	Endangered	Sandy slopes, often intermixed with oak woodland/maritime chaparral; recorded from Manresa State Beach; NE of Ellicott Pond, Aptos HS area; not observed
Sand-loving wallflower *(Erysimum ammophilium)*	List 1B.2	None	None	Coastal dunes; recorded from Sunset State Beach, along Shell Road; not observed
Monterey gilia *(Gilia tenuiflora ssp. arenaria)*	List 1B.2	Threatened	Endangered	Coastal dunes; recorded from Sunset State Beach; not observed
Santa Cruz tarplant *(Holocarpha macradenia)*	List 1B.1	Endangered	Threatened	Grasslands, often on coastal terrace deposits; recorded from upper Harkins Slough area and Watsonville area; not observed
Kellogg's horkelia *(Horkelia cuneata ssp. sericea)*	List 1B.1	None	None	Oak woodland and edges of grasslands; recorded from NW of Watsonville; not observed
Woodland woollythreads *(Monolopia gracilens)*	List 1B.2	None	None	Oak woodland and edges of grasslands; serpentine; not observed
Choris's popcorn flower *(Plagiobothrys chorisianus var. chorisianus)*	List 1B.2	None	None	Mesic grasslands, often on coastal terrace deposits; recorded from Watsonville Airport; not observed
Surrounding Quadrangles (Laurel, Loma Prieta, Watsonville East, Prunedale, Mt. Madonna, Soquel and Moss Landing)				
Bent-flowered fiddleneck (*Amsinckia lunaris)*	List 1B.2	None	None	Grassland; recorded from Scotts Valley and Davenport; not observed
King's Mountain manzanita (*Arctostaphylos regismontana)*	List 1B.2	None	None	Chaparral and forests; recorded from Skyline area; not observed
Bonny Doon manzanita *(Arctostaphylos silvicola*)	List 1B.2	None	None	Zayante sands; not observed
Deceiving sedge (*Carex saliniformis)*	List 1B.2	None	None	Mesic areas, marshes; historic record from Scotts Valley; not observed
Coyote ceanothus (*Ceanothus ferrisae)*	List 1B.1	None	Endangered	Chaparral, on serpentine; recorded from Anderson Reservoir and Uvas Canyon area; not observed
Ben Lomond spineflower *(Chorizanthe pungens var. hartwegiana)*	List 1B.1	None	Endangered	Ponderosa pine and chaparral in Zayante sands; recorded from Bonny Doon and Felton areas; not observed
Scotts Valley spineflower *(Chorizanthe robusta var. hartwegii)*	List 1B.1	None	Endangered	Grassland on sandstone outcrops; known only from Scotts Valley area; not observed
Seaside birds-beak (*Cordylanthus rigidus ssp. littoralis)*	List 1B.1	Endangered	None	Maritime chaparral and closed cone forests; recorded from Monterey Co.; not observed
Santa Clara Valley dudleya (*Dudleya setchellii)*	List 1B.1	None	Endangered	Serpentine chaparral and rock outcrops; not observed
Eastwood's goldenbush	List 1B.1	None	None	Chaparral and coastal scrub; recorded from

Table 2. List of Special Status Plant Species with Potential to Occur in the Vicinity of APN 052-511-06 and 052-511-08, October 2016

