E-13: Special-Status Species Assessment Tables

Special Status Species Tables
for PG&E Line 406/407 Natural Gas Pipeline Project
Yolo County, Sacramento County, Sutter County, and Placer County, California
State Clearinghouse No. 2007062091
California State Lands Commission EIR No. 740

List of Tables

Table 1: Special-Status Fish Species Review Table

Scientific Name Common name	Listing Status NMFS-USFWS/ CDFG	General Habitat Description	Potential for Impacts
Fish			
Acipenser medirostris Green sturgeon	FT/SSC	Anadromous species; large portions of life history are spent in the ocean. Migrations by adults into freshwater occur between late February and late July, with a spawning period generally ranging from March to July. Spawning takes place in deep, fast-moving water with temperatures between 46.5 and 57 degrees Fahrenheit (deg. F). Preferred spawning substrate is likely large cobble, but can range from clean sand to bedrock. Juveniles typically migrate out to sea before the end of their second year, primarily during summer and fall.	**High.** This species has the potential to occur within the Sacramento River between February and July. There are no CNDDB-recorded occurrences of this species within 5 miles of the Project (CNDDB 2008).
Hypomesus transpacificus Delta smelt	FT/CT	Delta smelt are usually found in estuarine waters with temperatures ranging from 43 to 82.5 deg. F, and salinities between 2 and 7 parts per thousand (ppt), but rarely above 18 ppt. Delta smelt spawn in freshwater at temperatures from about 44.5 to 59 deg. F between February and June. Spawning takes place in dead-end sloughs and shallow edge waters of channels in the western Delta. Eggs are adhesive and stick to hard substrates, such as rocks, gravel, tree roots, and submerged branches. Critical habitat has been designated in the Sacramento-San Joaquin Delta for Delta smelt, but does not occur in the project area.	**Low.** The Project site is outside of this species range. However, there is the potential to indirect impacts to this species, which occurs in Delta portions of the Sacramento River. There are no CNDDB-recorded occurrences of this species within 5 miles of the Project (CNDDB 2008).
Lampetra ayresii River lamprey	--/SSC	Lampreys are anadromous, entering the ocean in late spring and spending three to four months in saltwater before migrating back to freshwater in autumn. Spawning takes place between February and May in tributary streams to select larger rivers (Sacramento/ San Joaquin). Presumably, adults need clean, gravelly riffles in permanent streams for spawning. Ammocoetes require sandy, silty backwaters or stream edges in which to bury themselves, where water quality is continuously high and temperatures do not exceed 77 deg. F.	**High.** Potential to occur within the Sacramento River year-round and potentially the Yolo Bypass during wet months.

Table 1 (Cont.): Special-Status Fish Species Review Table

Scientific Name Common name	Listing Status NMFS-USFWS/ CDFG	General Habitat Description	Potential for Impacts
Oncorhynchus mykiss Central Valley steelhead	FT/--	Steelhead trout in the Central Valley enter freshwater from the ocean when winter rains provide large amounts of cold water for migration and spawning. They typically spawn in clean gravel within tributaries to mainstem rivers and return to the ocean after spawning, if possible. For one to two years after hatching, juveniles are found in cool, clear, fast-moving permanent streams and rivers where there is ample riparian cover or undercut banks, and where invertebrate life is abundant.	**High.** Potential to occur within the Sacramento River year-round and potentially the Yolo Bypass and Steelhead Creek during wet months. Critical habitat for the Central Valley steelhead has been designated in the Sacramento River, Yolo Bypass, and in Steelhead Creek approximately 6 miles south of the project crossing site. There are no CNDDB-recorded occurrences of this species within 5 miles of the Project (CNDDB 2008).
Onchorhynchus tshawytscha Central Valley spring-run chinook	FT/CT	Spring-run chinook salmon enter the Sacramento River as immature fish in spring and early summer and migrate into headwaters where they hold in pools until they spawn. Juveniles emerge from early November through the following April, and typically rear in freshwater for 3 to 15 months. Juveniles emigrate from the tributaries to estuarine waters and the ocean between mid November and June. Some fish remain in the stream until the following October and emigrate as yearlings, usually with the onset of storms starting in October through the following March. Optimal temperatures for growth and survival of chinook range between 41 and 66 deg. F. At approximately 71 to 73 deg. F, major mortality is experienced in wild populations.	**High.** Potential to occur within the Sacramento River year-round and potentially the Yolo Bypass and Steelhead Creek during wet months. Critical habitat has been designated in the Sacramento River and in the Yolo Bypass. There are no CNDDB-recorded occurrences of this species within 5 miles of the Project (CNDDB 2008).
Oncorhynchus tshawytscha Central Valley fall- and late-fall-run chinook	--/SSC	Fall-run chinook migration into freshwater occurs in late summer and early fall. Valley reaches of rivers are often too warm to support salmon in summer. Spawning typically occurs on gravel bars within a few days or weeks of entering freshwater. Adults die after spawning. Late-fall-run chinook typically enter the river as four- to five-year-old fish beginning in October, and hold in freshwater for one to three months before spawning. Adapted for spawning in reaches of mainstem rivers, such as the upper Sacramento, which remain cold and deep enough in summer months for rearing of juveniles. Juveniles typically migrate to the ocean after 7 to 13	**High.** Potential to occur within the Sacramento River year-round and potentially the Yolo Bypass and Steelhead Creek during wet months. There are no CNDDB-recorded occurrences of this species within 5 miles of the Project (CNDDB 2008).

