

Santa Cruz Long-toed Salamander Assessment and Fencing Strategy
Santa Cruz 115 kV Reinforcement Project

Prepared for:
Pacific Gas and Electric Company

AECOM

July 2013

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Santa Cruz 115 kV Reinforcement Project

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EXECUTIVE SUMMARY

Pacific Gas and Electric Company (PG&E) proposes to upgrade a portion of its electrical system between Green Valley Substation near Watsonville and Rob Roy Substation in Aptos as part of the Santa Cruz 115 Kilovolt (kV) Reinforcement Project (project). In spring 2013, Biosearch Associates (Biosearch) conducted a habitat assessment for the Santa Cruz long-toed salamander (*Ambystoma macrodactylum croceum* [SCLTS]) at each proposed work area and access route within the proposed project. Biosearch was tasked with confirming habitat suitability along the project corridor and identifying project work areas that could support SCLTS. A record and literature review as well as a field assessment was performed. Based on the data collected in their report, it was determined that, of 131 total project areas reviewed within 1 mile of a known or suitable SCLTS breeding pond, 37 work areas and five overland access routes contain suitable upland habitat in which the species could seek cover during the dry season. To avoid impacts to SCLTS during dry season work within these areas, PG&E will fence all work areas determined to provide suitable upland habitat for SCLTS to avoid incidental take of the species.

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1 INTRODUCTION AND BACKGROUND

Pacific Gas and Electric Company (PG&E) proposes to upgrade a portion of its electrical system between Green Valley Substation near Watsonville and Rob Roy Substation in Aptos as part of the Santa Cruz 115 Kilovolt (kV) Reinforcement Project (project). The electrical upgrade would improve electrical reliability, operational flexibility, and system capacity and prevent extended power outages for several communities in Santa Cruz County. During the routing phase, PG&E evaluated several route alternatives and chose the current alignment to reduce possible effects on the Santa Cruz long-toed salamander (*Ambystoma macrodactylum croceum* [SCLTS]) to the maximum extent (Insignia Environmental 2010).

A portion of the project alignment—between approximately Pole C-38/E-42 and Rob Roy Substation—is located within or along the edge of the known range of SCLTS, a species listed as endangered under both the federal Endangered Species Act and the California Endangered Species Act and designated as Fully Protected under California Fish and Game Code.

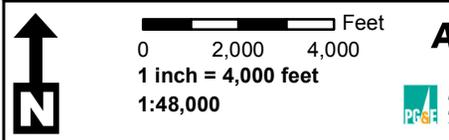
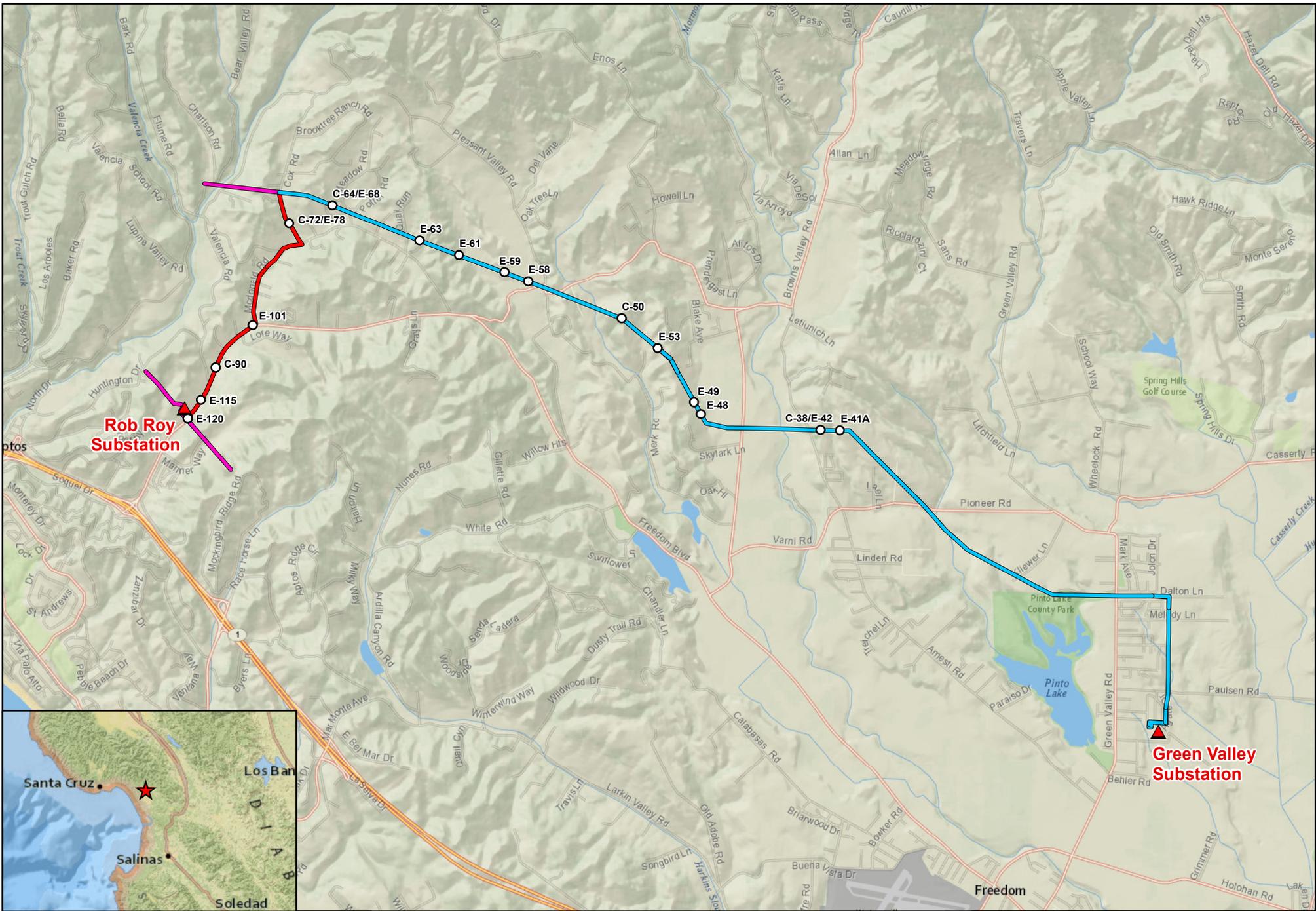
To assess the potential for SCLTS to inhabit the project work areas, Biosearch Associates (Biosearch) performed a habitat assessment following a modified approach to the *Guidance on Site Assessment and Field Surveys to Detect Presence or Report a Negative Finding of the Santa Cruz Long-toed Salamander* endorsed by U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW) (USFWS and CDFW 2012). Based on the data and findings of their assessment, the following memorandum was prepared to address Biosearch’s habitat suitability findings, as well as the implementation of the project mitigation measures regarding work area exclusion fencing. This memorandum was developed to fulfill the following objectives:

1. Provide a summary of Biosearch’s data that shows the absence of suitable SCLTS breeding habitat within the project corridor
2. Use Biosearch’s data to identify project areas that fall within suitable upland habitat for the SCLTS
3. Identify the project work areas to be fenced during construction
4. Identify project work areas that do not support any habitat for SCLTS

1.1 PROJECT DESCRIPTION

The project is located in southern Santa Cruz County, California, as shown in Figure 1. The alignment starts at Green Valley Substation, just north of Watsonville and travels northwest through Corralitos, Pleasant Valley, and Day Valley, before turning south and terminating at Rob Roy Substation, along Freedom Boulevard in Aptos. The project can be divided into two segments:

- ▶ **Northern Alignment:** Includes the portion collocated along an existing 115 kV line and spanning between Green Valley Substation and the intersection of Cox Road and Leslie Lane north of Aptos.