Species	CNPS	State Status	Federal Status	Habitat Preference Observed on Site?
(*Ericameria fasciculata)*				Monterey Co.; not observed
Ben Lomond wallflower *(Erysimum teretifolium)*	List 1B.1	Endangered	Endangered	Ponderosa pine and chaparral in Zayante sands; known from Felton and Ben Lomond area; not observed
Minute pocket moss (*Fissidens pauperculus)*	List 1B.2	None	None	Sandstone outcrops in grassland and oak woodland; recorded from Scotts Valley; not observed
Fragrant fritillary *(Fritillaria liliacea)*	List 1B.2	None	None	Moist serpentine areas in grassland; recorded from Santa Clara Co.; not observed
Loma Prieta hoita *(Hoita strobilina)*	List 1B.1	None	None	Talus in chaparral and woodlands; 1936 herbarium record from Santa Cruz; not observed
Smooth lessingia *(Lessingia micradenia var. glabrata)*	List 1B.2	None	None	Serpentine soils in chaparral and grasslands; recorded from Santa Clara Co.; not observed
Arcuate bush-mallow *(Malacothamnus arcuatus)*	List 1B.2	None	None	Serpentine chaparral; not observed
Hall's bush-mallow *(Malacothamnus hallii)*	List 1B.2	None	None	Serpentine chaparral; not observed
Dudley's lousewort *(Pedicularis dudleyi)*	List 1B.2	None	None	Woodlands; historic (1884) occurrence from Aptos; not observed
Santa Cruz Mtns. beards tongue *(Penstemon rattanii var. kleei)*	List 1B.2	None	None	Woodland and chaparral; herbarium collections from Ben Lomond Mtn.; not observed
White-rayed pentachaeta *(Pentachaeta bellidiflora)*	List 1B.1	None	None	Serpentine grasslands; grassland; not observed
Yadon's piperia (*Piperia yadonii)*	List 1B.1	None	Endangered	Coastal scrub and oak woodland, often on talus/rocky areas; not observed
San Francisco popcorn flower (*Plagiobothrys diffusus)*	List 1B.2	Endangered	None	Mesic grasslands, often on coastal terrace deposits; not observed
Scotts Valley polygonum (*Polygonum hickmanii)*	List 1B.1	None	Endangered	Grasslands, on coastal terrace deposits; not observed
Pine rose (*Rosa pinetorum)*	List 1B.2	None	None	Closed cone pine forests; not observed
Most-beautiful jewel-flower (*Streptanthus albidus ssp. peramoenus)*	List 1B.2	None	None	Serpentine grassland; not observed
Santa Cruz Clover *(Trifolium buckwestiorum)*	List 1B.1	None	None	Mesic grasslands; not observed
Saline clover (*Trifolium depauperatum var. hydrophilum)*	List 1B.2	None	None	Mesic grasslands, alkaline; not observed

Key for CNPS Status: **List 1B:** These plants (predominately endemic) are rare through their range and are currently vulnerable or have a high potential for vulnerability due to limited or threatened habitat, few individuals per population, or a limited number of populations. List 1B plants meet the definitions of Section 1901, Chapter 10 of the CDF&G Code. **List 4:** List 4 is a watch list of plants with limited distribution in the state that have low vulnerability and threat at this time. These plants are uncommon, often significant locally, and should be monitored.

Special Status Wildlife Species
Special status wildlife species include those listed, proposed or candidate species by the Federal or the State resource agencies as well as those identified as State species of special concern. In addition, all raptor nests are protected by Fish and Game Code, and all migratory bird nests are protected by the Federal Migratory Bird Treaty Act. Special status wildlife species were evaluated for their potential presence in the project area as described in Table 3 below.

None of the special status wildlife species listed in Table 3 below area expected to inhabit the operational areas of the Williams Tree Service property because they do not provide suitable habitat. Two amphibian special status species (Santa Cruz long-toed salamander and California red-legged frog) and one reptile (pond turtle) occur in the general project vicinity. The frog and turtle may possibly utilize the willow riparian habitat and adjacent portion of Harkins Slough that occurs on the eastern edge of the property. California red-legged frog and western pond turtle occur in low numbers in downstream portions of the slough system where the slough widens and flows are very slow, and where adjacent upland habitats are undisturbed by agriculture, and the frog also occurs upstream in ponds adjacent to the Harkins Slough Gulch in Larkin Valley. The depression discussed above no longer holds water, and thus provides no habitat for either the frog or turtle. The swale has a small, shallow area that is perennial; however, its potential for frog or turtle habitat is unlikely and no part of the proposed project will impact the swale.

