

Biological Constraints Report

Project Name: CZ_Essex Jct Orick_60kV_Routine_Humboldt Lagoons_Harry A. Merlo_CT_Hwy 101_2023	Date of Preparation: 03/20/2024
Project Location: Within the Coastal Zone, Humboldt County LCP	Order Number: 8101016
Latitude/Longitude: 41.153342, -124.112224	BCR ID: BCR-043733

PG&E Biological Contact: Richard Graham-Bruno

Name of Preparer(s): Michelle Christensen, Stantec

Surveys Recommended

Nο

Monitoring Recommended

No

Summary/List of Biological Constraints

A desktop review determined the proposed Pacific Gas and Electric Company (PG&E) Vegetation Management (VM) work has the potential to affect five special-status animal species and nesting birds. Work areas fall within Multiple Region Operations and Maintenance Habitat Conservation Plan (MRHCP). With implementation of MRHCP VM Best Management Practices (BMPs) and avoidance and minimization measures (AMMs), impacts to these species are not anticipated.

The MRHCP provides PG&E with federal take authorization for all gas and electric operation and maintenance activities in the Plan Area during the 30-year permit term. All work locations fall under the MRHCP activity type E10a. Vegetation Management Routine Maintenance.

Project Description

Pacific Gas & Electric Company (PG&E) proposes routine vegetation management along the Essex Jct Orick 60 kilovolt (kV) transmission line within Humboldt County and the Coastal Zone under the jurisdiction of the Humboldt County Local Coastal Program (LCP) – North Coast Segment.

Work includes the removal of 85 trees at 80 locations.

Equipment to be utilized for this project will include chainsaws, pole runners, hand saws, pickup trucks, chip trucks, lift trucks and tow behind chippers. Tree crews will use existing roads to bring vehicles and equipment close to the work areas. Vehicles and equipment will remain on existing roads and trees will be accessed on foot.

Access

Tree crews will access via existing paved roads and PG&E access roads, including existing foot paths.

Habitat Types

Oak Woodland; Mixed Conifer; Redwood; Riparian; Ruderal or Landscaped; Other

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Notes: The following is a list of vegetation types and plant communities at the work areas, as defined in the Introduction to California Plant Life, Revised Edition (Ornduff, revised by Faber and Keeler-Wolf, 2003)*

- North Coastal Forest: This vegetation type is located in several work areas and is dominated by Douglas fir (*Pseudotsuga menziesii*), sitka spruce (*Picea sitchensis*), grand fir (*Abies grandis*), Bishop pine (*Pinus muricata*), Monterey pine (*Pinus radiata*), live oak (*Quercus chrysolepis*), and coast redwood (*Sequoia sempervirens*). Associated tree species includes tanoak (*Notholithocarpus densiflorus*), big leaf maple (*Acer macrophyllum*), and madrone (*Arbutus menziesii*). Understory species can include poison oak (*Toxicodendron diversilobum*), rhododendron (*Rhododendron macrophyllum*), California blackberry (*Rubus ursinus*), evergreen huckleberry (*Vaccinium ovatum*), and English ivy (*Hedera helix*).
- Northern Coastal Scrub: This vegetation type occurs in a few work areas. It may be dominated by coyote brush (*Baccharis pilularis* var. *consanguinea*), salal (*Gaultheria shallon*), coast buckwheat (*Eriogonum latifolium*), seaside daisy (*Erigeron glaucus*), ceanothus species (*Ceanothus* spp.), and common cowparsnip (*Heracleum maximum*).
- Riparian Woodland. This vegetation type occurs in several work areas and is dominated by red alder (*Alnus rubra*), black cottonwood (*Populus trichocarpa*), big leaved maple (*Acer macrophyllum*), California bay (*Umbellularia californica*), and willow species (*Salix* spp.). The herbaceous layer is typically sparse, but may support sedges (*Carex* spp.) and rushes (*Juncus* spp.)

*Ornduff described a simplified classification of California vegetation into 23 types in his Introduction to California Plant Life (1974), based largely on the classification developed by Munz in A California Flora (1959). This version with updated nomenclature was published in Introduction to California Plant Life, Revised Edition (Ornduff, revised by Faber and Keeler-Wolf; University of California Press, 2003). Please consult the original publication for details.