Project Components		▲ Substation
—	Cox-Freedom Segment	○ Select Pole Location
—	Existing 115 kV Power Line	
—	Northern Alignment	

Source: AECOM 2013
Base Image: ESRI 2013

Santa Cruz 115 kV Reinforcement Project
Figure 1: Project Location Map
July 1, 2013

- ▶ **Cox-Freedom Segment:** Extends south from the intersection of Cox Road and Leslie Lane (western extent of the Northern Alignment) following Cox Road, McDonald Road, and Freedom Boulevard southward and terminating at Rob Roy Substation.

The work will occur for the most part within PG&E's existing rights-of-way and consists of the replacement of the existing structures with new tubular steel poles and wooden poles. Some of the work areas also include conductor tension pull sites, staging areas, and helicopter landing zones. Much of the Northern Alignment is overland, while the Cox-Freedom Segment follows existing public roads. Generally, each work site would measure approximately 140 feet by 100 feet, although site dimensions may vary based on scope of work or specific location conditions (e.g., distance from residences, available space, terrain, etc.). As part of the project, Rob Roy Substation will be expanded by approximately 0.5 acre. Some minor equipment replacement work will also be conducted at a limited number of structures along the Green Valley-Camp Evers 115 kV Power Line and Green Valley-Paul Sweet 115 kV Power Line that are adjacent to the project. This equipment replacement work will occur on the existing structures and no ground disturbance will be necessary.

1.1.1 NATURAL HISTORY

The SCLTS is one of five subspecies distributed throughout northeastern California and north into British Columbia (Petranka 1998 in Biosearch 2013; Stebbins 2003; Biosearch and AECOM 2013). The subspecies *croceum* occupies a very small range that is limited to southern Santa Cruz County and extreme northern Monterey County along the coastline. It is isolated from other subspecies by more than 150 miles, and recent genetic analysis indicates that full species status is warranted (Savage, pers. comm., 2011 in Biosearch and AECOM 2013). In addition, genetic analysis within the extant range reveals distinct population segments that are isolated from one another, presumably by State Route (SR) 1 as well as residential and agricultural areas (Savage, pers. comm., 2011 in Biosearch and AECOM 2013). Monterey County and Santa Cruz County populations are completely isolated from each other by urbanization and intensive agriculture in the Pajaro River Valley. Seventeen breeding locales have been identified in Santa Cruz County, some of which may no longer support viable populations (USFWS 2009 in Biosearch and AECOM 2013). Given the extremely small range, barriers to genetic flow between breeding populations, and ongoing habitat fragmentation, the SCLTS is considered very vulnerable to extinction (Savage, pers. comm., 2011 in Biosearch and AECOM 2013).

The SCLTS is a small salamander (2.5 to 5.5 inches total length) that inhabits oak woodland, dense coastal scrub, riparian woodland, and other moist habitats and breeds in ponds and sloughs (Stebbins 2003). Adults and post-metamorphic juveniles (metamorphs) are black with an irregular pattern of yellow-orange spots and stripes along the back. Ventral coloration is dark gray to black, while the sides have a fine white speckling. Females and males are of similar body length, although males possess significantly longer, broader tails. In their aquatic life stage, larval SCLTS are olive gray or brownish gray along their dorsal side with bushy gills and a prominent dorsal fin that extends forward to the forelimbs.

The SCLTS breeds in seasonal, or perennial ponds and sloughs. Breeding sites generally lack exotic predators such as nonnative fish and American bullfrogs (*Lithobates catesbeianus*), which prey upon adults, eggs, and larval salamanders. The few perennial ponds that support both SCLTS and invasive aquatic species have sufficient submergent and emergent vegetative cover to protect eggs and larvae from predation, although survivorship of larvae and recruitment of metamorphs could be reduced. Single eggs are deposited on submergent vegetation. Larvae require approximately 90–150 days to reach transformation (Ruth 1988), and they feed on a

wide variety of aquatic organisms, including invertebrates and tree frog tadpoles (Anderson 1968). The growth rate and timing of metamorphosis vary with water temperature, food levels, larval densities, and hydro-period (Petranka 1998). After metamorphosis in the spring and summer, metamorphs disperse into upland areas—generally within a few hundred feet—and settle within underground vegetative refuge sites. Fall rains as low as 2 millimeters can incite outward-bound dispersal from the breeding habitat (USFWS 1999). Generally, once seasonal rains have sufficiently saturated the ground, fall, winter, and spring migrational movements can be triggered by any precipitation event, especially when occurring at night. During the dry season, SCLTS remain underground in small-mammal burrows and other moist refugia, such as beneath fallen logs or rocks and within plant root systems (Ruth and Tollestrup 1973; Ruth 1988). Although SCLTS are rarely found in their refugia, they are expected to over-summer in the burrow systems, such as those created by broad-handed mole (*Scapanus latimanus*), present in oak woodland and other heavily-vegetated habitats. During the rainy season when individuals disperse or migrate across open habitats, they may temporarily use other cover-sites, including burrows dug by Botta’s pocket gopher (*Thomomys bottae*) or California vole (*Microtus californicus*). Burrow entrances and tunnel systems that SCLTS use are generally difficult to locate, because they are typically covered by leaf duff and woody debris. Adult SCLTS remain below ground during the summer months and emerge during rainy nights in the fall and winter to migrate to breeding ponds. Overall migrations typically occur during rainy nights over several days, weeks, or months, with salamanders taking temporary cover as needed during intermittent dry periods. Although grassland does not provide over-summering upland habitat for adults, they may seek temporary cover in grassland areas during fall and winter breeding migrations (Ruth 1989; Biosearch 2002, 2013). In proximity to breeding ponds, metamorphs may seek cover in all types of habitat including grassland, although survivorship is likely higher in more mesic habitats. Recapture data indicate that individuals return to the same upland areas after breeding (Ruth 1989; Biosearch 2002). Terrestrial individuals feed primarily on sow bugs, earthworms, and other invertebrates (Anderson 1968).

2 METHODS

The portion of the project that is located between Green Valley Substation and Site E-41A is outside the documented range of the SCLTS and greater than 1 mile from the nearest breeding pond (Merk Pond). Although patches of aquatic and upland habitat suitable for SCLTS can be occasionally found east of Site E-41A, no detections have been observed inland of Merk Pond (approximately 4 miles inland). Furthermore, these areas and the Corralitos Valley do not support the necessary aquatic or vegetated upland habitats required by SCLTS and are highly fragmented by the presence of agricultural and residential developments, which create physical barriers that prevent dispersal, migration, and use of the land as upland habitat. As such, this portion of the project was not evaluated as part of Biosearch's Habitat Assessment.

The remaining portion of the project alignment—between Site E-42/C-38 and Rob Roy Substation—is located along the edge of the SCLTS Freedom metapopulation and within 1 mile of known or potential breeding sites. As such, this portion of the project was further evaluated in Biosearch's habitat assessment.

This site assessment conducted by Biosearch follows an adapted approach to the *Guidance on Site Assessment and Field Surveys to Detect Presence or Report a Negative Finding of the Santa Cruz Long-toed Salamander* endorsed by USFWS and CDFW (USFWS and CDFW 2012; Biosearch and AECOM 2013). Three major elements were evaluated to determine the likelihood of SCLTS presence:

1. A determination as to whether the project site is within the range of the SCLTS
2. A review of known records for SCLTS within 3.1 miles of the project
3. An assessment of the suitability of project areas located within 1 mile of known or suitable SCLTS breeding habitats

2.1 RECORDS AND LITERATURE REVIEW

To determine whether the project site is within the range of the SCLTS, as well as review known records for SCLTS within 3.1 miles of the project, Biosearch reviewed relevant literature and databases for information regarding SCLTS near the project area. The California Natural Diversity Database, which is maintained by CDFW, was searched for all recorded occurrences within 3.1 miles of the project. Previous field investigations and assessments in the project area were consulted (Biosearch and AECOM 2013). Other biologists with SCLTS experience were contacted for additional information. Through the use of the collected information, all known SCLTS localities within 3.1 miles of the project site were identified and mapped, as shown in Figure 2. In addition, topographic maps, aerial imagery, and Biosearch's knowledge of the area were used to identify and assess the quality of potential SCLTS aquatic breeding sites. There are numerous records of SCLTS within 3.1 miles of the project site. This distance encompasses all detections that have been made within the Freedom, Larkin Valley, and Valencia-Seascape metapopulations, including both upland and breeding detections. Most of these records are associated with nearby known breeding localities, although some are located up to 0.8 mile from the nearest known breeding pond. The preponderance of observations from the Valencia-Seascape metapopulation reflects the fact that those areas have been studied more extensively with upland trapping arrays than other metapopulations (Biosearch and AECOM 2013). SCLTS have not been observed north of Freedom Boulevard in the Day Valley area or west of Freedom Boulevard in the Valencia Creek area (Biosearch and AECOM 2013).

