DOCKETED	
Docket Number:	22-SPPE-02
Project Title:	San Jose Data Center 04
TN #:	255408-2
Document Title:	Microsoft SJC04 Updated PGE Reconductoring Bio Report-Part II of II
Description:	N/A
Filer:	Scott Galati
Organization:	DayZenLLC
Submitter Role:	Applicant Representative
Submission Date:	4/2/2024 10:35:25 AM
Docketed Date:	4/2/2024

Table 4. Special-Status Plant Species, Their Status, and Potential for Occurrence within the Survey Area

Name	*Status	Habitat and Blooming Period	Potential for Occurrence within the Survey Area
Federal or State Endangered, Threatened, or Candidate Species			
Pallid manzanita (*Arctostaphylos pallida*)	FT, SE, CRPR 1B.1, PG&E	Broadleaved upland forest, closed-coned coniferous forest, chaparral, cismontane woodland, coastal scrub in siliceous shale (blooming period December to March).	**Absent.** Suitable coastal scrub habitat to support this species is present in the survey area. However, no individuals were observed during a focused survey conducted during the September 2023 site visit. Determined to be absent.
Sonoma sunshine (*Blennosperma bakeri*)	FE, SE, CRPR 1B.1, PG&E	Valley and foothill grasslands (mesic) and vernal pools (blooming period March to May)	**Absent.** Suitable vernal pools and valley and foothill grassland habitats to support this species are present in the survey area. However, occurrences of this species are found only in Sonoma County approximately 41 miles from the survey area (Calflora 2023). Determined to be absent.
Fountain thistle (*Cirsium fontinale* var. *fontinale*)	FE, SE, CRPR 1B.1, PG&E	Chaparral (openings), cismontane woodland, meadows and seeps, valley and foothill grassland, seeps and serpentine (blooming period April to October)	**Absent.** This species only occurs in serpentine seeps and streams which the survey area does not have (Jepson Flora Project 2023). Determined to be absent.
Contra Costa wallflower (*Erysimum capitatum* var. *angustatum*)	FE, SE, CRPR 1B.1, PG&E	Inland dunes (blooming period March to July)	**Absent.** Suitable inland dune habitat to support this species is not present in the survey area. Determined to be absent.
Marin western flax (*Hesperolinon congestum*)	FT, ST, CRPR 1B.1, PG&E	Serpentine chaparral and valley and foothill grasslands (blooming period April to July)	**Absent.** Suitable serpentine valley and foothill grassland habitat is not present in the survey area. Determined to be absent.
Burke's goldfields (*Lasthenia burkei*)	FE, SE, CRPR 1B.1, PG&E	Mesic meadows and seeps and vernal pools (blooming period April to June)	**Absent.** Suitable mesic vernal pool habitat to support this species is present in the survey area. However, occurrences of this species are found only in Sonoma County approximately 41 miles from the survey area (Calflora 2023). Determined to be absent.

Name	*Status	Habitat and Blooming Period	Potential for Occurrence within the Survey Area
Contra Costa goldfields (*Lasthenia conjugens*)	FE, CRPR 1B.1, PG&E	Mesic (moderate moisture regime) valley and foothill grasslands and vernal pools (blooming period March to June)	**May be Present.** Suitable mesic vernal pool and seasonal wetland habitat to support this species is present in the survey area. This species has been recorded in the Warm Springs area 0.3 mile from the survey area (CNDDB 2023). No individuals were observed during the site visit; however, surveys for this species were done after its blooming period. Therefore, this species may be present in the survey area.
Sebastopol meadowfoam (*Limnanthes vinculans*)	FE, SE, CRPR 1B.1, PG&E	Meadows and seeps, vernal pools, valley and foothill grassland (blooming period April to May)	**Absent.** Suitable vernal pool and valley and foothill grassland habitat to support this species is present in the survey area. However, occurrences of this species are found only in Sonoma County approximately 41 miles from the survey area (Calflora 2023). Determined to be absent.
Antioch Dunes evening-primrose (*Oenothera deltoides* ssp. *howellii*)	FE, SE, CRPR 1B.1, PG&E	Inland dunes (blooming period March to September)	**Absent.** Suitable inland dune habitat to support this species is not present in the survey area. Determined to be absent.
White-rayed pentachaeta (*Pentachaeta bellidiflora*)	FE, SE, CRPR 1B.1, PG&E	Cismontane woodland and valley and foothill grassland (often serpentine) (blooming period March to May)	**Absent.** Suitable valley and foothill grassland habitat to support this species is present in the survey area. However, occurrences of this species are found in only Santa Cruz County approximately 15 miles from the survey area (Calflora 2023). Determined to be absent.
California seablite (*Suaeda californica*)	FE, CRPR 1B.1	Coastal salt marshes and swamps (blooming period July to October)	**Absent.** Suitable coastal salt marsh habitat to support this species is present in the survey area. However, the focused survey in September – October 2023 detected no individuals. Determined to be absent.
CNPS-Listed Plant Species			
Point Reyes salty bird's-beak (*Chloropyron maritimum* ssp. *palustre*)	CRPR 1B.2	Coastal salt marshes and swamps (blooming period June to October)	**Absent.** Suitable coastal salt marsh habitat to support this species is present in the survey area. However, a focused survey in September – October 2023 detected no individuals. Determined to be absent.
Alkali milk-vetch (*Astragalus tener* var. *tener*)	CRPR 1B.2	Alkaline playas, valley and foothill grassland underlain by adobe clay, and vernal pool habitats (blooming period March to June)	**May be Present.** Suitable valley and foothill grassland and vernal pool habitat to support this species is present in the survey area. This species has been recorded in the Warm Springs area 0.3 mile from the survey area (CNDDB 2023). However, surveys were conducted after the species blooming period, and it could not be confirmed whether individuals were present during our September-October site visits. May be present in the survey area.

Name	*Status	Habitat and Blooming Period	Potential for Occurrence within the Survey Area
Brittlescale (*Atriplex depressa*)	CRPR 1B.2	Alkaline, clay soils in chenopod scrub, meadows and seeps, playas, valley and foothill grassland, and vernal pool habitats (blooming period April to October)	**May be Present.** Suitable habitat to support this species is present in the survey area. This species has been recorded in the Warm Springs area 700 feet south of the survey area (CNDDB 2023). No individuals were found during the September-October focused survey efforts, but that survey may have been too late in the season to detect the species. Thus, this species may be present in the survey area.
San Joaquin spearscale (*Atriplex joaquiniana*)	CRPR 1B.2	Alkaline soils in chenopod scrublands, meadows and seeps, playas, and valley and foothill grasslands (blooming period April to September)	**May be Present.** Suitable valley and foothill grasslands to support this species are present within the survey area. However, surveys were conducted after the species' blooming period, and it could not be confirmed whether individuals were present during our September-October site visits. Thus, this species may be present in the survey area.
Lesser saltscale (*Atriplex minuscula*)	CRPR 1B.1	Alkaline soils in chenopod scrublands, meadows and seeps, playas, and valley and foothill grasslands. (blooming period May to October)	**May be Present.** Suitable valley and foothill grassland to support this species is present within the survey area. It has been recorded in the Warm Springs area 900 feet south of the survey area (CNDDB 2023). No individuals were found during the September-October focused survey efforts, but that survey may have been too late in the season to detect the species. Thus, individuals may be present in the survey area.
Congdon's tarplant (*Centromadia parryi* ssp. *congdonii*)	CRPR 1B.1	Valley and foothill grassland (alkaline)/ California annual grassland habitat on alkaline soils, often in swales and seasonal wetlands with clay soils (blooming period June to October)	**Present.** Congdon's tarplant is present in the northern portion of the survey area, concentrated around the California annual grassland and seasonal wetland habitats in the Warm Springs area and adjacent to Los Esteros Road. In total, approximately 1,442 Congdon's tarplants were observed within these areas. Additionally, a population approximately 520 of *Centromadia* sp. was observed adjacent to Grand Boulevard and the Refuge entrance in the survey area; however, due to the timing of the survey near the end of the species' blooming period, this population was unable to be confirmed as Congdon's tarplant due to plant senescence.
Small spikerush (*Eleocharis parvula*)	CRPR 4.3	Marshes and swamps (blooming period July to August)	**May be Present.** Suitable marshes to support this species are present in the survey area. However, surveys were conducted after the species blooming period, and it could not be confirmed whether individuals were present during our September-October site visits. Several observations (CNDDB 2023) occurred near the survey area on the western side of Pond A19, so the species may be present near this pond within suitable brackish marsh habitat in the survey area.

Name	*Status	Habitat and Blooming Period	Potential for Occurrence within the Survey Area
Hoover's button-celery (*Eryngium aristulatum* var. *hooveri*)	CRPR 1B.1	Vernal pools (blooming period July to August)	**May be Present.** Suitable vernal pool habitat to support this species is present in the survey area. This species has been recorded in the Warm Springs area 0.7 mile to the southwest (CNDDB 2023). Our September-October site visits were conducted after the species' blooming period, and it could not be confirmed whether individuals were present. Thus, this species may be present in the survey area.
Hall's bush-mallow (*Malacothamnus hallii*)	CRPR 1B.2	Chaparral, coastal scrub/ chaparral (blooming period May to September)	**Absent.** This species is identifiable year-round, and during the September-October focused surveys no individuals were found. Therefore, it is determined to be absent from the survey area.
Most beautiful jewel-flower (*Streptanthus albidus* ssp. *Peramoenus*)	CRPR 1B.2	Chaparral, cismontane woodland, valley and foothill grassland in serpentinite/ serpentine bunchgrass grassland, mixed serpentine chaparral (blooming period April to September)	**Absent.** No suitable habitat is present in the survey area. Determined to be absent.
Prostrate vernal pool navarretia (*Navarretia prostrata*)	CRPR 1B.2	Mesic coastal scrub, meadows and seeps, vernal pools, and alkaline valley and foothill grassland habitats. (blooming period April to July)	**May be Present.** Suitable vernal pool habitat to support this species is present in the survey area. This species has been recorded in the Warm Springs area 0.5 mile to the southwest (CNDDB 2023). Our September-October site visits were conducted after the species' blooming period, and it could not be confirmed whether individuals were present. Thus, this species may be present in the survey area.
California alkali grass (*Puccinellia simplex*)	CRPR 1B.2	Chenopod scrub, meadows and seeps, valley and foothill grassland, vernal pools (blooming period March to May)	**May be Present.** Suitable vernal pool and valley and foothill grassland habitat to support this species is present within the survey area. This species has also been recorded in the Warm Springs area 0.5 mile to the southwest (CNDDB 2023). However, Our September-October site visits were conducted after the species' blooming period, and it could not be confirmed whether individuals were present. Thus, this species may be present in the survey area.
Long-styled sand-spurrey (*Spergularia macrotheca* var. *longistyla*)	CRPR 1B.2	Meadows and seeps, marshes and swamps (blooming period February to May)	**May be Present.** Suitable marsh habitat to support this species is present within the survey area. However, surveys were conducted after the species' blooming period, and it could not be confirmed whether individuals were present during our September-October site visits. May be present in the survey area.

Name	*Status	Habitat and Blooming Period	Potential for Occurrence within the Survey Area
Northern slender pondweed (*Stuckenia filiformis* ssp. *alpina*)	CRPR 2B.2	Marshes and swamps (shallow freshwater) (blooming period May to July)	**May be Present.** Suitable marsh habitat to support this species is present within the survey area. However, surveys were conducted after the species' blooming period, and it could not be confirmed whether individuals were present during our September-October site visits. May be present in survey area.
Saline clover (*Trifolium hydrophilum*)	CRPR 1B.2	Marshes and swamps, valley and foothill grassland, and vernal pools (blooming period April to June)	**May be Present.** Suitable marsh habitat to support this species is present within the survey area. This species has been recorded in the Warm Springs area 0.5 mile to the southwest (CNDDB 2023). However, surveys were conducted after the species' blooming period, and it could not be confirmed whether individuals were present during our September-October site visits. May be present in the survey area.

*Key to Status Abbreviations: Federally Endangered (FE); State Threatened (ST); PG&E Bay Area HCP (PG&E); California Rare Plant Rank (CRPR).

CRPR 1B = Rare, Threatened, or Endangered in California and elsewhere

CRPR 2B = Rare, Threatened, or Endangered in California but more common elsewhere

CRPR 4 = Plants of limited distribution – Watch list

.1 = Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)

.2 = Moderately threatened in California (20-80% of occurrences threatened)

5.2 Special-Status Animal Species

The legal status and likelihood of occurrence within the survey area of special-status animal species known to occur, or potentially occurring, in the surrounding region are presented in Table 5. Many of the special-status species listed in Table 5 are not expected to occur within the survey area because it lacks suitable habitat, is outside the known range of the species, and/or is isolated from the nearest known extant populations by development or otherwise unsuitable habitat. A number of the species in Table 5 do not occur anywhere in the South Bay region, but they are addressed in Table 5 because they are included as covered species by PG&E's Bay Area HCP.

Twenty-five special-status animal species are known to breed, could potentially breed, or occur regularly as nonbreeding migrants or foragers in the survey area. They are the vernal pool tadpole shrimp, Crotch's bumble bee, monarch butterfly, Central California Coast steelhead, California tiger salamander, northwestern pond turtle, California Ridgway's rail, California black rail, western snowy plover, tricolored blackbird, salt marsh harvest mouse, salt marsh wandering shrew, Central Valley fall-run Chinook salmon, Pacific lamprey, longfin smelt, southern coastal roach, Sacramento hitch, northern harrier, burrowing owl, yellow warbler, San Francisco common yellowthroat, Alameda song sparrow, Bryant's savannah sparrow, white-tailed kite, and loggerhead shrike. An additional 12 special-status animal species may occur in or near the survey area but are not expected to breed within the survey area because it lacks suitable habitat, the survey area is outside the species' breeding range, or the species occurs only as an occasional visitor. These are the green sturgeon, yellow rail (*Coturnicops noveboracensis*), bald eagle, golden eagle, Swainson's hawk, California least tern, bank swallow, least Bell's vireo (*Vireo bellii pusillus*), black skimmer, pallid bat (*Antrozous pallidus*), western red bat (*Lasiurus frantzii*), and Pacific harbor seal (*Phoca vitulina richardii*). We address the potential for these species to occur within the survey area below in Table 5, along with several additional special-status animal species that we have evaluated for potential occurrence in the project vicinity.

Table 5. Special-Status Animal Species, Their Status, and Potential for Occurrence within the Survey Area

Name	*Status	Habitat	Potential for Occurrence within the Survey Area
Federal or State Endangered, Threatened, or Candidate Species			
California freshwater shrimp (*Syncaris pacifica*)	FE, SE, BAHCP, ITP	Low elevation, perennial freshwater streams within Marin, Sonoma, and Napa counties	**Absent.** The survey area is outside of the species' range and no suitable habitat is present within the survey area.
Conservancy fairy shrimp (*Branchinecta conservatio*)	FE, BAHCP	Large deep vernal pools in annual grasslands	**Absent.** The survey area is outside of the species' range. Regular branchiopod monitoring of the vernal pools in the Warm Springs Unit of the Refuge has not revealed any presence.
Longhorn fairy shrimp (*Branchinecta longiantenna*)	FE, BAHCP	Vernal pools in grasslands and rock outcrops	**Absent.** The survey area is outside of the species' range. Regular branchiopod monitoring has not revealed any presence.
Vernal pool fairy shrimp (*Branchinecta lynchi*)	FT, BAHCP	Vernal pools and ephemeral stock ponds	**Absent.** The survey area is outside of the species' range. Regular branchiopod monitoring has not revealed any presence.
Vernal pool tadpole shrimp (*Lepidurus packardi*)	FE, BAHCP	Vernal pools and swales containing clear to highly turbid water	**Present.** The vernal pool tadpole shrimp occurs in the survey area in vernal pools within the Warm Springs Unit of the Refuge (Loredo 2020, 2021, 2023; CNDDB 2023). Data from Refuge reports for this location show considerable variability in distribution and abundance from year-to-year depending on rainfall. During the dry season and drought years, eggs (cysts) of tadpole shrimp remain in the soil for up to 10 years until favorable, wet conditions occur, triggering hatching.
Delta green ground beetle (*Elaphrus viridis*)	FT, BAHCP	Sparsely vegetated edges of vernal lakes and pools, occurring up to 250 feet from pools	**Absent.** The survey area is outside of the species' range; this species has not been detected outside of the Jepson Prairie region of Solano County, approximately 48 miles from the survey area.
Bay checkerspot butterfly (*Euphydryas editha bayensis*)	FT, BAHCP	Native grasslands on serpentine soils. Larval host plants are *Plantago erecta* and/or *Castilleja exserta* or *C. densiflora*	**Absent.** No suitable native grasslands, serpentine soils, or larval host plants to support this species were identified in the survey area during the reconnaissance-level survey, and neither the Bay Area HCP nor the VHP maps suitable habitat in the survey area (ICF 2017; SCVHA 2023a).

Name	*Status	Habitat	Potential for Occurrence within the Survey Area
Callippe silverspot butterfly (*Speyeria callippe callippe*)	FE, BAHCP	Grasslands; closely associated with California golden violet (*Viola pedunculata*)	**Absent.** The survey area is outside of the species' range, which is approximately 10 miles from the survey area; grasslands are present but the host plant is not expected to occur in such disturbed grasslands.
Lange's metalmark butterfly (*Apodemia mormo langei*)	FE, BAHCP	Larval host plant is naked buckwheat *Eriogonum nudum* var. *auriculatum*, and adults obtain nectar from a variety of flowering plants	**Absent.** The survey area is outside of the species' range. The only known population of Lange's metalmark butterfly is located outside of the survey area in the Antioch Dunes of northern Contra Costa County.
Mission blue butterfly (*Icaricia icarioides missionensis*)	FE, BAHCP	Found in coastal prairie grasslands in Southern Marin, San Francisco, and San Mateo Counties where at least one of the following host plants are present: silver lupine (*Lupinus albifrons* var. collinus), many-colored lupine (*L. variicolor*), and summer lupine (*L. formosus* var. *formosus*)	**Absent.** The survey area is outside of the species' range and does not contain suitable habitat.
San Bruno elfin butterfly (*Callophrys mossii bayensis*)	FE, BAHCP	Requires steep, northern-facing slopes in coastal chaparral within the fog belt. Larval host plant is the stonecrop (*Sedum spathulifolium*), but adults may forage on a variety of floral resources	**Absent.** The survey area is outside of the species' range. The San Bruno elfin butterfly is only known to occur in one location within San Mateo County, which is outside of the survey area. Furthermore, there is no suitable habitat in the survey area.

Name	*Status	Habitat	Potential for Occurrence within the Survey Area
Monarch butterfly (*Danaus plexippus*)	FC	Requires milkweeds (*Asclepias* spp.) for egg-laying and larval development, but adults obtain nectar from a wide variety of flowering plants in many habitats. Individuals congregate in winter roosts, primarily in Mexico and in widely scattered locations on the central and southern California coast	**Present.** The monarch butterfly occurs in the survey area as a migrant and potential breeder, and individuals may forage in the survey area, especially during spring and fall migration. The closest known current overwintering site in Alameda County is approximately 5 miles to the northwest of the survey area at Ardenwood Historic Farm, while no current or historical overwintering sites are known in Santa Clara County. However, in the northern part of the alignment there is no suitable overwintering habitat for monarchs. Native *Asclepias fascicularis* is present in landscaped areas near Warm Springs and may be present elsewhere within the survey area, potentially supporting breeding.
Crotch's bumble bee (*Bombus crotchii*)	SC	Open grassland and scrub habitats with abundant flowers providing nectar and pollen and with subterranean nest sites (such as animal burrows)	**May be Present.** Concern over possible population declines and range contractions led CDFW (2019) to consider this species a candidate for listing under CESA. However, since 2019, there have been documented occurrences of 70-80 individuals from nearly 20 locations in Santa Clara County (Bumble Bee Watch 2023, iNaturalist 2023, S. Rottenborn, pers. obs.), indicating that the species is still extant, and fairly widespread (albeit in low numbers in most locations) in the county. Much of the survey area does not provide high-quality habitat due to the low concentrations of high-quality floral resources, and a focused survey conducted on undeveloped lands south of West Trimble Road, west of the intersection of Component Drive and Orchard Parkway, did not detect the species (H. T. Harvey & Associates 2023). However, suitable flowering plants are present in grassland, landscaped, and marsh habitats in portions of the survey area. Individuals may occur in small numbers as foragers, and the possibility that nesting could occur in the survey area (e.g., in a ground squirrel burrow) cannot be ruled out.
Western bumble bee (*Bombus occidentalis*)	SC	Meadows and grasslands with abundant floral resources	**Absent.** Although the species was historically found throughout much of central and northern California, including the project vicinity, it is not expected to occur in the survey area due to recent range contractions.

Name	*Status	Habitat	Potential for Occurrence within the Survey Area
Green sturgeon (*Acipenser medirostris*)	FT, CSSC	Spawns in large river systems such as the Sacramento River; forages in nearshore oceanic waters, bays, and estuaries	**Absent as Breeder.** There is no evidence that green sturgeon have ever spawned in creeks in the South Bay, and suitable spawning habitat is absent from the South Bay and the survey area. To date, the only confirmed record of green sturgeon south of the Dumbarton Bridge is represented by a single individual that had been equipped with an acoustic tag in the Sacramento River or Delta and that was detected on multiple occasions in 2011 at receivers positioned along the Dumbarton Railroad Bridge (ECORP Consulting, Inc. 2012). Receivers in Alviso Slough and other South Bay sloughs did not detect green sturgeon in these areas, and green sturgeon have not been documented in Santa Clara County. Because Alviso Slough and Coyote Creek are connected to the open waters of the Bay, there is some potential (albeit very low) for a green sturgeon to occasionally travel up either slough into the survey area. This species is absent from New Chicago Marsh and other diked marshes that have no direct connection to tidal waters of the Bay. All tidally influenced areas of the San Francisco Bay, up to the elevation of mean higher high water, including all portions of Alviso Slough and Coyote Slough within the survey area and upstream to the upper limits of tidal action in the Guadalupe River (i.e., at Gold Street), have been designated by the NMFS as critical habitat for this species (NMFS 2009).

Name	*Status	Habitat	Potential for Occurrence within the Survey Area
Longfin smelt (*Spirinchus thaleichthys*)	FC, ST	Spawns in fresh water in the upper end of the San Francisco Bay; occurs year-round in the South Bay	**May be Present.** Longfin smelt occur in the South San Francisco Bay, including tidally influenced reaches of Coyote Slough and Alviso Slough, seasonally from October through April as adults and from April through May as post-larval recruits (Lewis et al. 2020, Moyle 2002, Otolith Geochemistry & Fish Ecology Laboratory 2021, 2022). Fish sampling in Coyote and Alviso sloughs has detected the species October through May (Hobbs et al. 2012, Otolith Geochemistry & Fish Ecology Laboratory 2021, 2022, 2023). Adult longfin smelt have been observed spawning or preparing to spawn in restored salt ponds and tidal sloughs within the survey area, being first documented in spawning condition in 2017 (Lewis et al. 2020, Barros et al. 2021, Otolith Geochemistry & Fish Ecology Laboratory 2021, 2022, 2023). Post-larval recruits forage in restored salt ponds and tidal sloughs of the South San Francisco Bay before leaving the survey area and migrating seaward into deeper, cooler bay and coastal marine habitats during the summer (June through September) (Barros et al. 2021, Moyle 2002). The number of observed individuals has increased each subsequent year starting in 2011 with the highest number of individuals observed in 2022 during existing conditions (Lewis et al. 2020, Otolith Geochemistry & Fish Ecology Laboratory 2021, 2022). This species is absent from New Chicago Marsh and other diked marshes that have no direct connection to tidal waters of the Bay.
Tidewater goby (*Eucyclogobius newberryi*)	FE	Coastal lagoons and brackish marshes and estuaries	**Absent.** Extirpated from San Francisco Bay; the survey area is outside the species' current distribution.
Delta smelt (*Hypomesus transpacificus*)	FT, CSSC	Estuarine systems of the Sacramento-San Joaquin delta	**Absent.** The survey area is outside of the species' range.

Name	*Status	Habitat	Potential for Occurrence within the Survey Area
Central California Coast steelhead (*Oncorhynchus mykiss*)	FT	Cool streams with suitable spawning habitat and conditions allowing migration between spawning and marine habitats	**Present.** Aquatic habitats are present in the survey area to provide suitable migration habitat for steelhead, and this species is present in the survey area. However, no suitable spawning habitat is present in the survey area. Steelhead are known to occur in the tidal and upstream portions of the Guadalupe River and Coyote Creek as adults when swimming upstream to reach spawning habitats, and as adults and smolts when swimming downstream to reach estuarine habitats and the open ocean. In addition, designated critical habitat includes tidal waters in the survey area such as Artesian Slough and Coyote Creek (NMFS 2005).
California tiger salamander (*Ambystoma californiense*)	FT, ST, BAHCP, ITP	Vernal or temporary pools in annual grasslands or open woodlands	**Present.** The California tiger salamander is present in the Warm Springs Unit of the Refuge within the survey area (Loredo 2020, 2021, 2023; CNDDB 2023). Seasonal wetlands, including vernal pools of the Warm Springs unit, provide suitable breeding habitat during wet conditions, and surrounding upland provide refugial habitat during seasonal dry conditions and drought. Data from Refuge reports for this location shows considerable variability in distribution and abundance from year-to-year depending on rainfall.
California red-legged frog (*Rana draytonii*)	FT, CSSC, BAHCP	Streams, freshwater pools, and ponds with emergent or overhanging vegetation	**Absent.** No aquatic habitat suitable to support this species occurs in the survey area. The VHP maps the Guadalupe River adjacent to the survey area as breeding habitat for California red-legged frogs (ICF International 2012). However, this species has been extirpated from much of the project region, including the entire urbanized Santa Clara Valley floor, due to development, the alteration of hydrology of its aquatic habitats, and the introduction of nonnative predators such as nonnative fishes and bullfrogs (H. T. Harvey & Associates 1997, Valley Water 2011).
Foothill yellow-legged frog (*Rana boylii*)	FT, SE	Partially shaded shallow streams and riffles with a rocky substrate. Occurs in a variety of habitats in coast ranges	**Absent.** No aquatic habitat suitable to support this species occurs in the survey area. The VHP maps the Guadalupe River adjacent to the site as secondary habitat for foothill yellow-legged frogs (ICF International 2012). However, this species has been extirpated from valley floor areas of Santa Clara County and is no longer known to occur along the County's streams below major reservoirs (H. T. Harvey & Associates 1999).