Site Visit?	No If	yes, provide date and attach photo	(s):
Special Stat	us Species ¹	CNDDB Records (1.5-mile radius)	Suitable Habitat
	Plant species		
Layia	ch layia a <i>carnosa</i> CRPR 1B.1		
Animal species			
	swallow <i>ria riparia</i> ST		
Brachyramp	ed murrelet hus marmoratus T, SE		
Strix occid	spotted owl entalis caurina T, ST		
	California DPS win run nykiss irideus pop. 49		

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FT		
Steelhead - northern California DPS Oncorhynchus mykiss irideus pop. 16 FT		
Tidewater goby Eucyclogobius newberryi FE		
Western bumble bee Bombus occidentalis SC		
Western snowy plover Charadrius nivosus nivosus SSC, FT		
Nesting birds	N/A	

Evaluation of Resources & Potential Impacts:

California Natural Diversity Database (CNDDB) was reviewed in a search radius of 1.5 miles around the project location and habitat conditions were evaluated for the project's zone of impact. Species with suitable habitat are discussed below.

Plant Species

None

Animal Species

Marbled murrelet

There are no CNDDB occurrences within 1.5 miles of the work areas; however, most of the work areas occur within critical habitat for this species. PG&E data also indicates habitat may be present in the project vicinity. Marbled murrelet nesting habitat consists of coastal, old-growth and mature forests with multistory canopies typically dominated by conifers and containing large trees with large branches for nesting and nearshore marine environments for foraging. In California, percent old-growth canopy cover and tree species composition (>50% coast redwood [Sequoia sempervirens]) located within major drainages at lower elevations (i.e., below 3,600 feet) are most important predictors of occupancy and presence. This species can be found year-round in this region and typically nests from March to September. Based on the Estimating the Effects of Auditory and Visual Disturbance to

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¹Special Status is defined as federal or state threatened, endangered, rare, proposed, candidate or fully protected; covered by Eagle Protection Act; or species of concern to land management agency. Abbreviations: Federally Endangered, Threatened, Proposed Endangered, Proposed Threatened, or Candidate (FE, FT, FPE, FPT, FC); State Endangered, Threatened, Candidate for Endangered, or Candidate for Threatened (SE, ST, SCE, SCT); Fully Protected (FP); CDFW Species of Special Concern (SSC); California Rare Plant Rank (CRPR) List 1 or 2.



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Northern Spotted Owls and Marbled Murrelets in Northwestern California (U.S. Fish and Wildlife Service 2006), the existing ambient conditions would be considered 'moderate' for work areas near small roads, residential homes, and power lines and 'high' for work areas near Highway 101 and project work would be considered 'very high' due to the use of a chipper in addition to other equipment. According to the document, 'very high' action-generated activities occurring in 'moderate' to 'high' ambient conditions can cause project attenuation to exceed established take thresholds within 165-330 feet of the project work areas. There may be nesting habitat for marbled murrelet within 330 feet of all work areas. This species is covered by the HCP, and work will be conducted in accordance with the permit and the AMM below.

Northern spotted owl

There are 68 positive CNDDB occurrences (60 positive, 1992-2004; 8 activity centers, 1993-2002) and 121 negative occurrences (1993-2022) within 1.5 miles of the work areas. Work Areas 205, 219, 221, and 224 are within 0.25 mile of an activity center (1997). PG&E data indicates habitat be present in the project vicinity. Northern spotted owl suitable habitat includes older forest habitats that contain the structural characteristics required for nesting, roosting. and foraging. Specifically, forests with multistory canopies dominated by large trees, old-growth forests and mixed stands with old-growth and mature trees, and where there is a high level of structural complexity suitable, and an abundance of large, downed woody debris. Northern spotted owls occur from 70 feet to 6.660 feet in elevation and typically nest March to June. Based on the Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California (U.S. Fish and Wildlife Service 2006), the existing ambient conditions would be considered 'moderate' for work areas near small roads, residential homes, and power lines and 'high' for work areas near Highway 101 and project work would be considered 'yery high' due to the use of a chipper in addition to other equipment. According to the document, 'very high' action-generated activities occurring in 'moderate' to 'high' ambient conditions can cause project attenuation to exceed established take thresholds within 165-330 feet of the project work areas. There may be nesting habitat for northern spotted owl within 330 feet of all work areas. This species is covered by the HCP, and work will be conducted in accordance with the permit and AMM below.