The site is included in Designated Critical Habitat (Unit SCZ-2) for the California red-legged frog (USFWS 2010). Critical Habitat is evaluated and may receive additional protection to habitat only when the project meets two basic conditions: 1) There is a federal nexus involved in the project, e.g. funding, permit, etc, and 2) the project area contains the Primary Constituent Elements (PCEs) as listed in the federal register notice (USFWS 2006, USFWS 2010). The proposed project does not involve any federal nexus, and the proposed project development area does not contain any of the PCEs for the California red-legged frog. Harkins Slough Creek does contain PCEs for the frog, but the project will not impact the creek and the structures will be at least 50 feet from the creek as described in the project description. Please refer to the USFWS 2006 and 2010 federal register notices for more detailed information on Critical Habitat. This project does not qualify for additional evaluation or habitat protection for the California red-legged frog under the rules and regulations that govern Designated Critical Habitat.

Santa Cruz long-toed salamanders have not been found to-date in the slough system downstream of the project site, but do occur approximately 2.5 mi upstream in ponds near Harkins Slough Gulch in Larkin Valley . A multitude of non-native predatory species (e.g., several fish, crawfish, bullfrogs) occur within the downstream portions of the slough system, and severely restrict or eliminate the occurrence of these three native species. The closest known location of Santa Cruz long-toed salamander to the Williams Tree Service property is the Buena Vista pond (approx. 1.5 mile west), which is now a preserve and surrounded by hundreds of acres of suitable upland habitat for the species. This salamander is also known from ponds approximately 2+ miles upstream in the Harkins Slough watershed. However, Harkins Slough along this property does not provide suitable breeding habitat for this species because water flows through the channel rapidly during winter, and this salamander does not breed in flowing water. Also, the property does not contain suitable upland habitat for this salamander. As noted above, the many non-native predators of this salamander present in the slough are also a detriment to its potential occurrence in this water system.

Table 3. Special Status Wildlife Species and Their Predicted Occurrence on APN 052-511-06 and 052-511-08, October 2016

SPECIES	STATUS[1]	HABITAT	POTENTIAL OCCURRENCE ON SITE
Invertebrates			
Monarch butterfly *Danaus plexippus*	*	Eucalyptus, acacia and pine trees groves provide winter habitat when they have adequate protection from wind and nearby source of water	None, no suitable habitat on site.
Fish			
Steelhead *Oncorhynchus mykiss*	FT	Perennial creeks and rivers with gravels for spawning.	None, no suitable habitat on site.
Tidewater goby *Eucyclogobius newberryi*	FE, CSC	Coastal lagoons and associated creeks up to 1-mile inland	None, no suitable habitat on site.
Amphibians			
California tiger salamander *Ambystoma californiense*	FT, CSC	Ponds, vernal pools for breeding, grasslands with burrows for upland habitat	None, no suitable habitat on site.
Santa Cruz long-toed salamander *Ambystoma macrodactylum croceum*	FE, SE	Ponds for breeding with water at least into June. Riparian, oak woodland, coastal scrub for upland habitat.	No suitable breeding or upland habitat on site; closest known occurrence is 1.5 mi W at Buena Vista Ecological Preserve. Unlikely to occur at this site.
Foothill yellow-legged frog *Rana boylii*	CSC	Perennial creeks with cobble substrate for egg attachment.	None. No suitable habitat.
California red-legged frog *Rana draytonii*	FT, CSC	Riparian, marshes, estuaries and ponds with still water at least into June.	No suitable breeding habitat on site; may occasionally utilize the portion of Harkins Slough on eastern edge of property for foraging or movement corridor. Closest known occurrence is 1.5 mi NE in Larkin Valley.
Reptiles			
Western pond turtle *Emys marmorata*	CSC	Creeks and ponds with water of sufficient depth for escape cover, and structure for basking; grasslands or bare areas for nesting.	No suitable habitat within project area, but may occasionally utilize the portion of Harkins Slough on east edge of property for movement corridor.
Black legless lizard *Anniella pulchra nigra*	CSC	Sand dunes with native vegetation	None, no suitable habitat on site.
Birds			
Western snowy plover *Charadrius alexandrinum nivosus*	FT, CSC	Nests on sandy beach, shores of salt ponds	None, no suitable habitat on site.
Burrowing owl *Athene cunicularia*	CSC	Nests and winters in grasslands with burrows and short vegetation	Began wintering in restored grassland near Watsonville High School in 2010, between West Struve Slough and Harkins Slough; however, no suitable habitat on this site.