Name	*Status	Habitat	Potential for Occurrence within the Survey Area
Northwestern pond turtle (*Actinemys marmorata*)	FPT, CSSC	Permanent or nearly permanent water in a variety of habitats	**Present.** Occurs in aquatic habitats in the survey area, including small numbers in Guadalupe River near West Trimble Road (CNDDB 2023). Suitable habitat is also present at the Pacific Commons Linear Park pond and in a perennial wetland ditch along Auto Mall Parkway, and this species could occur in these locations. Breeding populations of pond turtles have been extirpated from most urbanized areas in the region. However, individuals of this long-lived species still occur in perennial urban streams and ponds in the survey area. Low numbers of pond turtles could occasionally move into brackish water such as the lower Guadalupe River/Alviso Slough but would not be expected to occur in saltwater. Potentially suitable nesting habitat for pond turtles is present in grassland areas adjacent to suitable streams and ponds in the survey area. In September 2023, the USFWS officially proposed to list the northwestern (and southwestern) pond turtle as threatened (USFWS 2023).
Alameda whipsnake (*Masticophis lateralis euryxanthus*)	FT, ST, BAHCP, ITP	Primarily associated with scrub and chaparral, but may also occur in grasslands, especially those with rock outcrops	**Absent.** The southern edge of this subspecies' range is located at the northern edge of eastern Santa Clara County (USFWS 2008). This subspecies may intergrade with the chaparral whipsnake (*M. l. lateralis*) at the southern edge of its range, making identification difficult. The most recent extant CNDDB occurrences (from 2014 to 2018) are located over 7 miles east of the survey area, north of the Calaveras Reservoir (CNDDB 2023). The closest occurrence is a single observation of a possible intergrade 4.4 miles away on Mission Peak in 2008 (CNDDB 2023). No suitable habitat for this species is present in the survey area, which is separated from suitable habitat and areas of known occurrence by urban lands that prevent dispersal into the survey area.
San Francisco garter snake (*Thamnophis sirtalis tetrataenia*)	FE, SE, BAHCP	Prefer densely vegetated freshwater habitats. May use upland burrows for aestivation	**Absent.** The survey area is outside of this subspecies' range.

Name	*Status	Habitat	Potential for Occurrence within the Survey Area
Bald eagle (*Haliaeetus leucocephalus*)	SE, SP	Occurs mainly along seacoasts, rivers, and lakes; nests in tall trees or in cliffs, occasionally on electrical towers. Feeds mostly on fish	**Absent as Breeder.** Nests and forages in the region primarily at inland reservoirs. The nearest nest is located 2 miles away at the Curtner Elementary School in Milpitas. Although bald eagles make use of towers for nesting sites in other regions, they have not shown a propensity to do so in the project region and are not expected to do so in the survey area, and thus no suitable nesting habitat is present in the survey area. This species forages around Artesian Slough, Pond A18, Coyote Creek, and nearby areas. Individuals are frequently observed perched on wooden power poles within the survey area in the Warm Springs Unit of the Refuge (B. Pearl, pers. obs.), although these are located outside of the survey area.
Swainson's hawk (*Buteo swainsoni*)	ST	Nests in trees surrounded by extensive marshland or agricultural foraging habitat	**Absent as Breeder.** Very limited breeder in the region, with only several recorded nests in Alameda County (CNDDB 2023) and Santa Clara County (Phillips et al. 2014, Klein et al. 2022). The closest known nest location in Alameda County to the survey area is located approximately 18.6 miles to the northeast in Livermore, while the closest known nest location in Santa Clara County is located approximately 16.5 miles to the southeast in Morgan Hill. No nests are known or expected in the survey area, but small numbers of individuals may forage in the survey area during winter and migration.
California Ridgway's rail (*Rallus obsoletus obsoletus*)	FE, SE, SP, BAHCP	Tidal salt marsh dominated by cordgrass and pickleweed; occasionally occurs in brackish marshes as well	**Present.** Suitable nesting habitat is present in the survey area in tidal marsh habitat along the lowermost tidal reaches of creeks that flow into the San Francisco Bay (Liu et al. 2009). This species has been detected in and near the survey area along South Coyote Slough and Coyote Creek (H. T. Harvey & Associates 2018) as well farther north in Coyote Creek Lagoon/Warm Springs Marshes and Mud Slough (Cornell Lab of Ornithology 2023). PG&E's Bay Area HCP identifies much of the habitat in these areas to be a "hot zone" for the California Ridgway's rail. On very rare occasions, non-breeding individuals wander up tidal sloughs (e.g., in tidal brackish/freshwater marsh habitats along Alviso Slough up to Gold Street); however, all suitable breeding habitat for Ridgway's rails occurs in saline and brackish tidal marshes.

Name	*Status	Habitat	Potential for Occurrence within the Survey Area
California black rail (*Laterallus jamaicensis coturniculus*)	ST, SP	Breeds in fresh, brackish, and tidal salt marsh near the edge of San Francisco Bay	**Present.** Until recently, black rails were known to occur in the South Bay primarily as scarce winter visitors. However, since 2012, this species has been recorded during the breeding season in Santa Clara and Alameda County tidal marshes, and nesting has been documented as close as 0.6 mile away from the survey area at Alviso Marina County Park (CNDDB 2023). This species has been detected near the survey area along South Coyote Slough and Coyote Creek (H. T. Harvey & Associates 2018, CNDDB 2023) as well tidally influenced areas of the Guadalupe River (CNDDB 2023). In general, broader tidal marshes along streams in the survey area may support nesting black rails. Foraging habitat for this species is also present in tidal portions of streams in the survey area, and individuals may occasionally forage in tidal habitats in the survey area year-round.
Western snowy plover (*Charadrius nivosus nivosus*)	FT, CSSC	Sandy, dune-backed beaches on marine and estuarine shores and salt pannes in San Francisco Bay saline managed ponds	**Present.** In the South Bay, nests on sparsely vegetated salt panne habitat within former salt production ponds, associated levees, and occasionally on islands or unvegetated diked salt marsh when more expansive habitat is not available. Nests annually in the survey area in Warm Springs Ponds A22 and A23 (Pearl et al. 2023), both of which are designated as critical habitat for this species (USFWS 2012). Near the survey area, nesting has also been documented in in New Chicago Marsh and the adjacent impoundment in Alviso, from 2009–2022 (Pearl et al. 2016, 2018, 2019, 2023). It is possible that the species could nest in diked salt marsh/other ponds/sloughs habitat just south of Pond A18 as well. The species forages in these same areas and on levees and managed pond bottoms in other ponds along the Bay edge. Therefore, individuals are expected to nest within the survey area.
California least tern (*Sternula antillarum browni*)	FE, SE, SP	Nests along the coast on bare or sparsely vegetated, flat substrates; in the South Bay, nests in salt pannes and on an old airport runway; forages for fish in open waters	**Absent as Breeder.** Does not nest in the survey area; however, the South Bay is an important post-breeding staging area for least terns. Most such staging has occurred outside of (but close to) the survey area in managed ponds along the Bay in the Mountain View/Sunnyvale area (occasionally in the Alviso area). When this species is observed in the survey area vicinity, it is seen foraging in managed ponds and over the more extensive open bay. Although least terns could potentially forage on occasion in ponds and tidal portions of streams in the survey area, such as Artesian Slough in Alviso and Coyote Creek Lagoon in Fremont (Cornell Lab of Ornithology 2023), they likely do so infrequently and in low numbers.

Name	*Status	Habitat	Potential for Occurrence within the Survey Area
Bank swallow (*Riparia riparia*)	ST	Colonial nester on vertical banks or cliffs with fine-textured soils near water	**Absent as Breeder.** The bank swallow is a casual migrant, found occasionally in the South Bay during migration. They have been observed foraging near the survey area in Alviso at Artesian Slough and New Chicago Marsh as well as SFBBO Coyote Creek Field Station in Milpitas (Cornell Lab of Ornithology 2023), but observations are infrequent and this species is not expected to breed in the survey area.
Tricolored blackbird (*Agelaius tricolor*)	ST	Nests near fresh water in dense emergent vegetation	**Present.** The tricolored blackbird has bred in only a few scattered locations, and is absent from, or occurs only as a nonbreeder in, most of Santa Clara and Alameda Counties (Richmond et al. 2011, Rottenborn 2007b). It may be present in moderate numbers as a nonbreeding forager along the entire stretch of the survey area in places such as Pacific Commons Linear Park, the Warm Springs Unit of the Refuge, Coyote Lagoon, Pond A18, the Newby Island Recyclery, Alviso Slough, New Chicago Marsh, Arzino Ranch, and along the Guadalupe River and Coyote Creek (Cornell Lab of Ornithology 2023). Typically nests in extensive stands of tall emergent herbaceous vegetation in non-tidal freshwater marshes and ponds. This species (whose colonies are loud and conspicuous) has not been recorded nesting within or adjacent to the survey area since 1994, and high levels of adjacent disturbance likely preclude nesting by this species. Records of nesting are located 0.45 mile east of the survey area in the Warm Springs District and in the survey area near the San José Wastewater treatment Plant in Alviso (CNDDB 2023). Despite previous records of nesting, currently only Pacific Commons Linear Park contains suitable breeding habitat within the survey area. Thus, this species could possibly nest, and is at least expected to roost and forage, in the survey area.
Salt marsh harvest mouse (*Reithrodontomys raviventris*)	FE, SE, BAHCP	Tidal salt marsh and brackish marsh, including tidal and diked/non-tidal marshes, dominated by pickleweed (*Salicornia* spp.) and occasionally in mature and heavily thatched alkali bulrush (*Bolboschoenus maritimus*) dominated habitat	**Present.** Salt marsh harvest mice may be present in the survey area in tidal salt and brackish marsh habitats where there are dense, contiguous patches of pickleweed and/or mature, heavily thatched stands of alkali bulrush. They have been detected in such habitats throughout the survey area, including in New Chicago Marsh, diked marsh near the Zanker Recyclery, Alviso Slough, the lower Guadalupe River until Gold Street, South Coyote Slough, Coyote Creek, Mud Slough, and other diked marshes between Pond A18 and A22 (CNDDB 2023). PG&E's Bay Area HCP identifies much of the habitat in these areas to be a "hot zone" for the salt marsh harvest mouse.

Name	*Status	Habitat	Potential for Occurrence within the Survey Area
Mountain lion (*Puma concolor*) Southern California/Central Coast ESU	SC	Has a large home range size and occurs in a variety of habitats. Natal dens are typically located in remote, rugged terrain far from human activity. May occasionally occur in areas near human development, especially during dispersal	**Absent.** In the project region, mountain lions occur primarily in the Santa Cruz Mountains and the Diablo Range. This species is not expected to occur in the survey area owing to high levels of human activity and the Reconductoring Work Areas' location in urbanized San José, Santa Clara, and Fremont.
California Species of Special Concern			
Central Valley fall-run Chinook salmon (*Oncorhynchus tshawytscha*)	CSSC	Cool rivers and large streams that reach the ocean and that have shallow, partly shaded pools, riffles, and runs	**Present.** Chinook salmon are present in tidal open water habitats of the South Bay primarily from late August through October (during the adults' upstream migration) and during the downstream migration of juveniles. Chinook salmon are known to be present in the Guadalupe River, Coyote Creek, and associated slough channels. The reach of the Guadalupe River within the survey area typically functions as a migration corridor for individuals traveling between the San Francisco Bay and higher-quality spawning habitat farther upstream. However, Chinook salmon may attempt spawning in this reach if they are unable to access higher-quality habitat upstream due to seasonally low flows.
Pacific lamprey (*Entosphenus tridentatus*)	CSSC	Medium- and large-sized, low-gradient cold rivers and streams, with a wide range of habitats (e.g., gravel, low-gradient riffles)	**Present.** Pacific lampreys are anadromous, eel-like fish that parasitize both fish and marine mammals for food. They live in the ocean for up to five years before returning to natal freshwater streams for spawning. This species is known to be present in the Guadalupe River, Coyote Creek, and associated slough channels within the survey area (Leidy 2007). Spawning is expected to occur primarily in cooler water; ammocoetes may be present in warmer areas farther downstream.
Southern coastal roach (*Hesperoleucus venustus subditus*)	CSSC	Generally found in small streams, they are well adapted to intermittent watercourses (e.g., tolerant of high temperatures and low oxygen levels)	**Present.** This species occurs widely, often in unshaded pools with warm temperatures, and is expected to occur within the survey area in the Guadalupe River near West Trimble Road. Roach have a high tolerance of stream conditions and water temperatures and could potentially occur in the brackish waters downstream as well.

Name	*Status	Habitat	Potential for Occurrence within the Survey Area
Sacramento hitch (*Lavinia exilicauda exilicauda*)	CSSC	Warm, lowland, waters including clear streams, turbid sloughs, lakes, and reservoirs. Has a high tolerance for varying stream conditions and water temperature	**Present.** This species is known to be present within the survey area in the Guadalupe River near West Trimble Road (Leidy 2007). It has a high tolerance of stream conditions and water temperatures and could occur in the brackish waters downstream within the survey area as well.
Yellow rail (*Coturnicops noveboracensis*)	CSSC	Breeds in inland, nontidal wetlands, winters in rice fields and wetlands in inland and coastal areas	**Absent as Breeder.** Yellow rails do not breed in the San Francisco Bay area. Although the species historically occurred somewhat regularly as a migrant and winter resident in Bay marshes, there are very few recent records. The species could potentially occur in tidal marshes in the survey area, though it likely occurs in very low numbers and irregularly, if at all.
Black skimmer (*Rynchops niger*)	CSSC (nesting)	Nests on abandoned levees and islands in saline managed ponds and marshes	**Absent as Breeder.** Black skimmers are an uncommon resident that have nested in the South Bay since 1994. In Santa Clara County, the species has nested on islands in saline managed ponds in the Alviso area (e.g., on ponds AB1, AB2, A1, A2W, A7, A8, A16, and Pond A12 [Bousman 2007a]), as well as at Shoreline Lake. In Alameda County, they have nested at Hayward Regional Shoreline (CNDDB 2023). No suitable nesting habitat for black skimmers is present within the survey area. Individuals may forage in tidal sloughs and ponds in the survey area such as in Alviso Slough, Pond A18, tidal areas of Coyote Creek/Coyote Creek Lagoon, or New Chicago Marsh. They are not expected to occur away from tidal/bayland areas.
Northern harrier (*Circus hudsonius*)	CSSC (nesting)	Nests in marshes and moist fields, forages over open areas	**Present.** Within the survey area, potential nesting habitat is present primarily in tidal marshes along sloughs, such as Warm Springs Marsh, as well as in diked/muted tidal salt marshes near the Bay. There is some possibility that northern harriers may nest within or adjacent to work areas where suitable habitat is present. However, the accessibility of these areas to predators, particularly away from Bay marshes, limits the abundance of nesting pairs in the survey area, and the number of nesting pairs present within and adjacent to survey area in a given year is expected to be low. Nonbreeding individuals forage regularly in grassland and wetland habitats throughout the survey area (e.g. Artesian Slough, New Chicago Marsh, South Coyote Slough, Coyote Creek, Warm Springs seasonal wetlands, and Ponds A22 and A23), and can occur in high densities in some years (e.g., during vole outbreaks).

Name	*Status	Habitat	Potential for Occurrence within the Survey Area
Burrowing owl (*Athene cunicularia*)	CSSC	Nests and roosts in open grasslands and ruderal habitats with suitable burrows, usually those made by California ground squirrels	**Present.** The survey area contains several nesting and overwintering sites for burrowing owl in Alameda and Santa Clara Counties. Nesting has been observed previously at the Newark PG&E Substation and the Warm Springs Unit of the Refuge in Fremont; the mitigation lands of the San José-Santa Clara Regional Wastewater Facility east of Disk Drive and south of Los Esteros Road in Alviso (which are part of a SCVHA burrowing owl preserve); the golf course east and west of Lafayette St in Santa Clara; the fields near the Trimble PG&E Substation off Component Drive in San José (CNDDB 2023; SCVHA 2023b); and at the PG&E Substation on Component Drive in San José (R. Carle, pers. obs.). However, the Wastewater Facility mitigation lands was the only location within the survey area containing breeding pairs in 2022; Warm Springs most recently had breeding pairs in 2020, but none in 2021 and 2022. Despite lack of recent successful attempts, suitable breeding habitat is present in the Warm Springs Unit and undeveloped property near the Trimble substation, breeding is still possible in subsequent seasons and should therefore not be ruled out. Breeding locations also remain important overwintering habitat for migrant owls in the survey area (Cornell Lab of Ornithology 2023), and possibly other undeveloped lands adjacent to the survey area with low disturbance.
Loggerhead shrike (*Lanius ludovicianus*)	CSSC (nesting)	Nests in tall shrubs and dense trees; forages in grasslands, marshes, and ruderal habitats	**May be Present**. This species' population in Santa Clara and Alameda Counties has declined in recent years, as suitable habitat dwindles with increasing development. Loggerhead shrikes have nested within the survey area in the past, such as in Warm Springs and Alviso, but are currently not known to nest in these areas any longer (Bousman 2007b and Richmond et al. 2011). However, occasional individuals are periodically observed during the nesting season in open habitats of northern Santa Clara and western Alameda Counties along San Francisco Bay, and small numbers may still breed in those areas where there is suitable habitat. Occurs slightly more widely (i.e., in smaller patches of open areas providing foraging habitat) during the non-breeding season.
Yellow warbler (*Setophaga petechia*)	CSSC (nesting)	Nests in riparian woodlands	**Present.** Yellow warblers breed within the survey area along the Guadalupe River near West Trimble Road. In addition, they are known to forage in large numbers during migration along the Guadalupe River, diked marshes and ponds such as Gold Street Ponds or Pacific Commons Linear Park, and tidal channels such as Artesian Slough and Coyote Creek Slough (Cornell Lab of Ornithology 2023).

Name	*Status	Habitat	Potential for Occurrence within the Survey Area
San Francisco common yellowthroat (*Geothlypis trichas sinuosa*)	CSSC	Nests in herbaceous vegetation, usually in wetlands or moist floodplains	**Present.** San Francisco common yellowthroats are widespread throughout the survey area where there is suitable habitat. Suitable nesting and foraging habitat for this species is present in the herbaceous vegetation and floodplain riparian habitat along the Guadalupe River, diked marshes and ponds such as Gold Street Ponds or Pacific Commons Linear Park, and tidal channels such as Artesian Slough and Coyote Creek Slough (Cornell Lab of Ornithology 2023).
Alameda song sparrow (*Melospiza melodia pusillula*)	CSSC	Nests in salt marsh, primarily in marsh gumplant and cordgrass along channels	**Present**. The Alameda song sparrow is a non-migratory resident endemic to Central and South San Francisco Bay. In the survey area, this species occurs in the taller vegetation found in tidal and non-tidal salt and brackish marshes along the lower Guadalupe River and Alviso Slough, Coyote Creek, South Coyote Slough, Mud Slough, and Warm Springs.
Bryant's savannah sparrow (*Passerculus sandwichensis alaudinus*)	CSSC	Nests in pickleweed-dominant salt marsh and adjacent ruderal habitat	**Present.** The Bryant's savannah sparrow is a non-migratory resident of the South San Francisco Bay, nesting primarily in short pickleweed-dominated portions of diked/muted tidal and non-tidal salt marsh habitat and in adjacent ruderal habitats (Rottenborn 2007c). Within the survey area, suitable nesting habitat occurs in New Chicago Marsh in Alviso northward to grasslands of Warm Springs. Individuals of several savannah sparrow subspecies, including *alaudinus*, may forage in the survey area during migration and winter.
Pallid bat (*Antrozous pallidus*)	CSSC	Forages over many habitats; roosts in caves, rock outcrops, buildings, and hollow trees	**Absent as Breeder.** Historically, pallid bats were likely present in several locations throughout the project region, but their populations have declined in recent decades. This species has been extirpated as a breeder from urban areas close to the Bay, as is the case in the survey area. No suitable roosting habitat is present in the survey area, and no known maternity colonies of this species are present within or adjacent to the survey area. There is a low probability that the species occurs in the site vicinity at all due to urbanization; however, individuals from more remote colonies could potentially forage in the survey area on rare occasions.

Name	*Status	Habitat	Potential for Occurrence within the Survey Area
Western red bat (*Lasiurus frantzii*)	CSSC	Roosts in the foliage of trees except during inclement weather periods in winter when it is expected to roost on the ground under leaf litter. Maternity roosts occur in mature lowland riparian habitat and some coastal valleys	**Absent as Breeder.** Western red bats do not raise young in the San Francisco Bay Area west of the Delta; however, males and females can be found in low numbers during migration, overwintering throughout forested and wooded areas of the Bay Area region, particularly along creek riparian habitats. This species can also occur in less typical habitats during migration.
Townsend's big-eared bat (*Corynorhinus townsendii*)	CSSC	Roosts in caves and mine tunnels, and occasionally in deep crevices in trees such as redwoods or in abandoned buildings, in a variety of habitats	**Absent.** No known extant populations of the Townsend's big-eared bat occur in lowlands of Santa Clara or Alameda Counties. Suitable breeding habitat is not present in the survey area, and no colonies are known within the project vicinity.
San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*)	CSSC	Nests in a variety of habitats including riparian areas, oak woodlands, and scrub	**Absent.** Suitable habitat for this species is present along the Guadalupe River within the survey area. However, with the exception of records along Coyote Creek and along the edges of the Santa Clara Valley, San Francisco dusky-footed woodrats are not known to occur in the more urbanized lowland/bayside portions of Santa Clara and Alameda Counties (H. T. Harvey & Associates 2010), and no woodrat nests were observed during surveys of the Reconductoring Work Areas.
Salt marsh wandering shrew (*Sorex vagrans halicoetes*)	CSSC	Medium-high marsh 6 to 8 feet above sea level with abundant driftwood and common pickleweed	**May be Present**. Formerly more widely distributed in the Bay Area, this small insectivorous mammal is now confined to salt marshes of the South Bay (USGS 2023). Salt marsh wandering shrews occur most often in medium-high wet tidal marsh (6 to 8 feet above sea level), with abundant driftwood and other debris for cover (Shellhammer 2000). They also have been recorded occasionally in diked marshes. This species typically is found in fairly tall pickleweed, in which these shrews build nests. Within the survey area, this species has been documented in New Chicago Marsh (CNDDB 2023), and individuals may occur elsewhere in the survey area where suitable habitat is present, especially where this habitat is connected to extensive tidal marshes.

Name	*Status	Habitat	Potential for Occurrence within the Survey Area
American badger (*Taxidea taxus*)	CSSC	Burrows in grasslands and occasionally in infrequently disked agricultural areas	**Absent.** Known to occur outside the survey area primarily in extensive grasslands and agricultural habitats, mostly in the foothills. Although grasslands are present within or near the survey area, they are relatively small patches and isolated from more extensive grasslands in the foothills to the east by high-density urban development.
State Fully Protected Species			
Golden eagle (*Aquila chrysaetos*)	SP	Breeds on cliffs or in large trees (rarely on electrical towers); forages in open areas	**Present.** No suitable nesting habitat for golden eagles is present in the survey area. However, there is a nest in a palm tree (*Phoenix canaeriensis*) located 0.8 mile southeast of the alignment in Alviso. This pair, and other individuals in other areas of the alignment such as Warm Springs, occasionally perch on the towers and may occur in the survey area as a forager.
White-tailed kite (*Elanus leucurus*)	SP	Nests in tall shrubs and trees; forages in grasslands, marshes, and ruderal habitats	**Present.** White-tailed kites are known to nest within the survey area in the trees along Artesian Slough. Elsewhere in the survey area, potentially suitable nesting habitat for this species is also present in trees along the Guadalupe River and the site of the former Santa Clara Golf and Tennis Club. Evidence of breeding (i.e., dependent juveniles) has been documented in the vicinity of Disk Drive/Arzino Ranch in Alviso and Warm Springs (Cornell Lab of Ornithology 2023). White-tailed kites are likely to occur in grasslands within the survey area as occasional foragers year-round.
Other Special-Status Species			
Pacific harbor seal (*Phoca vitulina richardsi*)	MMPA	Found throughout the northern Atlantic and Pacific Oceans along coastal waters, river mouths, and bays	**May be Present**. This species is a permanent resident of the San Francisco Bay, where a primary haul-out and pupping site is located at Mowry Slough northwest of the survey area. Suitable haul-out sites for harbor seals may be present in the survey area in the tidal reaches of sloughs in the South Bay, and use of haul-out sites varies over time. Seals will occasionally disperse up tidal channels and occur infrequently along the lower Guadalupe River/Alviso Slough, Coyote Creek, and Coyote Creek Slough. No pupping sites are currently known within the survey area, and suitable pupping habitat is not present.

Name	*Status	Habitat	Potential for Occurrence within the Survey Area
California sea lion (*Zalophus californianus*)	MMPA	Found along coastal waters, islands, and bays of the eastern Pacific Ocean. Most migrate to Channel Islands during the breeding season	**Absent**. In the San Francisco Bay Area, California sea lions are found primarily along the Pacific coast and northern shores of the San Francisco peninsula. Sea lions are rarely seen in the interior South Bay; the closest observation of a living sea lion is 15 miles away near Foster City (iNaturalist 2023). This population breeds mainly on the Channel Islands, and a small number of non-breeding individuals remain at a year-round haul-out site on San Francisco's Pier 39.

Key to Abbreviations:

Status: Federally Endangered (FE); Federally Threatened (FT); Federal Candidate for Listing (FC); Federally Proposed as Threatened (FPT); State Endangered (SE); State Threatened (ST); State Candidate (SC); State Fully Protected (SP); California Species of Special Concern (CSSC); Protected under the Marine Mammal Protection Act (MMPA); Covered by PG&E's Bay Area HCP (BAHCP); Covered by PG&E's CDFW ITP (ITP).

5.3 Sensitive Natural Communities, Vegetation Alliances, and Habitats

Natural communities have been considered part of the Natural Heritage Conservation triad, along with plants and animals of conservation significance, since the state inception of the Natural Heritage Program in 1979. The CDFW determines the level of rarity and imperilment of vegetation types, and tracks sensitive communities in its Rarefind database (CNDDB 2023). Global rankings (G) of natural communities reflect the overall condition (rarity and endangerment) of a habitat throughout its range, whereas state (S) rankings are a reflection of the condition of a habitat within California. Natural communities are defined using NatureServe's standard heritage program methodology as follows (Faber-Langendoen et al. 2012):

G1/S1: Critically imperiled

G2/S2: Imperiled

G3/S3: Vulnerable.

G4/S4: Apparently secure

G5/S4: Secure

In addition to tracking sensitive natural communities, the CDFW also ranks vegetation alliances, defined by repeating patterns of plants across a landscape that reflect climate, soil, water, disturbance, and other environmental factors (Sawyer et al. 2009). If an alliance is marked G1-G3, all of the vegetation associations within it will also be of high priority (CDFW 2023). The CDFW provides VegCAMP's currently accepted list of vegetation alliances and associations (CDFW 2023).

Impacts on CDFW sensitive natural communities, vegetation alliances/associations, or any such community identified in local or regional plans, policies, and regulations, must be considered and evaluated under CEQA (Title 14, Division 6, Chapter 3, Appendix G of the California Code of Regulations). Furthermore, aquatic, wetland and riparian habitats are also protected under applicable federal, state, and local laws and regulations, and are generally subject to regulation, protection, or consideration by the USACE, RWQCB, CDFW, and/or the USFWS.