The known SCLTS breeding ponds within 3.1 miles are Merk Pond, Tucker Pond, Palmer Pond, Racehorse Lane Pond, Millsap Pond, Calabasas Pond, Seuss Pond, Olive's Pond, Winterwind Way Pond, Valencia Lagoon, and Seascape Uplands Ponds 1–3. A detailed description of these ponds is included in Appendix A

Several additional aquatic features that provide suitable habitat for SCLTS, but are not confirmed breeding sites, exist within 1 mile of the project alignment. These are mostly unnamed aquatic features located on private properties and for which no appropriate surveys have been conducted. Details regarding these ponds are included in Appendix A.

2.2 FIELD ASSESSMENT

As part of Biosearch's habitat assessment, wildlife biologists David Laabs and Mark Allaback conducted field visits to each proposed work area and access road within approximately 1 mile of known or potential breeding habitat (all workspaces west of and including Poles C-38/E-42) on May 21–23, May 28, and June 4, 2013. All locations were visited on foot and representatives of PG&E and/or AECOM were present throughout their site visits. The area of the field assessments included all project locations between Rob Roy Substation and 1 mile east of Merk Pond, which is considered the eastern edge of the SCLTS range (USFWS 1999, 2009 in Biosearch and AECOM 2013). To determine whether specific project work areas provide suitable habitat for SCLTS, the following characteristics of the upland habitat at each proposed work area were described:

- ▶ Vegetation coverage and understory composition
- ▶ Habitat connectivity between the proposed work area and known/potential breeding sites
- ▶ Distance to the nearest known and potential breeding site
- ▶ Site conditions that would prevent presence of SCLTS individuals

Photographs of each proposed work area were taken and are shown in Appendix B. Detailed habitat characteristics collected at each site is provided in Appendix C. Because the burrow characteristics of small mammals found in oak woodland and coastal scrub habitats are difficult to see, the presence of burrows was not used as a criterion for SCLTS habitat quality.

Each proposed work site and access road, west of site E-42/C-38, was classified as providing either upland habitat, dispersal habitat, or disturbed dispersal habitat. For the purposes of Biosearch's assessment, SCLTS upland habitat was defined as oak woodland, willow riparian, and dense coastal scrub. It was presumed that upland habitat may be occupied by SCLTS year-round, and may be utilized for underground refugia and dispersal. Dispersal habitat was defined as open habitats that migrating adults and dispersing juveniles may use temporarily for cover during the rainy season, but that lacks suitable cover or habitat characteristics to be utilized in the dry season. Dispersal habitat may include grassland, open coastal scrub, and oak savanna. These habitats may support small mammal burrows that can be used by SCLTS as temporary refugia during the rainy season, but are not suitable for dry season refuge. Disturbed dispersal habitat includes all areas that could be traversed by migrating SCLTS, but do not provide any temporary underground refugia. This includes ruderal roadsides, active agricultural areas, and other areas denuded of natural vegetation.

3 RESULTS

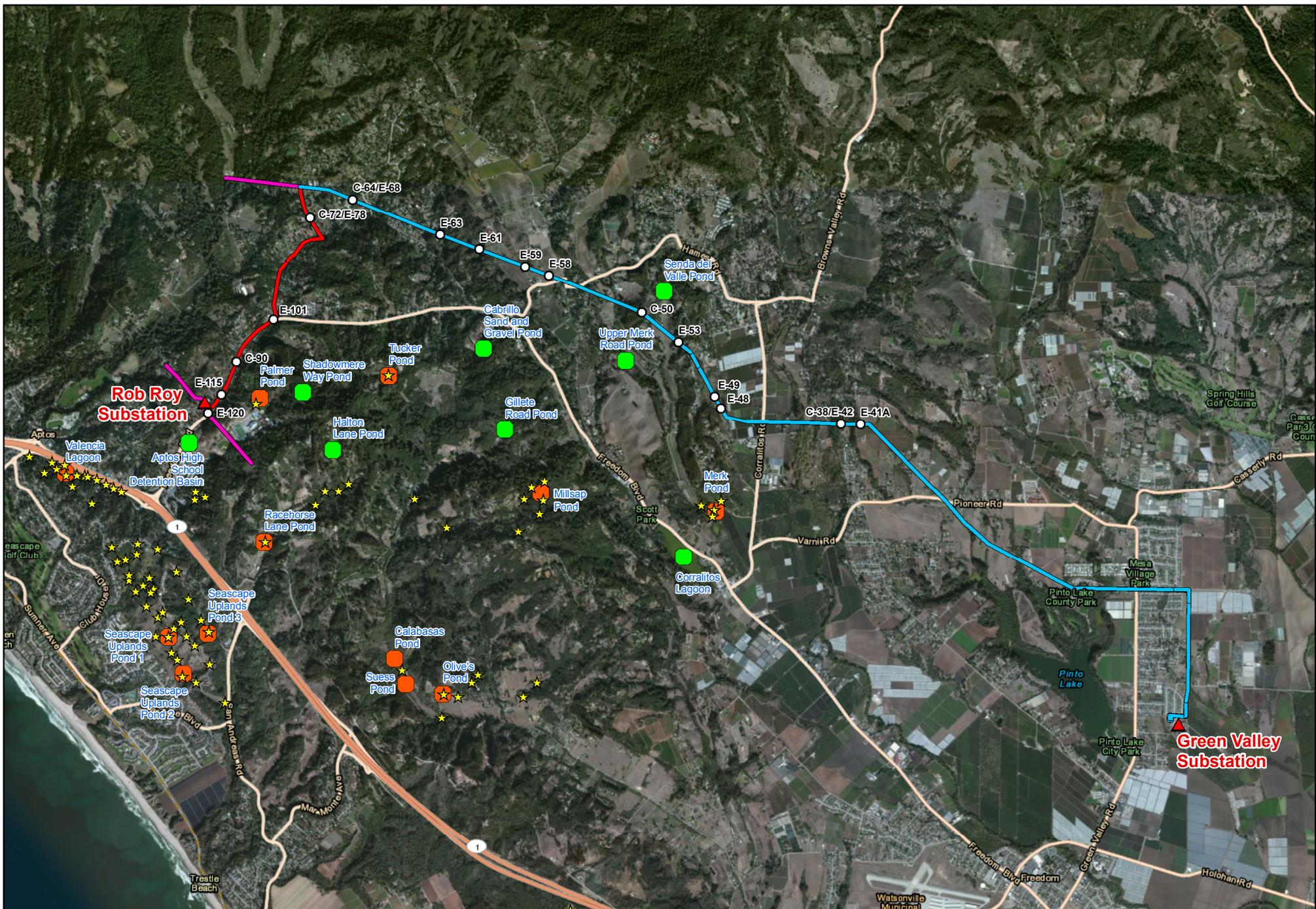
Several vegetation communities are present along the project corridor, specifically coast live oak woodland, coastal scrub, annual grassland, riparian woodland, nonnative woodland (typically *Eucalyptus* spp.), and ruderal habitats. The topography is hilly with elevations ranging from 70 feet to 600 feet above sea level. Much of the Northern Alignment and Cox-Freedom Segment pass through areas that have been converted to agriculture and/or low-density rural residential uses, or are located along paved roads. For more detailed information regarding the vegetation communities found along the project alignment, refer to the Biological Resources Technical Report (Insignia Environmental 2012).

