

Coastal Development Permit

Biological Constraints Report for Gas & Electric Distribution Projects

Project Name: Humboldt County Bundle CDP #4	Date of Preparation: March 20, 2024
Project Location: Humboldt County, CA	Order Number: 8210333
Latitude/Longitude: See Appendix A, Figure 1 for work areas	Project Land Planner: Nicole Reese
Name of Preparer(s): Hannah Lee and Emily Huizenga (Desktop Review) and Jennifer Hazeldine (Senior Review), ERM	
Surveys/Monitoring Recommended	
<input checked="" type="checkbox"/> Yes – A biological monitor is recommended for work areas 16, 17, 49-51, and 53-59 (within approximately 50 feet of aquatic resources). <input type="checkbox"/> No <input type="checkbox"/> Contingent on AMMs and scope	
Summary/List of Biological Constraints	
<p>A desktop review determined that the proposed work has the potential to affect six special-status plant species, nine special-status wildlife species, roosting bats, and nesting birds. The work areas fall within the coverage area for the PG&E Multiple Region Operations and Maintenance Habitat Conservation Plan (MRHCP), under which the work activities are classified as E10a (Vegetation Management – Routine Maintenance). All work will adhere to the Best Management Practices (BMPs) established in the MRHCP.</p> <p>The implementation of avoidance and minimization measures (AMMs) and BMPs will minimize impacts to protected habitats, special-status species, roosting bats, and nesting birds.</p>	
Project Description	
<p>In order to maintain safe and reliable electric service and mandated clearance to comply with federal and state regulatory requirements for public safety and fire prevention, PG&E proposes vegetation management activities under or adjacent to multiple lines throughout Humboldt County. The work area falls within the Coastal Zone and is subject to the requirements of the MRHCP.</p> <p>The proposed vegetation removal will occur at 106 work locations. Vegetation removal activities will include 213 tree or brush removals. No subsurface disturbance will occur during these activities.</p> <p>Tree crews will use existing roads to bring vehicles and equipment close to the work area. The equipment to be used includes hand tools and chainsaws. All cut vegetation will be either lopped and scattered or dragged offsite and chipped if accessible.</p>	