5.3.1 Sensitive Natural Communities

A query of sensitive habitats in the CNDDB (2023) identified two sensitive natural communities as occurring within the nine 7.5-minute USGS quadrangles containing or surrounding the survey area: (1) sycamore alluvial woodland (Rank G1/S1.1) and (2) northern coastal salt marsh (Rank G3/S3.2). The mixed riparian woodland and forest habitat occurring along the Guadalupe River adjacent to the survey area does not meet the definition of sycamore alluvial woodland, which is dominated by western sycamore and occurs within braided, depositional channels of intermittent streams, usually with cobble or boulder substrate (Holland 1986). The

diked salt habitats mapped during the survey do meet the definition of northern coastal salt marsh since the dominant vegetation is pickleweed.

5.3.2 Sensitive Vegetation Alliances

The majority of the survey area consists of either urban-suburban lands or California annual grassland that is dominated wild oats and *Bromus* sp. and would be considered "Wild oats and annual brome grasslands (*Avena* spp. – *Bromus* spp.)" alliance (CDFW 2023). This alliance does not have a global or state ranking, but because it is defined by dominance of nonnative species, is not considered sensitive by VegCAMP. No sensitive alliances occur in the survey area.

5.3.3 CDFW Riparian Habitat

Due to its rarity and disproportionately high habitat values and functions to wildlife, the CDFW considers riparian habitat to be sensitive. As described above in Section 3.2.4, the CDFW would likely claim jurisdiction over areas at, and below, the top of bank lines on either side of the Guadalupe River and all ruderal levee slopes adjacent to sloughs regardless of the vegetative composition of these areas. Some examples of sloughs that will be claimed by CDFW include Mud Slough and Coyote Creek.

5.3.4 Sensitive Habitats (Waters of the U.S./State)

The following habitats are considered waters or wetlands of the U.S./state occur in the survey area: tidal brackish marsh, tidal creek/slough, diked salt marsh, salt panne, managed pond, other ponds/sloughs, freshwater marsh, non-tidal stream, vernal pools, and seasonal wetlands.

5.3.5 Nonnative and Invasive Species

Several nonnative, invasive plant species occur within the survey area. Of these, the following have a rating of "limited" invasiveness (considered invasive but their ecological impacts are minor on a statewide level and their reproductive biology and other attributes result in low to moderate rates of invasiveness) according to the Cal-IPC (2023): bristly ox-tongue, milk thistle, prickly Russian thistle, and wild radish. The following species have a "moderate" rating, indicating that they have substantial and apparent-but generally not severe-ecological impacts on physical processes, plant and animal communities, and vegetation structure, and that their reproductive biology and other attributes are conducive to moderate to high rates of dispersal, though establishment would be generally dependent upon ecological disturbance: wild oats, ripgut brome, Italian thistle, fennel, black mustard, and short-podded mustard. Species with a "high" invasive rating by the Cal-IPC have the potential to cause severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal and establishment, and most are widely distributed ecologically (Cal-IPC 2023). Within the survey area, the following species with a "high" rating were observed: broadleaved pepperweed, yellow star thistle, and Himalayan blackberry.

Section 6. Impacts and Mitigation Measures

CEQA and the State CEQA Guidelines provide guidance in evaluating potential impacts of projects on biological resources and determining which impacts will be significant. The Act defines "significant effect on the environment" as "a substantial adverse change in the physical conditions which exist in the area affected by the proposed project."

Appendix G of State CEQA Guidelines provides a checklist of other potential impacts to consider when analyzing the significance of project effects. The impacts listed in Appendix G (Chapter IV) may or may not be significant, depending on the level of the impact. For biological resources, these impacts include whether the project would:

A. "have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service"

B. "have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service"

C. "Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means"

D. "interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites"

E. "conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance"

F. "conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan"

Potential impacts on biological resources as a result of the Reconductoring Activities were systematically evaluated at the project level. These impacts were first evaluated to qualitatively describe how proposed Reconductoring Activities could impact biological resources, and whether impacts would be temporary (i.e., occurring only during construction and the period immediately following) or permanent. Impacts were then evaluated with the application of any applicable AMMS, BMPs, or other measures from existing PG&E approvals that would apply to the Reconductoring Activities, including the Bay Area HCP, RGP 40, WDR/CWA Section 401 Order No. WQ 2023-0022-DWQ, RGP 40 NMFS BO, RGP 40 USFWS BO, and CDFW ITP Final EIR (described below); the Reconductoring Activities would comply with all applicable

measures from those existing approvals. Impacts were evaluated to determine whether the impacts were significant (and thus required mitigation) even with compliance with all these existing measures.

Impacts were assessed based on project description information provided by the Project team through March 28, 2024. Because certain details of the Reconductoring Activities still need to be refined, and for purposes of a robust and conservative analysis, it was assumed that the Reconductoring Activities could potentially impact areas around any of the 87 existing towers or poles. However, as detailed more fully above, it is likely that only a subset of poles or towers will be replaced, and existing towers surrounded by water or marsh may be accessed only be helicopter, with no on-the-ground activities. The ultimate impact areas at each tower and pole still need to be confirmed, but this report, conservatively assumes that areas up to 100 feet wide and 200 feet long, centered on each tower and pole, could be impacted during Reconductoring Activities.

6.1 PG&E Compliance with Existing Operations & Maintenance Activity Permits, Approvals, and CEQA Documents

PG&E will be performing the proposed Reconductoring Activities proposed and will comply with the AMMs, BMPs, and conditions set forth in previously approved documents, including:

- Bay Area HCP (ICF 2017)
- Section 404 RGP 40 (USACE 2018)
- Waste Discharge Requirements/401 Water Quality Certification (SWRCB 2023)
- NMFS Biological Opinion on RGP 40-authorized activities (NMFS 2023)
- USFWS Biological Opinion on RGP 40-authorized activities (USFWS 2021)
- CDFW Incidental Take Permit and Final Environmental Impact Report (CDFW 2022)

The measures from each of these approvals that apply to (and will be implemented during) performance of the Reconductoring Activities are described in the following sections.

6.1.1 PG&E's Bay Area HCP

The Reconductoring Activities are considered a covered activity under PG&E's Bay Area HCP. Five special-status species that could potentially be impacted by the Reconductoring Activities – the Contra Costa goldfields, vernal pool tadpole shrimp, California tiger salamander, California Ridgway's rail, and salt marsh harvest mouse – are covered species under the Bay Area HCP. Therefore, all applicable HCP conditions relating to these species are considered part of the project description as applicant-proposed measures rather than as mitigation measures.

In accordance with the Bay Area HCP, PG&E will implement a number of field protocols and AMMs to reduce impacts on sensitive habitats and special-status species. Bay Area HCP AMMs that are relevant to the Reconductoring Activities are described in Table 6.

Table 6. Applicable Bay Area HCP Avoidance and Minimization Measures for Reconductoring Activities

HCP Code	Description of Measure	Applicable Location/Species
FP-01	Hold annual training on habitat conservation plan requirements for employees and contractors performing covered activities in the Plan Area that are applicable to their job duties and work.	project-wide
FP-02	Park vehicles and equipment on pavement, existing roads, or other disturbed or designated areas (barren, gravel, compacted dirt).	project-wide
FP-03	Use existing access and ROW roads. Minimize the development of new access and ROW roads, including clearing and blading for temporary vehicle access in areas of natural vegetation.	project-wide
FP-04	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).	project-wide
FP-05	Notify conservation land owner at least 2 business days prior to conducting covered activities on protected lands (state and federally owned wildlife areas, ecological reserves, or conservation areas); more notice will be provided if possible or if required by other permits. If the work is an emergency, as defined in PG&E's Utility Procedure ENV-8003P-01, PG&E will notify the conservation land owner within 48 hours after initiating emergency work. While this notification is intended only to inform conservation land owner, PG&E will attempt to work with the conservation land owner to address landowner concerns.	project-wide
FP-06	Minimize potential for covered species to seek refuge or shelter in pipes and culverts. Inspect pipes and culverts, of diameter wide enough to be entered by a covered species that could inhabit the area where pipes are stored, for wildlife species prior to moving pipes and culverts. Immediately contact a biologist if a covered species is suspected or discovered.	project-wide
FP-07	Vehicle speeds on unpaved roads will not exceed 15 miles per hour.	project-wide
FP-08	Prohibit trash dumping, firearms, open fires (such as barbecues), hunting, and pets (except for safety in remote locations) at work sites.	project-wide
FP-10	Minimize the activity footprint and minimize the amount of time spent at a work location to reduce the potential for take of species.	project-wide
FP-11	Utilize standard erosion and sediment control BMPs (pursuant to the most current version of PG&E's *Stormwater Field Manual for Construction Best Management Practices*) to prevent construction site runoff into waterways.	project-wide
FP-12	Stockpile soil within established work area boundaries and locate stockpiles so as not to enter water bodies, stormwater inlets, or other standing bodies of water. Cover stockpiled soil prior to precipitation events.	project-wide
FP-13	Fit open trenches or steep-walled holes with escape ramps of plywood boards or sloped earthen ramps at each end if left open overnight. Field crews will search open trenches or steep-walled holes every morning prior to initiating daily activities to	project-wide

HCP Code	Description of Measure	Applicable Location/Species
	ensure wildlife are not trapped. If any wildlife are found, a biologist will be notified and will relocate the species to adjacent habitat or the species will be allowed to naturally disperse, as determined by a biologist.	
FP-14	If the covered activity disturbs 0.1 acre or more of habitat for a covered species in grasslands, the field crew will revegetate the area with a commercial "weed free" seed mix.	project-wide
FP-15	Prohibit vehicular and equipment refueling 250 feet from the edge of vernal pools, and 100 feet from the edge of other wetlands, streams, or waterways. If refueling must be conducted closer to wetlands, construct a secondary containment area subject to review by an environmental field specialist and/or biologist. Maintain spill prevention and cleanup equipment in refueling areas.	project-wide
FP-16	Maintain a buffer of 250 feet from the edge of vernal pools and 50 feet from the edge of wetlands, ponds, or riparian areas. If maintaining the buffer is not possible because the areas are either in or adjacent to facilities, the field crew will implement other measures as prescribed by the land planner, biologist, or HCP administrator to minimize impacts by flagging access, requiring foot access, restricting work until dry season, or requiring a biological monitor during the activity.	project-wide
FP-17	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.	project-wide
FP-18	Nests with eggs and/or chicks will be avoided: contact a biologist, land planner or the Avian Protection Program manager for further guidance.	project-wide
Hot Zone-6	Limit activities to foot access only when working off of established roadways unless a biological monitor flags off- road access routes for equipment that minimize impacts on habitat and species. This includes the identification and avoidance of vernal pools and stock ponds. Covered activities that cannot avoid vernal pool impacts will be completed when pools are clearly dry.	Vernal pools, seasonal wetlands, and California annual grassland habitats for California tiger salamander
Hot Zone-8	For activities that will result in ground disturbance in tidal marsh or coastal wetland habitat, including the removal of marsh vegetation, a biologist will flag access routes for crews when working in pickleweed or cordgrass dominated habitats in order to minimize impacts on these species. Crews will hand-carry equipment and use protection mats (landing pads, pallets) to minimize ground disturbance when working within pickleweed or smooth cordgrass. Small areas of healthy vegetation will be cleared by hand prior to placement of protective mats. To avoid take of salt marsh harvest mouse, the biologist will assess the site to determine if: vegetation protection mats are appropriate, use of helicopters is needed, vegetation removal by hand is needed, and an onsite biological monitor is needed. Prior to placement of mats or removal of vegetation,	Marsh habitat for California Ridgway's rail and salt marsh harvest mouse

HCP Code	Description of Measure	Applicable Location/Species
	the vegetation will be disturbed (i.e., flushed) to force movement of salt marsh harvest mouse into adjacent tidal marsh areas. Immediately following flushing, the field crew will place a mat or manually remove vegetation with nonmotorized tools (e.g., hoe, rake, trowel, or shovel) to the bare ground. Conduct work within 700 feet of wetlands suitable for the Ridgway's rail September 1–January 15.	
Wetland-1	Identify vernal pools and establish buffers. Maintain a buffer of 250 feet around vernal pools and vernal pool complexes. If maintaining the buffer is not possible because the areas are either in or adjacent to facilities, the field crew will implement other measures as prescribed by the biologist or HCP administrator to minimize impacts. These measures include flagging access, requiring foot access, restricting work until the dry season, requiring a biological monitor during the activity, or excavating burrows in ROWs where trenching will occur. Activities must maintain the downstream hydrology to the vernal pool or complex. Additional minimization measures may be implemented with prior concurrence from USFWS.	Vernal pools (Contra Costa goldfields, vernal pool tadpole shrimp, and California tiger salamander)
Wetland-2	Identify wetlands, ponds, and riparian areas and establish buffers. Maintain a buffer of 50 feet around wetlands, ponds, and riparian areas. If maintaining the buffer is not possible because the areas are either in or adjacent to facilities, the field crew will implement other measures as prescribed by the biologist or HCP administrator to minimize impacts. These measures include flagging access, requiring foot access, restricting work until the dry season, requiring a biological monitor during the activity, or excavating burrows in ROWs where trenching will occur. Activities must maintain the downstream hydrology to the wetland, pond, or riparian area. Additional minimization measures may be implemented with prior concurrence from USFWS.	California tiger salamander
Plant-01	No herbicides will be used for vegetation management, pole clearing, or any other purpose within 100 feet of a Map Book zone (MBZ) (except vegetation management's direct application to cut stumps when greater than 25 feet from a MBZ and in conformance with applicable pesticide regulations).	Contra Costa goldfields
Plant-02	Heavy equipment shall remain on access roads or other previously disturbed areas unless otherwise prescribed by a land planner, biologist, or HCP administrator.	Contra Costa goldfields
Plant-03	Stockpile separately the upper 4 inches of topsoil during excavations associated with covered activities. Stockpiles topsoil will be used to restore the disturbed ROW.	Contra Costa goldfields
Plant-04	When covered activities greater than 0.1 acre in size within a MBZ will have direct impacts on covered species, work with the crew to place flagging, fencing, or other physical exclusion barriers to minimize disturbances. If the work will directly impact covered plant species, implement Plant-05, -06, -07, and -08 AMMs.	Contra Costa goldfields
Plant-05	If a covered plant species is present and it cannot be avoided, PG&E will salvage plant material (i.e., seeds, cuttings, whole	Contra Costa goldfields

HCP Code	Description of Measure	Applicable Location/Species
	plants) and prepare a restoration plan that details the handling, storage, propagation, or reintroduction to suitable and appropriate habitat subject to USFWS review and approval.	
Plant-06	If a covered annual plant species is present and it cannot be avoided, conduct covered activities after seeds have matured to the extent possible.	Contra Costa goldfields

For activities covered by the Bay Area HCP that impact more than 0.1 acre of ground, PG&E will restore temporarily impacted habitat. Site restoration could include soil compaction, recontouring excavated areas to follow natural contours, reseeding areas cleared of plant cover, and planting trees or other vegetation (ICF 2017).

PG&E will also provide compensatory mitigation for impacts to habitat of species covered by the Bay Area HCP, in accordance with the HCP's guidelines. Permanent impacts on suitable habitat will be mitigated at a 3:1 (mitigation:impact) ratio. Temporary impacts will be mitigated at a 1:1 ratio, except that temporary impacts on upland habitat for the California tiger salamander will be mitigated at a ratio of 0.5:1 if mitigation is provided prior to impacts. Compensatory mitigation will consist of acquiring and preserving lands suitable for the species for the vernal pool tadpole shrimp; acquiring and preserving suitable lands or purchasing credits from mitigation banks for the California tiger salamander; acquiring and preserving lands or contributing to marsh restoration projects for the California Ridgway's rail and salt marsh harvest mouse; and salvaging topsoil, replacing and recontouring topsoil during right-of-way restoration, and monitoring success, and purchase of mitigation credits, for Contra Costa goldfields.

6.1.2 PG&E's Section 404 Regional General Permit 40

The Reconductoring Activities are considered a covered activity under PG&E's RGP 40. RGP 40 was issued by the USACE to authorize impacts on waters of the U.S. from PG&E's Bay Area Operation and Maintenance Program, including repairing and replacing facilities, structures, and access roads and electrical transmission and distribution reconductoring projects. In accordance with RGP 40, PG&E will implement a number of general and special conditions to reduce impacts on waters of the state, as well as sensitive aquatic species and their habitats. Therefore, all applicable RGP 40 permit conditions are considered part of the project description as applicant-proposed measures rather than as mitigation measures. Bay Area RGP 40 permit general and special conditions that are relevant to the Reconductoring Activities are described in Table 7.

Table 7. Applicable RGP 40 Conditions to the Reconductoring Activities

RGP Code	Description of Conditions
General Condition 1	The time limit for completing the work authorized ends on December 31, 2027. If you* find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.

RGP Code	Description of Conditions
General Condition 2	You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
General Condition 4	If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.
General Condition 5	If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit.
General Condition 6	You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.
General Condition 7	You understand and agree that, if future operations by the United States require the removal, relocation or other alteration of the structure or work authorized herein, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, you will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.
Special Condition 1	To remain exempt from the prohibitions of Section 9 of the Endangered Species Act, the non-discretionary terms and conditions for incidental take of federally-listed species shall be fully implemented as stipulated in the Biological Opinions from US Fish and Wildlife Service (USFWS) titled "Final Programmatic Formal Consultation for the Pacific Gas and Electric Company's (PG&E) Bay Area Operation and Maintenance (O&M) Program in Alameda, Contra Costa, Marin, Napa, Santa Clara, San Francisco, San Mateo, Solano, and Sonoma Counties, California" (USFWS file # 08FBDT00-2020-F-0197), dated August 6, 2021 (enclosure 3), and from National Marine Fisheries Service (NMFS) titled "Endangered Species Act Section 7(a)(2) Biological Opinion and Magnuson–Stevens Fishery Conservation and Management Act Essential Fish Habitat Response for the Pacific Gas and Electric Company's Bay Area Operation and Maintenance Program" (NMFS file # WCRO- 2021-028), dated April 6, 2023 (enclosure 4). Projects shall also follow all applicable provisions of the 2017 Habitat Conservation Plan (HCP) and associated Incidental Take Permit (ITP) for the PG&E Bay Area O&M Program. Project authorization under this permit is conditional upon compliance with the mandatory terms and conditions associated with incidental take. Failure to comply with the terms and conditions for incidental take, where a take of a federally-listed species occurs, would constitute an unauthorized take and non-compliance with the authorization for your project. The USFWS and or NMFS are however, the authoritative federal agency for determining compliance with their incidental take statements and for initiating appropriate enforcement actions or penalties under the Endangered Species Act.
Special Condition 3	USACE initiated consultation with NMFS to address project related impacts to Essential Fish Habitat (EFH). The conservation recommendations listed on page 85 of the NMFS Biological Opinion shall be implemented as follows: a. EFH recommendations 1 and 2 shall be fully implemented by following all non-discretionary terms and conditions for incidental take of federally-listed species, as required in special condition 1. b. To be consistent with EFH recommendation 3, PG&E shall perform hydroacoustic monitoring at a minimum of 2 sites per calendar year, on a minimum of 8 total piles

RGP Code	Description of Conditions
	when an impact hammer is utilized on steel piles between 20 inches and 60 inches diameter in water depths greater than 3 feet at MLLW, and when a coffer dam is not used to dewater the site prior to piledriving. If PG&E uses an impact hammer to install 20-60 inch piles at only one site and/or less than 8 total piles in a calendar year, then all piles installed under these conditions shall be hydro-acoustically monitored. Monitoring results shall be included along with other required hydroacoustic monitoring results in PG&E's annual report to NMFS and USFWS.
Special Condition 4	For all projects proposed for authorization under this RGP, PG&E shall submit digital copies of project information to USACE, USFWS, and NMFS at least 45 days prior to any planned project activities. The project submissions shall include copies of the pre-construction notification/notice of intent (PCN-NOI) form for the PG&E Bay Area O&M Program, detailing the types of activities planned, anticipated dates of commencement and completion, locations and descriptions of the proposed projects, project drawings or design plans, and summary of impacts to streams, wetlands, or other waters including proposed dewatering, grading, or other temporary or permanent fill discharge for each project. The project information submitted to USACE shall also include the latest version of the USACE ORM Aquatic Resources and Consolidated Upload Spreadsheet, using the Aquatic Resources tab and Impacts tab to provide required information for all proposed projects, including details on the aquatic resources and proposed fill impacts for each project.
Special Condition 8	For purposes of compensatory mitigation required by USACE under this RGP, the program area is divided into 4 mitigation regions: North Bay (Marin, Sonoma, Napa, and Solano Counties); East Bay (Contra Costa and Alameda Counties); Peninsula (San Francisco and San Mateo Counties); and South Bay (Santa Clara County). If the overall permanent impacts within any one mitigation region exceeds 0.1 acre within the 5- year period of this RGP, compensatory mitigation shall be required for all permanent impacts to waters of the U.S. within that mitigation region. Should the overall permanent impacts to waters of the U.S. within any mitigation region be anticipated to exceed 0.1 acre, a mitigation plan compliant with the 2008 mitigation rule shall be submitted for all impacts cumulatively greater than 0.1 acre in that mitigation region. Proposed compensatory mitigation shall ensure no overall net loss in quantity or quality of waters of the U.S. and shall occur within the same region as the impacts.
Special Condition 9	Compensatory mitigation for permanent impacts to waters of the U.S. may include enhancement, rehabilitation, establishment, or reestablishment of waters of the U.S. Preservation of particularly rare or threatened aquatic resources may only be considered if proposed in combination with other forms of mitigation. Compensatory mitigation for permanent impacts to waters of the U.S. shall be commensurate with the amount and type of impacts that have occurred/are proposed to occur under the O&M Program. Invasive plant removal and native plant establishment alone may not be considered acceptable mitigation for permanent impacts to waters of the U.S. but may be included as part of a larger mitigation plan.
Special Condition 10	PG&E shall be responsible for monitoring any permittee-responsible mitigation for a minimum of 5 years depending on the mitigation project. Mitigation sites involving revegetation shall be monitored by a qualified biologist or vegetation specialist to evaluate successful establishment and survival of plantings. Monitoring and reporting will be compliant with the 2008 mitigation rule. Any mitigation required by USACE will not be considered fulfilled until you have submitted documentation of final mitigation success, and have received written verification from USACE.

6.1.3 PG&E's Waste Discharge Requirements/401 Water Quality Certification

The Reconductoring Activities are considered a covered activity under PG&E's Waste Discharge Requirements and Clean Water Act Section 401 Water Quality Certification. WDR/CWA Section 401 Order No. WQ 2023-0022-DWQ provides coverage for PG&E's Bay Area Operation and Maintenance Program, including activities related to natural gas pipelines and electric transmission and distribution line dredge, fill, excavation and associated activities that directly and indirectly discharge waste into waters and or impact water quality and beneficial uses in the nine counties surrounding the San Francisco Bay. In accordance with WDR/CWA Section 401 Order No. WQ 2023-0022-DWQ, PG&E will implement a number of measures to reduce impacts on waters of the state. Therefore, all applicable Order No. WQ 2023-0022-DWQ permit conditions relating to waters of the state are considered part of the project description as applicant-proposed measures rather than as mitigation measures. Order No. WQ 2023-0022-DWQ measures that are relevant to the Reconductoring Activities are described in Table 8.

Table 8. Applicable WDR and CWA Section 401 Measures to the Reconductoring Activities

WDR/401 Measure	Description of Measure
Description of Direct and Indirect Impacts to Waters of the State	The Permittee should describe all proposed project features, including those potentially offsite and/or adjacent to waters of the state which could result in impacts to waters of the state, in the Notice of Intent (NOI- Attachment B), which must be completed for authorization under this Order.
Avoidance and Minimization Measure	Projects that receive Water Board authorization must demonstrate that impacts to waters of the state are first avoided, and then minimized, to the greatest extent practicable.
Compensatory Mitigation Requirement	As determined by the appropriate Regional Water Board, the Permittee is required to provide compensatory mitigation to compensate for permanent, temporary, direct and/or indirect impacts
Reporting and Notification Requirement 1	Request for Authorization. The Permittee shall submit a complete NOI for authorization under this Order at least 45 days before any project activity. The NOI shall describe all proposed project impacts to waters of the state and project design steps taken to first avoid, and then minimize, impacts to waters of the state to the maximum extent practicable. The NOI shall also include a delineation of waters of the state within impact sites. The NOI must provide all information requested in NOI Attachment B. The NOI must be provided on the NOI form found in Attachment B until an electronic application form is available on the State Water Board's webpage, at which time electronic submission will be required. An application fee must be provided with each NOI. The application fee amount is determined as required by the California Code of Regulations, title 23, sections 3833(b)(3) and 2200(a)(3).
Reporting and Notification Requirement 2	The Water Boards shall determine whether the activity is eligible for Order coverage. The Water Boards will require the Permittee to apply for individual or general authorization where the activity would not comply with an applicable water quality control plan or policy even if coverage would otherwise be authorized by this Order. The Permittee may choose to apply for an individual water quality authorization.
Reporting and Notification Requirement 3	Project Status Notifications a. Commencement of Construction. The Permittee shall submit a Commencement of Construction Report at least seven (7) days prior to start of initial ground disturbance activities and, if applicable, corresponding Waste Discharge Identification Number (WDID) issued under the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ or 2022-0057-DWQ; NPDES No. CAS000002).