Table 1 (Cont.): Special-Status Fish Species Review Table

Scientific Name Common name	Listing Status NMFS-USFWS/ CDFG	General Habitat Description	Potential for Impacts
		months in freshwater.	
Onchorhynchus tshawytscha Central Valley winter-run chinook	FE/CE	Winter-run chinook typically migrate upstream as immature fish during winter and spring, then spawn several months later in summer. Most winter-run chinook return to freshwater as three-year-olds, and spawn in clear, cool water released from Shasta Reservoir. Juveniles remain in fresh water for 5 to 10 months, followed by an intermediate time in estuarine waters before entering the ocean. Optimal temperatures for growth and survival of chinook range between 41 and 66 deg. F.	**High.** Potential to occur within the Sacramento River year-round and potentially the Yolo Bypass and Steelhead Creek during wet months. Critical habitat for winter-run chinook has been designated in the Sacramento River from Kenswick Dam to the San Francisco Bay. There are no CNDDB-recorded occurrences of this species within 5 miles of the Project (CNDDB 2008).
Pogonichthys macrolepidotus Sacramento splittail	--/SSC	Sacramento splittail are primarily freshwater fish but can tolerate low salinities. They are commonly found in temperatures ranges from 41 to 75 deg. F, but can tolerate temperatures up to 91.5 deg. F for short periods. Adults move upstream during the winter and spring to forage and spawn. Spawning occurs between late February and early July in areas of flooded vegetation (Yolo and Sutter bypasses, low-lying parts of delta islands, and river mouths), though it is most frequent in March and April. Most splittail larvae remain near the spawning sites for 10 to 14 days before moving into offshore habitats.	**High.** Potential to occur within the Sacramento River in the winter and spring, and potentially within the Yolo Bypass during wet months. There are CNDDB-recorded occurrences of this species within the Project site in the Sacramento River (CNDDB 2008).

Table 2: Special-Status Plant Species Review Table

Scientific Name Common name	Listing Status USFWS/ CDFG/CNPS	General Habitat Description	Potential for Impacts	Period of Identification
Astragalus tener var. *tener* Alkali milk-vetch	—/—/1B.2	Playas, valley and foothill grassland in adobe clay, and vernal pools. Restricted to alkaline substrates. 3 to 197 feet in elevation.	**None.** This species was not detected during protocol-level surveys. There are no CNDDB-recorded occurrences of this species within 5 miles of the Project (CNDDB 2008).	Mar. - Jun.
Atriplex cordulata Heartscale	—/—/1B.2	Chenopod scrub, meadows and seeps, and valley and foothill grassland in sandy soils. Restricted to saline or alkaline substrates. 3 to 1,230 feet in elevation.	**None.** This species was not detected during protocol-level surveys. There are no CNDDB-recorded occurrences of this species within 5 miles of the Project (CNDDB 2008).	Apr. - Oct.
Atriplex depressa Brittlescale	—/—/1B.2	Chenopod scrub, meadows and seeps, playas, valley and foothill grassland, and vernal pools. Restricted to alkaline, clay substrates. 3 to 1,050 feet in elevation.	**None.** This species was not detected during protocol-level surveys. There is a CNDDB-recorded occurrence of this species approximately 3 south of Line 407 West, just east of the City of Woodland (CNDDB 2008).	May - Oct.
Atriplex joaquiniana San Joaquin spearscale	—/—/1B.2	Chenopod scrub, meadows and seeps, playas, and valley and foothill grassland. Restricted to alkaline substrates. 3 to 2,739 feet in elevation.	**None.** This species was not detected during protocol-level surveys. There is a CNDDB-recorded occurrence of this species approximately 3 south of Line 407 West, just east of the City of Woodland (CNDDB 2008).	Apr. - Oct.
Balsamorhiza macrolepis var. *macrolepis* Big-scale balsamroot	—/—/1B.2	Chaparral, cismontane woodland, and valley and foothill grassland; sometimes in serpentinite soils. 90 to 1,400 meters in elevation.	**None.** This species was not detected during protocol-level surveys. There is a CNDDB-recorded occurrence of this species approximately 4 miles northeast of the eastern terminus of Line 407 East (CNDDB 2008).	Mar. - Jun.
California macrophylla Round-leaved filaree	—/—/1B.1	Cismontane woodland and valley and foothill grassland in clay soils. 15 to 1,200 meters in elevation.	**None.** This species was not detected during protocol-level surveys. There are no CNDDB-recorded occurrences of this species within 5 miles of the Project (CNDDB 2008).	Mar. - May
Carex lenticularis var. *limnophila* Lakeshore sedge	—/—/2.2	Bogs and fens, marshes and swamps, and North Coast coniferous forest along shores and beaches. Often in gravelly substrates. 0-6 meters in elevation.	**None.** This species was not detected during protocol-level surveys. There are no CNDDB-recorded occurrences of this species within 5 miles of the Project (CNDDB 2008).	Jun. - Aug.

Table 2 (Cont.): Special-Status Plant Species Review Table

Scientific Name Common name	Listing Status USFWS/ CDFG/CNPS	General Habitat Description	Potential for Impacts	Period of Identification
Clarkia biloba ssp. *brandegeeae* Brandegee's clarkia	—/—/1B.2	Chaparral and cismontane woodland; often along roadcuts. 73 to 915 meters in elevation.	**None.** This species was not detected during protocol-level surveys. There are no CNDDB-recorded occurrences of this species within 5 miles of the Project (CNDDB 2008).	May - Jul.
Cordylanthus mollis ssp. *hispidus* Hispid bird's-beak	—/—/1B.1	Meadows and seeps, playas, and valley and foothill grassland; restricted to alkaline substrates. 1 to 155 meters in elevation.	**None.** This species was not detected during protocol-level surveys. There is a CNDDB-recorded occurrence of this species approximately 3 south of Line 407 West, just east of the City of Woodland (CNDDB 2008).	Jun. - Sep.
Cordylanthus palmatus Palmate-bracted bird's-beak	FE/CE/1B.1	Chenopod scrub, and valley and foothill grassland; restricted to alkaline substrates. 5 to 155 meters in elevation.	**None.** This species was not detected during protocol-level surveys. There is a CNDDB-recorded occurrence of this species south of Line 407 West, just east of the City of Woodland (CNDDB 2008).	May - Oct.
Downingia pusilla Dwarf downingia	—/—/2.2	Mesic sites in valley and foothill grasslands and vernal pools. 1 to 1,459 feet in elevation.	**High.** This species was detected on Line 407 East during protocol-level surveys. There several CNDDB-recorded occurrences of this species south, north, and east of Line 407 East (CNDDB 2008).	Mar. - May
Erigeron angustatus Greene's narrow-leaved daisy	—/—/1B.2	Chaparral in serpentinite or volcanic soils. 80 to 290 meters in elevation.	**None.** This species was not detected during protocol-level surveys. There are no CNDDB-recorded occurrences of this species within 5 miles of the Project (CNDDB 2008).	May - Sep.
Fritillaria pluriflora Adobe-lily	—/—/1B.2	Chaparral, cismontane woodland, and valley and foothill grassland; often in adobe soils. 60 to 705 meters in elevation.	**None.** This species was not detected during protocol-level surveys. There are no CNDDB-recorded occurrences of this species within 5 miles of the Project (CNDDB 2008).	Feb. - Apr.
Gratiola heterosepala Boggs Lake hedge-hyssop	—/CE-1B.2	Marshes and swamps, including lake margins, and vernal pools. Restricted to clay substrates. 328 to 7,790 feet in elevation.	**None.** This species was not detected during protocol-level surveys. There is a CNDDB-recorded occurrences of this species south of Line 407 East, and additional occurrences east of Line 407 East (CNDDB 2008).	Apr. - Aug.