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Project Schedule & Duration			
The project schedule is currently unknown.			
Access			
Vehicles and equipment will remain on existing roads and trees will be accessed on foot.			
Land Use & Ownership			
<input type="checkbox"/> Agricultural <input checked="" type="checkbox"/> Undeveloped <input checked="" type="checkbox"/> Developed <input type="checkbox"/> Public Land			
Notes: Work areas are spread over multiple geographic distinct areas including roadsides, undeveloped land along Hwy 101, commercial areas, and within rural residential neighborhoods.			
Habitat Types			
<input type="checkbox"/> Grassland <input checked="" type="checkbox"/> Mixed Conifer <input type="checkbox"/> Riparian <input type="checkbox"/> Agricultural <input type="checkbox"/> Annual <input type="checkbox"/> Perennial <input checked="" type="checkbox"/> Redwood <input checked="" type="checkbox"/> Freshwater Wetland <input checked="" type="checkbox"/> Ruderal or <input type="checkbox"/> Oak Woodland <input type="checkbox"/> Chaparral <input type="checkbox"/> Brackish/Saltmarsh Landscaped <input type="checkbox"/> Urban Environment <input type="checkbox"/> Other (see notes)			
Notes: The work areas are within a mixture of mixed conifer, redwood, mesic conifer forest, and freshwater wetland habitats found throughout residential or wooded areas next to surface roads and Hwy 101.			
Site Visit			
<input type="checkbox"/> Yes. If yes, provide date: <input checked="" type="checkbox"/> No			
Special Status Species*	Database Records (1.5-mile radius)	Habitat Present within Work Areas	Not Expected to Occur within Work Areas
<i>Annual vascular plant species</i>			
Beach layia (<i>Layia carnosa</i>), FT, SE, CRPR 1B.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Dark eyed gilia (<i>Gilia millefoliata</i>), CRPR 1B.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Howell's montia (<i>Montia howellii</i>), CRPR 2B.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Humboldt Bay owl's-clover (<i>Castilleja ambigua</i> var. <i>humboldtiensis</i>), CRPR 1B.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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Pacific gilia (<i>Gilia capitata</i> ssp. <i>pacifica</i>), CRPR 1B.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Point Reyes salty bird's-beak (<i>Chloropyron maritimum</i> ssp. <i>palustre</i>), CRPR 1B.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Round-headed collinsia (<i>Collinsia corymbosa</i>), CRPR 1B.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Short-leaved evax (<i>Hesperevax sparsiflora</i> var. <i>brevifolia</i>), CRPR 1B.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Western sand-spurrey (<i>Spergularia canadensis</i> var. <i>occidentalis</i>), CRPR 2B.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>Perennial vascular plant species</i>			
Alpine marsh violet (<i>Viola palustris</i>), CRPR 2B.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Bristle-stalked sedge (<i>Carex leptalea</i>), CRPR 2B.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Coast checkerbloom (<i>Sidalcea oregana</i> ssp. <i>eximia</i>), CRPR 1B.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Coast fawn lily (<i>Erythronium revolutum</i>), CRPR 2B.2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Coastal marsh milk-vetch (<i>Astragalus pycnostachyus</i> var. <i>pycnostachyus</i>), CRPR 1B.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Deceiving sedge (<i>Carex saliniformis</i>), CRPR 1B.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Ghost-pipe (<i>Monotropa uniflora</i>), CRPR 2B.2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Green yellow sedge (<i>Carex viridula</i> ssp. <i>viridula</i>), CRPR 2B.3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Lagoon sedge (<i>Carex lenticularis</i> var. <i>limnophila</i>), CRPR 2B.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Lyngbye's sedge (<i>Carex lyngbyei</i>), CRPR 2B.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Marsh pea (<i>Lathyrus palustris</i>), CRPR 2B.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Mendocino coast paintbrush (<i>Castilleja mendocinensis</i>), CRPR 1B.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Menzies' wallflower (<i>Erysimum menziesii</i>), FE, SE, CRPR 1B.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Northern clustered sedge (<i>Carex arcta</i>), CRPR 2B.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Northern meadow sedge (<i>Carex praticola</i>), CRPR 2B.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Oregon coast paintbrush (<i>Castilleja litoralis</i>), CRPR 2B.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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Oregon polemonium (<i>Polemonium carneum</i>), CRPR 2B.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Perennial goldfields (<i>Lasthenia californica</i> ssp. <i>macrantha</i>), CRPR 1B.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Pink sand-verbena (<i>Abronia umbellata</i> var. <i>breviflora</i>), CRPR 1B.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Scouler's catchfly (<i>Silene scouleri</i> ssp. <i>scouleri</i>), CRPR 2B.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Seaside bittercress (<i>Cardamine angulata</i>), CRPR 2B.1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Seaside pea (<i>Lathyrus japonicus</i>), CRPR 2B.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Sierra rush (<i>Juncus nevadensis</i> var. <i>inventus</i>), CRPR 2B.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Siskiyou checkerbloom (<i>Sidalcea malviflora</i> ssp. <i>Patula</i>) CRPR 1B.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tracy's romanzoffia (<i>Romanzoffia tracyi</i>), CRPR 2B.3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Western lily (<i>Lilium occidentale</i>), FE, SE, CRPR 1B.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Wolf's evening-primrose (<i>Oenothera wolfii</i>), CRPR 1B.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Woodnymph (<i>Moneses uniflora</i>), CRPR 2B.2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<i>Moss species</i>			
Cylindrical trichodon (<i>Trichodon cylindricus</i>), CRPR 2B.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Inundated bog-clubmoss (<i>Lycopodiella inundata</i>), CRPR 2B.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Minute pocket moss (<i>Fissidens pauperculus</i>), CRPR 1B.2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Naked flag moss (<i>Discelium nudum</i>), CRPR 2B.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>Lichen species</i>			
Twisted horsehair lichen (<i>Sulcaria spiralifera</i>), CRPR 1B.2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<i>Wildlife species</i>			
American peregrine falcon (<i>Falco peregrinus anatum</i>), FP	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Bald eagle (<i>Haliaeetus leucocephalus</i>), SE, FP, BGEPA	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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Bank swallow (<i>Riparia riparia</i>), ST	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
California Ridgway's rail (<i>Rallus obsoletus obsoletus</i>), FE, SE, FP	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Coastal cutthroat trout (<i>Oncorhynchus clarkii clarkii</i>), SSC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Coho salmon – southern Oregon/northern California Evolutionarily Significant Unit (ESU) (<i>Oncorhynchus kisutch</i> pop. 2), FT, ST	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Crotch bumble bee (<i>Bombus crotchii</i>), SCE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Eulachon (<i>Thaleichthys pacificus</i>), FT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fisher (<i>Pekania pennanti</i>), SSC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Foothill yellow-legged frog – north coast DPS (<i>Rana boylei</i> pop. 1), SSC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fork-tailed storm-petrel (<i>Hydrobates furcatus</i>), SSC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Green sturgeon – southern DPS (<i>Acipenser medirostris</i> pop. 1), FT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Longfin smelt (<i>Spirinchus thaleichthys</i>), FPE, ST	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Marbled murrelet (<i>Brachyramphus marmoratus</i>), FT, SE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mountain plover (<i>Charadrius montanus</i>), SSC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Northern red-legged frog (<i>Rana aurora</i>), SSC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Northern spotted owl (<i>Strix occidentalis caurina</i>), FT, ST	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Pacific lamprey (<i>Entosphenus tridentatus</i>), SSC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Pacific tailed frog (<i>Ascaphus truei</i>), SSC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ring-tailed cat (<i>Bassariscus astutus</i>), FP	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sonoma tree vole (<i>Arborimus pomo</i>), SSC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Southern torrent salamander (<i>Rhyacotriton variegatus</i>), SSC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Steelhead - northern California DPS summer-run (<i>Oncorhynchus mykiss irideus</i> pop. 48), FT, SE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Steelhead - northern California DPS winter-run (<i>Oncorhynchus mykiss irideus</i> pop. 49), FT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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Tidewater goby (<i>Eucyclogobius newberryi</i>), FE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Townsend's big-eared bat (<i>Corynorhinus townsendii</i>), SSC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tufted puffin (<i>Fratercula cirrhata</i>), SSC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Western brook lamprey (<i>Lampetra richardsoni</i>), SSC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Western bumble bee (<i>Bombus occidentalis</i>), SCE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Western pond turtle (<i>Emys marmorata</i>), FPT, SSC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Western snowy plover (<i>Charadrius nivosus nivosus</i>), FT, SSC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Yellow rail (<i>Coturnicops noveboracensis</i>), SSC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Nesting birds	N/A	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Bat roosting habitat	N/A	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p>* Special Status is defined as Federally Endangered, Threatened, Proposed Endangered, Proposed Threatened or Candidate (FE, FT, FPE, FPT, FC); State Endangered, Threatened, Candidate, Rare or Species of Special Concern (SE, ST, SC, SR, SSC); Fully Protected (FP); species covered by the Bald and Golden Eagle Protection Act (BGEPA); California Rare Plant Ranks (CRPR) 1 or 2 (1B.x, 2B.x); and California Department of Fish and Wildlife Species of Special Concern (SSC).</p>			
<p>Evaluation of Resources & Potential Impacts</p> <p>A desktop review¹ identified potential suitable habitat in the assessment area for six special-status plant species, nine special-status wildlife species, nesting birds, and roosting bats. For bird species and roosting bats, potential impacts and AMMs are discussed in the nesting birds and roosting bats section of this review. For all sensitive habitats, special-status species, nesting birds, and roosting bats, the implementation of BMPs and AMMs (see section below) will minimize substantial adverse impacts.</p> <p><u>Special-status plants not expected to occur at the work areas²</u></p> <p><u>Annuals</u></p> <ul style="list-style-type: none"> • Beach layia: Habitat for this species consists of coastal dunes and sandy areas of coastal scrub from 0 - 195 feet in elevation. Suitable habitat is absent from the work areas and the species is not expected to occur. 			

¹ California Natural Diversity Database (CNDDDB), eBird, and PG&E MapGuide biological survey data searches included a search radius of 1.5 miles around the work areas.

² Plant ID, habitat requirements, and distribution retrieved from CNPS Calscape (<https://calscape.org>), and Calflora (<https://www.calflora.org>).

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<ul style="list-style-type: none"> • Dark eyed gilia: Habitat for this species consists of stabilized coastal dunes from 0 to 33 feet in elevation. Suitable habitat is absent from the work areas and the species is not expected to occur. • Howell’s montia: Habitat for this species consists of moist to wet habitat, including vernal pools and meadows with compact soil from 0 to 1312 feet in elevation. Suitable habitat is absent from the work areas. • Humboldt Bay owl's-clover: Habitat for this species consists of coastal salt marshes and swamps from 0 - 10 feet in elevation. Suitable habitat is absent from the work areas. • Pacific gilia: Habitat for this species consists of steep slopes and ravines, coastal bluff scrub, openings in chaparral, coastal prairie, and valley and foothill grasslands from 15 - 2497 feet in elevation. Suitable habitat is absent from the work areas. • Point Reyes salty bird’s-beak: Habitat for this species consists of coastal salt marshes and swamps from 0 - 35 feet in elevation. Suitable habitat is absent from the work areas. • Round-headed collinsia: Habitat for this species consists of coastal dunes up to 65 feet in elevation. Suitable habitat is absent from the work areas. • Short-leaved evax: Habitat for this species consist of sandy, grassy, or wooded coastal bluffs, terraces, and dunes from 0 - 328 (984) feet in elevation. Suitable habitat is absent from the work areas. • Western sand-spurrey: Habitat for this species consists of coastal salt marshes from 0 - 10 feet in elevation. Suitable habitat is absent from the work areas. <p><u>Perennials</u></p> <ul style="list-style-type: none"> • Alpine marsh violet: Habitat for this species consists of marshes, swamps, and streambanks, often beneath shrubs from 0 - 246 feet in elevation. Suitable habitat is absent from the work areas. • Bristle-stalked sedge: Habitat for this species consists of bogs and fens, marshes and swamps, seeps, and wet meadows from 0 - 2297 feet in elevation. Suitable habitat is absent from the work areas. • Coast checkerbloom: Habitat for this species consists of meadow openings and coastal prairies from 0 – 3937 feet in elevation. Suitable habitat is absent from the work areas. • Coastal marsh milk-vetch: Habitat for this species consists of coastal salt marshes and swamps and streambanks and sandy areas adjacent to these features from 0 - 492 feet in elevation. Suitable habitat is absent from the work areas. • Deceiving sedge: Habitat for this species consists of meadows and seeps, coastal salt marshes and swamps, and wet areas of coastal prairie and coastal scrub from 10 - 820 feet in elevation. Suitable is absent from the work areas. 	