WDR/401 Measure	Description of Measure
	b. Project Reporting. The Permittee shall submit an Annual Report unless a Quarterly Report is required by Water Board staff in the project's Notice of Applicability. Project reporting shall continue until the Water Board issues a Notice of Project Complete Letter to the Permittee. c. Request for Notice of Project complete Letter. The Permittee shall submit a Request for Notice of Project Complete Letter when construction and any post- construction monitoring is complete, mitigation performance criteria have been achieved, and no further project activities will occur; this request may be provided using the Request for Notice of Project Complete Letter Form (Attachment G). This request shall be submitted to Water Board staff within thirty (30) days following completion of all project activities. Upon approval of the request, the Water Board staff shall issue a Notice of Project Complete Letter (written notice, email, or other verifiable means) to the Permittee which will end associated annual fees. Completion of post-construction monitoring shall be determined by Water Board staff and shall be contingent on successful attainment of restoration and mitigation performance criteria.
Reporting and Notification Requirement 4	Conditional Notifications and Reports a. Accidental Discharges of hazardous materials*. Following an accidental discharge of a reportable quantity of a hazardous material, sewage, or an unknown material, the following applies (Water Code, Section 13271): i. As soon as the Permittee has knowledge of the discharge or noncompliance, notification is possible, and notification can be provided without substantially impeding cleanup or other emergency measures then: 1. First call – 911 (to notify local response agency) 2. Then call – Office of Emergency Services (OES) State Warning Center at: (800) 852-7550 or (916) 845-8911 3. Lastly, follow the required OES procedures as set forth in the Office of Emergency Services' Accidental Discharge Notification Web Page ii. Following notification to OES, the Permittee shall notify the appropriate Water Board, as soon as practicable (ideally within 24 hours). Notification may be delivered via written notice, email, or other verifiable means. iii. Within five (5) working days of notification to the Water Board, the Permittee must submit an Accidental Discharge of Hazardous Material Report. b. Violation of Compliance with Water Quality Standards. i. The permittee shall notify the water board within three working days of any event causing a violation of compliance with water quality standards. Notification may be delivered via written notice, email, or other verifiable means. ii. This notification must be followed within 3 working days by submission of a Violation of Compliance with Water Quality Standards Report. c. In-Water Work and Diversions. i. If required by the Water Board, the permittee shall notify the Water Board at least forty-eight hours prior to initiating work in water or installation of stream diversions. Notification may be delivered via written notice, email, or other verifiable means. ii. If required by the water board, within seven working days following completion of in-stream water work or stream diversions, an in-water work/diversions water quality monitoring report must be submitted to water board staff. d. Modifications to Project. The Permittee shall give advance notice to Water Board staff if project implementation as described in the NOI is altered in any way or by the imposition of subsequent permit conditions by any local, state, or federal regulatory authority by submitting a Modifications to Project Report. Project modifications that may prevent compliance with this Order are prohibited. e. Transfer of Long-term BMP Maintenance. If maintenance responsibility for post-construction BMPs is legally transferred, the permittee must submit to the Water Board a copy of such documentation and must provide the transferee with a copy of such documentation and must provide the transferee with a copy of a long-term BMP maintenance plan that complies with manufacturer or designer specifications. The Permittee must also provide such notification to the Water Board with a Transfer of

WDR/401 Measure	Description of Measure
	Long-term BMP maintenance Report at least 10 days prior to the transfer of BMP maintenance responsibility.
Water Quality Monitoring Condition 1	General: If surface water is present, continuous visual monitoring shall be conducted during active construction to detect accidental discharge of construction related pollutants (oil and grease, turbidity plume, or uncured concrete).
Water Quality Monitoring Condition 2	In-Water Work or Diversions. For projects involving planned in-stream water work or stream diversions, an in-water work/stream diversion and water quality monitoring plan shall be submitted with the NOI. Water quality monitoring shall be conducted in accordance with the approved plan.
Water Quality Monitoring Condition 3	Accidental Discharges/ Noncompliance. If an accidental discharge occurs, the permittee shall determine whether the discharge includes hazardous materials or will cause or contribute to an exceedance of water quality objectives, and if so, notify the water board in accordance with IX.A.4.a. Water board Staff may require additional water quality monitoring based on the discharge constituents and/or related water quality objectives and beneficial uses.
Water Quality Monitoring Condition 4	Post-Construction. For activities that result in exposed soil in or on the banks of waters and that have not received a Notice of Project Complete Letter, the Permittee will visually inspect the project site between October 30 and April 15 or as required in the approved restoration plan following each rain event that results in 0.5 inch of rainfall or more within a 48 hour period, until the permittee demonstrates that applicable erosion control BMPs are properly installed and the site is stabilized to prevent future erosion. The Permittee must demonstrate that excessive erosion, stream instability, and other water quality pollution is not occurring in or downstream of the project site. If water quality pollution is occurring, contact the Water Board staff member overseeing the project within three working days. The Water Board may require the submission of a Violation of Compliance with Water Quality Standards Report.
Standard Condition 3	This Order is conditioned upon total payment of any fee required under title 23 of the California Code of Regulations.
General Condition 1	Permitted actions must not cause a violation of any applicable water quality standards, including impairment of designated beneficial uses for receiving waters as adopted in the basin Plan by any applicable Regional Water Board, or any applicable Water Board water quality control plan or policy. The source of any such discharge just be eliminated as soon as practicable.
General Condition 2	The Permittee must conform to the engineering plans, specifications, and tech reports submitted with the application materials, per Water Code 13264
General Condition 3	The Permittee shall adhere to all requirements in the mitigation monitoring and reporting program (MMRP) (Pacific Gas and Electric Bay Area Operation and Maintenance Incidental Take Permit Mitigation Monitoring and Reporting Program, July 2022) which is incorporated herein by reference and any additional measures as outlined in Attachment E, CEQA Findings of Fact.
General Condition 4	Avoidance and Minimization: Projects authorized under this Order shall be designed to avoid and minimize impacts to waters of the state to greatest practicable extent.
Administrative Condition 1	Signatory requirements for all document submittals required by this Order are presented in Attachment D of this Order
Administrative Condition 2	Site Access: The Permittee shall grant Water Board staff, Regional Water Board staff or an authorized representative (including an authorized contractor acting as a Water Board representative), upon presentation of credential and other documents as may be required by law, permission to: a. Enter upon the project site premises where an activity is located or records are kept b. Have access to and copy any records that are kept and relevant c. Inspect any facilities, equipment (including monitoring and control equipment),

WDR/401 Measure	Description of Measure
	practices, or operations regulated or required d. Sample or monitor for the purpose of assuring compliance
Administrative Condition 3	The Permittee shall be responsible for work conducted by its consultants, contractors, and any subcontractors. A copy of this Order shall be provided to any consultants, contractors, and subcontractors working on the project. Copies of this Order and the project's Notice of Applicability shall remain at the project site for the duration of the project. All personnel performing work on the project shall be familiar with the content of this Order and the project's Notice of Applicability and its posted location at the project site.
Administrative Condition 4	Lake and Streambed Alteration Agreement. The Permittee shall submit a signed copy of the California Department of Fish and Wildlife's Lake or Streambed Alteration Agreement (LSAA) to the Water Board prior to any discharge to waters of the state that requires an LSAA.
Construction Condition 1	All materials and supplies necessary for implementing these construction conditions must be on site and ready for use at the start of the construction activity and must remain in supply and ready for implementation throughout the construction process. All non-structural best management practice materials (e.g., training documents, compliance tracking procedures) must be ready for use at the start of construction.
Construction Condition 2	All personnel who engage in construction activities or their oversight at the Project site (superintendent, construction manager, foreman, crew, contractor, biological monitor, etc.) must attend trainings on the conditions of this Order and how to perform their duties in compliance with those conditions. Every person shall attend an initial training within five working days of their start date at the Project site. Trainings shall be conducted by a qualified individual with expertise in 401 Water Quality Certification conditions and compliance.
Construction Condition 3	Construction material, debris, rubbish, spoils, soil, silt, sawdust, rubbish, steel, welding slag, welding rods, waste material, waste containers, other organic or earthen material, or any other substances which could be detrimental to water quality or hazardous to aquatic life that is discharged as a result of project related activities shall be prevented from entering waters of the state. Spoils from excavations shall not be stored in waters of the state.
Construction Condition 4	Environmentally sensitive areas and environmentally restricted areas, including any avoided waters of the state, must be clearly identified in the field for exclusion prior to the start of construction. Such identification must be properly maintained until construction is completed and the soils have been stabilized. Equipment, materials, or any other substances or activities that may impact waters of the state outside of the limits of project disturbance are prohibited.
Construction Condition 6	Temporary materials placed in any water of the state must be removed as soon as construction is completed at that location, and all temporary roads must be removed or re-contoured and restored according to approved re-vegetation and restoration plans.
Construction Condition 7	A method of containment must be used below any temporary bridge, trestle, boardwalk, and/or other stream crossing structure to prevent any debris or spills from falling into the waters of the state. Containment must be maintained and kept clean for the life of the temporary crossing structure
Construction Condition 8	Vegetation removal shall be limited to the minimum necessary to complete the proposed operation and maintenance activities as listed in this section. This Order does not allow vegetation management removal as a standalone activity.
Construction Condition 9	Unless authorized for restoration, material excavated to prepare a site for placement of the permitted fill material must be properly disposed of in an upland area. The disposal site must be located at a sufficient distance away from flowing or standing water such that the excavated material does not erode or move in any way into any water of the state. The disposal area shall be identified in the project NOI.

WDR/401 Measure	Description of Measure
Construction Condition 10	Topsoil: For any excavation, including utility line trenches, the top 6 to 12 inches of topsoil shall be removed and stockpiled separately during construction. Following installation, the topsoil shall be replaced and restored to preexisting conditions.
Construction Condition 12	Dust Abatement: Dust abatement chemicals added to water can be hazardous to wildlife and, if allowed to enter streams, detrimental to water quality. Therefore, dust abatement activities shall be conducted so that sediment or dust abatement chemicals are not discharged into waters of the state. Dust abatement products or additives that are known to be detrimental to water quality or wildlife shall not be used, unless specific management needs are documented, and product-specific application plans are approved by Water Board staff.
Construction Condition 13	Use of Mechanized Equipment. Activities permitted under this Order shall be conducted in a manner that minimizes ground disturbance, soil compaction, rutting and other mechanical impacts. Equipment shall be operated and maintained in a manner that reduces the risk of spills or the accidental exposure of fuels or hazardous materials to water bodies or wetlands.
Construction Condition 15	Access Routes a. The number of access routes, number, and size of staging areas, and the total area of the ground disturbance shall be limited to the minimum necessary to achieve the project goal. b. Access routes that are intended for seasonal deactivation* or permanent decommissioning** shall be decommissioned as soon after use as possible, as follows: i. Access routes shall be in a condition that enables long-term, disconnected and maintenance-free drainage. ii. Drainages shall be fortified to endure the duration of planned decommissioning and prevent direct flows into waters. iii. Where feasible, a permanently decommissioned stream crossing shall be excavated to exhume the original, stable, stream bed and channel side-slopes, and then banks must be stabilized with materials including, but not limited to, mulch, seeding, replanting, and rock armoring, if anticipated flows may erode vegetated creek banks. iv. Soils exposed during seasonal deactivation or permanent decommissioning shall be stabilized or removed to prevent spoils erosion and sedimentation. v. Permanent access route decommissioning requires the restoration of natural drainage patterns and implementation of the approved restoration plan. c. Access routes shall be constructed using full bench construction and incorporate drainage structures with enough frequency to prevent saturated soils and erosion of access routes at the spacings specified in Table 1. If the spacings specified in Table 1 are infeasible for the work area, an explanation of the infeasibility must be provided, and an alternative means to preventing erosive discharges to waters of the state must be provided within the NOI. (see Table 1: Drainage Structure Spacing Requirements (in feet) depending on road Grade and Erosion Hazard Rating on Page 19)
Construction Condition 19	Toxic and Hazardous Materials a. Activities permitted under this Order shall not discharge toxic substances in concentrations that produce detrimental physiological responses to human, plant, animal, or aquatic life. CIPP formulations that have not been appropriately tested to demonstrate that they are not toxic to aquatic life that is likely to be present in the local watershed shall not be used in culvert rehabilitation projects. b. Discharge of unset cement, concrete, grout, slurry, damaged concrete spoils, concrete dust, or water that has contacted uncured concrete or cement, or related washout to surface waters, ground waters, or land is prohibited. If concrete washout is necessary at the site, washout containment shall be used to prevent any discharge. Wastewater may only be disposed by delivery to a sanitary wastewater collection system/facility (with authorization from the facility's owner or operator) or a properly licensed disposal or reuse facility.

WDR/401 Measure	Description of Measure
	c. Appropriate BMPs must be implemented throughout project activities to prevent and control potential leaks/spills/drainage of potentially hazardous materials such as: non-petroleum hydraulic fluid; epoxies; paints and other protective coating materials; cement concrete or asphalt concrete; and washings and cuttings thereof. d. Activities permitted under this Order shall not discharge waste classified as "hazardous" as defined in California Code of Regulations title 22, section 66261 and Water Code section 13173. These BMPs shall include, at a minimum: i. All personnel handling fuels and other hazardous materials shall be properly trained. ii. Adequate spill prevention and cleanup equipment and materials shall be present on site at all times during project implementation. iii. All mechanized equipment shall be maintained in good operating order and inspected on a regular basis. iv. All on-site fuel trucks or fuel containers shall be stored in an area where risk of contamination of water bodies by leaks or spills is minimized. v. All equipment shall be fueled, maintained, and/or parked overnight in an upland area at least 100 feet from any delineated waters of the state. vi. Hazardous materials, including chemicals, fuels, and lubricating oils, shall not be stored within 100 feet of any delineated waters of the state, and shall be stored in appropriate containers with appropriate secondary containment. vii. Pumps or other stationary equipment operating within 100 feet of a waterbody or wetland shall utilize appropriate secondary containment systems to prevent spills. viii. Any spills or leaks of hazardous materials, chemicals, fuels, lubricants or any other potential pollutants shall be promptly and completely treated using appropriate materials and equipment. ix. Spill containment supplies shall be on site in all work areas in sufficient quantities to allow immediate remediation of fuel, oil, hydraulic fluid or similar leaks and spills. x. Staging area for equipment and vehicle fueling and storage shall be designated at least one-hundred (100) feet away from waters of the state, in a location where accidental discharges of fluids or fuels cannot flow into waters of the state. Whenever not feasible, as when staging is from barges, secondary containment around fuels and other fluids, such as lubricants and secondary fuels, shall be implemented. e. Projects that create new wetlands or affect existing wetlands shall be designed to include features or management measures that reduce the production of methylmercury in the wetland, including minimizing the repeated wetting and drying of soils by keeping wetlands flooded. In addition, sediment control measures shall be implemented to reduce the transport of total mercury or methylmercury out of the wetland.
Construction Condition 20	Invasive Species and Soil Borne Pathogens a. The Permittee is responsible for ensuring that all project personnel follow proper weed control practices, and that appropriate weed prevention measures are included in project plans. b. Any straw, hay or other unprocessed plant material used for any purpose must be certified or documented as being weed free. c. To prevent the spread of soil borne pathogens*, equipment must be cleaned prior to entering the site. Any equipment leaving the project area shall be thoroughly cleaned using methods appropriate for the known pathogen before leaving the project area, unless the Permittee documents that no known soil borne pathogen infestations are present within the project area. If equipment is to be cleaned on site, the cleaning station must be identified in the NOI and cannot be located within one-hundred feet of any waters of the state.
Construction Condition 21	Work in Delineated Waters of the State a. Work in waters of the state must not cause or contribute to an exceedance of water quality objectives in the receiving waters. Work in delineated waters commences at the onset of the regulated activity and continues until the activity is finished and all restoration of the affected work area is complete. The term "work"

WDR/401 Measure	Description of Measure
	means any ground disturbing activities in any delineated waters of the state that are permitted under this Order, regardless of the presence or absence of flowing or standing water. b. All temporary dewatering activities are subject to the work-in-water reporting and monitoring conditions presented in the Water Quality Monitoring Section of this Order. c. Temporary diversions or impoundments of water, cofferdams, or similar structures installed for the purpose of temporarily dewatering work areas shall be performed according to the In-water Work/Stream Diversion and Water Quality Monitoring Plan provided by the Permittee, and approved by the appropriate Regional Water Board, including appropriate monitoring for water quality upstream and downstream of diversion structures as required in the Water Quality Monitoring section of this Order. d. All surface waters, including ponded waters, shall be diverted away from areas undergoing grading, construction, excavation, vegetation removal, and/or any other activity which may result in a discharge to waters of the state. e. Equipment may not be operated in standing or flowing waters unless implementing the following conditions: i. All construction activities must be effectively isolated from water flows to the greatest extent possible. This may be accomplished by working in the dry season or dewatering the work area. When work in standing or flowing water is required, structures for isolating the in-water work area and/or diverting the water flow must not be contaminated by construction activities. All open flow temporary diversion channels must be lined with filter fabric or other appropriate liner material to prevent erosion. Structures used to isolate the in-water work area and/or diverting the water (e.g., coffer dam, geotextile silt curtain) must not be removed until all disturbed areas are stabilized. ii. If groundwater dewatering is required for the project, the Permittee shall comply with applicable existing PG&E NPDES permit requirements. If additional Water Board dewatering permits are required, the designated Water Board staff contact must be notified and copied on pertinent correspondence pertaining to those other required permits. iii. All temporary dewatering and stream diversion methods shall be designed to have the minimum necessary impacts to waters of the state. All stream diversion methods shall be installed such that natural flow is maintained upstream and downstream of the diversion area. Any temporary dams or diversions shall be installed such that the diversion does not cause sedimentation, siltation, or erosion upstream or downstream of the diversion area. Diverted flows must be of sufficient quality and quantity, and of appropriate temperature, to support existing fish and other aquatic life both above and below the diversion. Pre-project flows must be restored to the affected surface water body upon completion of work at that location. All dewatering and stream diversion methods shall be removed immediately upon completion of activities for which dewatering or diversions are needed.
Restoration and Mitigation for Temporary Impact 1	The Permittee shall restore all areas of temporary impacts to waters of the state and all project site upland areas of temporary disturbance which could result in a discharge to waters of the state as described in a restoration plan approved by the appropriate Regional Water Board. The restoration plan shall be submitted to the appropriate Regional Water Board for review and approval with the NOI. The restoration plan shall provide the following: a schedule; plans for grading of disturbed areas to pre-project contours; a planting palette with plant species native to the project area; seed collection location; invasive species management; performance standards; and maintenance requirements (e.g., watering, weeding, and replanting).
Restoration and Mitigation for Temporary Impact 2	In cases where implementation actions in the restoration plan cannot be reasonably conducted within one year of impacts to waters of the state, or where the adverse temporary impacts result in temporary loss of aquatic resource function(s), the Permittee may be required to provide compensatory mitigation to offset temporal loss of waters of the state. Examples of additional mitigation include, but are not

WDR/401 Measure	Description of Measure
	limited to, enhancement activities. such as increasing the presence of native species and reducing dominance of non-native/invasive species, native willow staking, planting of native riparian vegetation, and trash removal.
Restoration and Mitigation for Temporary Impact 3	The Water Board may extend the monitoring period beyond requirements of the restoration plan upon a determination by Water Board staff that the performance standards have not been met or are not likely to be met within the monitoring period
Mitigation for Permanent Impacts 1	Compensatory mitigation is required to offset permanent impacts to waters of the state, unless the Permittee has demonstrated that the project authorized by this Order will restore or improve the ecological function of the impacted aquatic resource. Generally, compensatory mitigation shall take place within the same watershed as the impact site, but the permitting Water Board may approve compensatory mitigation in a different watershed or programmatic mitigation across one or multiple watersheds. Mitigation that occurs outside of the impacted watershed may require additional mitigation. When compensatory mitigation is required, the Permittee shall provide the following: a. A draft compensatory mitigation plan at a level of detail sufficient to accurately evaluate whether compensatory mitigation offsets the adverse impacts attributed to the project considering the overall size and scope of impact. b. Compensatory mitigation shall provide a minimum of a one-to-one mitigation to impact ratio, measured in area and length for mitigation banks, advanced mitigation, and in-lieu fee programs. Mitigation is required to ensure compliance with Executive Order W-59-93 that requires no net loss of the structure or function of California's wetland resources*. Mitigation should be in kind as much as is feasible. If mitigation is out-of-kind, the amount of mitigation should be increased. When mitigation is constructed, enhanced, or preserved offsite, the amount of mitigation should be increased to account for the distance between the impact site and the mitigation site. The amount of mitigation should also account for the uncertainty associated with the successful creation of a mitigation site. The Water Board will require a higher overall mitigation ratio where necessary to ensure replacement of lost aquatic resource functions and for permittee responsible mitigation conducted concurrently with impacts, subject to approval by the appropriate Regional Water Board. c. Subject to approval by the appropriate Water Board, mitigation may be satisfied using any of the following compensatory mitigation methods: restoration, enhancement, and/or establishment. d. No discharge of dredged or fill material to waters of the state shall occur prior to Water Board approval of a final mitigation plan covering the impacted site. The mitigation plan may be provided in advance of the identification of specific projects subject to Regional Water Board approval.

6.1.4 PG&E's Regional General Permit 40 NMFS Biological Opinion

The Reconductoring Activities are considered a covered activity under PG&E's Regional General Permit 40. The RGP 40 NMFS BO provides coverage for PG&E's Bay Area Operation and Maintenance Program, including activities related to natural gas pipelines and electric transmission distribution line maintenance that could directly and indirectly result in take of Central California Coast steelhead, green sturgeon, and their designated critical habitat. In accordance with RGP 40 NMFS BO, PG&E will implement a number of avoidance and minimization measures to reduce impacts on Central California Coast steelhead, green sturgeon, and their designated critical habitat. Therefore, all applicable RGP 40 NMFS BO measures relating to minimization of impacts to these species and their habitats are considered part of the project description as

applicant-proposed measures rather than as mitigation measures. RGP 40 NMFS BO measures that are relevant to the Reconductoring Activities are described in Table 9.

Table 9. Applicable Regional General Permit 40 NMFS Biological Opinion Avoidance and Minimization Measures to the Reconductoring Activities

NMFS BO Code	Description of Measure
BA Attachment A: Activity Specific Erosion and Sediment Control Plan.	PG&E will develop and implement an Activity-Specific Erosion and Sediment Control Plan (A-ESCP) to prevent storm water pollution on all construction projects, and good-housekeeping best management practices (BMPs) are implemented throughout the year. PG&E's Good Housekeeping A-ESCP with standard BMPs is presented as Attachment A to the BA.
NOAABA-AMM-01: Boat Access and Docking.	Every effort will be made to minimize disturbance to subtidal and wetland vegetation. During boat access, boats will be docked to existing facilities or landed in areas that minimize the potential impact to subtidal and wetland vegetation. Barges will be placed on mudflats in such a manner that subtidal and wetland vegetation is not disturbed. Work crews will be trained to avoid vegetated areas, and foot traffic will be confined to existing facilities, mudflats, and established work areas to minimize disturbance to vegetation.
NOAABA-AMM-02: Dewatering in Tidal Waters.	All water pumps used during initial dewatering and fish relocation will follow the intake screen criteria identified in NOAA Fisheries' Juvenile Fish Screen Criteria for Pump Intakes (1996) See https://media.fisheries. noaa.gov/dam-migration/fish_screen_criteria_for_pumped_water_intakes.pdf. Water remaining in the cofferdam will be pumped directly onto the adjacent land at low tide when feasible, and a qualified biological monitor will be present. If pumping water onto adjacent land is not feasible, water will be pumped into open water or mudflats directly adjacent to the cofferdam. Fish encountered during dewatering will be carefully relocated by a NOAA Fisheries and U.S. Fish and Wildlife Service-approved fisheries biologist to suitable habitat adjacent to work areas, per NOAABA-AMM-03. Dewatering activities will not be conducted within streams that support federally listed fish.
NOAABA-AMM-03: Fish Salvage and Relocation in Isolated Tideland Pools and Cofferdam Dewatering in Tidal Waters.	An experienced fisheries biologist will be present to observe cofferdam dewatering activities whenever pumps are operating and monitor work in tidal waters that may hold salmonids in isolated pools. The agency-approved biologist will ensure that fish species do not become trapped against the cofferdam filter and any fish that were not swept out of the work area will be rescued. Efforts will be made to reduce collecting and handling stress, minimize the time that fish are held in buckets, and minimize handling stress during processing and release. Fish collection efforts will be conducted using sweep and block nets and will occur within the cofferdam area until multiple passes have been conducted and substantial depletion or absence of fish has been documented. Rescued fish will be released 100 feet away from the cofferdam, or at another location approved by NOAA Fisheries as soon as possible. Additional fish salvage and relocation procedures include the following: • No employee or contractor will remove any fish, dead or alive, from the site for personal use. All efforts to reduce the time that live fish are out of the water will be made to reduce the chances of fish injury or death during the fish rescue. All fish will be promptly returned to the water. • Listed fish species will be processed first and released as soon as possible. All fish species will be recorded on data sheets, as well as the time and date that each individual was caught; location where the individual was caught; gear type used; water temperature; total number of individuals caught; and any other pertinent observations of the fish. • After the fish rescue effort is completed, dewatering of the area will continue. The agency-approved biologist and/or fish rescue biologist will provide a worker education program in the event that additional fish may remain within the

NMFS BO Code	Description of Measure
	dewatering area. The biologist will return to the site to rescue additional fish if the workers observe them within the dewatering area. • If any turtles or snakes are captured during fish rescue, they will be relocated to the fish release site(s). Following dewatering and relocation of fish, further monitoring by an experienced fisheries biologist will no longer be required for the dewatered area, unless the integrity of the cofferdam seal is compromised and the work area becomes re-watered
NOAABA-AMM-05: Seasonal Avoidance in Estuary/Bay Waters for High-Impact Activities.	In-water O&M activities that include impact hammer use and/or cofferdam construction are considered "high-impact activities". High-impact activities within the San Francisco, San Pablo, Suisun, and Grizzly bays will be planned and scheduled to occur between June 1 and November 30. No impact pile driving will be initiated if it cannot reasonably be completed by November 30. If unforeseen circumstances prevent the completion of pile driving by November 30, PG&E will request an extension from the Corps on a case-by-case basis to complete the pile driving that has already been initiated. Pole reinforcement and repair above mean high water, as well as boardwalk repair and replacement, are not subject to this LOP, as PG&E expects potential effects to federally listed fish species will be minimal or will not occur.
NOAABA-AMM-06: Soft Start.	Prolonged, soft-start procedures will be implemented when impact pile driving is required for piles greater than 20 inches in diameter in waters that provide habitat for federally listed anadromous fish species. Soft-starts will include pile driving at 40- to 60-percent reduced energy for at least 15 seconds, followed by a 1-minute waiting period. This procedure will be repeated at least two times before commencing full-energy impact pile driving
NOAABA-AMM-08: Installation of Piles.	PG&E will prioritize using a vibratory hammer to install piles, but when an impact hammer is necessary, only one hammer will be used at a time with no more than 2,000 strikes per day on piles within an individual work area. PG&E will also utilize sound attenuation devices during pile-driving (e.g., hammer cushions, bubble curtains, dewatered cofferdams, dewatered isolation casings, etc.). Air bubble curtains would be utilized for impact driving of piles larger than 12 inches in diameter unless the work site is dewatered by a cofferdam. In instances when impact driving is limited to periods of low tide and water depths are less than 4 inches for the entire duration of the pile driving, air bubble curtains are not required. In addition, pile-driving activities that require multiple days at the same location will occur at least 12 hours apart to avoid impacts to federally listed fish species.
NOAABA-AMM-09: Installation of Cofferdams.	PG&E will prioritize using a vibratory hammer to install sheet pile cofferdams, but when an impact hammer is necessary, only one hammer will be used at a time with no more than 2,000 strikes per day on piles within an individual work area. PG&E will also utilize sound attenuation devices during pile-driving (e.g., hammer cushions, bubble curtains, dewatered cofferdams, dewatered isolation casings, etc.). In addition, pile-driving activities that require multiple days at the same location will occur at least 12 hours apart to avoid impacts to federally listed fish species. Cofferdams will be installed and closed during low tide.
NOAABA-AMM-10: Hydroacoustic Monitoring.	PG&E will conduct hydroacoustic monitoring during the installation of all 72-inch piles when cofferdams are not utilized. PG&E will also conduct hydroacoustic monitoring during the installation of the first 60-inch pile at each discrete tower location when cofferdams are not used. If the sound pressure levels (SPLs) do not exceed 206 decibels (dB) peak and/or the daily accumulated sound exposure level (cSEL) does not exceed 187 dB during the monitoring (see Table 7 in the Project's September 2022 Biological Assessment) of the installation of the first 60-inch pile, PG&E may stop monitoring activities at that tower location. If SPLs or cSEL dB levels exceed limits established in Table 7 of the Project's September 2022 Biological Assessment for 60-inch piles, PG&E will take additional measures to reduce the sound impacts below established sound impact limits. Monitoring will continue at these locations and will

NMFS BO Code	Description of Measure
	only stop when noise is recorded on a continuing basis (one full day or approximately 2,000 strikes) below the thresholds established in Table 7 of the September 2022 Biological Assessment. PG&E will continue to implement these measures for all remaining 60-inch piles at the locations where they were implemented. Hydroacoustic monitoring will only occur when water depth is 3 feet or greater at mean lower low water to allow for adequate depth for hydrophone placement. PG&E will report the results of the monitoring in their annual report using the NMFS Underwater Noise Monitoring Plan Template.
NOAABA-AMM-11: Removal of Piles.	Pile removal will occur using either a vibratory hammer or direct pull method of extraction. A vibratory hammer/extraction must be attempted first unless it presents a greater risk of disturbance to sediments (i.e., contaminants are present). The direct pull method will be utilized if it is more appropriate for the substrate type, pile length, and structural integrity of the piling
NOAABA-AMM-12: Removal of Cofferdams.	Cofferdam removal will occur using either a vibratory hammer or direct pull method of extraction. A vibratory hammer/extraction must be attempted first unless it presents a greater risk of disturbance to sediments. The direct pull method will be utilized if it is more appropriate for the substrate type, pile length, and structural integrity of the piling.