Table 2 (Cont.): Special-Status Plant Species Review Table

Scientific Name Common name	Listing Status USFWS/ CDFG/CNPS	General Habitat Description	Potential for Impacts	Period of Identification
Hesperolinon breweri Brewer's western flax	—/—/1B.2	Chaparral, cismontane woodland, and valley and foothill grassland; usually in serpentinite soils. 30 to 900 meters in elevation.	**None.** This species was not detected during protocol-level surveys. There are no CNDDB-recorded occurrences of this species within 5 miles of the Project (CNDDB 2008).	May - Jul.
Hibiscus lasiocarpus Rose-mallow	—/—/2.2	Freshwater marshes and swamps. 0 to 394 feet in elevation.	**None.** This species was not detected during protocol-level surveys. There is a CNDDB-recorded occurrence of this species approximately 2 miles north of Line 407 West, along the Sacramento River (CNDDB 2008).	Jun. - Sep.
Juncus leiospermus var. *ahartii* Ahart's dwarf rush	—/—/1B.2	Vernal pools. Restricted to the edges of vernal pools. 30-100 meters in elevation.	**None.** This species was not detected during protocol-level surveys. There are no CNDDB-recorded occurrences of this species within 5 miles of the Project (CNDDB 2008).	Mar. - May
Juncus leiospermus var. *leiospermus* Red Bluff dwarf rush	—/—/1B.1	Chaparral, valley and foothill grassland, cismontane woodlands, vernal pools. Vernally mesic sites. Sometimes on edges of vernal pools. 30-1020 meters in elevation.	**None.** This species was not detected during protocol-level surveys. There is a CNDDB-recorded occurrence of this species approximately 5 miles northeast of the eastern terminus of Line 407 East (CNDDB 2008).	Mar. - May
Legenere limosa Legenere	—/—/1B.1	Vernal pools. 0 to 3,000 feet in elevation.	**None.** This species was not detected during protocol-level surveys. There are CNDDB-recorded occurrences of this species approximately 3 miles south of Line 407 East (CNDDB 2008).	Apr. - Jun.
Lepidium latipes var. *heckardii* Heckard's pepper-grass	—/—/1B.2	Alkaline flats in valley and foothill grassland. 238 to 656 feet in elevation.	**None.** This species was not detected during protocol-level surveys. There is a CNDDB-recorded occurrences of this species along I-5 approximately 4.5 miles north of the western portion of Line 406 (CNDDB 2008).	Mar. - May

Table 2 (Cont.): Special-Status Plant Species Review Table

Scientific Name Common name	Listing Status USFWS/ CDFG/CNPS	General Habitat Description	Potential for Impacts	Period of Identification
Navarretia leucocephala var. *bakeri* Baker's navarretia	—/—/1B.1	Cismontane woodland, low-elevation conifer forests, meadows and seeps, valley and foothill grasslands, vernal pools. Restricted to vernally mesic sites. 16-5,708 feet in elevation.	**None.** This species was not detected during protocol-level surveys. There are no CNDDB-recorded occurrences of this species within 5 miles of the Project (CNDDB 2008).	Apr. - Jul.
Navarretia mysersii ssp. *myersii* Pincushion navarretia	—/—/1B.1	Vernal pools, valley and foothill grassland. Clay soils within nonnative grassland. Most common in shallower, smaller vernal pools. 20-330 meters in elevation.	**None.** This species was not detected during protocol-level surveys. There are no CNDDB-recorded occurrences of this species within 5 miles of the Project (CNDDB 2008).	May
Orcuttia tenuis Slender orcutt grass	—/—/1B.1	Associated with large, deep vernal pools. 30-1735 meters in elevation.	**None.** This species was not detected during protocol-level surveys. There are no CNDDB-recorded occurrences of this species within 5 miles of the Project (CNDDB 2008).	May - Sep.
Orcuttia viscida Sacramento orcutt grass	FE/SE/1B.1	Associated with large, deep vernal pools. 30-100 meters in elevation.	**None.** This species was not detected during protocol-level surveys. There are no CNDDB-recorded occurrences of this species within 5 miles of the Project (CNDDB 2008).	Apr. - Jul.
Sagittaria sanfordii Sanford's arrowhead	—/—/1B.2	Assorted shallow freshwater marshes and swamps. 0 to 2,132 feet in elevation.	**None.** This species was not detected during protocol-level surveys. There are CNDDB-recorded occurrences of this species approximately 4 miles southeast of the eastern terminus of Line 407 East (CNDDB 2008).	May - Oct.
Trichocoronis wrightii var. *wrightii* Wright's trichocoronis	—/—/2.1	Meadows and seeps, marshes and swamps, riparian forest, and vernal pools. Restricted to alkaline substrates.	**None.** This species was not detected during protocol-level surveys. There are no CNDDB-recorded occurrences of this species within 5 miles of the Project (CNDDB 2008).	May - Sep.