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<ul style="list-style-type: none"> • Green yellow sedge: Habitat for this species consists of sphagnum bogs, freshwater marshes and swamps, wet meadows, dune swales, lakeshores, and serpentine fens from 0 - 5905 feet in elevation. Suitable habitat is absent from the work areas. • Lagoon sedge: Habitat for this species consists of bogs and fens, marshes and swamps, and North Coast coniferous forests adjacent to shores and beaches from 0 - 65 feet in elevation, often found on gravelly soils. Suitable habitat is absent from the work areas. • Lyngbye's sedge: Habitat for this species consists of brackish marshes and swamps from 0 - 35 feet in elevation. Suitable habitat is absent from the work areas. • Marsh pea: Habitat for this species consists of bogs and fens, marshes and swamps, and wet areas in coastal prairie, coastal scrub, lower montane coniferous forest, and North Coast coniferous forest from 0 - 330 feet in elevation. Suitable habitat is absent from the work areas. • Mendocino coast paintbrush: Habitat for this species consists of coastal bluff scrub, coastal dunes, and coastal scrub from 0 - 525 feet in elevation. Suitable habitat is absent from the work areas. • Menzies' wallflower: Habitat for this species consists of coastal dunes, headlands, and cliffs from 0 - 984 feet in elevation. Suitable habitat is absent from the work areas. • Northern clustered sedge: Habitat for this species consists of wet meadows, sphagnum bogs, and swamps from 0 - 4593 feet in elevation. Suitable habitat is absent from the work areas. • Northern meadow sedge: Habitat for this species consists of moist to wet meadows, riparian edges, and open forest from 1640 (66) – 10,499 feet in elevation. Suitable habitat is absent from the work areas. • Oregon coast paintbrush: Habitat for this species consists of dry coastal bluff scrub, coastal dunes, and coastal scrub from 50 - 330 feet in elevation. Suitable habitat is absent from the work areas. • Oregon polemonium: Habitat for this species consists of coastal prairie, coastal scrub, and lower montane coniferous forests from 0 - 6005 feet in elevation. Suitable habitat is absent from the work areas. • Perennial goldfields: Habitat for this species consists of grasslands and dunes along the immediate coast forest from 15 - 1640 feet in elevation. Suitable habitat is absent from the work areas. • Pink sand-verbena: Habitat for this species consists of coastal dunes and disturbed, sandy areas of coastal scrub from 0 - 328 feet in elevation. Suitable habitat is absent from the work areas. • Scouler's catchfly: Habitat for this species consists of rocky areas in coastal bluff scrub, coastal prairie, and valley and foothill grasslands from 0 - 1000 feet in elevation. Suitable habitat is absent from the work areas. 	

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<ul style="list-style-type: none"> • Seaside pea: Habitat for this species consists of coastal strand, beaches, and dunes from 0 to 98 feet in elevation. Suitable habitat is absent from the work areas. • Sierra rush: Habitat for this species consists of dune swales and coastal bogs and fens from 0 - 65 feet in elevation. Suitable habitat is absent from the work areas. • Siskiyou checkerbloom: Habitat for this species consists of coastal bluff scrub, coastal prairie, and open coastal forests from 50 - 4035 feet in elevation. This species is often found on roadcuts. Suitable habitat is absent from the work areas. • Tracy’s romanzoffia: Habitat for this species consists of rocky areas of coastal bluff scrub and coastal scrub from 50 - 100 feet in elevation. Suitable habitat is absent from the work areas. • Western lily: Habitat for this species consists of coastal scrub or prairie, swamps and bogs, coastal bluffs, or gaps within conifer forest. Existing populations for this species are well documented, however the populations are not found near the work areas and suitable habitat is absent from the work areas. • Wolf’s evening-primrose: Habitat for this species consists of wet, sandy areas of coastal bluff scrub, coastal dunes, coastal prairie, and lower montane coniferous forests from 10 - 2625 feet in elevation. This species is sometimes found on roadsides. Suitable habitat is absent from the work areas. <p><u>Moss species</u></p> <ul style="list-style-type: none"> • Cylindrical trichodon: Habitat for this species consists of sandy or clay soils in disturbed areas along roadcuts or streambanks throughout coastal scrub, grassland, and upper montane coniferous forest at elevations from 0 – 6,567 feet in elevation. Suitable habitat is absent from the work areas. • Inundated bog-clubmoss: Habitat for this species consists of peat bogs, muddy depressions, and pond margins from 0 - 164 feet in elevation. Suitable habitat is absent from the work areas. • Naked flag moss: Habitat for this species consists of clay banks and bare soil within coastal bluff scrub from 35 - 164 feet in elevation. Suitable habitat is absent from the work areas. <p><u>Special-status wildlife not expected to occur at the work areas³</u></p> <ul style="list-style-type: none"> • American peregrine falcon: Nesting habitat for this species consists of open areas (in developed and undeveloped areas) and cliff ledges (natural and man-made; buildings and bridges) or in broken-top snags of large redwood (<i>Sequoia sempervirens</i>) in northern coastal California. Known breeding pairs are well documented along the Humboldt County shoreline and 	

³ Bird habitat, nesting, distribution, and range information retrieved from Audubon California (<https://ca.audubon.org>), CDFW Species Accounts – birds (<https://nrm.dfg.ca.gov>), CDFW Bird Species of Special Concern (<https://www.wildlife.ca.gov/Conservation/SCC/Birds>).