6.1.5 PG&E's Regional General Permit 40 USFWS Biological Opinion

The Reconductoring Activities are considered a covered activity under PG&E's Regional General Permit 40. The RGP 40 USFWS BO provides coverage for PG&E's Bay Area Operation and Maintenance Program, including activities related to natural gas pipelines and electric transmission distribution line maintenance that could directly and indirectly result in take of the California least tern and/or western snowy plover and impact designated critical habitat. In accordance with RGP 40 USFWS BO, PG&E will implement a number of avoidance and minimization measures to reduce impacts on California least tern, western snowy plover, and western snowy plover designated critical habitat. Therefore, all applicable RGP 40 USFWS BO measures relating to minimization of impacts to these species and their habitats are considered part of the project description as applicant-proposed measures rather than as mitigation measures. RGP 40 USFWS BO measures that are relevant to the Reconductoring Activities are described in Table 10.

Table 10. Applicable Regional General Permit 40 USFWS Biological Opinion Avoidance and Minimization Measures to the Reconductoring Activities

USFWS BO Code	Description of Measure
AMM -02	No O&M activities will be performed within 600 feet of an active western snowy plover (WSP) nest or brood during the WSP breeding season (March 1 through September 14). Work will occur within the limited operating period of September 15 through February 28 or 29 if WSP are nesting within 600 feet. Vehicles driving on levees and pedestrians walking on boardwalks or levees will remain at least 600 feet away from WSP nests and broods. If WSP chicks are present near any levee that will be accessed by vehicles (e.g., for construction, inspection, or access), vehicle use will be under the supervision of a qualified biologist to ensure that no chicks are present within the path of the vehicle.

USFWS BO Code	Description of Measure
AMM -03	Helicopter flight paths will avoid active CLT colonies and WSP nests. Helicopter landings will take place on existing levees or roads. No landings in tidal marshes are permitted
BA-AMM-01: Hazardous Materials Business Plan.	Under federal and state law, businesses that handle hazardous materials and waste at reportable quantities are required to prepare a Hazardous Materials Business Plan (HMBP). The reportable quantities are equal to or greater than the following: • 500 pounds of a solid, • 55 gallons of a liquid, • 200 cubic feet of a compressed gas, • a hazardous compressed gas in any amount, and • extremely hazardous substances above planning quantities. PG&E or its contractor will prepare an HMBP, as stated previously, prior to beginning the following O&M activities: • installation of pig launcher/receiver facilities, • valve/pipeline excavation and recoating, • valve replacement/automation, • hydrostatic testing, and • pipeline segment replacement. The HMBP (or the Project's Environmental Release to Construction if there is no HMBP) will be implemented to prevent the release of hazardous materials and hazardous waste and will include the following requirements and procedures: • training requirements for workers in appropriate work practices, including spill prevention and response and identification of potentially hazardous contamination (e.g., stained or discolored soil and odor); • requirements for storage and containment of all hazardous materials at work sites and proper handling of all such materials; • requirements for storing hazardous materials on pallets or in appropriate containers within designated fenced and secured areas protected from exposure to weather and further contamination; • requirements for maintaining hazardous material spill kits at all active work sites and staging areas and thorough cleanup of all spills as soon as they occur; and • procedures for notifying applicant and agency personnel in the event of the discovery of contaminated soil and/or groundwater.
BA-AMM-02: Vehicle and Equipment Cleaning.	To prevent the spread of invasive weeds through seed, all equipment (e.g., excavators, graders, boats, barges, etc.) will be carefully cleaned before arriving on site to prevent spread of these and other invasive plants.
BA-AMM-03: Reporting of Federally Listed Species.	Encounters with listed species will be reported to the PG&E Project Biologist within 24 hours.
USFWSBA-AMM-01: Weed-Free Materials.	PG&E will make every effort to utilize weed-free materials (e.g., mulch, straw, hay bales, or equivalent).
USFWSBA-AMM-02: Boardwalk Plank Spacing.	Boardwalk planks will be spaced with gaps that are a minimum of 0.5 inch wide to allow sunlight to reach wetland vegetation.
USFWSBA-AMM-03: Helicopter Use.	Helicopter flight paths will avoid active California least tern colonies and western snowy plover nests. Helicopter landings will take place on existing levees or roads. No landings in tidal marshes are permitted.

6.1.6 PG&E's CDFW Incidental Take Permit and Final Environmental Impact Report

The Reconductoring Activities are considered a covered activity under PG&E's CDFW ITP and related Final EIR. The CDFW ITP provides coverage for PG&E's Bay Area Operation and Maintenance Program, including activities related to natural gas pipelines and electric transmission distribution, minor new construction, and habitat conservation and enhancement that could directly and indirectly result in take of the California tiger salamander, Alameda whipsnake, and/or California freshwater shrimp and impact designated critical habitat. The ITP establishes a comprehensive approach to avoid and minimize impacts on covered species and to mitigate impacts. Impacts to non-ITP covered biological resources are considered less than significant with implementation of appropriate APMs. In accordance with CDFW ITP Final EIR, PG&E will implement a number of APMs to reduce impacts on California tiger salamander and their designated critical habitat and non-ITP covered biological resources. Therefore, all applicable CDFW ITP measures relating to minimization of impacts to both ITP covered and non-ITP covered biological resources and their habitats are considered part of the project description as applicant-proposed measures rather than as mitigation measures. CDFW ITP Final EIR APMs that are relevant to the Reconductoring Activities are described in Table 11.

Table 11. Applicable CDFW Incidental Take Permit Final Environmental Impact Report Applicant Proposed Measures, Avoidance and Minimization Measures, Best Management Practices, and Field Protocols to the Reconductoring Activities

CDFW ITP Code	Description of Measure
APM AES-1: Restore disturbed areas	Previously vegetated areas greater than 0.10 acre that are disturbed by the project will be recontoured to their approximate original conditions and reseeded with an appropriate native seed mix to minimize scarring.
APM AES-3: Shield temporary construction lighting	Construction activities will cease 30 minutes before sunset and will not begin prior to 30 minutes after sunrise, where feasible. Night work will be limited in extent, duration, and brightness, to the extent feasible. If temporary construction lighting is required, PG&E will use shielded construction light fixtures, or otherwise screen or direct lighting away from nearby residences except in the cases of emergency.
APM AES-4: Apply minimum lighting standards	All artificial outdoor lighting will be limited to lighting for safety and security, and designed using Illuminating Engineering Society's design guidelines, International Dark-Sky Association-approved fixtures, or other industry standards that address lighting impacts. Lighting above ground level will generally be directed downward or inward, where consistent with safety concerns, and shielding will be utilized, where needed, to minimize light scatter off-site. Light fixtures will have non-glare finishes that will not cause reflective daytime glare. Lighting will be designed for energy efficiency, where feasible.
APM AIR-1: Implement Dust Control Best Management Practices	• PG&E will implement control measures to reduce construction-related fugitive dust. The following measures are based on BAAQMD's CEQA guidelines and are in conformance with fugitive dust control recommendations from the NSCAPCD and YSAQMD. • All exposed surfaces will be watered at a frequency adequate to maintain minimum soil moisture of 12%. Moisture content can be verified by lab samples or moisture probe. • All haul trucks transporting soil, sand, or other loose material off site will be covered. • All visible mud or dirt track-out onto adjacent public roads will be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. All vehicle speeds on unpaved roads will be limited to 15 miles per hour (mph). • All roadways, driveways, and sidewalks to be paved will be completed as soon as

CDFW ITP Code	Description of Measure
	possible. Building pads will be laid as soon as possible after grading unless seeding or soil binders are used. • All excavation, grading, and/or demolition activities will be suspended when average wind speeds exceed 20 mph. • Wind breaks (e.g., trees, fences) will be installed on the windward side(s) of actively disturbed areas of construction. Wind breaks should have at maximum 50% air porosity. • Vegetative ground cover (e.g., fast-germinating native grass seed) will be planted in disturbed areas as soon as possible and watered appropriately until vegetation is established. • The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities on the same area at any one time will be limited. Activities will be phased to reduce the amount of disturbed surfaces at any one time. • All trucks and equipment, including their tires, will be washed off prior to leaving the site. • Site accesses to a distance of 100 feet from the paved road will be treated with a 6- to 12-inch compacted layer of wood chips, mulch, or gravel. • Sandbags or other erosion control measures will be installed to prevent silt runoff to public roadways from sites with a slope greater than 1%.
APM HAZ-1: Spill Response	PG&E will implement its hazardous substance control and emergency response procedures as needed. The procedures identify methods and techniques to minimize the exposure of the public and site workers to potentially hazardous materials during all phases of construction through operation. They address worker training appropriate to the site worker's role in hazardous substance control and emergency response. The procedures also require implementing appropriate control methods and approved containment and spill-control practices for construction and materials stored on site. If it is necessary to store chemicals on site, they will be managed in accordance with all applicable regulations. Material safety data sheets shall be maintained and kept available on site, as applicable. In the event that soils suspected of being contaminated (on the basis of visual, olfactory, or other evidence) are removed during site grading activities or excavation activities, the excavated soil will be tested and, if contaminated above hazardous waste levels, will be contained and disposed of at a licensed waste facility. The presence of suspected contaminated soil will require testing and investigation procedures to be supervised by a qualified person, as appropriate, to meet state and federal regulations. All hazardous materials and hazardous wastes shall be handled, stored, and disposed of in accordance with all applicable regulations, by personnel qualified to handle hazardous materials. The hazardous substance control and emergency response procedures include, but are not limited to, the following: • Proper disposal of potentially contaminated soils. • Establishing site-specific buffers for construction vehicles and equipment located near sensitive resources. • Emergency response and reporting procedures to address hazardous material spills. • Stopping work and contacting the local fire department or other agencies as appropriate. Work will resume after any necessary consultation and approval by the local fire department. • Emergency-spill response and clean up kits will be on site where they are immediately available to respond to an accidental release of a hazardous fluid or material. If applicable, a Stormwater Pollution Prevention Plan (SWPPP) will be implemented, which will also address spill response and other site-specific physical conditions to improve hazard prevention.
APM HAZ-2: Vehicle Refueling	No vehicles or heavy equipment will be refueled within 100 feet of a wetland, stream, or other waterway, or within 250 feet of vernal pools, unless secondary containment is

CDFW ITP Code	Description of Measure
	used. The fueling operator must always stay with the fueling operation. Tanks may not be topped off.
APM NOI-1: Restrict construction hours	Planned construction activities within 900 feet of occupied residential parcels that require the use of off-road construction equipment will be consistent with local noise ordinance guidelines, which typically limit construction noise to daylight hours, or a similar restriction. Should work in these locations be required outside of these hours due to safety or clearance requirements, construction would will be limited to the minimum necessary and would will proceed as expediently as safely possible to reach a safe and convenient stopping point.
APM NOI-2: Limit noise during construction near occupied residences	PG&E will use "quiet" equipment (i.e., equipment designed with noise control elements), standard equipment fitted with noise control devices (e.g., mufflers), or other noise-reduction measures as feasible to limit construction noise to within local noise ordinance limits whenever feasible and within 250 feet of occupied residences.

6.2 Impacts on Special-Status Species: Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS (Less than Significant)

6.2.1 Impacts on Special-Status Plants (Less than Significant)

Habitat assessments and surveys determined that one special-status plant species (Congdon's tarplant) is present within the survey area and that 12 additional species (alkali milk-vetch, brittlescale, Contra Costa goldfields, prostrate vernal pool navarretia, California alkali grass, saline clover, long-styled sand spurrey, lesser saltscale, San Joaquin spearscale, small spikerush, Hoover's button-celery, and northern slender pondweed) could potentially occur in the survey area. Congdon's tarplant was found during project surveys in seasonal wetlands and California annual grassland at Warm Springs and adjacent to Los Esteros Road, and tarplants that may have been of this species were present along Grand Boulevard as well. If any of the other species are present in the survey area, they would most likely occur in the Warm Springs seasonal wetlands, Warm Springs marshes, Pond A19, and the seasonal wetlands south to the vicinity of Grand Boulevard and Los Esteros Road. There is no potential for occurrences south of the lower alignment crossing of the Guadalupe River.

Reconductoring Activities may impact any special-status plant species present in the survey area through direct or indirect disturbance of individuals and populations as well as disturbance, modification, or destruction of suitable habitat. Off-road vehicle access and vegetation removal could result in the loss of individual plants due to mechanical or physical clearing of work and access areas, crushing by equipment, trampling by personnel, and compaction of soil. These activities could result in death, altered growth, or reduced seed set through physically breaking, crushing, wilting, or uprooting plants. Permanent loss of special-status plants and their habitat would occur where existing natural areas are replaced with new infrastructure or hard materials (e.g., poles or tower footings) and not revegetated following the completion of work, though such areas would be very limited, being restricted to areas where new poles or tower footings would be needed. The removal or redistribution of soil may remove seed of special-status plant species from these work areas. Mobilization of dust could impact special-status plants located immediately adjacent to or downwind from areas of earth-

moving or equipment/vehicle activity. Dust may coat vegetative and floral surfaces, interfering with normal gas exchange, photosynthesis, or pollination. Movement of earth, vegetation, water (e.g., runoff), equipment, vehicles, and personnel could spread invasive plant propagules and pathogens such as *Phytophthora*. Invasive plants could reduce habitat quality for special-status plants, or directly impact their health, in areas within and immediately outside impact areas. *Phytophthora* could impair the health of plants, spreading through root systems and resulting in the loss of individuals. Reconductoring Activities may include the on-site refueling of equipment. Minor fuel and oil spills may occur during refueling, with a risk of larger releases. Without rapid containment and clean up, these materials may kill or impair the health of special-status plants. Nitrogen emitted by construction equipment and vehicles can fertilize serpentine soils downwind from the survey area, allowing nonnative grasses and forbs that would not typically be able to colonize (at least robustly) serpentine habitats to become established, and outcompete special-status serpentine plants; however, nitrogen deposition impacts from the Reconductoring Activities would be limited.

Implementation of Bay Area HCP AMMs, RPG 40 conditions, WDR/CWA Section 401 Order No. WQ 2023-0022-DWQ measures, RGP 40 NMFS BO and RGP 40 NMFS AMMs, and CDFW ITP Final EIR APMs will reduce the potential for, or magnitude of, impacts on special-status plants, as follows.

- Applicable Bay Area HCP AMMs include FP-01, 02, 03, 04, 05, 08, 10, 11, 12, 14, 15, and 16, Hot Zone-6, and Wetland-1 and Wetland-2 (Table 6). Bay Area HCP AMMs Plant-01, 02, 03, 04, 05, and 06 specifically apply to Contra Costa goldfields and would also benefit any other special-status plant species that co-occur with Contra Costa goldfields.
- Applicable RGP 40 conditions include Special Condition 1, 4, 9, and 10 (Table 7).
- Applicable WDR/CWA Section 401 Order No. WQ 2023-0022-DWQ measures include Reporting and Notification Requirement 3 and 4, Water Quality Monitoring Condition 1, 2, 3, and 4, General Condition 1, 2, 3, and 4, Construction Condition 2, 3, 4, 6, 7, 8, 9, 10, 12, 13, 15, 19, 20, and 21, and Restoration and Mitigation for Temporary Impact 1, 2, and 3 (Table 8).
- Applicable RGP 40 NMFS BO AMMs include BA Attachment A: Activity Specific Erosion and Sediment Control Plan and NOAABA-AMM-01: Boat Access and Docking (Table 9).
- Applicable RGP 40 USFWS BO AMMs include BA-AMM-01: Hazardous Materials Business Plan, BA-AMM-02: Vehicle and Equipment Cleaning, BA-AMM-03: Reporting of Federally Listed Species, USFWSBA-AMM-01: Weed-Free Materials, and USFWSBA-AMM-02: Boardwalk Plank Spacing (Table 10).
- Applicable CDFW ITP APMs include APM AES-1: Restore disturbed areas, APM AIR-1: Implement Dust Control Best Management Practices, APM HAZ-1: Spill Response, and APM HAZ-2: Vehicle Refueling (Table 11).

CDFW's EIR prepared for the ITP for Bay Area PG&E operations and maintenance activities assessed impacts of those activities on special-status plants. The EIR concluded the following:

> "over decades of performance of these activities, plant populations are generally not in conflict with typical O&M activities or otherwise tolerate regular, periodic impacts of such activities; for example, once facilities and access routes have been installed and utilized, ongoing O&M does not continue to alter habitat. PG&E would continue to implement APMs to avoid O&M and minor new construction activity impacts on special-status plants. PG&E would also follow California Fish and Game Code Section 1913(b) to minimize impacts on NPPA-listed rare and endangered plants when impacts are unavoidable. Thus, minimal impacts related to special-status plants would occur."

Therefore, with implementation of all applicable measures as listed above, impacts of the Reconductoring Activities on special-status plants will be less than significant.

6.2.2 Impacts on the Vernal Pool Tadpole Shrimp (Less than Significant)

Vernal pool tadpole shrimp occur in the survey area only in vernal pools and seasonal wetlands in the Warm Springs seasonal wetland portion of the Refuge. Reconductoring Activities in that area could impact the species through direct impacts on individuals and modification of occupied habitat. Soil disturbance and movement of vehicles, equipment, and personnel could crush or bury tadpole shrimp cysts. Ground-disturbing activities could mobilize sediment that is then washed into vernal pools and dust that is blown into pools, burying cysts and adversely affecting water quality. Leaks or spills of fuel or other chemicals could kill or injure individuals. Ground-disturbance could also modify drainage patterns, potentially reducing or increasing the depth and/or duration of ponding in pools supporting this species. If any dewatering of vernal pools or seasonal wetlands within occupied habitat were to occur, tadpole shrimp could desiccate. Placement of structures such as poles, towers, and footings in suitable habitat would result in a reduction in habitat availability, though such permanent impact areas would be very limited, being restricted to areas where new poles or tower footings would be needed within vernal pools or seasonal wetlands in the Warm Springs area. Based on impact assumptions associated with individual poles and towers, it is expected that no more than approximately 0.01 acre of vernal pool habitat and less than 0.4 acre of seasonal wetland habitat will be impacted in areas where vernal pool tadpole shrimp could potentially occur, and any such impacts would be mostly temporary.

Implementation of Bay Area HCP AMMs will reduce the potential for, or magnitude of, impacts of the Reconductoring Activities on the vernal pool tadpole shrimp. Applicable Bay Area HCP AMMs include FP-01, 02, 03, 04, 05, 08, 10, 11, 12, 14, 15, and 16, and Wetland-2 (Table 6). Bay Area HCP AMM Wetland-1 specifically applies to vernal pool branchiopods such as the vernal pool tadpole shrimp. AMMs Plant-01, 02, 03, 04, 05, and 06, which apply to Contra Costa goldfields (which may also occur in vernal pools), would also benefit the vernal pool tadpole shrimp.

The vernal pool tadpole shrimp is a covered species under the Bay Area HCP, and with implementation of Bay Area HCP AMMs, as well as the compensatory mitigation measures incorporated into that HCP (and thus incorporated into the project description for the Reconductoring Activities), impacts of the Reconductoring Activities on the vernal pool tadpole shrimp will be less than significant. In addition, implementation of RGP

40 conditions, WDR/CWA Section 401 Order No. WQ 2023-0022-DWQ measures, RGP USFWS BO AMMs, and CDFW ITP Final EIR APMs will further reduce the potential for and magnitude of impacts of the Reconductoring Activities on this species.

6.2.3 Impacts on the Crotch's Bumble Bee and Monarch Butterfly (Less than Significant)

The Crotch's bumble bee could potentially nest (e.g., in small mammal burrows) and forage on flowers in the survey area. This species is most likely to occur in more natural lands such as the Warm Springs seasonal wetlands area, though given the distribution of recent records in the South Bay, there is some potential for it to occur other areas providing suitable floral resources for foraging and potential nesting sites. The monarch butterfly occurs widely in the survey area as a migrant, but it is expected to breed only in very limited areas where milkweeds are present (e.g., in landscaped areas near Warm Springs).

Reconductoring Activities may impact the Crotch's bumble bee and monarch butterfly through direct or indirect disturbance of individuals and populations as well as disturbance, modification, or destruction of suitable habitat. Off-road vehicle access and vegetation removal could result in the loss of suitable nectar and pollen sources for Crotch's bumble bees, and nectar sources and larval hostplants for monarch butterflies, in ways described for special-status plants in Section 6.2.1 above. Adult Crotch's bumble bees above the ground's surface, and adult monarch butterflies, are unlikely to be injured or killed by Reconductoring Activities, as they would fly away from personnel, vehicles, or equipment before being physically impacted. However, Reconductoring Activities could result in the loss of any monarch butterfly eggs, larvae, or pupae present on milkweed impacted by the project, and if any Crotch's bumble bee nests are present in project activity areas, those nests could be crushed or blocked by ground disturbance or movement of equipment. Placement of structures such as poles, towers, and footings in suitable habitat would result in a reduction in habitat availability, though such permanent impact areas would be very limited, being restricted to areas where new poles or tower footings would be needed. Because the number and distribution of Crotch's bumble nests and monarch butterfly eggs, larvae, or pupae within the Reconductoring Work Areas footprint is expected to be very low, if these species are present at all, the likelihood and magnitude of such impacts, if any, would be very low.

Implementation of Bay Area HCP AMMs, RPG 40 conditions, WDR/CWA Section 401 Order No. WQ 2023-0022-DWQ measures, RGP 40 NMFS BO AMMs, RGP 40 NMFS AMMs, and CDFW ITP Final EIR APMs will reduce the potential for, or magnitude of, impacts of the Reconductoring Activities on these species, as follows.

- Applicable Bay Area HCP AMMs include FP-01, 02, 03, 04, 07, 08, 10, 11, 12, and 14(Table 6). Bay Area HCP AMMs Plant-01, 02, 03, 04, 05, and 06 specifically apply to Contra Costa goldfields, while Hot Zone-6 specifically applies to California annual grassland habitats where California tiger salamander are present. These may also reduce impacts of the Reconductoring Activities on floral resources used by the Crotch's bumble bee and monarch butterfly.
- Applicable WDR/CWA Section 401 Order No. WQ 2023-0022-DWQ measures include Reporting and Notification Requirement 4 and Water Quality Monitoring Condition 4.

- Applicable RGP 40 NMFS BO AMMs include BA Attachment A: Activity Specific Erosion and Sediment Control Plan.
- Applicable RGP 40 USFWS BO AMMs include BA-AMM-01: Hazardous Materials Business Plan, BA-AMM-02: Vehicle and Equipment Cleaning, BA-AMM-03: Reporting of Federally Listed Species, and USFWSBA-AMM-01: Weed-Free Materials.
- Applicable CDFW ITP EIR APMs include APM AES-1: Restore disturbed areas, APM AIR-1: Implement Dust Control Best Management Practices and APM HAZ-1: Spill Response.

The CDFW ITP EIR stated that with implementation of Bay Area HCP AMMs FP-01, 02, 03, 04, 07, 08, 10, 11, 12, and 14 discussed above, "because issuance of the ITP is not expected to result in substantially increased impacts from ongoing O&M and minor new construction, potential impacts on special-status bumble bees would be less than significant and no mitigation is required."

Given the widespread nature of habitat supporting these two species, the lack of evidence that either species occurs in high numbers in the Reconductoring Work Areas, and the very limited (and mostly temporary) impacts to these species' habitat that would result from the Reconductoring Activities, impacts in this regard on these species and their habitats will be less than significant.

6.2.4 Impacts on Water Quality, Special-Status Fish, and Essential Fish Habitat (Less than Significant)

Special-status fish occurring, or potentially occurring, in the survey area are the Central California Coast steelhead, Central Valley fall-run Chinook salmon, green sturgeon, longfin smelt, Pacific lamprey, Sacramento hitch, and southern coastal roach. One or more of these species occur in tidal waters such as Coyote Creek, South Coyote Slough, Artesian Slough, Mud Slough, and the lower Guadalupe River, as well as in the Guadalupe River at West Trimble Road. NMFS has designated tidal waters in the survey area as critical habitat for the Central California Coast steelhead and green sturgeon, and the non-tidal portion of the Guadalupe River near West Trimble Road has also been designated as critical habitat for the steelhead. Special-status fish could also occur in Pond A18. EFH and FMP-managed fish species occur in all of these locations as well.

Due to logistical challenges of working in aquatic habitats, as well as a desire to minimize impacts to biological resources and sensitive/regulated habitats, Reconductoring Activities' work within habitats supporting special-status fish will be avoided to the maximum extent practicable. For example, helicopters will be used to deliver personnel and materials to some tower locations within aquatic habitat. Even where towers are located in tidal marshes, these towers are typically in higher-elevation, well-vegetated marsh areas rather than in aquatic habitat. Therefore, it is possible that no Reconductoring Activities will occur directly in aquatic habitats supporting special-status fish or EFH. However, if Reconductoring Activities' work within habitat supporting special-status fish and/or EFH must occur, work activities could impact individual fish and their habitats. Based on impact assumptions associated with individual poles and towers, approximately 3.0 acres of aquatic habitat that could support special-status fish and/or EFH are present within the 100x200-foot potential impact areas

around these structures, though actual impacts on such habitats are likely to be much lower, and any such impacts would be mostly temporary.