Table 3: Special-Status Wildlife Species Assessment Table

Scientific Name Common name	Listing Status USFWS/ CDFG	General Habitat Description	Potential for Impacts
Invertebrates			
Branchinecta conservatio Conservancy fairy shrimp	FT/—	Conservancy fairy shrimp occur primarily in vernal pools, seasonal wetlands that fill with water during fall and winter rains and dry up in spring and summer. Typically, the majority of pools in any vernal pool complex are not inhabited by the species at any one time. Different pools within or between complexes may provide habitat for the fairy shrimp in alternative years, as climatic conditions vary.	**Moderate.** Dry- and wet-season protocol surveys were conducted for the proposed Project on November 5, 6, and 18, 2006 by Helm Biological Consulting (2007), and between December 21, 2006 and May 18, 2007 by Gallaway Consulting, Inc (2007b), to determine the presence or absence of sensitive vernal pool branchiopods, including the conservation fairy shrimp. Cysts belonging to the genus *Branchinecta* were found during dry season surveys; however, due to the similarities in cyst morphology between multiple species belonging to the genus *Branchinecta*, the presence or absence of this species (*Branchinecta conservatio*) could not be concluded based on the dry season survey alone. Wet season surveys were conducted to substantiate the findings of the dry season survey and complete USFWS protocol survey requirements. This species was not found during any of the wet season surveys and is presumed to be absent from the project site. There are no CNDDB-recorded occurrences of this species within 5 miles of the Project (CNDDB 2008).
Branchinecta lynchi Vernal pool fairy shrimp	FT/—	Vernal pool fairy shrimp occur primarily in vernal pools, seasonal wetlands that fill with water during fall and winter rains and dry up in spring and summer. Typically, the majority of pools in any vernal pool complex are not inhabited by the species at any one time. Different pools within or between complexes may provide habitat for the fairy shrimp in alternative years, as climatic conditions vary.	**Moderate.** Dry- and wet-season protocol surveys were conducted for the proposed Project on November 5, 6, and 18, 2006 by Helm Biological Consulting (2007), and between December 21, 2006 and May 18, 2007 by Gallaway Consulting, Inc (2007b), to determine the presence or absence of sensitive vernal pool branchiopods, including the vernal pool fairy shrimp. Similar to the conservancy fairy shrimp, the presence of this species (*Branchinecta lynchi*) could not be concluded based on the dry season survey alone. Wet season surveys were conducted to substantiate the findings of the dry season survey and complete USFWS protocol survey requirements. This species

Table 3 (Cont.): Special-Status Wildlife Species Assessment Table

Scientific Name Common name	Listing Status USFWS/CDFG	General Habitat Description	Potential for Impacts
Branchinecta lynchi Vernal pool fairy shrimp (continued)			was not found during any of the wet season surveys and is presumed to be absent from the project site. There are several CNDDB-recorded occurrences of this species within 5 miles of the Project (CNDDB 2008).
Desmocerus californicus dimorphus Valley elderberry longhorn beetle	FT/—	Associated with elderberry trees (Sambucus spp.) in California's Central Valley during its entire life cycle. The adults eat the elderberry foliage until about June when they mate. Upon hatching the larvae then begin to tunnel into the tree where they will spend 1-2 years eating the interior wood, which is their sole food source.	**High.** Valley elderberry longhorn beetle surveys were conducted for the proposed Project on May 8 and 14, 2007 by Gallaway Consulting, Inc (2007a). Although surveys were conducted during the adult emergence season (March through June), no individual beetles were observed. However, a total of 10 valley elderberry longhorn beetle emergence holes were observed within elderberry bushes that occur along the proposed alignment for Line 407. Based on these results, this species is presumed present. The proposed alignment for Line 407 would occur within 100 feet of habitat that is presumed to be occupied by this species. There is a CNDDB-recorded occurrence of this species approximately 1 mile north of the Project (CNDDB 2008).
Lepidurs packardi Vernal pool tadpole shrimp	FE/—	Vernal pool tadpole shrimp occur primarily in vernal pools, seasonal wetlands that fill with water during fall and winter rains and dry up in spring and summer. Typically, the majority of pools in any vernal pool complex are not inhabited by the species at any one time. Different pools within or between complexes may provide habitat for the tadpole shrimp in alternative years, as climatic conditions vary.	**None.** No vernal pool tadpole shrimp were detected during wet- or dry-season branchiopod surveys This species is presumed absent from the project site. There are several CNDDB-recorded occurrences of this species within 5 miles of the Project (CNDDB 2008).

Table 3 (Cont.): Special-Status Wildlife Species Assessment Table

Scientific Name Common name	Listing Status USFWS/CDFG	General Habitat Description	Potential for Impacts
Amphibian and Reptiles			
Actinemys marmorata Western pond turtle	—/CSC	Ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Requires basking sites and suitable upland habitat for egg-laying. May move overland up to 325 feet for egg laying.	**Moderate.** The larger canals, sloughs, and creeks throughout the project area provide suitable habitat for the species. Upland areas surrounding these waterways potentially provide suitable nesting habitat. Habitat assessment surveys for the western pond turtle and other reptile and amphibian species were conducted by PG&E biologists on June 12 and 13, November 30, and December 5 and 7, 2006 (PG&E 2006). Although not detected during surveys, this species has a moderate potential to occur along the canals, sloughs, and creeks throughout the Project site and therefore assumed to be present. There are no CNDDB-recorded occurrences of this species within 5 miles south of the Project site (CNDDB 2008).
Ambystoma californiense California tiger salamander	FE/SSC	From low elevations of the Coast Ranges from Sonoma County to Santa Barbara County and in the Central Valley from Colusa County to Tulare County. Breeds in ephemeral pools and permanent waterbodies within grassland and oak woodland habitats where small mammal burrows occur. Small mammal burrows and upland habitats adjacent to aquatic breeding habitats are frequently used as aestivation sites during the non-breeding season.	**High.** Habitat assessment surveys for the California tiger salamander and other reptile and amphibian species were conducted by PG&E biologists on June 12 and 13, November 30, and December 5 and 7, 2006. Although not observed or otherwise detected during the surveys, this species was determined to have a high potential to use the ephemeral pools and waterways, and adjacent upland habitats that occur along the proposed alignment as breeding and dispersal habitat (PG&E 2006); and therefore is assumed present. There are several CNDDB-recorded occurrences of this species within 5 miles of the Project (CNDDB 2008).