Steelhead - northern California DPS winter-run

There are three CNDDB occurrences (2017-2020) within 1.5 miles of the work areas, but none overlap the work areas. Steelhead are anadromous fish which are born in freshwater habitats, migrate to marine habitats, and eventually return to freshwater habitats to spawn. Steelhead spawn in small streams and tributaries with cool, well oxygenated, water and gravel substrate. This Distinct Population Segment (DPS) spawns December 1 – April 15. Juvenile fish typically reside in stream margins, riffles, pools, and deep runs before migrating to marine habitats. Work Areas 60, 153, 188, and 192 are within 250 feet of an ephemeral/intermittent waterway with connectivity to Big Lagoon, Tom Creek (perennial), and Stone Lagoon, which may provide suitable aquatic habitat for this species; however, Work Area 188 is across Highway 101 from the resource. Work Area 60 requires tree removal and is approximately 190 feet from Tom Creek. Work Area 153 requires tree removal and is approximately 190 feet from Stone Lagoon. The proposed tree removal work is limited in scope and dispersed across various aquatic resources. Given this limited scope of work and distance from the nearest waterways, with the implementation of the AMMs below impacts to this species are not anticipated.

Steelhead - northern California DPS

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There are no CNDDB occurrences within 1.5 miles of the work areas; however, some work areas are within 250 feet of critical habitat. Steelhead are anadromous fish which are born in freshwater habitats, migrate to marine habitats, and eventually return to freshwater habitats to spawn. Steelhead spawn in small streams and tributaries with cool, well oxygenated, water and gravel substrate. This Distinct Population Segment (DPS) spawns December 1 – April 15. Juvenile fish typically reside in stream margins, riffles, pools, and deep runs before migrating to marine habitats. Work Areas 60, 153, 188, and 192 are within 250 feet of an ephemeral/intermittent waterway with connectivity to Big Lagoon, Tom Creek (perennial), and Stone Lagoon, which may provide suitable aquatic habitat for this species; however, Work Area 188 is across Highway 101 from the resource. Work Area 60 requires tree removal and is approximately 190 feet from Tom Creek. Work Area 153 requires tree removal and is approximately 190 feet from Stone Lagoon. The proposed tree removal work is limited in scope and dispersed across various aquatic resources. Given this limited scope of work and distance from the nearest waterways, with the implementation of the AMMs below impacts to this species are not anticipated.

Tidewater goby

There are two extant CNDDB occurrences (2010) within 1.5 miles of the work areas, but neither overlap the work areas. Additionally, some work areas are within 250 feet of critical habitat for tidewater goby. Tidewater gobies occur in shallow (less than 4 feet deep) water with low to moderate salinity typically in brackish shallow lagoons, estuaries, salt marshes, and occasionally in lower stream reaches. This species prefers areas with sand or silt substrates for nesting burrows and generally sparse vegetation. Work Areas 60, 153, 188, and 192 are within 250 feet of an ephemeral/intermittent waterway with connectivity to Big Lagoon, Tom Creek (perennial), and Stone Lagoon, which may provide suitable aquatic habitat for this species; however, Work Area 188 is across Highway 101 from the resource. Work Area 60 requires tree removal and is approximately 190 feet from Tom Creek. Work Area 153 requires tree removal and is approximately 190 feet from an ephemeral/intermittent waterway. Work Area 192 requires tree removal and is approximately 125 feet from Stone Lagoon. The proposed tree removal work is limited in scope and dispersed across various aquatic resources. Given this limited scope of work and distance from the nearest waterways, with the implementation of the AMMs below impacts to this species are not anticipated.

Nesting birds

Nesting birds may be present on the ground, in shrubs and trees, or in or on utility poles, from February 15 through August 31 (nesting bird season). Potential impacts on nesting birds will be minimized or avoided with incorporation of the measures listed below and PG&E's general BMPs, which require crews to stop work and contact a biologist if any active nests are detected.