If dewatering of aquatic habitat is necessary, fish could be stranded within dewatered areas. In accordance with AMM-03 from the NMFS BO (see Table 9), a qualified biologist would capture and relocate native fish during dewatering; during relocation of fish, individual fish would be subject to harassment, pursuit, capture, mortality, and related stresses associated with netting and electrofishing. In addition to direct injury and mortality, the effects of electrofishing may include reduced growth rates of injured fish for at least a year following the electrofishing event (Dalby et al. 1996, Ainslie et al. 1998). Fish that are not relocated and that remained within the work site may be subjected to degraded water quality, temporary blockage of migration, stranding in isolated pools, and mortality as a result of work activities.

If pile driving in inundated areas is necessary, sounds generated by percussive pile driving using an impact hammer have the potential to affect fish in several ways, ranging from the alteration of behavior to physical injury or mortality depending on the intensity and characteristics of the sound, the distance and location of the fish in the channel relative to the sound source, and the size and species of fish involved (Yelverton et al. 1975 as cited in Popper and Hastings 2009, ICF Jones & Stokes and Illingworth and Rodkin Inc. 2009). Use of a vibratory hammer or helical pile driving may disturb fish but result in much lower sound levels and would not kill or injure fish. Implementation of AMMs, particularly AMMs 08-12 from NMFS's BO for RGP 40, will minimize the potential for injury or mortality of fish during pile driving.

Although no mixed riparian forest and woodland is present within the 100x200-foot potential impact areas evaluated around individual poles and towers, the project could potentially impact riparian vegetation along the Guadalupe River during Reconductoring Activities. Riparian vegetation is important to the structure and function of instream habitat. For example, overhanging riparian vegetation provides shade that moderates stream temperatures. Vegetation that creates habitat complexity in streams encourages the development of riffle/pool complexes used by fish, which provide refugia from predators and high flow velocities, and which are important to steelhead spawning and feeding; the removal of riparian vegetation may reduce this complexity and habitat value. Furthermore, terrestrial insects that occur in riparian vegetation are an important food item for salmonids, entering stream channels as a result of being blown or washed off riparian vegetation. However, any impacts on riparian habitat are expected to be very limited with implementation of AMMs.

Ground disturbance and vegetation removal also may result in an increase in erosion and sedimentation into fish habitat. Stream bank erosion is a natural process that can be beneficial to fish by providing a source of the boulders, cobble, and gravel necessary for high-quality habitat, including salmonid spawning, rearing, and overwintering habitat. However, when natural levels of erosion are exceeded, sedimentation may have adverse effects on salmonid habitat by filling in spaces between gravels and cobbles. This embedding of gravels can impede intragravel flow, which is important for delivering oxygen to incubating eggs; create an impenetrable barrier that prevents the emergence of fry from their gravel nest; and decrease the amount of available habitat for overwintering steelhead, which use interstitial spaces in cobble or boulder substrate during winter periods

of inactivity to reduce their exposure to predation and as refuge from downstream displacement during high velocity flows. Increases in turbidity and sediment input also may cause stress to special-status fish because of feeding difficulties or displacement. Minor spills of petrochemicals, hydraulic fluids, and solvents may occur during vehicle and equipment refueling or as a result of leaks, adversely affecting water quality and potentially killing or injuring fish. Similarly, contact by uncured concrete with water could release chemicals that could impair the health of fish. Placement of structures such as poles, towers, and footings in aquatic habitat would result in a reduction in fish habitat availability, though such permanent impact areas would be very limited, being restricted to areas where new poles or tower footings would be needed in aquatic habitat.

Implementation of Bay Area HCP AMMs, RPG 40 conditions, WDR/CWA Section 401 Order No. WQ 2023-0022-DWQ measures, RGP 40 NMFS BO AMMs, RGP 40 NMFS BO AMMs, and CDFW ITP Final EIR APMs will reduce the potential for, or magnitude of, indirect impacts of the Reconductoring Activities on special-status fish, EFH, and FMP-managed species, as well as on water quality, as follows.

- Applicable Bay Area HCP AMMs include FP-01, 02, 03, 04, 08, 10, 11, 12, 14, 15, and 16, and Wetland-2 (Table 6).
- Applicable RGP 40 conditions include General Condition 5, Special Condition 1, 3, 4, 8, 9, and 10 (Table 7).
- Applicable WDR/CWA Section 401 Order No. WQ 2023-0022-DWQ measures include Description of Direct and Indirect Impacts to Waters of the State, Avoidance and Minimization Measures, Compensatory Mitigation Requirement, Reporting and Notification Requirement 1, 2, 3, and 4, Water Quality Monitoring Condition 1, 2, 3, and 4, General Condition 1, 2, 3, and 4, Construction Condition 1, 2, 3, 4, 6, 7, 8, 9, 10, 12, 13, 15, 19, 20, and 21, Restoration and Mitigation for Temporary Impacts 1, 2, and 3, and Mitigation for Permanent Impacts 1 (Table 8).
- Applicable RGP 40 NFMS BO AMMs include BA Attachment A: Activity Specific Erosion and Sediment Control Plan, NOAABA-AMM-01: Boat Access and Docking, NOAABA-AMM-02: Dewatering in Tidal Waters, NOAABA-AMM-03: Fish Salvage and Relocation in Isolated Tideland Pools and Cofferdam Dewatering in Tidal Waters, NOAABA-AMM-05, NOAABA-AMM-06: Soft Start, NOAABA-AMM-08: Installation of Piles, NOAABA-AMM-09: Installation of Cofferdams, NOAABA-AMM-10: Hydroacoustic Monitoring, NOAABA-AMM-11: Removal of Piles, and NOAABA-AMM-12: Removal of Cofferdams (Table 9).
- Applicable RGP 40 USFWS BO AMMs include BA-AMM-01: Hazardous Materials Business Plan, BA-AMM-02: Vehicle and Equipment Cleaning, BA-AMM-03: Reporting of Federally Listed Species, USFWSBA-AMM-01: Weed-Free Materials, USFWSBA-AMM-02: Boardwalk Plank Spacing, and USFWSBA-AMM-03: Helicopter Use (Table 10).
- Applicable CDFW ITP Final EIR APMs include APM AES-1: Restore disturbed areas, APM AES-3: Shield temporary construction lighting, APM AES-4: Apply minimum lighting standards, APM AIR-1: Implement Dust Control Best Management Practices, APM HAZ-1: Spill Response, APM HAZ-2: Vehicle Refueling, and APM NOI-2: Limit noise during construction near occupied residences (Table 11).

In addition, PG&E would implement BMPs in accordance with any necessary SWPPP to avoid and minimize impacts on water quality. Impacts on fish and fish habitat due to the Reconductoring Activities are expected to be extremely limited (and mostly temporary). Thus, impacts on water quality, special-status fish species, and FMP-managed species due to Reconductoring Activities would be considered less than significant under CEQA with implementation of the above described AMMs, APMs, conditions, and measures.

6.2.5 Impacts on the California Tiger Salamander (Less than Significant)

California tiger salamanders occur in the survey area only in the Warm Springs seasonal wetland portion of the Refuge. The species breeds in seasonal pools, and adults and juveniles spend the rest of their lives in subterranean refugia, primarily small mammal burrows. Reconductoring Activities in the Warm Springs seasonal wetland area could impact the species through direct impacts on individuals and modification of occupied habitat. Ground disturbance and movement of vehicles, equipment, and personnel could crush individuals or burrows containing salamanders, and any such activities within pools could injure or kill larvae. If any dewatering of vernal pools or seasonal wetlands within occupied habitat were to occur, larvae could desiccate. Ground-disturbing activities could mobilize sediment that is then washed into vernal pools and dust that is blown into pools, adversely affecting water quality in breeding habitat. Seasonal movements of individuals may be temporarily impacted during project activities because of disturbance, and substrate vibrations may cause individuals to move out of refugia, exposing them to a greater risk of predation or desiccation. Petrochemicals, hydraulic fluids, and solvents that are spilled or leaked from work vehicles or equipment may kill individuals. Increases in human concentration and activity in the vicinity of suitable habitat may result in an increase in native and nonnative predators that would be attracted to trash left at the work site and that would prey opportunistically on this species. Lighting for nighttime work could increase the potential for predation attempts on salamanders by making them more visible to predators. Movement of construction personnel and equipment within the Reconductoring Work Areas, and between on-site and off-site areas, could also spread pathogens that can impair the health of amphibians. Salamanders can be trapped in pits, trenches, or other depressions excavated during work activities, or could be impacted if they take refuge in construction materials that are subsequently moved. Ground-disturbance could also modify drainage patterns, potentially reducing or increasing the depth and/or duration of ponding in pools supporting this species. Placement of structures such as poles, towers, and footings in suitable habitat would result in a reduction in habitat availability, though such permanent impact areas would be very limited, being restricted to areas where new poles or tower footings would be needed within vernal pools or seasonal wetlands in the Warm Springs area.

The California tiger salamander is a covered species under the Bay Area HCP and CDFW ITP. Applicable Bay Area HCP AMMs include FP-01, 02, 03, 04, 05, 06, 07, 08, 10, 11, 12, 13, 14, 15, and 16 (Table 6). Bay Area HCP AMMs Hot Zone-6, Wetland-1 and Wetland-2 specifically apply to the California tiger salamander. AMMs Plant-01, 02, 03, 04, 05, and 06, which apply to Contra Costa goldfields (which may also occur in vernal pools), would also benefit the California tiger salamander. Applicable CDFW ITP Final EIR APMs include APM HAZ-1: Spill Response and APM HAZ-2: Vehicle Refueling (Table 11). With implementation of Bay Area HCP AMMs and ITP measures, as well as the compensatory mitigation measures incorporated into the HCP (and thus incorporated into the project description for the Reconductoring Activities), impacts of the

Reconductoring Activities on the California tiger salamander will be less than significant. In addition, implementation of RGP 40 conditions, WDR/CWA Section 401 Order No. WQ 2023-0022-DWQ measures, and RGP USFWS BO AMMs will further reduce the potential for and magnitude of impacts of the Reconductoring Activities on this species.

6.2.6 Impacts on the Northwestern Pond Turtle (Less than Significant)

The northwestern pond turtle occurs in the survey area only in limited areas. Fresh waterbodies such as the Guadalupe River near West Trimble Road, the Pacific Commons Linear Park pond, and a perennial wetland ditch along Auto Mall Parkway provide potential habitat, and small numbers of northwestern pond turtles could potentially occur in these locations. The species could also potentially occur, albeit in even lower numbers and less regularly, in brackish water such as along the lower Guadalupe River and Coyote Creek. Potentially suitable nesting habitat for pond turtles is present in grassland areas adjacent to suitable streams and ponds in the survey area.

Reconductoring Activities have the potential to impact the northwestern pond turtle, including individuals, nests with eggs and young, and the species' aquatic and upland habitats. These turtles spend most of their time in and immediately adjacent to aquatic habitats, so Reconductoring Activities within such habitats could result in injury or mortality of individuals due to the equipment, vehicles, and personnel; stranding of turtles in dewatering areas; and adverse effects on water quality, which could impair the health of turtles and reduce food availability. Petrochemicals, hydraulic fluids, and solvents that are spilled or leaked from work vehicles or equipment may kill individuals. Ground disturbance and movement of vehicles, equipment, and personnel could crush individuals and nests. Seasonal movements of individuals may be temporarily impacted during project activities because of disturbance. Increases in human concentration and activity in the vicinity of suitable habitat may result in an increase in native and nonnative predators that would be attracted to trash left at the work site and that would prey opportunistically on this species. Movement of construction personnel and equipment within the Reconductoring Work Areas, and between on-site and off-site areas, could also spread pathogens such as shell disease that can impair the health of turtles. Individuals can be trapped in pits, trenches, or other depressions excavated during work activities, or could be impacted if they take refuge in construction materials that are subsequently moved. Placement of structures such as poles, towers, and footings in suitable habitat would result in a reduction in habitat availability, though such permanent impact areas would be very limited, being restricted to areas where new poles or tower footings would be needed within suitable habitat. Given the very limited extent of impacts of the Reconductoring Activities in areas where northwestern pond turtles could potentially occur, the likelihood and magnitude of impacts on this species will be very limited.

Implementation of Bay Area HCP AMMs, RGP 40 Conditions, WDR/CWA Section 401 Order No. WQ 2023-0022-DWQ measures, RGP 40 NMFS BO AMMs, RGP 40 USFWS BO AMMs, and CDFW ITP Final EIR APMs will reduce the potential for, or magnitude of, impacts of the Reconductoring Activities on this species, as follows.

- Applicable Bay Area HCP AMMs include FP-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, and 17, as well as Wetland-2 (Table 6).
- Applicable RGP 40 conditions include Special Condition 4, 8, 9, and 10 (Table 7).
- Applicable WDR/CWA Section 401 Order No. WQ 2023-0022-DWQ measures include Description of Direct and Indirect Impacts to Waters of the State, Avoidance and Minimization Measure, Compensatory Mitigation Requirement, Reporting and Notification Requirement 1, 2, 3, and 4, Water Quality Monitoring Condition 1, 2, 3, and 4, General Condition 1, 3, 4, Administrative Condition 3 and 4, Construction Condition 1, 2, 3, 4, 6, 7, 8, 9, 12, 13, 15, 19, 20, and 21, Restoration and Mitigation for Temporary Impact 1, 2, and 3, and Mitigation for Permanent Impacts 1(Table 8).
- Applicable RGP 40 NMFS BO AMMs include BA Attachment A: Activity Specific Erosion and Sediment Control Plan and NOAABA-AMM-03: Fish Salvage and Relocation in Isolated Tideland Pools and Cofferdam Dewatering in Tidal Waters. (Table 9).
- Applicable RGP 40 USFWS BO AMMs include BA-AMM-01: Hazardous Materials Business Plan, BA-AMM-02: Vehicle and Equipment Cleaning, BA-AMM-03: Reporting of Federally Listed Species, and USFWSBA-AMM-01: Weed-Free Materials (Table 10).
- CDFW ITP EIR APMs include APM AES-1: Restore disturbed areas, APM AIR-1: Implement Dust Control Best Management Practices, APM HAZ-1: Spill Response, and APM HAZ-2: Vehicle Refueling (Table 11).

Given the limited and localized distribution of this species in the survey area, coupled with the very limited (and mostly temporary) impacts to this species' habitat that would result from the Reconductoring Activities, impacts in this regard on this species' habitat will be less than significant and further reduced with implementation of Bay Area HCP AMMs, RGP 40 conditions, WDR/CWA Section 401 Order No. WQ 2023-0022-DWQ measures, RGP 40 NMFS BO AMMs, RGP 40 USFWS BO AMMs, and CDFW ITP Final EIR APMs.

6.2.7 Impacts on the California Ridgway's Rail and California Black Rail (Less than Significant)

Both the California Ridgway's rail and California black rail may occur in the same general areas. Suitable nesting and foraging habitat is present in tidal marshes along South Coyote Slough, Coyote Creek, in the Coyote Creek Lagoon/Warm Springs Marshes, and along Mud Slough. There is also some potential for these species to occur along the Lower Guadalupe River just upstream from Gold Street, as foraging Ridgway's rails have been recorded in that area, and black rails are known to occur just downstream. PG&E's Bay Area HCP identifies much of the habitat in these areas as a "hot zone" for the California Ridgway's rail, which is an HCP-covered species.

Due to logistical challenges of working in dense tidal marshes where these two rails occur, as well as a desire to minimize impacts to biological resources and sensitive/regulated habitats, Reconductoring Activities' work within habitats supporting these rails will be avoided to the maximum extent practicable. For example, helicopters will be used to deliver personnel and materials to some tower locations within dense marsh habitat. Therefore, it is possible that no Reconductoring Activities will occur directly in habitats supporting these

species. However, if Reconductoring Activities' work within habitat supporting these rails occurs, work activities could impact individual California Ridgway's rails and California black rails, and their habitats. Based on impact assumptions associated with individual poles and towers, approximately 3.1 acres of tidal brackish marsh that could support California Ridgway's rails and California black rails are present within the 100x200-foot potential impact areas around these structures, though actual impacts on such habitats are likely to be much lower, and any such impacts would be mostly temporary.

Adults are unlikely to be injured or killed directly as a result of Reconductoring Activities, as they would likely move out of the way of approaching personnel, vehicles, or equipment. However, Reconductoring Activities occurring in suitable marsh habitat during the breeding season (February 1 through August 31) could result in the loss of nests, eggs, or unfledged young. Reconductoring Activities, particularly noisy activities such as pile driving, that occur close to breeding habitat during the breeding season could disturb rails, possibly to the point of abandoning territories or active nests. Even during the nonbreeding season, activity of personnel, equipment (including helicopters), and vehicles could disturb rails; rails that flush or move into lower-quality habitat as a result of disturbance could be susceptible to increased predation risk or reduced foraging efficiency. Increases in human concentration and activity in the vicinity of suitable habitat may result in an increase in native and nonnative predators that would be attracted to trash left at the work site and that would prey opportunistically on this species. Nighttime work activities could disturb foraging rails, and lighting for nighttime work could increase the potential for predation on rails by making them more visible to predators. Petrochemicals, hydraulic fluids, and solvents that are spilled or leaked from work vehicles or equipment may impair the health of rails and reduce food availability. Placement of structures such as poles, towers, and footings in suitable habitat would result in a reduction in habitat availability, though such permanent impact areas would be very limited, being restricted to areas where new poles or tower footings would be needed within suitable habitat. Temporary habitat loss may result from impacts to vegetated marsh during construction.

The proposed tower modifications will not result in substantial improvement in the quality of nesting or roosting sites for avian predators of rails or other special-status species (e.g., by providing additional or higher-quality structural support for nesting or roosting).

Implementation of Bay Area HCP AMMs will reduce the potential for, or magnitude of, impacts of the Reconductoring Activities on the California Ridgway's rail (which is a covered species under the HCP) and the California black rail in all areas where these species potentially occur along the Reconductoring Work Areas. Applicable Bay Area HCP AMMs include FP-01, 02, 03, 04, 05, 07, 08, 10, 11, 12, 14, 15, 16, and 18, and Wetland-2 (Table 6). Bay Area HCP AMM Hot Zone-8 specifically applies to the California Ridgway's rail and would provide the same benefits to the black rail as well. Most importantly, Reconductoring Activities occurring within 700 feet of suitable habitat for these species would occur only during the nonbreeding season.

Implementation of RGP 40 Conditions, WDR/CWA Section 401 Order No. WQ 2023-0022-DWQ measures, RGP 40 NMFS BO AMMs, RGP 40 USFWS BO AMMs, and CDFW ITP Final EIR APMs will further reduce the potential for, or magnitude of, impacts of the Reconductoring Activities on this species, as follows.

- Applicable RGP 40 measures include Special Condition 1, 4, 8, 9, and 10 (Table 7).
- Applicable WDR/CWA Section 401 Order No. WQ 2023-0022-DWQ measures include Description of Direct and Indirect Impacts to Waters of the State, Avoidance and Minimization Measure, Compensatory Mitigation Requirement, Reporting and Notification Requirement 1, 2, 3, and 4, Water Quality Monitoring Condition 1, 2, and 3, General Condition 1, 3, and 4, Administrative Condition 3 and 4, Construction Condition 1, 2, 3, 4, 6, 7, 8, 9, 12, 13, 15, 19, 20, and 21, Restoration and Mitigation for Temporary Impact 1, 2, and 3, and Mitigation for Permanent Impacts 1(Table 8).
- Applicable RGP 40 NMFS BO AMMs include BA Attachment A: Activity Specific Erosion and Sediment Control Plan and NOAABA-AMM-01: Boat Access and Docking (Table 9).
- Applicable RGP 40 USFWS BO AMMs include AMM -03, BA-AMM-01: Hazardous Materials Business Plan, BA-AMM-02: Vehicle and Equipment Cleaning, BA-AMM-03: Reporting of Federally Listed Species, USFWSBA-AMM-01: Weed-Free Materials, USFWSBA-AMM-02: Boardwalk Plank Spacing, and USFWSBA-AMM-03: Helicopter Use (Table 10).
- Applicable CDFW ITP Final EIR APMs include APM AES-1: Restore disturbed areas, APM AES-3: Shield temporary construction lighting, APM AES-4: Apply minimum lighting standards, APM AIR-1: Implement Dust Control Best Management Practices, APM HAZ-1: Spill Response, APM HAZ-2: Vehicle Refueling, and APM NOI-1: Restrict construction hours (Table 11).

Because the California Ridgway's rail is a covered species under the Bay Area HCP, and the HCP conservation measures for that species would provide the same benefits to the California black rail as well, and implementation of Bay Area HCP AMMs, as well as the compensatory mitigation measures incorporated into that HCP (and thus incorporated into the project description for the Reconductoring Activities), will reduce impacts of the Reconductoring Activities on both species substantially. Implementation of RGP 40 measures, WDR/CWA Section 401 Order No. WQ 2023-0022-DWQ measures, RGP 40 NMFS BO AMMs, RGP 40 USFWS BO AMMs, and CDFW ITP Final EIR APMs will also reduce impacts of the project on both species. Thus, impacts of the Reconductoring Activities on the California Ridgway's rail and California black rail will be less than significant.

6.2.8 Impacts on the Western Snowy Plover (Less than Significant)

Western snowy plovers nest in and adjacent to the survey area in Ponds A22 and A23 and in portions of New Chicago Marsh. USFWS has designated portions of Ponds A22 and A23 within the survey area as western snowy plover critical habitat. It could possibly nest in limited areas of diked salt marsh and other pond/slough habitat immediately south of Pond A18 as well. Although the species may occasionally forage in other locations, foraging activities in the survey area would also occur primarily in the locations where breeding occurs.

If Reconductoring Activities occur close to (i.e., within 600 feet of) western snowy plover nesting habitat during the species' breeding season (March 1 through September 15), disturbance associated with the activity of personnel, equipment (including helicopters), and vehicles, or noise from equipment and pile driving, could cause adult plovers to abandon nests with eggs or broods of young. Movement of adults away from eggs or young could increase the risk of predation of the eggs/young. Disturbance during any time of year could cause

plovers to move away from otherwise suitable habitat, potentially subjecting them to increased predation risk or lower foraging efficiency. Increases in human concentration and activity in the vicinity of suitable habitat may result in an increase in native and nonnative predators that would be attracted to trash left at the work site and that would prey opportunistically on this species. Petrochemicals, hydraulic fluids, and solvents that are spilled or leaked from work vehicles or equipment may impair the health of plovers and reduce food availability.

If Reconductoring Activities were to physically occur within breeding habitat, there is some potential for trampling of eggs or young, though plovers are unlikely to nest very close to existing poles or towers. Reconductoring Activities within suitable habitat may degrade habitat quality, though because depressions associated with footprints may serve as nest sites and refugia from predators, some temporary impacts to breeding habitat may be beneficial. Placement of structures such as poles, towers, and footings in suitable habitat would result in a reduction in habitat availability, though such permanent impact areas would be very limited, being restricted to areas where new poles or tower footings would be needed within suitable habitat. Based on impact assumptions associated with individual poles and towers, approximately 1.9 acres of salt panne habitat are present within the 100x200-foot potential impact areas around these structures, though actual impacts on this habitat are likely to be much lower, and any such impacts would be mostly temporary.

The proposed tower modifications will not result in substantial improvement in the quality of nesting or roosting sites for avian predators of snowy plovers or other special-status species (e.g., by providing additional or higher-quality structural support for nesting or roosting).

PG&E will also implement its *Nesting Bird Management Plan* (PG&E et al. 2015) to avoid impacts on nesting western snowy plovers. Implementation of Bay Area HCP AMMs, RGP 40 Conditions, WDR/CWA Section 401 Order No. WQ 2023-0022-DWQ measures, RGP 40 USFWS BO AMMs, and CDFW ITP Final EIR APMs will further reduce the potential for, or magnitude of, impacts of the Reconductoring Activities on the western snowy plover in all portions of the Reconductoring Work Areas where this species potentially occurs, as follows.

- Applicable Bay Area HCP AMMs include FP-01, 02, 03, 04, 05, 07, 08, 10, 11, 12, 13, 15, 16, and 18, and Wetland-2 (Table 6). PG&E would also implement measures in its *Nesting Bird Management Plan* (PG&E et al. 2015) to avoid impacts on snowy plover nests and broods.
- Applicable RGP 40 conditions include Special Condition 4 (Table 7).
- Applicable WDR/CWA Section 401 Order No. WQ 2023-0022-DWQ measures include Description of Direct and Indirect Impacts to Waters of the State, Avoidance and Minimization Measure, Compensatory Mitigation Requirement, Reporting and Notification Requirement 1, 2, 3, and 4, Water Quality Monitoring Condition 1, 3, and 4, General Condition 1, 2, 3, and 4, Administrative Condition 4, Construction Condition 1, 2, 3, 4, 6, 7, 8, 9, 12, 13, 15, 19, 20, and 21, Restoration and Mitigation for Temporary Impact 1, 2, and 3, and Mitigation for Permanent Impacts 1 (Table 8).
- Applicable RGP 40 USFWS BO AMMs include AMM -02 and 03, BA-AMM-01: Hazardous Materials Business Plan, BA-AMM-02: Vehicle and Equipment Cleaning, BA-AMM-03: Reporting of Federally

Listed Species, USFWSBA-AMM-01: Weed-Free Materials, and USFWSBA-AMM-03: Helicopter Use. AMM-02 and 03 and USFWSBA-AMM-03 Helicopter Use specifically address impacts to western snowy plovers by preventing O&M activities within 600 feet of an active western snowy plover nest or brood during the breeding season (March 1 through September 14), requiring helicopters to land only on existing levees or roads, and requiring helicopters to avoid flying over western snowy plover nesting areas.

- Applicable CDFW ITP Final EIR APMs include APM AES-3: Shield temporary construction lighting, APM AES-4: Apply minimum lighting standards, APM AIR-1: Implement Dust Control Best Management Practices, APM HAZ-1: Spill Response, and APM HAZ-2: Vehicle Refueling.

Project impacts on this species' habitat would be very low, and mostly temporary. Implementation of Bay Area HCP AMMs, RGP 40 conditions, WDR/CWA Section 401 Order No. WQ 2023-0022-DWQ measures, RGP USFWS BO AMMs, and CDFW ITP Final EIR APMs, and compliance with the *Nesting Bird Management Plan*, will minimize the potential for and magnitude of impacts of the Reconductoring Activities on the western snowy plover, thus reducing impacts on this species to less than significant levels.

6.2.9 Impacts on the Burrowing Owl (Less than Significant)

Burrowing owls are currently known to breed in the survey area only within the SCVHA burrowing owl preserve located south of Los Esteros Road. However, the species previously nested in numbers in the Warm Springs seasonal wetlands area, and it has nested in the past in the portion of the survey area south of West Trimble Road, near Orchard Parkway and Component Drive. Because suitable habitat still exists in Warm Springs and south of West Trimble Road, it is possible that burrowing owls could nest in these areas again.