Table 3 (Cont.): Special-Status Wildlife Species Assessment Table

Scientific Name Common name	Listing Status USFWS/CDFG	General Habitat Description	Potential for Impacts
Phrynosoma coronatum California horned lizard	—/SSC	Common in lowlands along sandy washes with scattered low shrubs to provide cover and open areas for basking and loose soils in which they can bury themselves.	**Low.** Grassland habitat is available in the project area; however these areas lack low shrubs and very loose sandy soils for refuge and aestivation. Habitat assessment surveys for the California horned lizard and other reptile and amphibian species were conducted by PG&E biologists on June 12 and 13, November 30, and December 5 and 7, 2006 (PG&E 2006). This species was not detected during surveys and was determined to have a very low potential to occur in the Project area based on the lack of friable soils, upland refugia, low scrubs, and aestivation habitat (PG&E 2006). There are no CNDDB-recorded occurrences of the lizard within 5 miles of the Project (CNDDB 2008).

Table 3 (Cont.): Special-Status Wildlife Species Assessment Table

Scientific Name Common name	Listing Status USFWS/CDFG	General Habitat Description	Potential for Impacts
Rana aurora draytonii California red-legged frog	FT/SSC	Lowlands and foothills in or near permanent or late-season sources of deep water with dense, shrubby, or emergent vegetation.	**Low.** Suitable aquatic habitats include ephemeral and shallow along Curry Creek and Natomas East Main Canal. Upland habitat is limited for refugia and dispersal. Habitat assessment surveys for the California red-legged frog and other reptile and amphibian species were conducted by PG&E biologists on June 12 and 13, November 30, and December 5 and 7, 2006. This species was not observed or otherwise detected during the surveys, and only marginal aquatic and upland habitat was determined to exist along the proposed alignment. Additionally, tadpoles of the California bullfrog, a predatory species to the California red-legged frog, were observed within portions of the proposed alignment that further reduce the likelihood for red-legged frogs to occur. Furthermore, no records of this species exist within 10 miles of the Project area (PG&E 2006, CNDDB 2008). Due to the lack of highly suitable habitat, presence of predatory species, and lack of recorded occurrences within 10 miles of the Project area, this species was determined unlikely to occur within the proposed alignment (PG&E 2006).

Table 3 (Cont.): Special-Status Wildlife Species Assessment Table

Scientific Name Common name	Listing Status USFWS/CDFG	General Habitat Description	Potential for Impacts
Spea hammondii Western spadefoot toad	—/SSC	Inhabits lowlands in open areas with sandy or gravelly soils, in a variety of habitats including mixed woodlands, grasslands, chaparral, sandy washes, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains. Breeds in temporary pools and quiet streams.	**High.** Habitat assessment surveys for the western spadefoot toad and other reptile and amphibian species were conducted by PG&E biologists on June 12 and 13, November 30, and December 5 and 7, 2006 (PG&E 2006). Although not detected during surveys, this species was determined to have a moderate to high potential to occur along the vernal pool and seasonal wetland habitat within the Line 407 East segment of the Project site; and therefore is assumed to be present.
Thamnophis gigas Giant garter snake	FT/CT	Marshes, sloughs, irrigation channels, and occasionally in slow-moving streams. Requires emergent vegetation for cover.	**High.** The Project contains suitable foraging, breeding, and refugia habitat for this species. Habitat assessment surveys for the giant garter snake and other reptile and amphibian species were conducted by PG&E biologists on June 12 and 13, November 30, and December 5 and 7, 2006 (PG&E 2006). Although this species was not detected during habitat assessment surveys, it was determined to have a high potential to occur based on the presence of suitable foraging, breeding, and refugia habitat (PG&E 2006). Furthermore, this species has been previously observed and recorded in 42 separate instances in the lowland areas in the proposed alignment for Line 407 East and West (CNDDB 2008) and therefore is assumed to be present. There are several CNDDB-recorded occurrences of this species within 5 miles of the Project (CNDDB 2008).

Table 3 (Cont.): Special-Status Wildlife Species Assessment Table

Scientific Name Common name	Listing Status USFWS/CDFG	General Habitat Description	Potential for Impacts
Birds			
Agelaius tricolor Tricolored blackbird	—/SSC	Largely endemic to California, most numerous in the Central Valley and nearby vicinity. Breeds near fresh water, preferably in emergent wetland with tall, dense cattails or tules, but also in thickets of willow, blackberry, wild rose, tall herbs. Feeds in grassland and cropland habitats.	**Moderate.** Freshwater marsh habitats and scattered brushy thickets provide marginal nesting habitat. the vegetation, open grassland, and agricultural habitats provide suitable foraging habitat. Habitat assessment surveys for the tricolored blackbird and other avian species were conducted by PG&E biologists on June 12 and 13, November 30, and December 5 and 7, 2006; and on June 29, 2007 (PG&E 2007). Although this species was not observed during surveys, it was determined to have a moderate potential to nest and/or forage within the freshwater marsh and riparian type habitats that occur along the proposed alignment (PG&E 2007) and is therefore assumed to be present. There are several CNDDB-recorded occurrences of his species within 5 miles of the Project (CNDDB 2008).
Aquila chrysaetos Golden eagle	—/SSC,CFP	Breeds on cliffs or in large trees or electrical towers, forages in open habitats.	**High.** The species was observed during surveys in the Dunnigan Hills. Habitat assessment surveys for the golden eagle and other avian species were conducted by PG&E biologists on June 12 and 13, November 30, December 5 and 7, 2006; and on June 29, 2007 (PG&E 2007). This species was detected during surveys and was determined to have a high potential to forage within the rolling grassland habitat along the Line 406 East segment (PG&E 2007). This species was also determined to have a potential to nest within the isolated trees and tree groves that occur on and in the immediate vicinity of the proposed alignment (PG&E 2007). There are no CNDDB-recorded occurrences of this species within 5 miles of the Project site (CNDDB 2008).