3.1 RECORDS AND LITERATURE

All portions of the Northern Alignment west of Site E-42, as well as the northernmost portions of the Cox-Freedom Segment are located within the northern and eastern edges of the SCLTS Freedom metapopulation (USFWS 1999, 2009 in Biosearch and AECOM 2013). The Freedom metapopulation utilizes a complex of breeding sites that include Tucker Pond (0.8 mile east of the Cox-Freedom Segment), Racehorse Lane Pond (0.4 mile southeast of Rob Roy Substation), Palmer Pond (0.2 mile east of the Cox-Freedom Segment), and Merk Pond (0.5 mile southwest of the Northern Alignment). The locations of these ponds relative to the project alignment are shown in Figure 2.

The known breeding range in Santa Cruz County is defined to the east by Merk Pond, to the north by Tucker Pond, to the west by Valencia Pond, and to the south by Ellicott and Anderson Ponds. The portion of the Northern Alignment between Green Valley Substation and Pole E-41A is greater than 1 mile from Merk Pond and therefore considered to be outside the range of the SCLTS. Although patches of marginal SCLTS aquatic and upland habitat are present in this area, the landscape is highly fragmented due to various types of commercial, farming/agricultural, and residential land uses. These areas also lack connectivity with other suitable habitat and lack native vegetation cover such as scrub and woodland, which provide suitable upland habitats that would otherwise support the subspecies. In addition, the intensive agricultural use of the land south of Corralitos Valley represents a significant migratory barrier to eastward movement of salamanders. Furthermore, the species is limited throughout its range to coastal areas, and no breeding sites are known or have been recorded more than 5 miles inland from the coast.

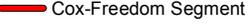
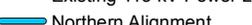
The remainder of the Northern Alignment west of Poles E-42/C-38 is located within or at the edge of the range of the SCLTS and is within 1 mile of a known or potential breeding site; however, SCLTS has not yet been observed north of Freedom Boulevard in the Day Valley area, or west of Freedom Boulevard in the Valencia Creek area (where the project is located). Work sites between Poles C-64/E-68 and C-72/E-78, near the junction of the Northern Alignment and the Cox-Freedom Segment, are assumed to be outside the range of the SCLTS, as they are located at a distance greater than 1 mile from the nearest known or potential breeding pond. The remaining work areas along the Cox-Freedom Segment are located at the edge of the range of SCLTS, but are within 1 mile of a known or potential breeding pond.





 Feet
 0 2,000 4,000
 1 inch = 4,000 feet
 1:48,000




 Cox-Freedom Segment	 Substation	 Known Breeding Site
 Existing 115 kV Power Line	 SCLTS Upland Observations	 Suitable Breeding Site
 Northern Alignment	 Select Pole Location	

Source: AECOM 2013; Base Image: ESRI 2013

Santa Cruz 115 kV Reinforcement Project
 Figure 2: SCLTS Occurrence and Habitat Map
 July 1, 2013

3.2 FIELD ASSESSMENT

The project alignment crosses a variety of habitats including oak woodland, grassland, coastal scrub, eucalyptus grove, and properties converted to agricultural and/or residential use. A detailed analysis of the upland habitat characteristics at each proposed work area, adapted from Biosearch's Habitat Assessment, is provided in Appendix C. Photographs of each proposed work area are provided in Appendix B. Based on the data collected in their report, it was determined that of 131 total project areas reviewed within 1 mile of a known or suitable SCLTS breeding pond, 37 work areas and five overland access routes contain suitable upland habitat in which the species could seek cover during the dry season.

Seventy-three proposed work areas and access routes are located in areas only suitable for dispersal, including grasslands, open coastal scrub, agricultural fields, landscaped yards, or areas denuded of vegetation. Although SCLTS could be encountered at these sites during juvenile dispersal or adult breeding migration in the wet season (typically October 15–April 15), no suitable upland habitat is present within these areas. As such, SCLTS are not expected to be encountered during the dry season in these dispersal habitats.

The remaining 16 sites were located within a portion of Corralitos Valley determined to be unsuitable for the species due to the lack of suitable dispersal habitat caused by large and expansive tracts of contiguous agriculture. While they may have been located within 1 mile of Merk Pond, this area was located east beyond the furthest known SCLTS occurrences and lacked suitable habitats for the species. As such, the area was determined not to support the species.

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4 DISCUSSION AND CONCLUSIONS

As previously discussed, much of the project alignment is located near the northern and eastern limits of the SCLTS range in Santa Cruz County. The portion of the Northern Alignment greater than 1 mile east of Merk Pond (from Green Valley Substation to Pole E-41A) is outside the range of the subspecies, and the majority of the project alignment west of Poles C-38/E-42 is located within 1 mile of a known or potential breeding pond and is considered within the potential subspecies' range. However, a short segment (0.8 mile) in the Day Valley area between Poles C-64/E-68 and C-72/E-78 is located greater than 1 mile from known or potential breeding habitat and is considered to be outside the range of the subspecies.

Freedom Boulevard, Hames Road, and Corralitos Road have been used to define the northern and eastern limits of the SCLTS range in Santa Cruz County. Freedom Boulevard is a significant transportation corridor between Aptos and the Corralitos/Watsonville area that is considered a partial barrier to regular movements of SCLTS, which are susceptible to death by vehicle collision. Although no complete physical barriers are associated with Freedom Boulevard, the amount of traffic is considered heavy enough to significantly prevent or interrupt migrating SCLTS, which further decreases the likelihood of SCLTS inhabiting many of the project areas (Biosearch and AECOM 2013).

The distances that SCLTS travel between breeding ponds and upland habitats vary between sites and depend on the vegetation structure and composition, soil type, aspect, and barriers to movement (USFWS 1999 in Biosearch 2013; Savage, pers. comm., 2011 in Biosearch and AECOM 2013). Early researchers observed SCLTS that appeared to be more than 1 mile from the nearest known breeding site; however, it is unknown whether these individuals were associated with breeding sites not identified at the time (USFWS 1999 in Biosearch and AECOM 2013). The distribution of adults of the closely related California tiger salamander (*Ambystoma californiense*) decreases exponentially as distance to the breeding pond increases (Trenham and Shaffer 2005), and it is expected that SCLTS follow a similar pattern. As such, the likelihood of encountering SCLTS decreases significantly as the distance from breeding habitat increases.

Long-distance movements of SCLTS depend on relatively contiguous areas of suitable habitats. At locations that consist of a mosaic of coastal scrub, oak woodland, and grassland, which is common throughout the range of SCLTS, adults regularly cross up to 0.25 mile of grassland and open coastal scrub during migration between the breeding site and appropriate uplands (Ruth 1989; Laabs 2000; Biosearch 2002). Most of the suitable SCLTS upland habitat present along the project alignment is fragmented and not contiguous with known SCLTS breeding ponds. This fragmentation reduces the potential for SCLTS to migrate to portions of the project area. The exceptions to this statement are the fairly well-vegetated upland corridors between Merk Pond and Poles E-49 through E-53, between Tucker Pond and Poles E-61 through E-63, and between Palmer Pond and Poles E-101 through E-120.