Are there any aquatic resources (seasonal or permanent) and/or riparian corridors within 250 feet?	
Yes	If yes, type: Natural;Potential wetland;Perennial;Intermittent;Ephemeral

If you answered yes to previous question, will the project directly impact any of the above aquatic resources?

Nο

Explain: There are two perennial waterways (including Tom Creek), one ephemeral waterway, one ephemeral/intermittent waterway, and one estuarine-marine deepwater waterbody (Stone Lagoon) within 250 feet of Work Areas 59, 60, 69, 72, 73, 76, 84, 153, 188, and 192; however, Work Area 188 is across Highway 101 from the aquatic resource. With implementation of the AMMs below, impacts are not anticipated.

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Critical Habitat	
Designated Critical Habitat:	Yes
Physical and Biological Features Impacted:	Yes

Notes: • Critical habitat for steelhead- northern California DPS within 250 feet of Work Areas 60, 188, and 192; however, Work Area 188 is across Highway 101 from the aquatic resource. With implementation of the AMM below, no impacts are anticipated.

- Critical habitat for tidewater goby within 250 feet of Work Areas 188 and 192; however, Work Area 188 is across Highway 101 from the aquatic resource. With implementation of the AMM below, no impacts are anticipated.
- Critical habitat for marbled murrelet overlaps all work areas (except 72, 76, and 84), which involve removal of one Hemlock (*Tsuga* sp.) with a 45 inch dbh and 147 foot height, eleven coastal redwoods (*Sequoia sempervirens*) ranging between 26-69 inch dbh and 100-193 foot height, and eight Spruce trees (*Picea* sp.) ranging between 26-99 inch dbh and 108-202 foot height. These trees may provide suitable nesting habitat, however, given the limited scope of work, selective removals of hazard trees, and with the implementation of the AMMs, impacts to Physical and Biological Features will be minimized.

Resource Protection Measures & Avoidance and Minimization Measures

The project is located within PG&E's Multiple Region Operations and Maintenance Habitat Conservation Plan (MRHCP) Area. All contractors and subcontractors must complete required HCP training to work in the HCP Plan Area. Work activities must follow MRHCP Field Protocols (FP) and Best Management Practices (BMPs), and any additional measures, where identified in this BCR. If biological issues or concerns arise during work, please contact the project Biologist listed on the BCR.

- Only personnel who have received MRHCP training shall be allowed to work on this project. All job personnel must complete the mandatory Habitat Conservation Plan training through the ISNetworld.
- A pre-construction project environmental awareness meeting (such as an ERTC call) shall be held prior to
 the onset of work activities with pertinent project members. The meeting will identify sensitive biological
 resources that could occur within the work areas, and measures to be implemented to avoid impacts to
 special-status species.
- The crew foreman must review all biological measures and any attached tailboards with crew onsite prior to beginning work.

PG&E Measure for Off Road Access

Locate off-road access routes and work sites to minimize impacts on plants, shrubs, and trees, small mammal burrows, and unique natural features (e.g., rock outcrops).

PG&E Measure for Tree Felling and Removal

Directionally fell trees away from an exclusion zone, if an exclusion zone has been defined. If this is not possible, remove the tree in sections. Avoid damage to adjacent trees to the extent possible. Avoid removal of snags and conifers with basal hollows, crown deformities, and/or limbs over 6 inches in diameter.

Vegetation Management BMPs 1-27 General

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The scope of work that is proposed includes vegetation activities that require the crew to follow the MRHCP Vegetation Management Best Management Practices 1-27.

Aquatic resources measures:

At work areas (**Work Areas 59, 60, 69, 72, 73, 76, 84, 153, and 192**), Multiple Region Habitat Conservation Plan Vegetation Management Best Management Practices be implemented. Additionally, the following measures apply:

- **BMP 8**: Vehicles and heavy equipment must be refueled at least 100 feet away from riparian areas. Handheld tools must be refueled outside of riparian areas. The fueling operator must stay with the fueling operation at all times. Do not top off tanks.
- **BMP 11**: Vehicle use within riparian areas is limited to existing roads and dry crossings, and they must be checked and maintained daily to prevent leaks of materials that, if introduced to water, could be harmful to aquatic life.
- **BMP 12**: Cleared or pruned vegetation and woody debris (including chips) must be disposed of in a manner to ensure that it does not enter surface water or a watercourse. All cleared vegetation and woody debris (including chips) must be removed from surface water or watercourses, and placed or secured where it cannot re-enter the watercourse.
 - o **Per BMP 11**, foot access only in riparian zone. Route off-road access paths and work sites to minimize impacts on plants, shrubs, and small mammal burrows. Minimize number of trips when working in the riparian zone.
 - o **Per BMP 12**, trees will be felled away from the bed, bank, and channel and avoid dragging large debris along the banks of the waterway.