Table 3 (Cont.): Special-Status Wildlife Species Assessment Table

Scientific Name Common name	Listing Status USFWS/CDFG	General Habitat Description	Potential for Impacts
Asio flammeus Short-eared owl	—/SSC	Forages in open areas with few trees, such as annual and perennial grasslands, prairies, dunes, meadows, irrigated lands, and saline and fresh emergent wetlands. Nests on dry ground in a depression concealed in vegetation and lined with grasses, forbs, sticks, and feathers, and occasionally in burrows.	**Moderate.** Grasslands in the L406 (Dunnigan Hills) and Line 407 East areas and open agricultural areas within all three segments provide suitable nesting and foraging habitat. Habitat assessment surveys for the short-eared owl and other avian species were conducted by PG&E biologists on June 12 and 13, November 30, December 5 and 7, 2006; and on June 29, 2007 (PG&E 2007). Although this species was not observed during surveys, suitable nesting and foraging habitat was confirmed throughout the open grasslands and agricultural areas along the proposed alignment (PG&E 2007) and is therefore assumed to be present. There are no CNDDB-recorded occurrences of this species within 5 miles of the Project site (CNDDB 2008).
Athene cunicularia Western burrowing owl	—/SSC	Open, dry annual or perennial grasslands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals.	**High.** Habitat assessment surveys for burrowing owl and other avian species were conducted by PG&E biologists on June 12 and 13, November 30, December 5 and 7, 2006; and on June 29, 2007 (PG&E 2007). This species was observed during surveys and has a high potential to forage and nest throughout the open grasslands and agricultural areas within the Line 406 and Line 407 West segments. The species is not expected to occur within the Line 407 East segment (PG&E 2007). There are CNDDB-recorded occurrences of this species within 5 miles of the Project site (CNDDB 2008).

Table 3 (Cont.): Special-Status Wildlife Species Assessment Table

Scientific Name Common name	Listing Status USFWS/CDFG	General Habitat Description	Potential for Impacts
Branta canadensis leucopareia Aleutian Canada goose	—/SSC	Nests on the Aleutian islands in Alaska and migrates south to the Sacramento and San Joaquin Valleys in winter. Populations are recovering from historically low numbers attributed to the introduction of the Arctic fox to their island breeding grounds. Uses agricultural areas, grasslands, and wetlands. Primarily observed on private ranches near the Stanislaus and San Joaquin rivers.	**Moderate.** Habitat assessment surveys for the Aleutian Canada goose and other avian species were conducted by PG&E biologists on June 12 and 13, November 30, December 5 and 7, 2006; and on June 29, 2007 (PG&E 2007). Although this species was not observed during surveys, it was determined to have a moderate potential to winter within the grassland habitat and agricultural land that occurs throughout the proposed alignment (PG&E 2007) and is therefore assumed to be present. There are no CNDDB-recorded occurrences of this species within 5 miles of the Project site (CNDDB 2008).
Buteo regalis Ferruginous hawk	—/SSC	Habitats include agricultural flatlands, open prairies, deserts, and semi-arid grasslands featuring scattered trees, rocky mounds or outcrops. May roost or nest on utility structures, trees, shrubs, cliffs, or ground outcroppings. May roost communally and forage in groups on the ground during winter migration. Forages in grasslands and occasionally in other open habitats during migration and winter.	**High.** Habitat assessment surveys for the ferruginous hawk and other avian species were conducted by PG&E biologists on June 12 and 13, November 30, December 5 and 7, 2006; and on June 29, 2007 (PG&E 2007). Although this species was not detected during habitat assessment surveys, suitable wintering and foraging habitat was determined to exist within the open grassland and agriculture areas that occur along the proposed alignment for the Line 406 and Line 407 West segments. This species is not expected to occur within the Line 407 East segment based on the lack of an adequate prey base. Suitable breeding and foraging habitat also occurs within the riparian and oak woodland habitats. There are no CNDDB-recorded occurrences of this species within 5 miles of the Project site (CNDDB 2008).

Table 3 (Cont.): Special-Status Wildlife Species Assessment Table

Scientific Name Common name	Listing Status USFWS/CDFG	General Habitat Description	Potential for Impacts
Buteo swainsoni Swainson's hawk	—/CT	Nests in open areas with stands of few, dense-topped trees in juniper-sage flats, riparian areas, and oak savannas. Forages in open grasslands, grain, and alfalfa fields (supporting rodent populations) adjacent to nesting opportunities.	**High.** Suitable nesting and foraging habitat is present throughout the scattered trees, open grasslands, and agricultural areas of the Project site. Habitat assessment surveys for the Swainson's hawk and other avian species were conducted by PG&E biologists on June 12 and 13, November 30, December 5 and 7, 2006; and on June 29, 2007 (PG&E 2007). This species was observed on numerous occasions during surveys and suitable nesting and foraging habitat was confirmed throughout the scattered trees, open grasslands, and agricultural areas along the proposed alignment (PG&E 2007). There are several CNDDB-recorded occurrences of this species within 5 miles of the Project site (CNDDB 2008).
Charadrius alexandrinus nivosus Western snowy plover	FT/SSC	Nests in flat, open areas with sandy or saline substrates; vegetation and driftwood are usually sparse or absent. Although the majority of snowy plovers are site-faithful, returning to the same breeding site in subsequent breeding seasons, some also disperse within and between years. Birds occasionally nest in exactly the same location as the previous year.	**Low.** Habitat assessment surveys for the western snowy plover and other avian species were conducted by PG&E biologists on June 12 and 13, November 30, December 5 and 7, 2006; and on June 29, 2007 (PG&E 2007). This species was not observed during surveys and was determined to have a low potential to nest and/or forage within the limited sandy aquatic areas that occur along the proposed alignment (PG&E 2007). There is a CNDDB-recorded occurrences of this species approximately 3 miles south of the Project site (CNDDB 2008).