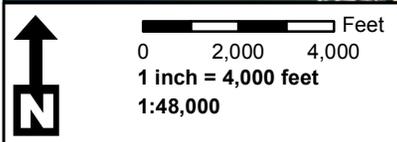
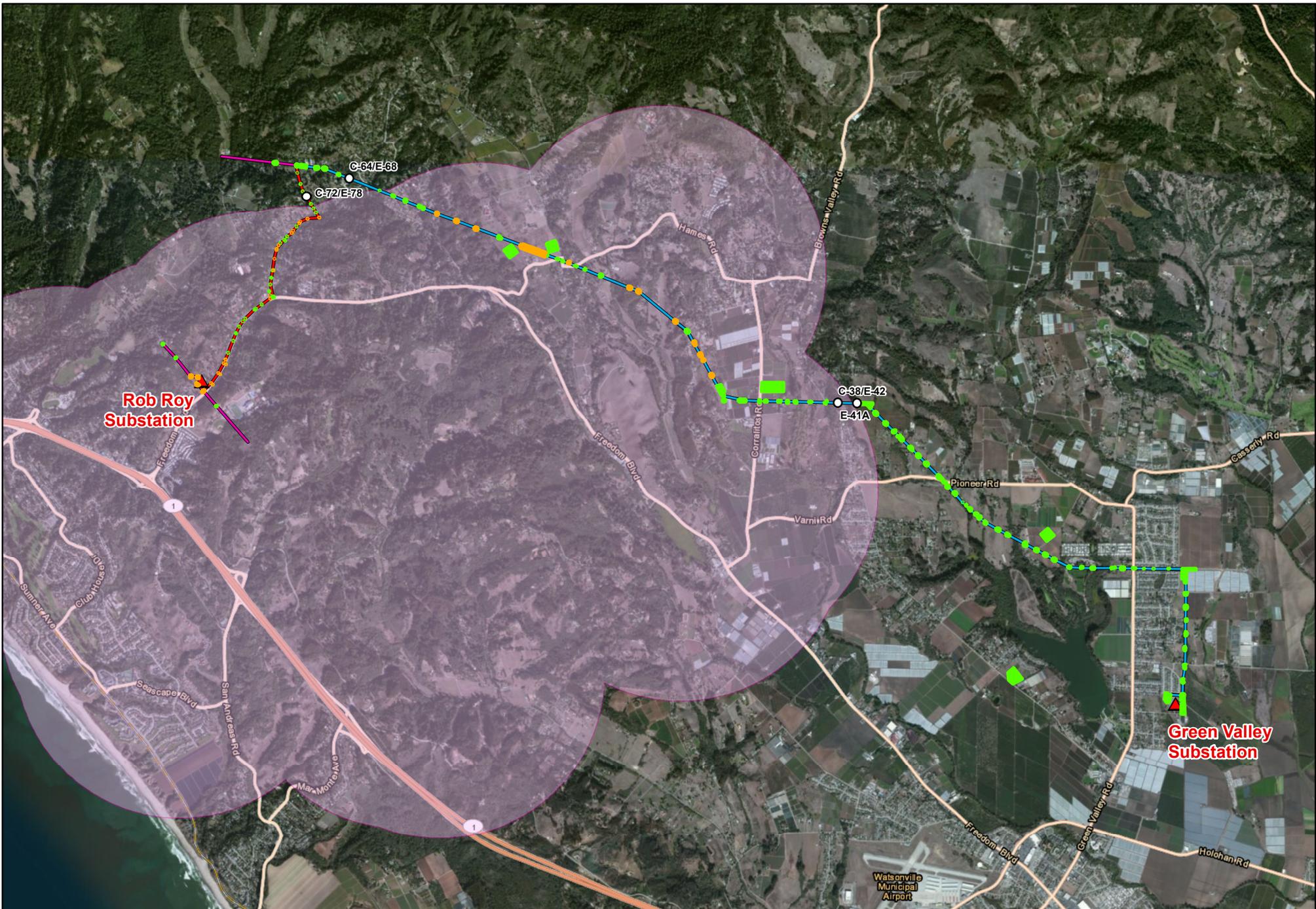
Given that the project would involve localized surface disturbances confined to small work areas at the fringes of the range of SCLTS, the potential to encounter SCLTS at any specific location is considered low (Biosearch and AECOM 2013).

4.1 IMPLEMENTATION OF FENCING

Based on an analysis of the habitat at each project work area within 1 mile of a known or potential pond, up to 37 sites provide potential upland habitat for SCLTS, and thus could support the species during the dry season when construction will be occurring, as shown in Figure 3. As such, fencing enclosures should be installed at these sites to avoid take of SCLTS. At 10 of these 37 sites, which are mostly along the Cox-Freedom Segment, suitable SCLTS upland habitat is present at the fringes of the work area and may be avoidable, pending constructability review. Suitable upland habitat is also present along five overland access routes. Fencing will not be implemented in these locations; however, other measures may be warranted.

Based on Biosearch's data, it was also determined that 73 proposed work areas and access routes are located in dispersal habitats that lack suitable upland habitat characteristics, including grasslands, open coastal scrub, agricultural fields, landscaped yards, or areas denuded of vegetation. SCLTS have the potential to be encountered at these sites during juvenile dispersal or adult breeding migration in the wet season; however, they lack necessary upland habitat characteristics necessary for dry season refuge. As such, SCLTS would not be present during the dry season, and no fencing is necessary at these locations during dry season construction work.

The remaining 16 locations within portions of eastern Corralitos Valley were determined to be outside the range of the SCLTS due to a lack of contiguous habitats between the area and known breeding ponds. While some of these areas lie within 1 mile of Merk Pond, no dispersal corridors exist between Merk Pond and these sites to allow SCLTS to inhabit or disperse through these areas. Because these areas are at the eastern extent of the local population range, and no other source ponds are available to support SCLTS in the area, SCLTS does not occur in these locations and no fencing is warranted to avoid take.



- | | |
|----------------------------|----------------------|
| Cox-Freedom Segment | Work Areas* |
| Existing 115 kV Power Line | No Fencing |
| Northern Alignment | Fencing |
| Substation | Select Pole Location |
- * Work area boundaries are enlarged for visual purposes of this map

- Potential Area for SCLTS Occurrence**
- 1-mile buffer around known or suitable breeding habitat
- Source: AECOM 2013
Base Image: ESRI 2013

Santa Cruz 115 kV Reinforcement Project
Figure 3: SCLTS Fencing Implementation Map
July 1, 2013