Anadromous Fish

General - Work Areas 60, 153, 192

- If removal of limbs overhanging waterways is required, rope and lower large limbs to prevent limbs and personnel from entering the bed, bank, and channel. Large debris shall not be dropped into a watercourse.
- For areas accessible by existing roads, stage materials and equipment along road shoulder. Do not stage equipment or materials within the banks of the waterway.
- Plan access routes to avoid areas with steep slopes and/or highly erodible soils, particularly in unvegetated areas along the banks of the waterway. Minimize number of trips when working in the riparian area.

<u>Tree removal</u> - Work Area 60, 153, 192

- Minimize impacts to waterway or riparian vegetation but still achieve compliance and safety regulations for trees that meet the following conditions:
 - o are in an advanced state of decay that lean towards the channel or have an unimpeded fall path toward the watercourse,
 - o are located on unstable areas or downslope of such unstable areas, or
 - o have undermined roots due to water channel, or
 - provide abundant shade to the waterway
- When removal is required:
 - o fell trees away from the waterway if removals are the best course of action and can be done safely
 - leave as much of the trunk of the dead tree in place, where clearance regulations and safety protocols allow.

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MM-1 Marbled Murrelet

This project has the potential to have Marbled Murrelet within the project area. Before work can occur, contact the PG&E lead biologist (Richard Graham-Bruno, 628-219-3154, and rjgl@pge.com) at least 30-days prior to start of any project activities, including mobilization and staging of equipment materials. If the biologist determines that the project will impact suitable marbled murrelet nesting habitat, then work will not be conducted during the nesting season (March 15–August 31). For activities in known nesting habitat that cannot be scheduled outside of nesting season, nest buffers of 0.25 mile will be implemented or PG&E may implement reduced buffers based on Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California (U.S. Fish and Wildlife Service 2006).

NSO-1 Northern Spotted Owl

This project has the potential to have Northern Spotted Owl within the project area. Before work can occur, contact the PG&E lead biologist (Richard Graham-Bruno, 628-219-3154, and rjgl@pge.com) at least 30-days prior to start of any project activities, including mobilization and staging of equipment materials. If a biologist determines that a work site is within 0.25 mile of unsurveyed northern spotted owl nesting habitat, activity centers, or critical habitat during nesting season (March 1–July 31), then work will be restricted to August 1–February 28, unless surveys determine the suitable habitat or site is unoccupied or the owls are not nesting. For project work within 0.25 mile of a known nest site or nesting habitat that cannot be scheduled outside of the nesting season and the 0.25 mile buffers cannot be maintained, PG&E may implement reduced buffers based on *Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California* (U.S. Fish and Wildlife Service 2006).

• Note Work Areas 205, 219, 221, and 224 are within 0.25 mile of an activity center.

Outreach requirements to be implemented by crew:

- If any potential special-status animal species is seen during work, work will stop in the area that could result in injury, disturbance, or harassment. The foreman and the VM Biologist will be notified immediately. The animal will be allowed to move out of the area on its own.
- Initiate required BMPs if suspected nests are observed.