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<p>no known nests are immediately adjacent to work areas. With the lack of nesting habitat and absence of well documented nesting sites, this species is not expected to occur at work areas.</p> <ul style="list-style-type: none"> Bald eagle: Bald eagles nest predominantly within large, old-growth, and/or dominant live conifer trees (especially ponderosa pine) with open branches. Nests are usually located within one mile of key foraging areas that support a resident (non-migratory) population of prey-sized fish. These raptors characteristically choose large conifers in relatively secluded areas away from human disturbance to build nests. They are uncommon breeders in Humboldt County. There is one CNDDDB record (2022) of a nesting pair in a patch of Sitka spruce forest near work area 5 (approximately 500 feet away). Although habitat adjacent to the work areas may support foraging, nesting activity is unlikely at the work areas due to the proximity of vehicular traffic and the species is not expected to occur. Bank swallow: Nesting habitat for this species consists of low elevation vertical cliffs or banks in close proximity to waterbodies. Suitable habitat is absent from the work areas and this species is not expected to occur. California Ridgway’s rail: Nesting habitat consists of coastal saltmarsh swamps with tall grasses and extensive vegetation, often dominated by cordgrass and pickleweed. Suitable habitat is absent from the work areas. Coast cutthroat trout: Habitat for this species consists of estuaries, lagoons, and small, low-gradient coastal streams with cool, clean water, ample cover, and deep holding pools. While coast cutthroat trout have highly variable life history strategies compared to other anadromous salmonids, they spawn in fresh water streams. Their spawning habitat requirements are similar to those of steelhead and stream-resident rainbow trout, and so coast cutthroat trout tend to spawn in higher reaches of coastal streams in which these other species co-occur. Spawning adults enter coastal streams after the first substantial rainfall of the season, which generally occurs between August and October. There is one CNDDDB record (1984) in Penn Creek (an NHD mapped perennial stream) that overlaps work areas 16 and 17, however there is a total barrier to fish passage at Patrick’s Point Dr which is downstream of the work areas. Additionally, another CNDDDB record (1995) overlaps work area 18. There is no barrier to fish passage, however work area 18 is approximately 212 feet away from an NHD mapped perennial tributary of Redwood Creek and is separated from the stream by Hufford Rd. This species is not expected to occur. Coho salmon – southern Oregon/northern California ESU: Coho salmon spend the first part of their lives in streams and the latter part out at sea. They occupy cool streams with unobstructed flow and adequate oxygen, as well as areas of shelter from strong currents. Coho salmon typically inhabit small coastal streams as well as large rivers. Spawning occurs mainly from November to January but can extend into February or March. Coho salmon can be found at elevations from sea level to 4,000 feet. A CNDDDB record (2016) maps the presence of coho salmon in Freshwater Creek and its tributaries, and work areas 22 and 23 are within 250 feet of an NHD mapped intermittent tributary of Freshwater Creek. There are no complete barriers to fish passage in the tributary, however the work areas are separated from the stream by Woodgulch Rd. The species is not expected to occur. 	

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<ul style="list-style-type: none"> • Crotch bumble bee: This species can be found between San Diego and Redding in a variety of habitats including open grasslands, shrublands, chaparral, desert margins including Joshua tree and creosote scrub, and semi-urban settings. Historically, California’s Central Valley served as a primary population center for the species. Once ubiquitous throughout this region, today the bumblebee is absent from much of its historic range. While there may be suitable open grasslands habitat near work areas 60 and 61, the only CNDDDB record (1976) is mapped near Mad River Beach County Park and is not common within Humboldt County. The species is not expected to occur. • Eulachon: This species is an anadromous member of the smelt family, spending roughly 95% of their lives in open ocean. Spawning occurs in the lower sections of coastal rivers between December and June. Suitable anadromous habitat is absent from the work areas, and the species is not expected to occur. • Fisher: This species is found in dense late-successional or old-growth coniferous or mixed forested areas with large tree snags and canopy cover. Throughout their range, fishers use tree cavities for denning and can use up to five or more different den sites throughout one breeding season. Suitable dense, old-growth coniferous habitat is absent from the work areas. • Fork-tailed storm petrel: Nesting habitat consists of crevices in rocks, talus slopes, sod, or roots or burrows in soft soil on remote marine islands, often nesting near other seabirds. The species forages in cold, deep water. Suitable habitat is absent from the work areas. • Green sturgeon – southern DPS: Green sturgeon are anadromous fish that spawn in rivers and migrate back to saltwater to mature and feed. This species spends most of their life in ocean waters but will enter bays or brackish estuaries during the summer to feed. Spawning occurs in cool, deep, swift flowing rivers with gravel and cobble bottoms. Their sensitive period is between mid-February to June. There is one CNDDDB record (2020) in Humboldt Bay, however suitable anadromous habitat is absent from the work areas and the species is not expected to occur. • Longfin smelt: The longfin smelt is an anadromous fish primarily found in waters of northern California coastal shores, estuaries, and bays. This species can tolerate a wide range of salinities and uses a variety of habitats including nearshore waters, estuaries, and lower portions of freshwater streams. Eggs are released on sandy substrates, rocks, and aquatic plants. Spawning occurs from November to May. Suitable anadromous habitat is absent from the work areas and the species is not expected to occur. • Mountain plover: Nesting habitat for this species consists of shortgrass prairie, especially with blue grama, buffalo grass, and western wheatgrass are dominant, and in grassy semidesert with saltbush, sagebrush, prickly pear, and yucca at elevations from 2,100 - 10,663 feet. Suitable habitat is absent from the work areas. • Pacific lamprey: Pacific lamprey species are found along the North Pacific Coast from Alaska to California. They spend their early lives in medium- and large-sized, low-gradient rivers and streams and migrate to the ocean as adults. Adults return to freshwater rivers and streams to spawn. A CNDDDB record (2014) maps the presence of Pacific lamprey in Freshwater Creek and its tributaries, and work areas 22 and 23 are within 250 feet of an NHD mapped intermittent tributary of Freshwater Creek. There are no complete barriers to fish passage in the tributary, 	