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APPENDIX A

SCLTS Breeding Ponds Tables

Appendix A1
Known SCLTS Breeding Ponds within 1 Mile of the Project

Name of the Pond/aquatic feature	Description
Merk Pond	<p>This pond is situated approximately 0.4 mile south of the Northern Alignment near the intersection of Merk Road and Corralitos Road. It is currently the only known breeding pond east of Freedom Boulevard. It is a large, perennial pond with extensive emergent marsh vegetation in shallow areas. A breeding population of SCLTS was first identified in the 1990s based on observations of dispersing metamorphs during rainy-night surveys (Miller, pers. comm., 2001 in Biosearch and AECOM 2013). The site was studied more extensively in 2003 and 2005 although the population size could not be estimated (Savage, pers. comm., 2011 in Biosearch and AECOM 2013; D'Amore, pers. comm., 2012 in Biosearch and AECOM 2013). It is known that the pond also supports predators such as American bullfrogs, catfish (<i>Ictalurus</i> spp.), and bluegill (<i>Lepomis macrochirus</i>) so the breeding success of the SCLTS are likely lower than if predators were not present. In addition, the properties surrounding Merk Pond are developed and used for either agricultural or residential purposes; therefore, the upland and dispersal habitat present within some remaining patches of oak woodland, willow riparian, and dense coastal scrub is highly fragmented.</p>
Tucker Pond	<p>This semi-permanent pond (i.e. dries out in some years) is located approximately 0.9 mile south of the Northern Alignment. This is a documented successful SCLTS breeding pond, managed under the terms of a USFWS-approved Habitat Conservation Plan. An ongoing population monitoring program has confirmed annual breeding between 2008–2009 and 2011–2012 (Biosearch 2012). The properties between Tucker Pond and the project work areas present fragmented habitat with interspersed residential development and native habitat (Day Valley).</p>
Palmer Pond	<p>This seasonal pool is located within a seasonal drainage adjacent to Aptos High School, approximately 0.25 mile east of Rob Roy Substation. Since the time of discovery in 2004, no follow-up surveys have been conducted to confirm whether the SCLTS regularly uses this feature as a breeding site (USFWS 2009). The feature does not appear to hold water long enough to allow for successful metamorphosis of larvae, and it is believed that SCLTS in this area may use Shadowmere Way Pond situated approximately 0.2 mile east, on private property, north of Aptos High School. The oak woodland habitat present between this pond and the project area is almost contiguous although Freedom Boulevard represents a partial barrier preventing or reducing movements toward the project areas.</p>
Racehorse Lane Pond	<p>This manmade stock pond is located adjacent to Racehorse Lane in Larkin Valley and approximately 0.9 mile southeast of Rob Roy Substation. SCLTS larvae were first identified there in 2005 and breeding was last confirmed in 2008. The oak woodland habitat present between this pond and the project area is almost contiguous, although both Aptos High School and Freedom Boulevard represent partial barriers preventing or reducing movements toward the project areas.</p>
Valencia Lagoon	<p>Valencia Lagoon is a large semi-permanent remnant of a historic freshwater lagoon. This lagoon is located approximately 0.9 mile southwest of Rob Roy Substation. SCLTS were originally detected at this site in 1954, and the research associated with this detection led to the description of the subspecies <i>croceum</i>. The original natural lagoon was highly modified in 1969 by the expansion of SR 1 and is currently a semi-permanent pond on a small strip of land managed by CDFW. A nearby drainage channel that parallels SR 1, managed by the California Department of Transportation, also supports documented breeding. SCLTS was studied at both locations in 2007 and 2008 (Biosearch 2008) and was confirmed on-site in 2011. However, the section of SR 1 between Rio del Mar Boulevard and Freedom Boulevard represents a complete barrier to SCLTS movements, and individuals that breed at Valencia Lagoon do not have any dispersal or migratory connectivity with the project area.</p>

**Appendix A1
Known SCLTS Breeding Ponds within 1 Mile of the Project**

Name of the Pond/aquatic feature	Description
Seascape Uplands: Ponds 1, 2, and 3	These three ponds are located in the Seascape Uplands Preserve, which is managed by the Center for Natural Lands Management. SCLTS were first detected at Seascape Uplands Pond 1 in 1974 and have been monitored annually since 1998. Seascape Uplands Ponds 2 and 3 were constructed as part of a mitigation requirement in 1999 and were both colonized by SCLTS within a few years. SR 1 presents a barrier to northeast migration; therefore, individuals in the Seascape Uplands Preserve do not have any dispersal or migratory connectivity with the project area.

**Appendix A2
Unsurveyed Suitable SCLTS Breeding Ponds within 1 Mile of the Project**

Name of the Pond/aquatic Feature	Description
Corralitos Lagoon	This lagoon, also referred to as Freedom Lake, is situated 0.75 mile south-southeast of Pole E-48. It is a 25-acre lake with abundant submergent and emergent vegetation. While the lake was historically used for recreational fishing, in recent years, the surface has been covered by water hyacinth (<i>Eichhornia</i> sp.) and is no longer accessible by boat. It is unknown whether the lake still supports fish or native amphibians.
Senda del Valle Road Pond ¹	Senda del Valle Road Pond is located north of the northern extent of Senda del Valle Road and is situated 0.2 mile northeast of poles C-50 and E-48. This pond was studied in 2011 as part of protocol-level surveys for the California red-legged frog (<i>Rana draytonii</i>) conducted for the project (Insignia Environmental 2011). These surveys revealed a robust population of mosquitofish (<i>Gambusia affinis</i>), American bullfrogs, and Louisiana red swamp crayfish (<i>Procambarus clarkii</i>), which are nonnative predators for SCLTS. The presence of such predators reduces the likelihood for the pond to provide breeding habitat for SCLTS; it is assumed that if SCLTS had to use the site, the larvae and/or juveniles would likely be predated and therefore the pond would result in an unsuccessful breeding site. It is important to note that Merk Pond, which does support a breeding SCLTS population, also contains introduced predators as mentioned above. However, Merk Pond is larger and supports more complex characteristics, such as a shallow-perimeter and presence of emergent marsh vegetation that may partially shelter the larvae and/or juveniles from predators.
Upper Merk Road Pond ¹	Upper Merk Road Pond is located on private property along Upper Merk Road and is situated 0.3 mile south-southeast of Site C-50. This pond was not visited as part of Biosearch's assessment due to access restriction. This pond is located within the same watershed as Merk Pond. It appears to hold water year-round and is surrounded by wetland vegetation. Based on its emergent vegetation characteristics, this pond provides suitable breeding habitat for SCLTS, although it is unknown if the pond supports aquatic predators that could impact the breeding success of the site.
Gillette Road Pond ¹	Gillette Road Pond is situated 1 mile south-southeast of Site E-58 and was not visited as part of Biosearch's assessment because of restricted access. This pond is located in the same watershed as Tucker Pond, and the two ponds are connected by suitable upland and dispersal habitat. By reviewing historical images of this site, it is assumed that the pond is permanent and provides suitable SCLTS breeding habitat.

Appendix A2
Unsurveyed Suitable SCLTS Breeding Ponds within 1 Mile of the Project

Name of the Pond/Aquatic Feature	Description
Cabrillo Sand and Gravel Pond ¹	Cabrillo Sand and Gravel Pond is located on the south side of Freedom Road close to the intersection with Hames Road, and is situated 0.5 mile south-southeast of Pole E-59. This pond was not visited as part of Biosearch’s assessment due to restricted access, but, based on historical imagery, it appears to have been constructed in 2009 and likely covered with emergent vegetation. The colonization of artificial ponds can occur within 1 year when connectivity exists with nearby populations. Upland habitat surrounding the pond is suitable for SCLTS, and the upland habitat is connected with Tucker Pond, which is situated only 0.6 mile to the west. This pond likely provides suitable SCLTS breeding habitat.
Shadowmere Way Pond ¹	This pond is located above Aptos High School off Shadowmere Way and is situated 0.4 mile southeast of Pole C-90. It was not visited as part of Biosearch’s assessment because of restricted access. The pond is within the same watershed that supports Palmer Pond. Based on historical images, this pond appears to dry out and therefore likely lacks predatory nonnative species. Wildlife biologist Mark Allaback was granted permission to conduct reconnaissance-level visits in 2004 and 2010 of this pond. Given the physical characteristics and upland habitat connectivity with Palmer Pond, Tucker Pond, and Racehorse Lane Pond, this site could support breeding SCLTS.
Halton Lane Pond ¹	This pond is located 0.7 mile southeast of Pole E-115 and was not visited as part of Biosearch’s assessment because of access restrictions. Based on topographic data, this pond is within the same watershed as Racehorse Lane Pond, and from historical imagery it is assumed that it is perennial. This pond contains suitable SCLTS breeding habitat.
Aptos High School Detention Basin	This basin is situated 0.2 mile southwest of Pole E-120, is visible from Freedom Road, and was visited as part of Biosearch’s assessment. It was constructed in 2004 as a sediment basin associated with construction activities occurring at Aptos High School. The basin is shallow although it appears to hold water for most of the year and throughout the amphibian breeding season. It supports emergent freshwater marsh vegetation. Given its habitat characteristics and proximity to known breeding sites, this pond provides suitable SCLTS breeding habitat.

Note:

¹ No commonly accepted name is known. These names are presented for the purposes of this document only.