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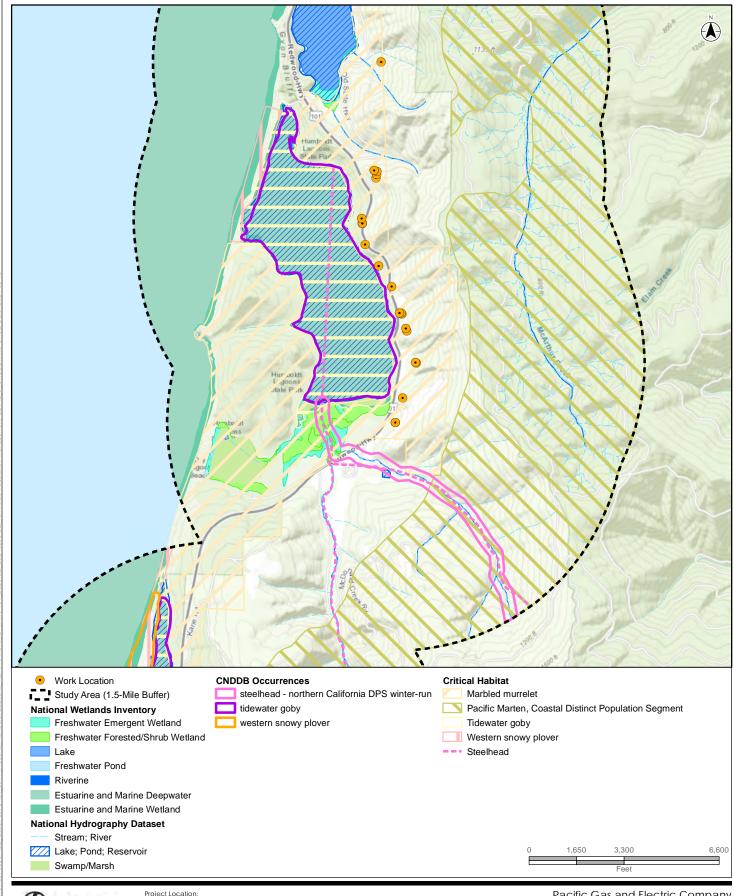


Pacific Gas and Electric Company Vegetation Management

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NOTE: Critical habitat for species included in this report and/or could be impacted by the project are mapped.

CZ_Essex Jct Orick_60kV_Routine_Humboldt Lagoons_Harry A. Merlo_CT_ Hwy 101_2023 Figure 3. CNDDB Occurrences

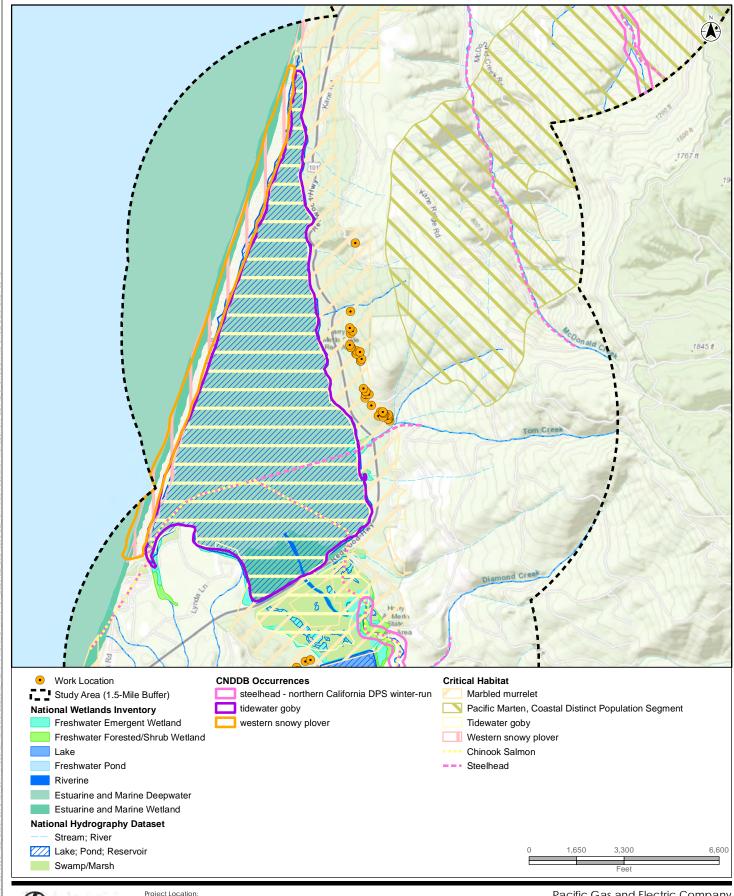




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Pacific Gas and Electric Company Vegetation Management

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