Table 3 (Cont.): Special-Status Wildlife Species Assessment Table

Scientific Name Common name	Listing Status USFWS/CDFG	General Habitat Description	Potential for Impacts
Charadrius montanus Mountain plover	—/SSC	Winter resident. Found on short grasslands and plowed fields of the Central and Imperial valleys, in foothill valleys west of San Joaquin Valley, and in plowed fields of Los Angeles and western San Bernardino counties. Uses open grasslands, plowed fields with little vegetation, and open sagebrush areas.	**High.** Habitat assessment surveys for mountain plover and other avian species were conducted by PG&E biologists on June 12 and 13, November 30, December 5 and 7, 2006; and on June 29, 2007 (PG&E 2007). This species was identified foraging in the vicinity of the Line 406 segment during surveys, and was determined to have a moderate potential to winter within the grasslands and agricultural fields that occur along the proposed alignment. There are CNDDB-recorded occurrences of this species within 5 miles of the Project site (CNDDB 2008).
Circus cyaneus Northern harrier	—/SSC	Winter resident throughout most of the state; year-round in the Central Valley and Coast Range. Forages in marshes, grasslands, and ruderal habitats; nests in extensive marshes and wet fields or grasslands.	**High.** Habitat assessment surveys for the northern harrier and other avian species were conducted by PG&E biologists on June 12 and 13, November 30, December 5 and 7, 2006; and on June 29, 2007 (PG&E 2007). This species was detected during surveys, and was determined to have a high potential to nest and/or forage within the open grassland and agricultural habitats throughout the proposed alignment (PG&E 2007). There are no CNDDB-recorded occurrences of this species within 5 miles of the Project site (CNDDB 2008).
Coccyzus americanus occidentalis Western yellow-billed cuckoo	—/CE	Nests in riparian forests along broad, lower floodplains of larger river systems. Requires broad, well-developed, low-elevation riparian woodlands of primarily mature cottonwoods and willows. Extirpated from a large portion of the historical range in California with current breeding populations restricted to four major areas (the Sacramento Valley, Kern River, Lower Colorado River and the Prado Basin).	**Moderate.** Habitat assessment surveys for the western yellow-billed cuckoo and other avian species were conducted by PG&E biologists on June 12 and 13, November 30, December 5 and 7, 2006; and on June 29, 2007 (PG&E 2007). Although this species was not observed during surveys, it was determined to have a moderate potential to nest and/or forage within the mature riparian habitat that occurs along the proposed alignment for Line 407 West (PG&E 2007) and is therefore assumed present. There are no CNDDB-recorded occurrences of this species within 5 miles of the Project site (CNDDB 2008).

Table 3 (Cont.): Special-Status Wildlife Species Assessment Table

Scientific Name Common name	Listing Status USFWS/CDFG	General Habitat Description	Potential for Impacts
Elanus leucurus White-tailed kite	—/SSC, CFP	Nests or roosts in dense, broad-leafed deciduous trees. Forages in herbaceous lowlands with variable tree growth and dense populations of voles.	**High.** Habitat assessment surveys for the white-tailed kite and other avian species were conducted by PG&E biologists on June 12 and 13, November 30, December 5 and 7, 2006; and on June 29, 2007 (PG&E 2007). This species was observed during surveys and suitable nesting and foraging habitat was confirmed throughout the scattered trees, open grasslands, and agricultural areas along the proposed alignment (PG&E 2007). There are several CNDDB-recorded occurrences of this species within 5 miles of the Project site (CNDDB 2008).
Empidonax traillii brewsteri Little willow flycatcher	—/CE	Breeds in moist brushy thickets, open second-growth, and riparian woodlands (often with willows or alders) in montane regions (~2000 to 8000 ft). Less than 200 documented nesting pairs. A lower elevation migrant to riparian areas in the spring and fall. Winters in Central and South America.	**Low.** Habitat assessment surveys for the little willow flycatcher and other avian species were conducted by PG&E biologists on June 12 and 13, November 30, December 5 and 7, 2006; and on June 29, 2007 (PG&E 2007). This species was not observed during surveys. It was determined to have a potential to migrate through the area during the spring and fall and suitable foraging habitat was confirmed throughout the riparian habitat along the proposed alignment (PG&E 2007). However, nesting habitat is not present in the Project site. There are no CNDDB-recorded occurrences of this species within 5 miles of the Project site (CNDDB 2008).
Grus canadensis tabida Greater sandhill crane	—/CT,CFP	Breeds in wetlands and forages in meadows, irrigated pastures, fields, and marshes. Roost together at night in shallow water and commonly feed on grains, seeds, aquatic invertebrates, insects, small reptiles, amphibians, and rodents. Historically wintered on California's Central Valley wetlands. Currently winters in lowland areas of Sacramento, San Joaquin, and Imperial Valleys.	**Moderate.** Habitat assessment surveys for the greater sandhill crane and other avian species were conducted by PG&E biologists on June 12 and 13, November 30, December 5 and 7, 2006; and on June 29, 2007 (PG&E 2007). Although this species was not observed during surveys, it was determined to have a moderate potential to winter within the open grassland and agricultural habitat that occurs throughout the proposed alignment (PG&E 2007). There are no CNDDB-recorded occurrences of this species within 5 miles of the Project site (CNDDB 2008).

Table 3 (Cont.): Special-Status Wildlife Species Assessment Table

Scientific Name Common name	Listing Status USFWS/CDFG	General Habitat Description	Potential for Impacts
Haliaeetus leucocephalus Bald eagle	—/CE,CFP	Year-round at ocean shorelines, lake margins, and river courses. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine.	**Moderate.** No breeding habitat occurs within the Project site. Habitat assessment surveys for bald eagle and other avian species were conducted by PG&E biologists on June 12 and 13, November 30, December 5 and 7, 2006; and on June 29, 2007 (PG&E 2007). This species was not detected during habitat assessment surveys and no breeding habitat was determined to exist on or in the vicinity of the Project site. However, this species was determined to have a moderate potential to migrate and potentially forage through the general Project area (PG&E 2007). There are no CNDDB-recorded occurrences of this species within 5 miles of the Project site (CNDDB 2008).
Lanius ludovicianus Loggerhead shrike	—/SSC	Found in a variety of habitats with open areas, available perches, and dense shrubs for nesting.	**Moderate.** Habitat assessment surveys for the loggerhead shrike and other avian species were conducted by PG&E biologists on June 12 and 13, November 30, December 5 and 7, 2006; and on June 29, 2007 (PG&E 2007). This species was not detected during surveys, however suitable foraging and nesting habitat was determined to exist within the Project site. Therefore, this species was determined to have a moderate potential to nest and forage within the Project site. There are no CNDDB-recorded occurrences of this species within 5 miles of the Project site (CNDDB 2008).
Numenius americanus Long-billed curlew	—/SSC	Breeds in upland shortgrass prairies and wet meadows in northeastern California; coastal estuaries, open grasslands, and croplands are used in winter	**Moderate.** Habitat assessment surveys for the long-billed curlew and other avian species were conducted by PG&E biologists on June 12 and 13, November 30, December 5 and 7, 2006; and on June 29, 2007 (PG&E 2007). Although this species was not observed during surveys, it was determined to have a moderate potential to winter within the open grassland and agricultural habitat that occurs throughout the proposed alignment (PG&E 2007). There are no CNDDB-recorded occurrences of this species within 5 miles of the Project site (CNDDB 2008).