Table 3. Special Status Wildlife Species and Their Predicted Occurrence on APN 052-511-06 and 052-511-08, October 2016

SPECIES	STATUS[1]	HABITAT	POTENTIAL OCCURRENCE ON SITE
Bank swallow *Riparia riparia*	ST	Vertical banks of rivers, lakes, ocean shorelines with sandy soils for digging nests	None, no suitable habitat on site.
Tricolored blackbird *Agelaius tricolor*	CSC	Dense bulrush and/or cattail vegetation adjacent to freshwater marshes	None, no suitable habitat on site.
Mammals			
Santa Cruz kangaroo rat *Dipodomys venustus venustus*	*	Silverleaf manzanita and mixed scrub in Zayante soils	None, no suitable habitat on site.
American badger *Taxidea taxus*	CSC	Grasslands with friable soils for digging dens	None, no suitable habitat on site.

[1] Key to status:

FE = Federally listed as endangered species
FT = Federally listed as threatened species
SE = State listed as endangered species
ST = State listed as threatened species
CSC = California species of special concern
* = Species of local concern under County LCP

IMPACT AND MITIGATION DISCUSSION

IMPACT CRITERIA

The thresholds of significance presented in the California Environmental Quality Act (CEQA) were used to evaluate project impacts and to determine if the proposed development of the single-family residence poses significant impacts to biological resources. In addition, Santa Cruz County Code was also used to develop the significance criteria. For this analysis, significant impacts are those that substantially affect, either directly or through habitat modifications:

- A species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by CDFW or USFWS or NMFS;
- Riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by CDFW or USFWS;
- Federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance;
- Conflict with the provisions of an adopted Habitat Conservation plan, Natural Community Conservation plan, or other approved local, regional, or state habitat conservation plan.

POTENTIAL IMPACTS AND RECOMMENDED MITIGATION MEASURES

The proposed use of the two parcels for a lumber milling operation was evaluated for its potential direct and indirect impacts to biotic resources. Impacts to sensitive habitats/resources were considered potentially significant.

Impacts to Sensitive Habitats. The project proposes continued use of the two parcels for tree-related operations. The project proposes to maintain a 50-foot setback from Harkins Slough. This buffer area has been revegetated with native trees and shrubs. Large rocks are located along the outer edge of the buffer to restrict unauthorized access into the buffer area. The proposed project is not expected to directly or indirectly affect the riparian woodland along this portion of Harkins Slough. In addition, the 50-foot setback area has been planted with native trees and shrubs, as recommended in the 2008 biotic report. These plantings provide a vegetative buffer between the riparian woodland and the proposed lumber operations. The project does not propose to alter the drainage swale, therefore no impacts to this swale are anticipated from this project.

Impacts to Sensitive Wildlife Resources. The area currently occupied by the Williams Tree Service company has been in operation for the past five years, and prior to that was used for agricultural support services, such as equipment and chemical storage areas, for at least 30 years. This site has been in constant use for decades, and as such, has provided no or very little habitat for native wildlife within the operational areas. The highest value wildlife habitat on site is the riparian corridor and open water of this portion of Harkins Slough, as shown on Figure 2. As discussed above, the riparian canopy provides valuable habitat for migrating birds and the waters of the Harkins Slough provide habitat to some aquatic and terrestrial species. This project includes establishment of a minimum 50-foot wide vegetated buffer between the existing tree

service activities as well as the proposed lumber operations and the riparian area of Harkins Slough. This would provide a beneficial effect to wildlife compared to existing and previous conditions at the site.

The landscaped, ruderal, and small oak groves habitats on the Williams Tree Service property do not provide habitat for special status wildlife species. The soils are compacted from decades of equipment use and materials storage. The bare areas, wood chip piles, storage buildings, roads, and other facilities do not provide suitable habitat for any special status wildlife species.