APPENDIX B

Representative Photographs



C-38/E-42



Amesti Road Guard Structure



C-39



E-43



C-40



E-44



C-41



Corralitos Road Staging Area



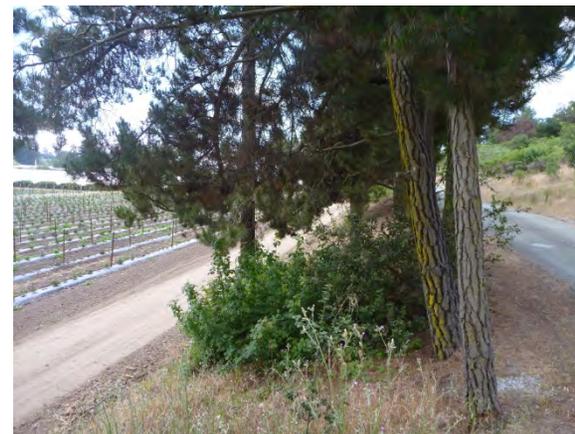
Corralitos Road Guard Structure



E-45



C-42/E-46



E-47



C-43



Pull site between C-43 & C-44



C-44/E-48



C-45/E49



C-46



E-50



C-47/E-51



C-48/E-52



C-49/E-53



C-50/E-54



C-51/E-55



Hames Hollow Guard Structure



C-52/E-56



C-53/E-57



Pleasant Valley Road Guard Structure



Hames Road Guard Structure



Hames Road Landing Zone



C-54/E-58



Pull site between C-54 & C-55



C-55/E-59



Hames Road Staging Area



C-56/E-60



C-57/E61



C-58/E-62



C-59/E-63



Quail Run Guard Structure



C-60



E-64



C-61/E-65



C-62/E-66



C-63/E-67



C-64/E-68



C-65/E-69



C-66/E-70



C-67/E71



Cox Road Pull Site



C-68/E-71A



E-72



C-69/E-74



C-70/E-76



C-71/E-77



C-72s



C-72/E-78



C-73/E-80



CD-81/E-81



C-74/E-82



C-75



C-76/E-85



CD-86/E-86/C-77



CD-87/E-87



C-78/E-88



CD-89/E-89



C-79



CS-90



CD-90/E-90



CD-91/E-91



CD-92/E-92



C-80



E-92A



C-81/E-94



C-81s



C-82/E-96



CD-97



C-83/E-98



CD-99



CD-100



C-84



CD-101



C-85/E-101



E-103



C-86



C-87



CD-105



C-88/E-106



C-89/E-108



C-90/E-109



C-91/E-111



CD-112



C-92s



C-92/E-113



C-93s



C-93/E-115



C-94s



C-94



C-95/E-120



C-75A/C-96



C-76A



C-76C



GV(RR)-PS C-77



GV(RR)-PS C-78



GV-PS(RR) C-75



Rob Roy Substation Expansion Area



C-39 Access



C-41 Access



C-42 Access



C-45/E-49 Access



C-49 Access



C-53 Access



C-55 Access



C-56 Access



C-57 Access



C-58 Access



C-61 Access



C-64 Access



C-66 Access



C-95 Access



C-76A Access



C-76C Access

APPENDIX C

Habitat Suitability Tables

**Appendix C1
Work Area Habitat Suitability**

PG&E Site #	Work Area Type	Distance (miles) to Nearest Known SCLTS Breeding Aquatic Feature	Distance (miles) to Nearest Suitable SCLTS Breeding Aquatic Feature	Habitat Type(s)	Canopy/Understory Description	Habitat Connectivity of Adjacent Areas to Breeding Habitat	Assessment of SCLTS Habitat within Project Site Boundaries*	Fence Work Area during Construction (Yes/No)
Amesti Road	Contractor Storage Yard	2.1	3.2	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.	No
Green Valley Substation	Contractor Construction Yard	3.1	4.1	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.	No
C-01	Pole Work Area	3.0	4	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.	No
C-02	Pole Work Area	3.0	4	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.	No
C-03	Pole Work Area	3.1	4.1	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.	No
C-04	Pole Work Area	3.1	4	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.	No
C-05	Pole Work Area	3.0	4	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.	No
C-06	Pole Work Area	3.0	3.9	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.	No
C-07	Pole Work Area	3.0	3.9	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.	No
C-08	Pole Work Area	3.0	3.8	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.	No
C-09	Pole Work Area	2.9	3.8	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.	No
C-10	Pole Work Area	2.9	3.7	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.	No
C-11	Pole Work Area	2.9	3.7	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.	No
Pull Site between C-11 and C-12	Tension Pull Site	2.9	3.7	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.	No

**Appendix C1
Work Area Habitat Suitability**

PG&E Site #	Work Area Type	Distance (miles) to Nearest Known SCLTS Breeding Aquatic Feature	Distance (miles) to Nearest Suitable SCLTS Breeding Aquatic Feature	Habitat Type(s)	Canopy/Understory Description	Habitat Connectivity of Adjacent Areas to Breeding Habitat	Assessment of SCLTS Habitat within Project Site Boundaries*	Fence Work Area during Construction (Yes/No)
C-12	Pole Work Area	2.9	3.7	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.	No
C-13	Pole Work Area	2.8	3.6	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.	No
C-14	Pole Work Area	2.7	3.5	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.	No
C-15	Pole Work Area	2.6	3.4	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.	No
C-16	Pole Work Area	2.5	3.4	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.	No
E-16	Pole Work Area	2.5	3.3	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.	No
C-17	Pole Work Area	2.5	3.3	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.	No
C-18	Pole Work Area	2.3	3.2	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.	No
C-19	Pole Work Area	2.3	3.1	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.	No
C-20	Pole Work Area	2.2	3.1	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.	No
C-21	Pole Work Area	2.1	3	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.	No
E-22	Pole Work Area	2.1	2.9	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.	No
C-22	Pole Work Area	2.0	2.8	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.	No
Kliewer Lane	Landing Zone	2.0	2.8	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.	No

**Appendix C1
Work Area Habitat Suitability**

PG&E Site #	Work Area Type	Distance (miles) to Nearest Known SCLTS Breeding Aquatic Feature	Distance (miles) to Nearest Suitable SCLTS Breeding Aquatic Feature	Habitat Type(s)	Canopy/Understory Description	Habitat Connectivity of Adjacent Areas to Breeding Habitat	Assessment of SCLTS Habitat within Project Site Boundaries*	Fence Work Area during Construction (Yes/No)
C-23	Pole Work Area	1.9	2.8	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.	No
C-24	Pole Work Area	1.8	2.7	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.	No
C-25	Pole Work Area	1.7	2.6	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.	No
C-26	Pole Work Area	1.7	2.5	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.	No
C-27	Pole Work Area	1.6	2.4	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.	No
E-29	Pole Work Area	1.6	2.3	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.	No
C-28	Pole Work Area	1.5	2.3	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.	No
E-30	Pole Work Area	1.5	2.3	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.	No
C-29	Pole Work Area	1.5	2.2	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.	No
E-32	Pole Work Area	1.4	2.2	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.	No
C-30	Pole Work Area	1.4	2.1	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.	No
C-31	Pole Work Area	1.3	2	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.	No
C-32	Pole Work Area	1.2	1.9	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.	No
E-36	Pole Work Area	1.2	1.9	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.	No