Table 3 (Cont.): Special-Status Wildlife Species Assessment Table

Scientific Name Common name	Listing Status USFWS/CDFG	General Habitat Description	Potential for Impacts
Plegadis chihi White-faced ibis	—/SSC	Feeds in emergent wetlands (often freshwater), wet meadows, flooded pastures or croplands. Nest sites are located in dense emergent wetlands. Usually forms small nesting colonies. Recently documented population recovery (>6,000) within the Kern NWR (San Joaquin Valley) after marsh restoration efforts. Ranges across southwestern North America.	**High.** Habitat assessment surveys for the white-faced ibis and other avian species were conducted by PG&E biologists on June 12 and 13, November 30, December 5 and 7, 2006; and on June 29, 2007 (PG&E 2007). This species was observed along the Line 407 East segment during surveys, and was determined to have a high potential to nest and/or forage within the wetland habitat, grasslands, and agricultural fields that occur throughout the proposed alignment (PG&E 2007). Nesting habitat in the area is marginal due to narrow and sparse nature of emergent wetland vegetation; breeding is not likely to occur. There are CNDDB-recorded occurrences of this species within 5 miles of the Project site (CNDDB 2008).
Progne subis Purple martin	—/SSC	Nests in open and semi-open areas, including savannas, cultivated lands, fields, parks, pastures. Found near lakes, marshes, towns and suburbs. Utilizes natural cavities in trees and cliff niches. Additionally will nest in artificial housing, structures, or landscape features. Often forms colonies.	**Moderate.** Habitat assessment surveys for the purple martin and other avian species were conducted by PG&E biologists on June 12 and 13, November 30, December 5 and 7, 2006; and on June 29, 2007 (PG&E 2007). Although this species was not observed during surveys, it was determined to have a moderate potential to nest and/or forage within the scattered isolated trees, small tree groves, and anthropogenic structures that occur along the proposed alignment (PG&E 2007). There are no CNDDB-recorded occurrences of this species within 5 miles of the Project site (CNDDB 2008).

Table 3 (Cont.): Special-Status Wildlife Species Assessment Table

Scientific Name Common name	Listing Status USFWS/CDFG	General Habitat Description	Potential for Impacts
Riparia riparia Bank swallow	—/CT	In summer, restricted to riparian, lacustrine, and coastal areas with vertical banks, bluffs, and cliffs with fine-textured or sandy soils, into which it digs nesting holes. In migration, flocks with other swallows over many open habitats.	**Moderate.** Habitat assessment surveys for the bank swallow and other avian species were conducted by PG&E biologists on June 12 and 13, November 30, December 5 and 7, 2006; and on June 29, 2007 (PG&E 2007). Although this species was not observed during surveys, suitable nesting and foraging habitat was confirmed throughout the vertical or near vertical canals and stream banks along the proposed alignment (PG&E 2007). There are several CNDDB records of the species in the project area (records are along the large river systems in the region). There are CNDDB-recorded occurrences of this species within 5 miles of the Project site (CNDDB 2008).
Mammals			
Antrozous pallidus Pallid bat	—/SSC	Broadly distributed in California from sea level to over 6,000 feet. Roosts in caves, buildings, rock crevices, and tree hollows. Overwinters in summer habitats at lower elevations.	**Moderate.** Habitat assessment surveys for the pallid bat and other mammalian species were conducted by PG&E biologists on June 12 and 13, November 30, December 5 and 7, 2006; and on June 29, 2007 (PG&E 2007). This species was not observed during surveys; however, it was determined to have a moderate potential to roost and forage throughout the anthropogenic structures, riparian areas, and scattered trees and groves within the proposed alignment (PG&E 2007). There are CNDDB-recorded occurrences of this species within 5 miles of the Project site (CNDDB 2008).
Lasiurus blossvillii Western red bat	—/SSC	Solitary, foliage-roosting bat. Day roosts in edge habitats adjacent to streams or open fields, in orchards, and sometimes in urban areas. Closely associated with riparian habitats; cottonwood stands are considered preferred roost sites. Migrate south in the winter, and return north for breeding. Forage through a wide range of habitat types, feeding on moths, beetles, bees, wasps, flies, cicadas, treehoppers, and other sucking insects.	**Moderate.** Suitable roosting and foraging habitat occurs within the project site. This species is known to occur along the Sacramento River. Suitable roost sites and foraging habitat occurs within the scattered trees, woodland and forest habitats, and riparian and aquatic habitats that occur throughout the proposed alignment. There are no CNDDB-recorded occurrences of this species within 5 miles of the Project site (CNDDB 2008).

Table 3 (Cont.): Special-Status Wildlife Species Assessment Table

Scientific Name Common name	Listing Status USFWS/CDFG	General Habitat Description	Potential for Impacts
Lasionycteris noctivagans Silver-haired bat	—/SSC	Occur throughout North America scarce through much of its range, and never very abundant. Migratory, moving north through Arizona and New Mexico in the spring. Will use buildings when migrating in prairie states.	**Moderate.** Suitable roost sites and foraging habitat occurs within the scattered trees, woodland and forest habitats, and riparian and aquatic habitats that occur throughout the proposed alignment. This species has a moderate potential to occur based on the presence of suitable habitat and proximity of the Project site to known occurrences. There are CNDDB-recorded occurrences of this species within 5 miles of the Project site (CNDDB 2008).
Taxidea taxus American badger	—/SSC	Herbaceous, shrub, and open stages of most habitats with dry, friable soils.	**High.** Habitat assessment surveys for the American badger and other mammalian species were conducted by PG&E biologists on June 12 and 13, November 30, December 5 and 7, 2006; and on June 29, 2007 (PG&E 2007). A dead badger was observed I-505 within the vicinity of the project site during surveys. This species was determined to have a moderate potential to occur within the proposed alignment for Line 406 West near the Dunnigan Hills (PG&E 2007). There are CNDDB-recorded occurrences of this species within 5 miles of the Project site (CNDDB 2008).