The seasonal man-made depression on the property near the office does not provide suitable habitat for special status amphibians or the pond turtle. After a winter with normal rains, the March 2016 site visit observed only six inches of water in the man-made pond. The pond was only 15-20 feet wide maximum. The small size and low depth of the pond does not provide potential breeding habitat for special status amphibians or pond turtle. The depression was dry in summer 2016 (Dave Joseph, pers. comm., 2016). At the October 2016 site visit the depression area had been re-sloped and the depression filled5

The riparian habitat on the property may provide occasional forage and movement corridor California red-legged frog and western pond turtle, as well as nesting habitat for several special status birds as described in Table 3. However, these species are not expected to reside in the current or proposed operational areas of the property. Both the frog and turtle are capable of traversing openings within the operational area during seasonal movements between suitable habitat areas, but it is considered unlikely that they would traverse the site on any regular basis because the riparian corridor along Harkins Slough provides these species suitable cover and there are no ponds on adjacent areas that would attract the frog or turtle causing them to cross this property. Measures are detailed below to avoid and minimize potential impacts during construction to California red-legged frog or pond turtles which may occasionally traverse the operational areas.

If special status birds nest in the riparian corridor, it is reasonable to expect that that they choose nest sites with enough visual screening from the adjacent site use, and that they can tolerate the operation noise, as well as the noise from the adjacent Highway 1. Providing the 50-foot buffer as described above would help protect the riparian habitat along Harkins Slough that traverses this property, and would be beneficial to protecting water quality of this portion of the slough, and additional screening for the riparian habitat, and any special status species that may occasionally utilize it. At this time, the project does not propose the remove or trim any trees. However, if that changes during implementation of the project, measures are listed below to avoid impacts to nesting birds.

The proposed use of the property as a lumber operation is not expected to cause significant impacts to any special status wildlife species.

Impact BIO-1. If any trees must be removed or trimmed to implement the proposed lumber project, nesting migratory birds may potentially be destroyed or disturbed.

Mitigation Measure BIO-1. Schedule tree removal or trimming to occur between August 1 and March 1 of any given year. If that is not practical, then a qualified biologist shall conduct surveys for nesting birds no more than 14 days prior to tree removal or trimming. If nesting birds are observed in the trees scheduled for removal or trimming, then the removal or trimming shall be postponed until the biologist determines that all chicks have fledged the nest.

Impact BIO-2. Preparation of the site for construction of the proposed lumber mill facilities has the potential to injure or kill California red-legged frogs or pond turtles, if any are present during stripping and grading or other ground disturbance. Both the frog and the turtle are closely tied to their aquatic habitats, but are able to

traverse disturbed and open areas (such as the existing Williams Tree Service operational areas), usually during the rainy season, during movements to/from breeding ponds to summer foraging sites (e.g. creeks). Exterior lighting of the proposed new lumber mill facilities has the potential to disturb these species, as well as other more common wildlife.

Mitigation Measure BIO-2. Schedule clearing, stripping, and grading to occur between August 1 and October 15th of any given year, which is typically the driest time of the year at this site, and therefore, the least likely time for California red-legged frogs or pond turtles to traverse the project area. If that is not practical, then a qualified biologist shall conduct preconstruction surveys for red-legged frogs or pond turtles no more than 48 hours prior to commencement of ground disturbance, using both a daytime and nighttime survey protocol. If red-legged frogs are observed, construction will be postponed until monitoring by the biologist confirms that the frog has left the work area of its own accord. If that is not practical, then the applicant shall immediately contact the USFWS regarding red-legged frog, and for pond turtles contact the CDFW. No frogs or turtles shall be relocated unless approved by USFWS and CDFW, respectively.

Mitigation Measure BIO-3. Have a biologist present a tail-gate type worker educational session just prior to commencement of ground disturbance. The educational session should contain a brief ecology of the red-legged frog and pond turtle, photos, measures to avoid any potential impacts to the species, and their protected status. Flyers or books with this information may be used for the presentation.

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