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<p>however the work areas are separated from the stream by Woodgulch Rd. The species is not expected to occur.</p> <ul style="list-style-type: none"> Steelhead - northern California DPS summer-run: Steelhead occupy cool, freshwater streams or lakes during spawning and then migrate back through brackish water to the open ocean to live during their adult non-spawning phase of their life cycle. Steelhead spend most of the year in estuaries or open ocean. This species' sensitive period is from December to March, and it can be found at elevations from sea level to 8,500 feet. A CNDDDB record (2019) maps the presence of steelhead in Redwood Creek, an anadromous perennial stream. Work area 18 is within 250 feet of a NHD mapped perennial tributary of Redwood Creek. There is no barrier to fish passage, however work area 18 is approximately 212 feet away from an NHD mapped perennial tributary of Redwood Creek and is separated from the stream by Hufford Rd. This species is not expected to occur. Steelhead - northern California DPS winter-run: Steelhead occupy cool, freshwater streams or lakes during spawning and then migrate back through brackish water to the open ocean to live during their adult non-spawning phase of their life cycle. Steelhead spend most of the year in estuaries or open ocean. This species' sensitive period is from December to March, and it can be found at elevations from sea level to 8,500 feet. A CNDDDB record (2018) maps the presence of steelhead in Freshwater Creek and its tributaries, and work areas 22 and 23 are within 250 feet of an NHD mapped intermittent tributary of Freshwater Creek. There are no complete barriers to fish passage in the tributary, however the work areas are separated from the stream by Woodgulch Rd. Additionally, another CNDDDB record (2020) maps the presence of steelhead in Redwood Creek, an anadromous NHD mapped perennial stream. Work area 18 is within 250 feet of a NHD mapped perennial tributary of Redwood Creek. There is no barrier to fish passage, however work area 18 is separated from the stream by Hufford Rd. This species is not expected to occur. Tidewater goby: The tidewater goby is endemic to California and primarily found in shallow waters of coastal lagoons, estuaries, upper edges of tidal bays, and marshes. Gobies can travel 3-5 miles upstream but are more often found within 0.5 miles of preferred lagoon habitat. A CNDDDB record (2006) maps the presence of tidewater goby in Freshwater Creek and its tributaries, and work areas 22 and 23 are within 250 feet of an NHD mapped intermittent tributary of Freshwater Creek. There are no complete barriers to fish passage in the tributary, however the work areas are separated from the stream by Woodgulch Rd. Additionally, another CNDDDB record (1995) overlaps work area 18. There is no barrier to fish passage, however work area 18 is approximately 212 feet away from an NHD mapped perennial tributary of Redwood Creek and is separated from the stream by Hufford Rd. The species is not expected to occur. Townsend's big-eared bat: Roosting habitat for this species consists of caves, mines, tunnels, bridges, and other human-made structures. Townsend's big-eared bats forage along habitat edges, catching insects in the air or gleaning them from brush and trees. This species' sensitive 	

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<p>period is from April 1st to August 31st, and they can be usually found between sea level and 1820 feet in elevation. Suitable roosting habitat is absent from the work areas.</p> <ul style="list-style-type: none"> • Tufted puffin: Nesting habitat for this species consists of grassy turf on slopes of steep, rocky islands. Suitable habitat for this species does not occur at the work areas. • Western brook lamprey: This species is found in coastal streams with clear, cold water in little disturbed watersheds. Spawning adults build nests in small gravel riffles, and spawning occurs early March to early June. A CNDDDB record (2014) maps the presence of western brook lamprey in Freshwater Creek and its tributaries. Work areas 22 and 23 are within 250 feet of an NHD mapped intermittent tributary of Freshwater Creek. There are no complete barriers to fish passage in the tributary, however the work areas are separated from the stream by Woodgulch Rd and the species is not expected to occur. • Western bumble bee: Western bumble bees require suitable nesting sites, overwintering sites for the queens, and nectar and pollen resources throughout the spring, summer, and fall. Most reports of Western bumble bee nests are from underground cavities such as old squirrel or other animal nests and in open west-southwest slopes bordered by trees, although a few nests have been reported from above-ground locations such as in logs among railroad ties. Bumble bees require plants that bloom and provide adequate nectar and pollen throughout the colony’s life cycle, which is from early February to late November (although the actual dates likely vary by elevation). Historically, the western bumble bee was both common and widespread throughout the western United States and western Canada. Since 1988, this species' population has undergone a drastic decline. Populations in central California, Oregon, Washington, and southern British Columbia are largely gone and only the populations in Alaska and east of the Cascades in the Canadian and U.S. Rocky Mountains are still viable. Suitable nesting habitat is absent from the work areas. • Western snowy plover: Western snowy plovers are found in sandy areas near water, including coastal beaches, barrier islands, and inland saline lakes. Suitable habitat is absent from the work areas. • Yellow rail: Nesting habitat for this species consists of grassy marshes and meadows dominated by sedges and grasses. Nests can be found in areas of fresh or brackish water no more than a foot deep. Suitable habitat is absent from the work areas. <p>Special-status species with potential to occur</p> <p>The following special-status species have potential to occur at the work areas during vegetation management activities in suitable habitat.</p> <p><u>Special-status plants with potential to occur at the work areas</u></p> <p>Four perennial plant species, one moss species, and one lichen special status plant species that are CRPR ranked 1 and 2 that could occur within or adjacent to work areas are listed below. Based on the project activities of vegetation removal, the project could result in impacts to special-status plants. Potential impacts include individual plants being crushed during work activities by work equipment,</p>	

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<p>failing limbs, and personnel on foot; however, seed banks and roots will remain intact. The implementation of BMPs will minimize potential impacts to these species.</p> <p><u>Perennials</u></p> <p>Coast fawn lily</p> <p>There is one CNDDDB occurrence (1918) within 1.5 miles of the work areas. Habitat for this species consists of streambanks, bogs, or wet forest understory from 0 – 4429 feet in elevation. The bloom period is from March to July. Suitable habitat is present at work areas 11, 12, 16, 17, 65, and 66. With the implementation of BMPs, impacts to this species are not anticipated.</p> <p>Ghost-pipe</p> <p>There are three CNDDDB occurrences (1971-2020) within 1.5 miles of the work areas. Habitat for this species consists of mixed conifer or broadleafed upland forests and North Coast coniferous forests from 0 - 656 feet in elevation. This species is non-photosynthetic and is parasitic of mycorrhizal fungi associated with trees. The bloom period for this species is June to August, but it has been observed blooming as late as September. Suitable habitat is present at work areas 1-4, 8, 11-17, 19, 64-66, 102-104, and 106. With the implementation of BMPs, impacts to this species are not anticipated.</p> <p>Seaside bittercress</p> <p>There are two CNDDDB occurrences (1964 and 2018) within 1.5 miles of the work areas. Habitat for this species consists of shady tickets, streambanks, and forest from 0 – 2953 feet in elevation. The bloom period is from April to June. Suitable habitat is present at work areas 11, 12, 16, 17, 65, and 66. With the implementation of BMPs, impacts to this species are not anticipated.</p> <p>Woodnymph</p> <p>There is one CNDDDB occurrence (2012) within 1.5 miles of the work areas. Habitat for this species consists of moist, mossy conifer forests from 328 – 3280 feet in elevation. The bloom period is from May to July. Suitable habitat is present at work areas 1-4, 8, 11-17, 19, 64-66, 102-104, and 106. With the implementation of BMPs, impacts to this species are not anticipated.</p> <p><u>Moss</u></p> <p>Minute pocket moss</p> <p>There is one CNDDDB occurrence (1967) within 1.5 miles of the work areas. Habitat for this species consists of damp coastal soils in North Coast coniferous forest from 35 - 3360 feet in elevation. Suitable habitat is present at work areas 1-4, 8, 11-17, 19, 64-66, 102-104, and 106. With the implementation of BMPs, impacts to this species are not anticipated.</p> <p><u>Lichen</u></p> <p>Twisted horsehair lichen</p>	