The Reconductoring Activities may impact burrowing owls as a result of the temporary and permanent removal of nesting and foraging habitat, as well as disturbance to or direct impacts on individuals during construction. Individual burrowing owls may be affected during construction activities, if present on or very close to the site. Because they roost underground, burrowing owls may be killed or injured during development activities from trampling or compaction of burrows by construction personnel or equipment if appropriate protective measures are not implemented. Reconductoring Activities that occur in close proximity to active burrows may disturb owls to the point of abandoning their burrows. If that disturbance occurs during the breeding season (February 1 through August 31), adult owls could abandon nests with eggs or young. Increases in human concentration and activity in the vicinity of suitable habitat may result in an increase in native and nonnative predators that would be attracted to trash left at the work site and that would prey opportunistically on this species. Nighttime work activities could disturb foraging burrowing owls, and lighting for nighttime work could increase the potential for predation on burrowing owls by making them more visible to predators. Petrochemicals, hydraulic fluids, and solvents that are spilled or leaked from work vehicles or equipment may impair the health of owls and their prey, thus reducing food availability. Placement of structures such as poles, towers, and footings in suitable habitat would result in a reduction in habitat availability, though such permanent impact areas would be very limited, being restricted to areas where new poles or tower footings would be needed within suitable habitat. The potential for and magnitude of impacts of the Reconductoring Activities

on burrowing owls and their habitat will be very limited. Although it is possible that areas of up to 100x200 feet could potentially be impacted around towers, the likely extent of impacts would be much less. Further, the towers that are in the SCVHA burrowing owl preserve are at the extreme western edge of the preserve, far from areas that have been enhanced with artificial burrows and earthen mounds.

The proposed tower modifications will not result in substantial improvement in the quality of nesting or roosting sites for avian predators of snowy plovers or other special-status species (e.g., by providing additional or higher-quality structural support for nesting or roosting).

PG&E would also implement its *Nesting Bird Management Plan* (PG&E et al. 2015) to avoid impacts on nesting and roosting burrowing owls. Implementation of Bay Area HCP AMMs, WDR/CWA Section 401 Order No. WQ 2023-0022-DWQ measures, RGP 40 NFMS BO AMMs, RGP 40 USFWS BO AMMs, and CDFW ITP Final EIR APMs will further reduce the potential for, or magnitude of, impacts of the Reconductoring Activities on burrowing owls, as follows.

- Applicable Bay Area HCP AMMs include FP-01, 02, 03, 04, 05, 06, 07, 08, 10, 14, 18, and Hot Zone-6 (Table 6).
- Applicable WDR/CWA Section 401 Order No. WQ 2023-0022-DWQ measures include Construction Condition 4, 8, 9, 13, 15, 19, and 20 (Table 8).
- Applicable RGP 40 NFMS BO AMMs include BA Attachment A: Activity Specific Erosion and Sediment Control Plan (Table 9).
- Applicable RGP 40 USFWS BO AMMs include BA-AMM-01: Hazardous Materials Business Plan, BA-AMM-02: Vehicle and Equipment Cleaning, and USFWSBA-AMM-01: Weed-Free Materials (Table 10).
- Applicable CDFW ITP Final EIR APMs include APM AES-1: Restore disturbed areas, APM AES-3: Shield temporary construction lighting, APM AES-4: Apply minimum lighting standards, APM AIR-1: Implement Dust Control Best Management Practices, and APM HAZ-1: Spill Response (Table 11).

Impacts of the Reconductoring Activities on this species' habitat would be very low, and mostly temporary. Implementation of Bay Area HCP AMMs, RGP 40 conditions, WDR/CWA Section 401 Order No. WQ 2023-0022-DWQ measures, RGP USFWS BO AMMs, and CDFW ITP Final EIR APMs, and compliance with the *Nesting Bird Management Plan*, will minimize the potential for and magnitude of impacts of the Reconductoring Activities on the burrowing owl, thus reducing impacts on this species to less than significant levels.

6.2.10 Impacts on Other Nesting Birds (Less than Significant)

In addition to the California Ridgway's rail, California black rail, western snowy plover, and burrowing owl addressed above, numerous other bird species breed in and near the survey area. These include potentially breeding special-status birds such as the northern harrier, white-tailed kite, loggerhead shrike, Alameda song sparrow, Bryant's savannah sparrow, tricolored blackbird, San Francisco common yellowthroat, and yellow warbler. All of these special-status birds could potentially breed close enough to the survey area to be impacted

by project activities. A pair of golden eagles nest 0.8 mile from the survey area, east of the SCVHA burrowing owl preserve, but the distance between those eagles and project activities is great enough that the project would not result in substantial impacts on that nesting pair.

A number of non-special-status birds also breed in and near the survey area. These include a colony of double-crested cormorants that nest on towers in Pond A18; red-tailed hawks, common ravens, and possibly peregrine falcons that nest on towers along the Reconductoring Work Areas; numerous waterfowl and shorebirds in wetland and marsh habitats; and many other bird species that nest on the ground, in trees or shrubs, or on structures in the survey area.

The nesting season for most bird species that nest in the survey area is February 1 through August 31, though a few species may begin nesting in January or have active nests into September. If project activities occur during the nesting season, such activities may result in direct destruction of nests with eggs or young as a result of vegetation removal, earth-moving, or the activity of equipment, vehicles, or personnel. Reconductoring Activities may indirectly cause the loss of nests, including eggs or young, if those activities occur close enough to active nests to cause adults to abandon their nests. Increases in human concentration and activity in the vicinity of suitable habitat may result in an increase in native and nonnative predators that would be attracted to trash left at the work site and that would prey opportunistically on nesting birds. Petrochemicals, hydraulic fluids, and solvents that are spilled or leaked from work vehicles or equipment may impair the health of nesting birds and their food sources, thus reducing food availability. Placement of structures such as poles, towers, and footings in suitable habitat would result in a reduction in habitat availability, though such permanent impact areas would be very limited, being restricted to areas where new poles or tower footings would be needed within suitable habitat for nesting birds.

PG&E will implement measures in its *Nesting Bird Management Plan* (PG&E et al. 2015) to avoid impacts on nesting birds. Implementation of Bay Area HCP AMMs, RPG 40 conditions, WDR/CWA Section 401 Order No. WQ 2023-0022-DWQ measures, RGP 40 NMFS BO and RGP 40 NMFS AMMs, and CDFW ITP Final EIR APMs will further reduce the potential for, or magnitude of, impacts of the Reconductoring Activities on nesting birds, as follows.

- Applicable Bay Area HCP AMMs include FP-01, 02, 03, 04, 05, 06, 07, 08, 10, 11, 12, 13, 14, 15, 16, 17, and 18, Hot Zone-6, and Wetland-1 and Wetland-2 (Table 6).
- Applicable RPG 40 conditions include Special Condition 4, 8, 9, and 10 (Table 7).
- Applicable WDR/CWA Section 401 Order No. WQ 2023-0022-DWQ measures include Description of Direct and Indirect Impacts to Waters of the State, Avoidance and Minimization Measure, Compensatory Mitigation Requirement, Reporting and Notification Requirement 1, 2, 3, and 4, Water Quality Monitoring Condition 1, 2, 3, and 4, General Condition 1, 2, 3, and 4, Administrative Condition 3 and 4, Construction Condition 1, 2, 3, 4, 6, 7, 8, 9, 10, 12, 13, 15, 19, 20, and 21, Restoration and Mitigation for Temporary Impact 1, 2, and 3, and Mitigation for Permanent Impacts 1 (Table 8).

- Applicable RGP 40 NMFS BO measures include BA Attachment A: Activity Specific Erosion and Sediment Control Plan and NOAABA-AMM-01: Boat Access and Docking (Table 9).
- Applicable RGP 40 USFWS BO measures include AMM -02 and 03, BA-AMM-01: Hazardous Materials Business Plan, BA-AMM-02: Vehicle and Equipment Cleaning, USFWSBA-AMM-01: Weed-Free Materials, USFWSBA-AMM-02: Boardwalk Plank Spacing, and USFWSBA-AMM-03: Helicopter Use (Table 10).
- Applicable CDFW ITP Final EIR APMs include APM AES-1: Restore disturbed areas, APM AES-3: Shield temporary construction lighting, APM AES-4: Apply minimum lighting standards, APM AIR-1: Implement Dust Control Best Management Practices, APM HAZ-1: Spill Response, and APM HAZ-2: Vehicle Refueling (Table 11).

Impacts of the Reconductoring Activities on nesting bird habitat would be very low, and mostly temporary. Implementation of Bay Area HCP AMMs, RGP 40 conditions, WDR/CWA Section 401 Order No. WQ 2023-0022-DWQ measures, RGP USFWS BO AMMs, and CDFW ITP Final EIR APMs, and compliance with the *Nesting Bird Management Plan*, will minimize the potential for and magnitude of impacts of the Reconductoring Activities on nesting birds, thus reducing impacts to less than significant levels.

6.2.11 Impacts on the Salt Marsh Harvest Mouse and Salt Marsh Wandering Shrew (Less than Significant)

Both the salt marsh harvest mouse and salt marsh wandering shrew may occur in the same general areas. Suitable habitat is present in tidal marshes along South Coyote Slough, Coyote Creek, in the Coyote Creek Lagoon/Warm Springs Marshes, and along Mud Slough, as well as in diked marshes from the vicinity of Disk Drive and Los Esteros Road in Alviso north to the northern edge of Pond A22. PG&E's Bay Area HCP identifies much of the habitat in these areas to be a "hot zone" for the salt marsh harvest mouse, which is an HCP-covered species.

Due to logistical challenges of working in dense tidal marshes where these two mammals occur, as well as a desire to minimize impacts to biological resources and sensitive/regulated habitats, Reconductoring Activities' work within habitats supporting these species will be avoided to the maximum extent practicable. For example, helicopters will be used to deliver personnel and materials to some tower locations within dense marsh habitat. Therefore, it is possible that no Reconductoring Activities will occur directly in habitats supporting these species. However, if Reconductoring Activities' work within habitat supporting the salt marsh harvest mouse and salt marsh wandering shrew occurs, work activities could impact individuals and their habitats. Based on impact assumptions associated with individual poles and towers, approximately 5.4 acres of diked salt marsh and tidal brackish marsh that could support these mammals are present within the 100x200-foot potential impact areas around these structures, though actual impacts on these habitats are likely to be much lower, and any such impacts would be mostly temporary.

Personnel, equipment, and vehicles could result in the injury or mortality of individuals, and mice or shrews that move into lower-quality habitat as a result of project disturbance could be susceptible to increased

predation risk or reduced foraging efficiency. Increases in human concentration and activity in the vicinity of suitable habitat may result in an increase in native and nonnative predators that would be attracted to trash left at the work site and that would prey opportunistically on this species. Nighttime work activities could disturb foraging mice and shrews, and lighting for nighttime work could increase the potential for predation on these small mammals by making them more visible to predators. Petrochemicals, hydraulic fluids, and solvents that are spilled or leaked from work vehicles or equipment may impair the health of these animals and reduce food availability. Placement of structures such as poles, towers, and footings in suitable habitat would result in a reduction in habitat availability, though such permanent impact areas would be very limited, being restricted to areas where new poles or tower footings would be needed within suitable habitat. Temporary habitat loss may result from impacts to vegetated marsh during construction.

The proposed tower modifications will not result in substantial improvement in the quality of nesting or roosting sites for avian predators of these small mammal species (e.g., by providing additional or higher-quality structural support for nesting or roosting).

Implementation of Bay Area HCP AMMs will reduce the potential for, or magnitude of, impacts of the Reconductoring Activities on the salt marsh harvest mouse (which is a covered species under the HCP) and the salt marsh wandering shrew. Applicable Bay Area HCP AMMs include FP-01, 02, 03, 04, 05, 06, 07, 08, 10, 11, 12, 13, 14, 15, and 16, and Wetland-2 (Table 6). Bay Area HCP AMM Hot Zone-8 specifically applies to the salt marsh harvest mouse and would provide the same benefits to the salt marsh wandering shrew as well. Because the salt marsh harvest mouse is a covered species under the Bay Area HCP, and the HCP conservation measures for that species would provide the same benefits to the salt marsh wandering shrew as well, implementation of Bay Area HCP AMMs, as well as the compensatory mitigation measures incorporated into that HCP (and thus incorporated into the project description for the Reconductoring Activities), will reduce impacts of the Reconductoring Activities on both species substantially.

Implementation of RPG 40 conditions, WDR/CWA Section 401 Order No. WQ 2023-0022-DWQ measures, RGP 40 NMFS BO and RGP 40 NMFS AMMs, and CDFW ITP Final EIR APMs will further reduce the potential for, or magnitude of, impacts on the salt marsh harvest mouse and salt marsh wandering shrew, as follows.

- Applicable RGP 40 conditions include Special Condition 1, 4, 8, 9, and 10 (Table 7).
- Applicable WDR/CWA Section 401 Order No. WQ 2023-0022-DWQ measures include Description of Direct and Indirect Impacts to Waters of the State, Avoidance and Minimization Measure, Compensatory Mitigation Requirement, Reporting and Notification Requirement 1, 2, 3, and 4, Water Quality Monitoring Condition 1, 2, 3, and 4, General Condition 1, 2, 3, and 4, Administrative Condition 3 and 4, Construction Condition 1, 2, 3, 4, 6, 7, 8, 9, 10, 12, 13, 15, 19, 20, and 21, Restoration and Mitigation for Temporary Impact 1, 2, and 3, and Mitigation for Permanent Impacts 1(Table 8).
- Applicable RGP 40 NFMS BO measures include BA Attachment A: Activity Specific Erosion and Sediment Control Plan and NOAABA-AMM-01: Boat Access and Docking (Table 9).

- Applicable RGP 40 USFWS BO measures include AMM -03, BA-AMM-01: Hazardous Materials Business Plan, BA-AMM-02: Vehicle and Equipment Cleaning, BA-AMM-03: Reporting of Federally Listed Species, USFWSBA-AMM-01: Weed-Free Materials, USFWSBA-AMM-02: Boardwalk Plank Spacing, and USFWSBA-AMM-03: Helicopter Use (Table 10).
- Applicable CDFW ITP Final EIR APMs include APM AES-1: Restore disturbed areas, APM AES-3: Shield temporary construction lighting, APM AES-4: Apply minimum lighting standards, APM AIR-1: Implement Dust Control Best Management Practices, APM HAZ-1: Spill Response, and APM HAZ-2: Vehicle Refueling (Table 11).

Impacts of the Reconductoring Activities on suitable habitat for the salt marsh harvest mouse and salt marsh wandering shrew would be very low, and mostly temporary. Implementation of Bay Area HCP AMMs, RGP 40 conditions, WDR/CWA Section 401 Order No. WQ 2023-0022-DWQ measures, RGP USFWS BO AMMs, and CDFW ITP Final EIR APMs will minimize the potential for and magnitude of impacts of the Reconductoring Activities on these species, thus reducing impacts to less than significant levels.

6.2.12 Impacts on Nonbreeding Special-Status Animals (Less than Significant)

Several special-status bird and mammal species may occur in the survey area as nonbreeding migrants, transients, dispersants, or foragers, but they are not known or expected to breed, occur regularly, or occur in large numbers within or near the Reconductoring Work Areas. These are the yellow rail, California least tern, black skimmer, bald eagle, Swainson's hawk, least Bell's vireo, bank swallow, western red bat, pallid bat, and Pacific harbor seal. Reconductoring Activities would have some potential to impact foraging habitats and/or disturb individuals of these species. Reconductoring Activities might result in a temporary direct impact through the alteration of foraging patterns (e.g., avoidance of work sites because of increased noise and activity levels during Reconductoring Activities) but would not result in the loss of individuals, as individuals of these species would move away from any construction areas, equipment, vehicles, or project personnel before they could be injured or killed. Further, the survey area does not provide important foraging habitat used regularly or by large numbers of individuals of any of these species. As a result, impacts of the Reconductoring Activities will have little impact on these species' foraging habitat and no substantive impact on regional populations of these species.

Implementation of Bay Area HCP AMMs, RPG 40 conditions, WDR/CWA Section 401 Order No. WQ 2023-0022-DWQ measures, RGP 40 NMFS BO AMMs, RGP 40 NMFS BO AMMs, and CDFW ITP Final EIR APMs will reduce the potential for, or magnitude of, impacts of the Reconductoring Activities on nonbreeding special-status animals, as follows.

- Applicable Bay Area HCP AMMs include FP-01, 02, 03, 04, 05, 07, 08, 10, 11, 12, 14, 15, 16, and 17, and Wetland-1 and Wetland-2 (Table 6).
- Applicable RPG 40 conditions include Special Condition 4, 8, 9, and 10 (Table 7).
- Applicable WDR/CWA Section 401 Order No. WQ 2023-0022-DWQ measures include Description of Direct and Indirect Impacts to Waters of the State, Avoidance and Minimization Measure,

Compensatory Mitigation Requirement, Reporting and Notification Requirement 1, 2, 3, and 4, Water Quality Monitoring Condition 1, 2, 3, and 4, General Condition 1, 2, 3, and 4, Administrative Condition 3 and 4, Construction Condition 1, 2, 3, 4, 6, 7, 8, 9, 10, 12, 13, 15, 19, 20, and 21, Restoration and Mitigation for Temporary Impact 1, 2, and 3, and Mitigation for Permanent Impacts 1 (Table 8).

- Applicable RGP 40 NMFS BO measures include BA Attachment A: Activity Specific Erosion and Sediment Control Plan and NOAABA-AMM-01: Boat Access and Docking (Table 9).
- Applicable RGP 40 USFWS BO measures include AMM -02 and 03, BA-AMM-01: Hazardous Materials Business Plan, BA-AMM-02: Vehicle and Equipment Cleaning, USFWSBA-AMM-01: Weed-Free Materials, USFWSBA-AMM-02: Boardwalk Plank Spacing, and USFWSBA-AMM-03: Helicopter Use (Table 10).
- Applicable CDFW ITP Final EIR APMs include APM AES-1: Restore disturbed areas, APM AES-3: Shield temporary construction lighting, APM AES-4: Apply minimum lighting standards, APM AIR-1: Implement Dust Control Best Management Practices, APM HAZ-1: Spill Response, and APM HAZ-2: Vehicle Refueling (Table 11).

Impacts of the Reconductoring Activities on suitable habitat for the nonbreeding special-status animals would be very low, and mostly temporary. Implementation of Bay Area HCP AMMs, RGP 40 conditions, WDR/CWA Section 401 Order No. WQ 2023-0022-DWQ measures, RGP USFWS BO AMMs, and CDFW ITP Final EIR APMs will minimize the potential for and magnitude of impacts of the Reconductoring Activities on these species, thus reducing impacts to less than significant levels.

6.2.13 Impacts due to Bird Collisions and Electrocutions (Less than Significant)

Projects involving power lines have the potential to impact birds by increasing bird collisions with the lines and increasing the risk of electrocutions, leading to injury or mortality of the birds in question. Evaluation of these impacts is particularly important in sensitive habitat areas that support large numbers of birds. The survey area is such a sensitive habitat area, supporting millions of resident and migrating birds each year. Numerous migrants in the South Bay move in a north-south direction in fall and south-north in spring. Many of those that move through the South Bay will cross the Reconductoring Work Areas as they move into and out of the Bay area or use the high-quality wetland and aquatic habitats provided by Bay waters, mudflats, managed ponds, and marshes in the South Bay. A number of other birds disperse between nighttime roosting sites around the Bay and inland foraging areas, and such birds would also cross the Reconductoring Work Areas.

If the Reconductoring Activities were to result in a substantial change in the location or visibility of the conductor wires, relative to existing conditions, there would be some potential for changes in bird collision risk with the wires. Reconductoring Activities will result in placement of the new wires in the same locations as existing wires, but the new conductors will be larger in diameter than the existing wires and thus likely more visible to birds. As a result, collision risk is likely to decrease relative to existing conditions due to the higher visibility of the conductor. New towers or poles will be located within approximately 15 feet of existing structures, along the existing line alignments (i.e., slightly in front of or behind existing structures). Although

the wires may be elevated slightly relative to existing wires in some locations, this change is likely to reduce avian collision risk, as many birds flying to and from high-quality aquatic, wetland, grassland, or riparian habitats in the project vicinity fly at elevations lower than the existing wires. Thus, raising the wires slightly would move the wires farther from the habitats below.

Similarly, electrocution risk is not expected to increase as a result of the project. PG&E performs Reconductoring Activities according to its Avian Protection Plan (PG&E 2017), which is implemented to comply with state and federal laws protecting birds and reduce the risk of electrocution of raptors and other birds through corrective and preventive actions. No components of the Reconductoring Activities would increase the risk of electrocution for birds that perch or nest on poles, towers, or lines. Therefore, impacts to bird of the Reconductoring Activities due to collisions or electrocutions will be less than significant.

6.3 Impacts on Sensitive Communities: Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFW or USFWS (Less than Significant)**Impacts on Riparian Habitat or Other Sensitive Natural Communities (Less than Significant)**

The CDFW defines sensitive natural communities and vegetation alliances using NatureServe's standard heritage program methodology (CDFW 2023), as described above in Section 5.3. Aquatic, wetland, and riparian habitats are also protected under applicable federal, state, or local regulations, and are generally subject to regulation, protection, or consideration by the USACE, RWQCB, CDFW, and/or the USFWS (see Section 6.5 below). Impacts of the Reconductoring Activities on sensitive natural communities, vegetation alliances/associations, or any such community identified in local or regional plans, policies, and regulations, were considered and evaluated.

Mixed riparian forest and woodland habitat is present along the Guadalupe River near West Trimble Road. The river itself represents non-tidal stream habitat in this area. No mixed riparian forest and woodland is present within the 100x200-foot potential impact areas evaluated around individual poles and towers, and given the extent of paved roads, trails, and parking lots (which could be used for pull sites or other Reconductoring Activities) on either side of the Guadalupe River in this area, it is unlikely that any Reconductoring Activities within or impacting riparian habitat would need to occur. However, because details of the Reconductoring Activities are still being refined, there is some potential for riparian habitat to be impacted by Reconductoring Activities in that area. Vegetation may be lost as a result of mechanical or physical clearing of work and access areas, and damage to vegetation may occur as a result of crushing by equipment, trampling by personnel, and compaction of soil, which could result in damage to plant roots. Mobilization of dust would impact plants in riparian habitat immediately adjacent to or downwind from areas of earth-moving or equipment/vehicle activity. Dust may coat vegetative and floral surfaces, interfering with normal gas exchange, photosynthesis, or pollination. The unintentional introduction of nonnative species and/or pathogens during work activities can also harm riparian communities and reduce their extent and overall health. Such impacts may lead to the alteration of the communities' species composition, structure, and function.

Riparian vegetation that is removed by Reconductoring Activities is expected to regrow unless it is replaced by hardscape. Thus, most impacts of the Reconductoring Activities to riparian vegetation would be temporary in that they would not preclude the potential for woody riparian vegetation to regrow. However, riparian woodlands would take years to recover following removal of trees.

Implementation of Bay Area HCP AMMs, RPG 40 conditions, WDR/CWA Section 401 Order No. WQ 2023-0022-DWQ measures, RGP 40 NMFS BO AMMs, RGP 40 NMFS BO AMMs, and CDFW ITP Final EIR APMs will reduce the potential for, or magnitude of, impacts of the Reconductoring Activities on riparian habitat, as follows.

- Applicable Bay Area HCP AMMs include FP-01, 02, 03, 04, 08, 10, 11, 12, 14, 15, 16, and 17, and Wetland-2 (Table 6).
- Applicable RPG 40 conditions include Special Condition 4, 8, 9, and 10 (Table 7).
- Applicable WDR/CWA Section 401 Order No. WQ 2023-0022-DWQ measures include Description of Direct and Indirect Impacts to Waters of the State, Avoidance and Minimization Measure, Compensatory Mitigation Requirement, Reporting and Notification Requirement 1, 2, 3, and 4, Water Quality Monitoring Condition 1, 2, 3, and 4, General Condition 1, 2, 3, and 4, Administrative Condition 3 and 4, Construction Condition 1, 2, 3, 4, 6, 7, 8, 9, 10, 12, 13, 15, 19, 20, and 21, Restoration and Mitigation for Temporary Impact 1, 2, and 3, and Mitigation for Permanent Impacts 1 (Table 8).
- Applicable RGP 40 NMFS BO measures include BA Attachment A: Activity Specific Erosion and Sediment Control Plan and NOAABA-AMM-01: Boat Access and Docking (Table 9).
- Applicable RGP 40 USFWS BO measures include BA-AMM-01: Hazardous Materials Business Plan, BA-AMM-02: Vehicle and Equipment Cleaning, and BA-AMM-01: Weed-Free Materials (Table 10).
- Applicable CDFW ITP Final EIR APMs include APM AES-1: Restore disturbed areas, APM AIR-1: Implement Dust Control Best Management Practices, APM HAZ-1: Spill Response, and APM HAZ-2: Vehicle Refueling (Table 11).

Impacts of the Reconductoring Activities on riparian habitats would be very low, and mostly temporary. Implementation of Bay Area HCP AMMs, RGP 40 conditions, WDR/CWA Section 401 Order No. WQ 2023-0022-DWQ measures, RGP USFWS BO AMMs, and CDFW ITP Final EIR APMs will minimize the potential for and magnitude of impacts of the Reconductoring Activities on riparian habitats, thus reducing impacts to less than significant levels. All other sensitive habitats in the survey area, including tidal brackish marsh, tidal creek/slough, diked salt marsh, salt panne, managed pond, other ponds/sloughs, freshwater marsh, non-tidal stream, vernal pools, and seasonal wetlands, are wetland/aquatic habitats protected by state and federal regulations. Impacts of the Reconductoring Activities on these habitats are discussed in Section 6.4 below.

6.4 Impacts on Wetlands: Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal

pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means (Less than Significant)

A number of land cover types in the survey area represent state or federally protected wetland and aquatic habitats. These land cover types are tidal brackish marsh, tidal creek/slough, diked salt marsh, salt panne, managed pond, other ponds/sloughs, freshwater marsh, non-tidal stream, vernal pools, and seasonal wetlands. Ruderal levee slopes around ponds may also be considered waters of the state by the RWQCB. Due to logistical challenges of working in aquatic and wetland habitats, as well as a desire to minimize impacts to biological resources and sensitive/regulated habitats, Reconductoring Activities' work within these habitats will be avoided to the maximum extent practicable. For example, helicopters will be used to deliver personnel and materials to some tower locations within aquatic and wetland habitat. Nevertheless, it is likely that some impacts of the Reconductoring Activities on wetlands would occur, given that work needs to occur at and near existing poles and towers. Based on impact assumptions associated with individual poles and towers, approximately 11.1 acres of wetland and aquatic habitats are present within the 100x200-foot potential impact areas around these structures, though actual impacts on these habitats are likely to be much lower, and any such impacts would be mostly temporary.

Off-road vehicle access, ground disturbance, and vegetation removal could result in degradation of wetland and aquatic habitats by changing topography, compacting soil, and changing drainage patterns. Ground-disturbing activities could mobilize sediment that is then washed into wetland and aquatic habitats. Leaks or spills of fuel or other chemicals could degrade conditions in wetland and aquatic habitats. These habitats may need to be temporarily excavated, or filled in some places for dewatering. Wetland vegetation could be impacted in ways described for special-status plants in Section 6.2.1.