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<p>There are four CNDDDB occurrences (1975-2009) within 1.5 miles of the work areas. Habitat for this species consists of North Coast coniferous forests on the immediate coast and coastal dunes in San Luis Obispo County. This species is usually found on conifers from 0 - 295 feet in elevation. Suitable habitat is present at work areas 11-17, 19, and 92-94. With the implementation of BMPs, impacts to this species are not anticipated.</p> <p>There are no state or federally listed plant species that have potential to occur at the work areas.</p> <p><u>Special-status wildlife with potential to occur at the work areas</u></p> <p>Nine special-status wildlife species, nesting birds, and roosting bats were identified as having potential to occur at the work areas. Potential impacts include individual wildlife species being crushed during work activities by work equipment and personnel on foot and temporary displacement; however, there are other habitats outside of the work areas for species to move to during the short work period. The implementation of AMMs and BMPs will minimize potential impacts to these species.</p> <p>Foothill yellow-legged frog</p> <p>There are six CNDDDB occurrences (1949-2018) within 1.5 miles of the work areas. Suitable habitat includes permanently flowing streams and rivers with large cobbles and open, sunny banks, in forests, chaparral, and woodlands. The species is also sometimes found in isolated pools, vegetated backwaters, and deep, shaded, spring-fed pools. It may be found in or near streams during all seasons, and up to 100 feet from flowing water. Potential dispersal habitat is present at work areas 16, 17, and 65. The implementation of AMMs and BMPs will minimize potential impacts to this species.</p> <p>Marbled Murrelet</p> <p>There are three CNDDDB (dates unknown) occurrences within 1.5 miles of the work areas. USFWS designated critical habitat for marbled murrelet overlaps works areas 1-4, 8, 11-17, 64-67, 69-73, 78-80, and 82-87. Work areas 68, 74-77, 81, and 88-91 are within 100 feet of USFWS designated critical habitat for marbled murrelet. 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 [<i>Sequoia sempervirens</i>]) located within major drainages at lower elevations (i.e., below 3,600 feet) are most important predictors of occupancy and presence. There are no redwoods within suitable habitat at the work areas. An analysis was also conducted to evaluate the potential for noise disturbance to this species in the vicinity of the work area. Based on the <i>Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California</i> (U.S. Fish and Wildlife Service 2006), the existing ambient conditions would be considered 'low' for work areas along low-voltage power lines set back from the highway, and 'moderate' for work areas adjacent to surface streets and Hwy 101. Project work would be considered 'very high' due to the use of a chipper. According to the document, 'very high' action-generated activities occurring in 'low' or 'moderate' conditions can cause project noise</p>	

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<p>attenuation to exceed established take thresholds within 825 feet or 330 feet of project work areas, respectively. Potentially suitable habitat for marbled murrelet is present within 825 feet of work areas 1-4, 11-15, 105, and 106 or within 330 feet of work areas 8, 19, 64-91, and 102. Marbled murrelet is a covered species under the MRHCP, and the work activities will be conducted in compliance with this permit.</p> <p>Northern red-legged frog</p> <p>There are 32 CNDDDB occurrences (1965-2014) within 1.5 miles of the work areas. Northern red-legged frogs are known to occur along the coast range from Del Norte County to Mendocino County. Habitat for this species includes marshes, pools, ponds, and calm streams. Prefers aquatic habitats with densely vegetated shorelines and rarely moves from streamside habitats except during juvenile dispersal. This species can also be found on roads or at night or during rain events. Breeding requires permanent to near-permanent waterbodies. Suitable upland habitat is present at work areas 11, 12, 16, 17, 18, 22, 23, 49-59, 65, 66, and 105. With the implementation of AMMs and BMPs, impacts to this species are not anticipated.</p> <p>Northern spotted owl</p> <p>There are 288 CNDDDB occurrences (1981-2022) of northern spotted owls within 1.5 miles of the work areas; 48 positive, 233 negative, one abandoned, and six activity centers. The closest positive occurrence includes a nest 0.547 miles from the work areas. Northern spotted owls are non-migratory, and prefer old-growth forests, particularly redwood and Douglas fir forests. These types of forests have high canopy layers, snags (standing dead trees), and open spaces for flying underneath and between trees. In their habitat, young northern spotted owls are prey for great horned owls and northern goshawks. Based on the guidance in <i>Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California</i> (U.S. Fish and Wildlife Service 2006), the existing ambient noise conditions would be considered 'low' for work areas along low-voltage power lines set back from the highway, and 'moderate' for work areas adjacent to surface streets and Hwy 101. Project work would be considered 'very high' due to the use of a chipper. According to the document, 'very high' action-generated activities occurring in 'low' or 'moderate' conditions can cause project noise attenuation to exceed established take thresholds within 825 feet or 330 feet of project work areas, respectively. Potentially suitable habitat for marbled murrelet is present within 825 feet of work areas 1-4, 11-15, 105, and 106 or within 330 feet of work areas 8, 19, 64-91, and 102. Northern spotted owl is a covered species under the MRHCP (NSO-1), and the activities will be conducted in compliance with this permit.</p> <p>Pacific tailed frog</p> <p>Habitat for this species consists of permanent cold, clear, swift streams with rocky streambeds to provide cover for adults, egg masses, and tadpoles. While this frog species will sometimes forage in redwood and Douglas fir forests short distances (40 feet) from waterways—particularly during wet weather conditions—they are typically found close to stream banks. They can be found from sea level to 8400 ft elevation. Adults are usually active from April to October, depending on the locality. The range of this frog in California is from near Anchor Bay, Mendocino County, north along the coast to the Oregon Border and as far east as near Big Bend, Shasta County. Suitable habitat is present near work</p>	

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<p>areas 16 and 17. With the implementation of AMMs and BMPs, impacts to this species are not anticipated.</p> <p>Ring-tailed cat</p> <p>No CNDDDB occurrence information is available for the ring-tailed cat, as CNDDDB does not track observations for this species. Ring-tailed cats den in rock crevices, living and dead hollow trees, logs, brush piles, buildings, and other man-made structures in deserts, chaparral, oak woodlands, juniper forests, and conifer forests from sea level to 9,600 feet in elevation. Wooded habitat and brush adjacent to work areas provides potentially suitable denning habitat for the ring-tailed cat. Between May 1 and August 31, work activities could disturb individuals in maternal dens. Suitable habitat is present at work areas 1-4, 11-17, 19, 64-66, 68-91, 102-104, and 106, therefore the species has the potential to occur. The implementation of AMMs will minimize potential impacts to this species.</p> <p>Sonoma tree vole</p> <p>There is one CNDDDB occurrence (date unknown) for this species within 1.5 miles of the work areas. The Sonoma tree vole primarily inhabits coniferous forests dominated by Douglas-fir, but also occurs where Douglas-fir coexists with other species such as redwood, Sitka spruce, western hemlock, tan oak, or grand fir. This species is arboreal, and their diet consists almost entirely of Douglas-fir needles. The species primarily nests in Douglas-fir, but have been documented in smaller numbers in redwoods, tan oaks and grand firs— typically in taller trees. The majority of individuals occupied a single nest tree and adjacent foraging trees that had interconnecting branch pathways with the nest tree. Suitable nesting habitat is present at work areas 11, 12, 14-17, 19, and 66, therefore the species has the potential to occur. With the implementation of AMMs and BMPs, impacts to this species are not anticipated.</p> <p>Southern torrent salamander</p> <p>There are nine CNDDDB occurrences (1986-2015) within 1.5 miles of the work areas. Habitat for this species consists of shallow, cold, clear, well-shaded streams and seeps in mature to old growth forests. This species is highly intolerant of desiccation and thus terrestrial activity is constrained to the riparian area surrounding streams. Suitable habitat is present at work areas 16 and 17. With the implementation of AMMs and BMPs, impacts to this species are not anticipated.</p> <p>Western pond turtle</p> <p>There is one CNDDDB occurrence (2017) within 1.5 miles of the work areas. Western pond turtles use both aquatic and terrestrial habitats. They are found in rivers, lakes, streams, ponds, wetlands, vernal pools, ephemeral creeks, reservoirs, agricultural ditches, estuaries, and brackish waters. Western pond turtles prefer areas that provide cover from predators, such as vegetation and algae, as well as basking sites for thermoregulation. Adults tend to favor deeper, slow-moving water, whereas hatchlings search for slow and shallow water that is slightly warmer. Terrestrial habitats are used for wintering and consist usually of burrows in leaves and soil. Western pond turtles also lay their eggs in terrestrial habitats. They are rarely found at altitudes above 1500m. Suitable habitat can be found at work areas 11, 12, 16-18, 22,</p>	

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<p>23, 49-59, 65, and 66. The implementation of AMMs and BMPs will minimize potential impacts to this species.</p> <p>Nesting Birds</p> <p>Migratory birds protected by the Migratory Bird Treaty Act and California Fish and Game Code are likely to nest on the ground or in trees, shrubs, or structures in the work area during the bird-nesting season (February 15 – August 31). Potential impacts include destruction of nests and disturbance from vehicle and equipment noise, which could potentially cause nest abandonment or egg and nestling neglect while work is in progress. If work occurs between February 15 and August 31, Vegetation Management Nesting Bird Procedure will be implemented.</p> <p>Bat Roosting Habitat</p> <p>Several bat species in California frequently use tree bark/hollows and tree foliage to roost, with cavity roosting species using open surfaces of tree hollows and crevice roosting species using “slots” such as exfoliating tree bark and damaged wood; however, none of these bat species are listed under the federal or state Endangered Species Acts. Cavities can be occupied by hibernating colonies in winter or by maternity colonies comprised of adult females and young from spring through early fall. Maternity day roosts are typically in more concealed cavities such as crevices, and night roosts are typically in more open and exposed cavities. Potential impacts include destruction of roosting habitat and disturbance from vehicle and equipment noise, which could lead to roost abandonment or neglect of young while work is in progress. To protect roosting bats and roosting habitat, removal of trees with cavities and/or exfoliating bark shall be avoided during the bat maternity season (April 1 – August 31) to the extent possible. For trees subject to removal with bats detected emerging from cavities, or for removal trees with cavities, exfoliating bark, or dense foliage that could not be sufficiently inspected, project BMPs should be followed.</p>	

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*Are there any aquatic resources (seasonal or permanent) and/or riparian corridors within 250 feet?	
<input checked="" type="checkbox"/> Yes. If yes, provide type of aquatic resource: <ul style="list-style-type: none"> • Work areas 11, 12, 16-18, 22, 23, 65, 66, and 105 are within 250 feet of NHD mapped features. <ul style="list-style-type: none"> ○ Work areas 11, 12, 22, and 23 are within 250 feet of NHD mapped unnamed intermittent streams. ○ Work areas 18, 66, and 105 are within 250 feet and work area 65 is within 100 feet of NHD mapped unnamed perennial streams. ○ Work areas 16 is within 50 feet and work area 17 is within 15 feet from NHD mapped perennial stream named Penn Creek. • Work areas 1, 12, 16-18, 22, 23, 49-59, 65, 66, 95-101, and 105 are within 250 feet of NWI mapped features. <ul style="list-style-type: none"> ○ Work areas 11, 12, 16, 17, 22, 23, 65, 66, and 105 are within 250 feet of NWI mapped riverine habitat. Work area 17 is closest at approximately 9 feet away. ○ Work areas 18, 49, 50, 52-56, and 95-101 are within 250 feet of NWI mapped freshwater forested/shrub wetland. Work areas 18 and 95-99 are within 100 feet away, and work areas 49, 50, and 53-56 overlap the wetland. ○ Work areas 18, 51, and 57-59 are within 250 feet of NWI mapped freshwater emergent wetland. Work area 59 overlaps the wetland. ○ Work area 18 is within 250 feet of a NWI mapped freshwater pond. <p>What type of aquatic resource is within 250 feet? <input checked="" type="checkbox"/> Natural <input type="checkbox"/> Man-made <input checked="" type="checkbox"/> potential wetland <input checked="" type="checkbox"/> perennial <input checked="" type="checkbox"/> intermittent <input type="checkbox"/> ephemeral</p> <p>Note:</p>	
<input type="checkbox"/> No	
If you answered yes to previous question, will the project directly impact any of the above aquatic resources?	
<input type="checkbox"/> Yes. If yes, please explain how:	
<input checked="" type="checkbox"/> No: A biological monitor is recommended for work areas 16, 17, 49-51, and 53-59 (within approximately 50 feet of aquatic resources). No ground disturbances are expected in the scope of work. With implementation of AMMs and BMPs, no impacts to aquatic resources are expected.	
Critical Habitat Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Physical and Biological Features Impacted:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Notes:	

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<ul style="list-style-type: none"> United States Fish and Wildlife Service (USFWS) designated critical habitat for marbled murrelet overlaps works areas 1-4, 8, 11-17, 64-67, 69-73, 78-80, and 82-87. Work areas 68, 74-77, 81, and 88-91 are within 100 feet of USFWS designated critical habitat for marbled murrelet. <p>No adverse effects to federally designated critical habitat are expected with implementation of AMMs and BMPs.</p>	
Best Management Practices and Avoidance and Minimization Measures	
<p>This project is a covered activity (E10a) under PG&E’s MRHCP, and therefore all work will adhere to the BMPs established in the MRHCP. BMPs are considered practicable where physically possible and not conflicting with other regulatory obligations or safety considerations (General Order 95, Rule 35 and Public Resource Codes 4292 and 4293) or emergency response situations. These BMPs are designed to ensure that PG&E Vegetation Management (VM) activities are performed in an environmentally sensitive manner to minimize environmental impacts.</p> <p><u>MRHCP Measures</u></p> <ul style="list-style-type: none"> 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 ISNetwork. Contact the company’s ISNetwork administrator to receive the training, if not already completed. 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. <p>Vegetation Management BMPs 1-27 General</p> <p>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. Special attention shall be given to the following:</p> <ul style="list-style-type: none"> BMP 4: Vehicles and equipment must use pavement, existing roads, and previously disturbed areas to the extent practicable. 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 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. BMP 16: VM activities impacting birds must follow VM migratory bird process, to comply with the Migratory Bird Treaty Act. 	