Placement of structures such as poles, towers, and footings in suitable habitat would result in permanent loss of these habitats, though such permanent impact areas would be very limited, being restricted to areas where new poles or tower footings would be needed. Wetland vegetation that is removed by Reconductoring Activities is expected to regrow as long as the hydrology of wetlands is not modified.

Implementation of Bay Area HCP AMMs, RPG 40 conditions, WDR/CWA Section 401 Order No. WQ 2023-0022-DWQ measures, RGP 40 NMFS BO AMMs, RGP 40 NMFS BO AMMs, and CDFW ITP Final EIR APMs will reduce the potential for, or magnitude of, impacts of the Reconductoring Activities on riparian habitat, as follows.

- Applicable Bay Area HCP AMMs include FP-01, 02, 03, 04, 08, 10, 11, 12, 14, 15, 16, and 17, and Wetland-1 and Wetland-2 (Table 6).
- Applicable RPG 40 conditions include Special Condition 1, 3, 4, 8, 9, and 10 (Table 7).
- Applicable WDR/CWA Section 401 Order No. WQ 2023-0022-DWQ measures include Description of Direct and Indirect Impacts to Waters of the State, Avoidance and Minimization Measure, Compensatory Mitigation Requirement, Reporting and Notification Requirement 1, 2, 3, and 4, Water Quality Monitoring Condition 1, 2, 3, and 4, General Condition 1, 2, 3, and 4, Administrative Condition

3 and 4, Construction Condition 1, 2, 3, 4, 6, 7, 8, 9, 10, 12, 13, 15, 19, 20, and 21, Restoration and Mitigation for Temporary Impact 1, 2, and 3, and Mitigation for Permanent Impacts 1 (Table 8).

- Applicable RGP 40 NMFS BO measures include BA Attachment A: Activity Specific Erosion and Sediment Control Plan and NOAABA-AMM-01: Boat Access and Docking (Table 9).
- Applicable RGP 40 USFWS BO measures include AMM-03, BA-AMM-01: Hazardous Materials Business Plan, BA-AMM-02: Vehicle and Equipment Cleaning, BA-AMM-01: Weed-Free MateriaUSFWSBA-AMM-02: Boardwalk Plank Spacing, and USFWSBA-AMM-03: Helicopter Use (Table 10).
- Applicable CDFW ITP Final EIR APMs include APM AES-1: Restore disturbed areas, APM AIR-1: Implement Dust Control Best Management Practices, APM HAZ-1: Spill Response, and APM HAZ-2: Vehicle Refueling (Table 11).

Impacts of the Reconductoring Activities on wetland and aquatic habitats would be very low, and mostly temporary. Implementation of Bay Area HCP AMMs, RGP 40 conditions, WDR/CWA Section 401 Order No. WQ 2023-0022-DWQ measures, RGP USFWS BO AMMs, and CDFW ITP Final EIR APMs will minimize the potential for and magnitude of impacts of the Reconductoring Activities on these habitats, thus reducing impacts of the Reconductoring Activities to less than significant levels.

6.5 Impacts on Wildlife Movement: Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites (Less than Significant)

For many species, the landscape is a mosaic of suitable and unsuitable habitat types. Environmental corridors are segments of land that provide a link between these different habitats while also providing cover. Development that fragments natural habitats (i.e., breaks them into smaller, disjunct pieces) can have a twofold impact on wildlife: first, as habitat patches become smaller they are unable to support as many individuals (patch size); and second, the area between habitat patches may be unsuitable for wildlife species to traverse (connectivity).

Most movement by non-flying wildlife species in the survey area occurs along high-quality habitats, such as the Guadalupe River, Coyote Creek, Artesian Slough, Mud Slough, and along the edge of the Bay to the north. These waterbodies and their associated riparian habitats serve as movement corridors for several common and special-status species of fish, mammals, reptiles, and amphibians in the survey area. These riparian corridors provide the necessary aquatic habitat for waterbirds and fish, as well as sufficient vegetative cover preferred by many species when navigating across the landscape. Specifically, migratory passerines, rabbits, striped skunks, raccoons, Sierran chorus frogs, and alligator lizards, amongst other species, are expected to move along these corridors adjacent to and within the survey area.

The Reconductoring Activities will not have any substantial impacts on wildlife movement along streams and waterways, or through more natural areas such as Warm Springs. Project activities that result in disturbance

due to personnel and vehicle activity and/or temporary and permanent habitat modifications can potentially disrupt wildlife movement along the Reconductoring Work Areas. However, the disruption associated with any activity, or combination of activities, occurring under the Reconductoring Activities at a given time is not expected to be so extensive as to prevent the movement of wildlife along streams, or along major movement corridors in the region. In addition, habitat modifications associated with the Reconductoring Activities would not be so extensive as to create barriers to wildlife movement or remove large areas of habitat and result in a loss of connectivity. Thus, the impacts of Reconductoring Activities on the movement of both common and special-status wildlife are less than significant.

In addition to terrestrial and aquatic species, birds and bats fly over the project vicinity in large numbers, moving through the survey area during migration, dispersal, and daily foraging. As described in Section 6.2.13, the Reconductoring Activities will not result in an increase in collision risk or otherwise impede the movement of flying animals. Thus, the Reconductoring Activities' impacts on wildlife movement will be less than significant.

The Reconductoring Activities will not impact any high-quality wildlife nursery sites. As described in Section 6.2.10, there is some potential for nesting birds, including a small double-crested cormorant colony on towers in Pond A18, to be impacted by Reconductoring Activities. However, PG&E will also implement measures in its *Nesting Bird Management Plan* (PG&E et al. 2015) to avoid impacts on nesting birds. Thus, the Reconductoring Activities' impacts on wildlife nursery sites will be less than significant.

6.6 Impacts due to Conflicts with Local Policies: Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (Less than Significant)

6.6.1 Impacts Due to the Removal of Ordinance-Sized Trees (Less than Significant)

It is possible that the Project will need to trim or remove ordinance-sized trees within portions of the project in San José, Santa Clara, and Fremont. As discussed in Sections 3.3.1-3.3.3, each of those cities has a tree ordinance requiring a tree permit prior to removal of certain trees. It is our understanding that utility projects under California Public Utilities Commission (CPUC) jurisdiction are not subject to local ordinances such as tree ordinances. Under the California Constitution and the CPUC's General Order (GO) 131-D, local jurisdictions acting pursuant to local authority are preempted from regulating public utility facilities subject to the Commission's jurisdiction. (See Cal. Const., art. XII, §§ 5, 8; GO 131-D, § XIV.) For this reason, public utilities are not subject to local land use or local discretionary permit requirements. (See, e.g., Town of Woodside v. PG&E (1978) 83 Cal.P.U.C. 418 (distribution project not subject to local ordinances); San Diego Gas & Electric Co. v. City of Carlsbad (1998) 64 Cal.App.4th 785 (flood plain ordinance does not apply to public utility; there is no concurrent discretionary jurisdiction). Although PG&E is not subject to local tree ordinances, it will generally replace trees consistent with the local ordinance where feasible.

A number of AMMs, APMs, and measures from existing approvals for PG&Es operation and maintenance program will reduce impacts to ordinance-sized trees. These include, as follows:

- Applicable Bay Area HCP AMMs include FP-04 and 17 (Table 6).
- Applicable WDR/CWA Section 401 Order No. WQ 2023-0022-DWQ measures include Construction Condition 8 (Table 8).

Project impacts related to conflicts with local policies involving tree ordinances will be less than significant, either because PG&E is not obligated to comply with such ordinances or because the Project owner will comply as necessary (as explained in detail above). We recommend that the Project owner implement the following "Recommended Measure BIO-A" to comply with the intent of these ordinances, whether or not an actual tree removal permit is required.

Recommended Measure BIO-A. Compliance with Local Tree Ordinances. Prior to the initiation of activities involving trimming or removal of trees, the Project owner shall have a tree survey performed in areas where trees could potentially be impacted by Project activities. The survey will identify trees subject to the tree protection ordinances of the cities of San José, Santa Clara, and Fremont, for portions of the Project within each city. The Project owner will work with PG&E, as appropriate, to ensure that impacts to ordinance-sized trees are minimized to the extent feasible. If trees meeting the criteria for ordinance-sized trees would be impacted, the Project owner will provide any required mitigation for tree impacts (e.g., planting of trees or contribution to tree-planting efforts led by others) commensurate with the requirements of the applicable municipality for the protected trees being impacted.

6.7 Impact due to Conflicts with an Adopted Habitat Conservation Plan: Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan (No Impact)

The Reconductoring Activities is subject to one conservation plan, PG&E's Bay Area HCP, as described in Section 3.3.5. Because the Reconductoring Activities would be considered a covered activity under that HCP, PG&E would implement all applicable AMMs, follow all applicable conditions, and provide mitigation in accordance with the HCP. Therefore, the Reconductoring Activities would not be in conflict with the Bay Area HCP.

A portion of the Reconductoring Activities will occur within the VHP permit area. However, because the Reconductoring Activities is not considered a covered project under the VHP, PG&E is not obligated to comply with VHP permit conditions, and the Reconductoring Activities would not be in conflict with the VHP.

6.8 Cumulative Impacts (Less than Significant)

Cumulative impacts arise due to the linking of impacts from past, current, and reasonably foreseeable future projects in the region. Future development activities in the project vicinity, as well as other PG&E operations and maintenance activities, will result in impacts on the same habitat types and species that will be affected by the Reconductoring Activities. The Reconductoring Activities, in combination with other cumulative projects

in the area and other activities that impact the species that are affected under the Reconductoring Activities, could contribute to cumulative effects on special-status species. Other projects in the area include both development and maintenance projects that could adversely affect these species and restoration projects that will benefit these species.

The cumulative impact on biological resources resulting from the Reconductoring Activities in combination with other relevant cumulative projects in the region would be dependent on the relative magnitude of adverse effects of these projects on biological resources compared to the relative benefit of impact avoidance and minimization efforts prescribed by planning documents, CEQA mitigation measures, and permit requirements for each project; compensatory mitigation and proactive conservation measures associated with each project; and the benefits to biological resources accruing from implementation of conservation measures in the agency approvals PG&E has obtained for its operations and maintenance program, as well as in other regional conservation programs such as the VHP. In the absence of such avoidance, minimization, compensatory mitigation, and conservation measures, cumulatively significant impacts on biological resources would occur.

However, the general plans of the municipalities in which the Reconductoring Work Areas are located contain conservation measures that would benefit biological resources, as well as measures to avoid, minimize, and mitigate impacts on these resources. The agency approvals PG&E has obtained for its operations and maintenance program include measures to avoid, minimize, and compensate for impacts of covered activities on selected species and sensitive habitats. Many cumulative projects in the region that impact resources similar to those impacted by the proposed Reconductoring Activities will be covered activities under the PG&E's Bay Area HCP and ITP, or under the VHP, and will mitigate impacts on sensitive habitats and many special-status species through those programs. In addition, many of the baylands species that would be impacted by the Reconductoring Activities will benefit from regional conservation and restoration projects, such as the South Bay Salt Pond Restoration Project and USACE Shoreline Project. Further, the Reconductoring Activities will implement a number of AMMs, APMs, conditions, and measures to reduce impacts on both common and special-status species, as described above. Thus, the Reconductoring Activities will not have a cumulatively considerable contribution to any substantial cumulative effects on biological resources.

Section 7. References

Ainslie B. J., J. R. Post, and A. J. Paul. 1998. Effects of pulsed and continuous DC electrofishing on juvenile rainbow trout. North American Journal of Fisheries Management 18:905-918.

Baldwin, B. G.; D. H. Goldman; D. J. Keil; R. Patterson; T. J. Rosatti; and D. H. Wilken (editors). 2012. The Jepson Manual: Vascular Plants of California, Second Edition. University of California Press. Berkeley, California.

Barros, A., Hobbs, J.A., Willmes, M., Parker, C.M., Bisson, M., Fangue, N.A., Rypel, A.L., Lewis, L.S. 2021. Spatial heterogeneity in prey availability, feeding success, and dietary selectivity for the threatened longfin smelt. Estuaries and Coasts 45: 1766–1779.

Bousman, W. G. 2007a. Black skimmer *Rynchops niger*. Pages 218-219 *in* W. G. Bousman, editor. Breeding bird atlas of Santa Clara County. Santa Clara Valley Audubon Society, Cupertino, California.

Bousman, W. G. 2007b. Loggerhead shrike *Lanius ludovicianus*. Pages 288-289 *in* W. G. Bousman, editor. Breeding bird atlas of Santa Clara County. Santa Clara Valley Audubon Society, Cupertino, California.

Bumble Bee Watch. 2023. Bumble bee sightings map. https://www.bumblebeewatch.org/app/#/bees/map.

Calflora: Information on California plants for education, research and conservation [web application]. 2023. Berkeley, California: The Calflora Database [a non-profit organization]. https://www.calflora.org/.

[Cal-IPC] California Invasive Plant Council. 2023. California invasive plant inventory database. http://www.cal-ipc.org/paf/.

[CDFW] California Department of Fish and Wildlife. 2019. Report to the Fish and Game Commission. Evaluation of the petition from the Xerces Society, Defenders of Wildlife, and the Center for Food Safety to list four species of bumble bees as endangered under the California Endangered Species Act. April 4.

[CDFW] California Department of Fish and Wildlife. 2022. Pacific Gas and Electric Company Bay Area Operations & Maintenance Incidental Take Permit Environmental Impact Report Volume 2. Final EIR.

[CDFW] California Department of Fish and Wildlife. 2023. Vegetation classification and mapping program: natural communities list. https://www.wildlife.ca.gov/Data/VegCAMP/Natural-Communities.

City of Fremont. 2010. Fremont General Plan 2030. Adopted December 2011.

City of San José. 2017. 370 W. Trimble Road planned development rezoning initial study/addendum to the final program environmental impact report for the North San José development update and the final program environmental impact report for the Envision San José 2020 general plan. December 2017.

City of San José. 2023. Envision San José 2040 general plan. Adopted November 1, 2011, amended on November 7, 2023.

[CNDDB] California Natural Diversity Database. 2023. Rarefind 5.0. California Department of Fish and Wildlife. http://www.dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp.

[CNPS] California Native Plant Society. 2023. Inventory of rare and endangered plants (online edition, v8-03 0.39). http://www.cnps.org/inventory.

Cornell Lab of Ornithology. 2023. eBird. http://www.ebird.org/.

Dalby, S. R., T. E. McMahon, and W. Fredenberg. 1996. Effect of electrofishing pulse shape and electrofishing-induced spinal injury on long-term growth and survival of wild rainbow trout. North American Journal of Fisheries Management 16:560-569.

ECORP Consulting, Inc. 2012. San Francisco Bay estuary: South Bay acoustic tagged fish monitoring study. Unpublished report. NOAA ARRA Tidal Marsh Restoration Project San Francisco Bay Estuary.

Faber-Langendoen, D., J. Nichols, L. Master, K. Snow, A. Tomaino, R. Bittman, G. Hammerson, B. Heidel, L. Ramsay, A. Teucher, and B. Young. 2012. NatureServe conservation status assessments: methodology for assigning ranks. NatureServe, Arlington, VA.

Google LLC. 2023. Google Earth Pro (version 7.3.2.5776) [Software]. earth.google.com.

H. T. Harvey & Associates. 1997. Santa Clara Valley Water District California red-legged frog distribution and status – 1997. June.

H. T. Harvey & Associates. 1999. Santa Clara Valley Water District foothill yellow-legged frog distribution and status –1999. Project No. 1563-01. Prepared for the Santa Clara Valley Water District.

H. T. Harvey & Associates. 2010. San Francisco Dusky-Footed Woodrat Distribution and Status in Santa Clara County. Prepared for the Santa Clara Valley Water District.

H. T. Harvey & Associates. 2018. Newby Island Landfill expansion California Ridgway's rail and salt marsh harvest mouse surveys. Prepared for Republic Services Procurement Inc.

H. T. Harvey & Associates. 2023. Microsoft San José Data Center SJC04 and SJC06 Crotch's Bumble Bee Survey Report. Prepared for David J. Powers & Associates, Inc.

Hobbs, J. A., P. Moyle, and N. Buckmaster. 2012. Monitoring the response of fish communities to salt pond restoration: final report. Prepared for the South Bay salt pond restoration program and resource legacy fund. University of California, Davis, CA.

Holland, R. F. 1986. Preliminary descriptions of the terrestrial natural communities of California. Unpublished report. California Department of Fish and Game, Natural Heritage Division, Sacramento, CA.

ICF International. 2012. Final Santa Clara Valley habitat plan. August. Prepared for the City of Gilroy, City of Morgan Hill, City of San José, County of Santa Clara, Santa Clara Valley Transportation Authority, and Santa Clara Valley Water District.

ICF 2017. Pacific Gas and Electric Company Bay Area operations & maintenance habitat conservation plan. Final. September. (ICF 03442.03.) Sacramento, CA. Prepared for Pacific Gas and Electric Company, San Francisco, CA.

ICF Jones & Stokes and Illingworth and Rodkin, Inc. 2009. Final Technical Guidance for Assessment and Mitigation of the Hydroacoustic Effects of Pile Driving on Fish. Prepared for the California Department of Transportation. February 2009.

iNaturalist. 2023. https://www.inaturalist.org/observations.

Jeffers, Richard. 2016. May 23, 2016 email to and phone conversation with H. T. Harvey & Associates wildlife ecologist Steve Rottenborn.

Jepson Flora Project (eds.). 2023. Jepson eFlora. https://ucjeps.berkeley.edu/eflora/.

Kakouros, A. and I. Loredo. 2017. Warm Springs Seasonal Wetland Unit 2017 annual report. Unpublished Report. Don Edwards San Francisco Bay National Wildlife Refuge, Fremont, California.

Kakouros, A. and I. Loredo. 2020. Warm Springs Seasonal Wetland Unit 2019 annual report. Unpublished Report. Don Edwards San Francisco Bay National Wildlife Refuge, Fremont, California.

Klein, S., L. Baer, and R. A. Phillips. 2022. Breeding Swainson's hawks in the Central Coast Range of California. Western Birds 53:19–29.

Leidy, R. A. 2007. Ecology, assemblage structure, distribution, and status of fishes in streams tributary to the San Francisco Estuary, California. San Francisco Estuary Institute. April 2007.

Lewis, L. S., M. Willmes, A. Barros, P. K. Crain, and J. A. Hobbs. 2020. Newly discovered spawning and recruitment of threatened longfin smelt in restored and underexplored tidal wetlands. Ecology 101(1):e02868. 10.1002/ecy.2868

Liu, L., J. Wood, N. Nur, D. Stralberg, and M. Herzog. 2009. California clapper rail (*Rallus longirostris obsoletus*) population monitoring: 2005-2008. Prepared for California Department of Fish and Game by PRBO Conservation Science. Sept. 29, 2009.

Loredo, I. 2020. 2020 Activities involving vernal pool tadpole shrimp and the California tiger salamander at Don Edwards San Francisco Bay NWR. Unpublished Report. Don Edwards San Francisco Bay National Wildlife Refuge, Fremont, California.

Loredo, I. 2021. 2021 Activities involving vernal pool tadpole shrimp and the California tiger salamander at Don Edwards San Francisco Bay NWR. Unpublished Report. Don Edwards San Francisco Bay National Wildlife Refuge, Fremont, California.

Loredo, I. 2023. 2022 Activities involving vernal pool tadpole shrimp and the California tiger salamander at Don Edwards San Francisco Bay NWR. Unpublished Report. Don Edwards San Francisco Bay National Wildlife Refuge, Fremont, California.

Moyle, P.B. 2002. Inland fishes of California. University of California Press, Berkeley and Los Angeles, CA. 502 pp.

[NMFS] National Marine Fisheries Service, 2005. 70 FR 52488 endangered and threatened species; designation of critical habitat for seven evolutionarily significant units of Pacific salmon and steelhead in California. Pp. 52488-52627.

[NMFS] National Marine Fisheries Service, 2009. 74 FR 52300 Final rulemaking to designate critical habitat for the threatened Southern Distinct Population Segment of North American green sturgeon. Pp. 52300-52351.

[NMFS] National Marine Fisheries Service, 2023. Endangered Species Act 7(a)(2) Biological Opinion and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Response for the Pacific Gas and Electric Company's Bay Area Operation and Maintenance Program.

Natural Resource Conservation Service. 2023. Web soil survey. U.S. Department of Agriculture. http://websoilsurvey.nrcs.usda.gov.

Otolith Geochemistry & Fish Ecology Laboratory. 2021. Blog. ogfishlab.com.

Otolith Geochemistry & Fish Ecology Laboratory. 2022. Blog. ogfishlab.com.

Otolith Geochemistry & Fish Ecology Laboratory 2023. Blog. ogfishlab.com.

[PG&E] Pacific Gas & Electric, ICF International, and H. T. Harvey & Associates. 2015. Pacific Gas & Electric Company nesting bird management plan: biologist guidelines for PG&E utility operations, maintenance, and projects.

[PG&E] Pacific Gas & Electric. 2017. Avian Protection Plan: PG&E's Program to Address Avian Electrocutions, Collisions, and Nesting Birds. Public Version. Updated February 2018. Victor, CA.

Pearl, B., K. Tokatlian, and J. Scullen. 2016. Western snowy plover monitoring in the San Francisco Bay annual report 2016. Unpublished report. San Francisco Bay Bird Observatory, Milpitas, CA.

Pearl, B. and A. Chen. 2018. Western snowy plover monitoring in the San Francisco Bay annual report 2017. Unpublished report. San Francisco Bay Bird Observatory, Milpitas, CA.

Pearl, B., Y. Wang, and A. Chen. 2019. Western snowy plover monitoring in the San Francisco Bay annual report 2019. Unpublished report. San Francisco Bay Bird Observatory, Milpitas, CA.

Pearl, B., P. Kaye, and J. Scullen. 2023. Western snowy plover monitoring in the San Francisco Bay annual report 2022. Unpublished report. San Francisco Bay Bird Observatory, Milpitas, CA.

Phillips, R. A., W. G. Bousman, M. Rogers, R. Bourbour, B. Martinico, and M. Mammoser. 2014. First successful nesting of Swainson's hawk in Santa Clara County, California, since the 1800s. Western Birds 45:176–182.

Popper, A. N. and M. C. Hastings. 2009. The effects of human-generated sound on fish. Integrative Zoology 4:43-52.

PRISM Climate Group. 2023. Online PRISM Data Explorer. Oregon State University, Corvallis, OR. http://www.prism.oregonstate.edu/.

Richmond, B., H. Green, and D. C. Rice, editors. 2011. Alameda County breeding bird atlas. Golden Gate Audubon Society and Ohlone Audubon Society, San Leandro, California.

Rottenborn, S.C. 2007a. Bell's Vireo, *Vireo bellii*. Pages 290–291 *in* W. G. Bousman, editor. Breeding bird atlas of Santa Clara County. Santa Clara Valley Audubon Society, Cupertino, California.

Rottenborn, S. C. 2007b. Tricolored blackbird *Agelaius tricolor*. Pages 426-427 *in* W. G. Bousman, editor. Breeding bird atlas of Santa Clara County. Santa Clara Valley Audubon Society, Cupertino, California.

Rottenborn, S.C. 2007c. Savannah sparrow *Passerculus sandwichensis*. Pages 408–409 *in* W. G. Bousman, editor. Breeding bird atlas of Santa Clara County. Santa Clara Valley Audubon Society, Cupertino, California.

Sawyer, J. O., T. Keeler-Wolf, and J. M. Evens. 2009. A Manual of California Vegetation [online]. Second Edition. California Native Plant Society.

[SCVHA] Santa Clara Valley Habitat Agency. 2019. Mitigation Only Policy.

[SCVHA] Santa Clara Valley Habitat Agency. 2023a. Santa Clara Valley Habitat Agency Geobrowser. http://www.hcpmaps.com/habitat/.

[SCVHA] Santa Clara Valley Habitat Agency. 2023b. Santa Clara Valley Habitat Plan 2022 Burrowing Owl Breeding Season Survey Report. January 2023.

Shellhammer, H. S. 2000. Salt marsh wandering shrew, *Sorex vagrans halicoetes*. *In* Olofson PR, editor. Goals project. Baylands ecosystem species and community profiles: life histories and environmental requirements of key plants, fish and wildlife. Oakland, CA: San Francisco Bay Area Wetlands Ecosystem Goals Project. San Francisco Bay Regional Water Quality Control Board. Pp. 231-233.

South-Bay-Birds list serve. 2023. https://groups.io/g/southbaybirds.

[SWRCB] State Water Resources Control Board. 2023. Water Quality Order No. WQ-2023-0022-DWQ Waste Discharge Requirements and Clean Water Action Section 401 Water Quality Certification for the Pacific Gas and Electric Company Bay Area Operations and Maintenance Program (WDID # SB21039IN).

[USACE] U.S. Army Corps of Engineers. 2023. Department of the Army Permit Regional General Permit 40 Pacific Gas and Electric Bay Area Operations and Maintenance Program.

[USFWS] U.S. Fish and Wildlife Service. 2008. Endangered and threatened wildlife and plants; designation of critical habitat for the Alameda whipsnake; final rule. Federal Register 71: 58176–58231.

[USFWS] U.S. Fish and Wildlife Service. 2012. 50 CFR 17 Endangered and threatened wildlife and plants: revised designation of critical habitat for the Pacific Coast Population of the western snowy plover. 77: 36728-36869.

[USFWS] U.S. Fish and Wildlife Service. 2017. Intra-service biological opinion on the issuance of a section 10(a)(1)(B) incidental take permit to the Pacific Gas and Electric Company for the Pacific Gas and Electric Company Bay Area operations & maintenance habitat conservation plan.

[USFWS] U.S. Fish and Wildlife Service. 2021. Final Programmatic Formal Consultation for the Pacific Gas and Electric Company's (PG&E) Bay Area Operation and Maintenance (O&M) Program in Alameda, Contra Costa, Marin, Napa, Santa Clara, San Francisco, San Mateo, Solano, and Sonoma Counties, California.

[USFWS] U.S. Fish and Wildlife Service. 2023. Endangered and threatened wildlife and plants; threatened species status with Section 4(d) rule for the northwestern pond turtle and southwestern pond turtle. Federal Register 88(190):68370-68399.

[USGS] U.S. Geological Survey. 2023. Interactive mapper. https://www.sciencebase.gov.

[Valley Water] Santa Clara Valley Water District. 2013. Detailed descriptions of special status wildlife species potentially occurring in the survey area. Sunnyvale East and West Channel flood protection project. Draft Environmental Report.

Yelverton, J. T., D. R. Richmond, W. Hicks, K. Saunders, and E. R. Fletcher. 1975. The relationship between fish size and their response to underwater blast. Report DNA 3677T, Director, Defense Nuclear Agency, Washington, DC.