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<p>○ BMP 22: Disturbance or removal of non-target vegetation within a work site should not exceed the minimum necessary to complete operations, subject to other public health and safety directives governing the safe operations and maintenance of electric and gas facilities.</p> <p>MM-1: Marbled murrelet (Work areas 1-4, 8, 11-15, 19, 64-91, 102, 105, and 106) 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 <i>Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California</i> (U.S. Fish and Wildlife Service 2006).</p> <p>NSO-1: Northern Spotted Owl (Work areas 1-4, 8, 11-15, 19, 64-91, 102, 105, and 106) 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 <i>Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California</i> (U.S. Fish and Wildlife Service 2006). With sufficient survey data adjacent to work areas, work activities are not expected to impact nesting Northern Spotted Owl.</p> <ul style="list-style-type: none"> • <u>There are no known nests within 0.25 miles of the work area.</u> <p><u>Non-HCP Measures for NSO/MAMU</u></p> <p>At work areas within suitable habitat (Work Areas 1-4, 8, 11-17, 19, 64-91 and 82-87, 102, 105 and 106) When work is to occur during the nesting season (from March 1 to August 31), the use of large chainsaws (e.g. Stihl MS 193, Stihl MS 251, Stihl MS 362) and chippers should be minimized. Project equipment shall utilize to lower volume equipment, which includes hand tools, hydraulic pruners, and chainsaws with a 25-foot load max dBA rating under 90 decibels, when limbing and climbing trees to the extent feasible. Such equipment includes:</p> <ul style="list-style-type: none"> • Small gas chainsaws (e.g., Stihl MS 170) • Electric chainsaws (e.g., Makita XCU02PTX1 or Stihl MSA 220 C-B) <p>If it's unclear the types of equipment that can be used during this time period, contact the PG&E biologist for clarification.</p> <p>Minimize the amount of work needed to occur during the nesting season (from March 1 to August 31). Consider prescription changes to achieve compliance until after nesting season, where no equipment limitations are in effect. If hazard trees must be removed due to safety concerns and cannot be felled with</p>	

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<p>lower-volume equipment, minimize noise to the extent feasible by delaying wood management, chipping and other non-essential activities until after the nesting season.</p> <ul style="list-style-type: none"> • If such activities must occur due to fire risk, attempt to schedule such activities in less than two hours per day increments and conduct such activities mid-day (i.e., between 10 a.m. and 2 p.m.). Attempt to locate wood management/chipping areas adjacent to large roads (i.e., highways) or areas with human developments. • Avoid operating loud equipment during early morning or dusk times of day, or in remote areas. <p>Aquatic Resources Measures (Work areas 16, 17, 49-51, and 53-59)</p> <ul style="list-style-type: none"> • Per BMP 12, No deposition of large rounds or limbs into a stream channel or wetland • Per BMP 12, No deposition of large rounds or limbs onto the banks of the waterway, creating large scars or depressions • Per BMP 12, No dragging or skidding material within or along the banks of a waterway or within a wetland, creating large scars or depressions • If measures are not feasible, please contact Environmental lead for additional guidance. <p>Non-HCP Measure for Aquatic Resources</p> <ul style="list-style-type: none"> • A biological monitor is recommended for work areas 16, 17, 49-51, and 53-59 (within approximately 50 feet of aquatic resources). <p>Foothill yellow-legged frog (Work areas 16, 17, and 65); northern red-legged frog (Work areas 11, 12, 16, 17, 18, 22, 23, 49-59, 65, 66, and 105); Pacific tailed frog and southern torrent salamander (Work areas 16 and 17); and western pond turtle (Work areas 11, 12, 16-18, 22, 23, 49-59, 65, and 66)</p> <ul style="list-style-type: none"> • Review species identification prior to work. • Visually check for frogs and turtles under vehicles and equipment prior to moving them and be vigilant to avoid these species on roadways. <p>Ring-tailed cat (Work areas 1-4, 11-17, 19, 64-66, 68-91, 102-104, and 106)</p> <ul style="list-style-type: none"> • Where feasible, avoid driving over, stepping on, staging equipment, or felling trees and limbs on large downed logs or large piles of woody debris, rocks, or brush – particularly in rocky or riparian areas. • Before working trees or limbs with visible cavities, workers should inspect the cavities to the extent possible for signs of potential occupancy by a ring-tailed cat (e.g., fur, etc.). If any potential dens are detected between March 1 and August 31, a no work buffer will be established within 150 feet of the potential den until August 31 unless a qualified biologist can assign a site-specific reduced buffer. 	

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<p>Sonoma tree vole (Work areas 11, 12, 14-17, 19, and 66)</p> <ul style="list-style-type: none"> • Prior to work commencing, crew tree climbers shall review species information to assist in identifying potential Sonoma tree vole nests. If a crew tree climber observes a potential nest, halt work at the tree, notify a biologist, and wait until a biologist arrives onsite. If the tree or the limb where the nest is found must be removed, under the supervision and direction of the onsite biologist, remove the nest before continuing tree work on the subject tree with proper personal protective gear. Place the nest in a nearby tree that will not require removal. <p>Roosting Bats</p> <ul style="list-style-type: none"> • If bats are detected emerging from trees subject to removal, the following steps shall be taken: <ul style="list-style-type: none"> ○ 1) limbs without roost features shall be trimmed first to encourage bats to vacate roost features on their own; ○ 2) create noise and vibration disturbance on the tree (e.g. concussive hitting with equipment and/or chainsaw cutting) for at least 15 minutes before carefully opening up potential crevices and cavities for inspection and clearance; ○ 3) Carefully cut successive sections above the cavity to open it, waiting up to 10 minutes in between each cut, and inspect to assess if it is empty or allow any bats inside to crawl or fly out. ○ 4) After tree felling, trees should be retained in place overnight, allowing bats present to disperse. <p>Where feasible, removal of trees with cavities and/or exfoliating bark shall be avoided during the bat maternity season (April 1 - August 31) to the extent possible and avoid removing such trees in the morning.</p> <p><u>Outreach measures to be implemented by crews:</u></p> <ul style="list-style-type: none"> • Initiate the Migratory Bird Process if suspected nests are discovered. • 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 animal will be allowed to move out of the area on its own. Contact PG&E biologist (Richard Graham-Bruno, rjgl@pge.com) if additional assistance is required. 	

Appendices

Appendix A – Figures

- Figure 1. Overview Map
- Figure 2. Biological and Aquatic Resources
- Figure 3. AMM and BMP Applications

Appendix B – MRHCP VM BMPs