**Appendix C1
Work Area Habitat Suitability**

PG&E Site #	Work Area Type	Distance (miles) to Nearest Known SCLTS Breeding Aquatic Feature	Distance (miles) to Nearest Suitable SCLTS Breeding Aquatic Feature	Habitat Type(s)	Canopy/Understory Description	Habitat Connectivity of Adjacent Areas to Breeding Habitat	Assessment of SCLTS Habitat within Project Site Boundaries*	Fence Work Area during Construction (Yes/No)
C-33	Pole Work Area	1.2	1.8	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.	No
E-38	Pole Work Area	1.1	1.7	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.	No
C-34	Pole Work Area	1.1	1.7	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.	No
C-35	Pole Work Area	1.1	1.6	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.	No
C-36	Pole Work Area	1.1	1.5	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.	No
Pull Site	Tension Pull Site	1.1	1.5	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.	No
C-37	Pole Work Area	1.1	1.4	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.	No
C-38/E-42	Pole Work Area	0.9	1.4	Disturbed/coastal scrub/oak woodland	Portion of work area with canopy of live oak and Monterey pine; understory moderately dense with ferns, poison oak, broom.	No connectivity to suitable breeding habitat; surrounding native habitats converted to agricultural and residential uses; isolated from nearest known breeding pond (Merk Pond) by extensive area of active agriculture.	Although the work area provides suitable SCLTS upland habitat, there are no contiguous dispersal corridors between the site and suitable breeding habitat. SCLTS is not expected to migrate across Corralitos Valley due to the agricultural use of the land that creates a dispersal barrier for the species.	No
Amesti Road Guard Structure	Guard Structure	0.8	1.3	Ruderal (roadside)/oak woodland	Ruderal, disturbed roadside areas; with trimmed oak trees on east side of Amesti Road. West side of Amesti Road contains a cleared area.	No connectivity to suitable breeding habitat; surrounding native habitats converted to agricultural and residential uses; isolated from nearest known breeding pond (Merk Pond) by extensive area of active agriculture.	No upland habitat present; work area provides disturbed SCLTS dispersal habitat, but there are no contiguous dispersal corridors between the site and suitable breeding habitat. SCLTS is not expected to migrate across Corralitos Valley due to the agricultural use of the land that creates a dispersal barrier for the species.	No
C-39	Pole Work Area	0.8	1.2	Oak woodland/grassland	Work area partially covered by grassland and partially covered by live oaks and dense understory of poison oak.	No connectivity to suitable breeding habitat; surrounding native habitats converted to agricultural and residential uses; isolated from nearest known breeding pond (Merk Pond) by extensive area of active agriculture.	Although the work area provides suitable upland habitat, there are no contiguous dispersal corridors between the site and suitable breeding habitat. SCLTS is not expected to migrate across Corralitos Valley due to the agricultural use of the land that creates a dispersal barrier for the species.	No

**Appendix C1
Work Area Habitat Suitability**

PG&E Site #	Work Area Type	Distance (miles) to Nearest Known SCLTS Breeding Aquatic Feature	Distance (miles) to Nearest Suitable SCLTS Breeding Aquatic Feature	Habitat Type(s)	Canopy/Understory Description	Habitat Connectivity of Adjacent Areas to Breeding Habitat	Assessment of SCLTS Habitat within Project Site Boundaries*	Fence Work Area during Construction (Yes/No)
E-43	Pole Work Area	0.7	1.1	Agriculture/riparian woodland	Disked field at edge of relatively undisturbed riparian corridor along Corralitos Creek.	No connectivity to suitable breeding habitat; surrounding native habitats converted to agricultural and residential uses; isolated from nearest breeding pond (Merk Pond) by extensive area of active agriculture.	Majority of work area lacks suitable upland habitat. Marginal upland habitat is present within a small patch of riparian vegetation. SCLTS is not expected to migrate across Corralitos Valley due to the agricultural use of the land that creates a dispersal barrier for the species.	No
C-40	Pole Work Area	0.7	1.1	Residential/agriculture	Residential backyard with mowed lawn, disked field, and landscaped trees; limited or no ground cover present.	Limited connectivity to suitable breeding habitat; surrounding native habitats converted to agricultural and residential uses; isolated from nearest known breeding pond (Merk Pond) by extensive area of active agriculture.	No upland habitat present; work area could provide disturbed dispersal habitat; however, SCLTS is not expected to migrate across Corralitos Valley due to the agricultural use of the land that creates a dispersal barrier for the species..	No
C-44	Pole Work Area	0.6	1	Residential/agriculture	Residential backyard with landscaping, compacted bare dirt, and driveways.	Limited connectivity to suitable breeding habitat; surrounding native habitats converted to agricultural and residential uses; isolated from nearest known breeding pond (Merk Pond) by extensive area of active agriculture.	No upland habitat present; work area could provide disturbed dispersal habitat; however, SCLTS is not expected to migrate across Corralitos Valley due to the agricultural use of the land that creates a dispersal barrier for the species..	No
C-41	Pole Work Area	0.6	0.9	Agriculture	Commercial apple orchard; limited understory vegetation present.	Limited connectivity to suitable breeding habitat; surrounding native habitats converted to agricultural and residential uses; isolated from nearest known breeding pond (Merk Pond) by extensive area of active agriculture.	No upland habitat present; work area provides disturbed dispersal habitat; however, SCLTS is not expected to migrate across Corralitos Valley due to the agricultural use of the land that creates a dispersal barrier for the species..	No
Corralitos Road Staging Area	Staging Area/Landing Zone	0.7	0.8	Agriculture	Active strawberry field.	Limited connectivity to suitable breeding habitat; surrounding native habitats converted to agricultural and residential uses; isolated from nearest known breeding pond (Merk Pond) by extensive area of active agriculture.	No upland habitat present; work area provides disturbed dispersal habitat; however, SCLTS is not expected to migrate across Corralitos Valley due to the agricultural use of the land that creates a dispersal barrier for the species.	No
Corralitos Road Guard Structure	Guard Structure	0.5	0.8	Agriculture	Orchard; limited or no understory vegetation present.	Limited connectivity to suitable breeding habitat; surrounding native habitats converted to agricultural and residential uses; isolated from nearest known breeding pond (Merk Pond) by extensive area of active agriculture.	No upland habitat present; work area provides disturbed dispersal habitat; however, SCLTS is not expected to migrate across Corralitos Valley due to the agricultural use of the land that creates a dispersal barrier for the species.	No
E-45	Pole Work Area	0.5	0.8	Ruderal/agriculture	Ruderal roadside adjacent to active agricultural fields.	Limited connectivity to suitable breeding habitat; surrounding native habitats converted to agricultural and residential uses; isolated from nearest known breeding pond (Merk Pond) by extensive area of active agriculture.	No upland habitat present; work area provides disturbed dispersal habitat; however, SCLTS is not expected to migrate across Corralitos Valley due to the agricultural use of the land that creates a dispersal barrier for the species.	No

**Appendix C1
Work Area Habitat Suitability**

PG&E Site #	Work Area Type	Distance (miles) to Nearest Known SCLTS Breeding Aquatic Feature	Distance (miles) to Nearest Suitable SCLTS Breeding Aquatic Feature	Habitat Type(s)	Canopy/Understory Description	Habitat Connectivity of Adjacent Areas to Breeding Habitat	Assessment of SCLTS Habitat within Project Site Boundaries*	Fence Work Area during Construction (Yes/No)
C-42/E-46	Pole Work Area	0.5	0.7	Agriculture	Active blackberry field.	Limited connectivity to suitable breeding habitat; surrounding native habitats converted to agricultural and residential uses; isolated from nearest known breeding pond (Merk Pond) by active agriculture.	No upland habitat present; work area provides disturbed dispersal habitat; however, SCLTS is not expected to migrate across Corralitos Valley due to the agricultural use of the land that creates a dispersal barrier for the species.	No
E-47	Pole Work Area	0.5	0.7	Ruderal/landscaped/grassland	Annual grassland with scattered coyotebush; landscaped Monterey pine in median between driveway and agriculture road; minimal understory.	To the east, habitat is fragmented by presence of residences and agriculture; upland habitats to the south are relatively contiguous between work area and Merk Pond approximately 0.5 mile to southwest.	No upland habitat present; work area provides dispersal habitat.	No
C-43	Pole Work Area	0.5	0.7	Ruderal/grassland	Grassland with scattered coyote bush.	Land to the east is fragmented by residences and extensive agriculture; upland habitats to the south are relatively contiguous between work area and Merk Pond approximately 0.5 mile southwest.	No upland habitat present; portion of work area is previously disturbed but mostly supports grass and coyote bush; provides dispersal habitat.	No
Pull Site between C-43 & C-44	Tension Pull Site	0.5	0.6	Ruderal/grassland	Ruderal/grassland/coyote bush scrub adjacent to manicured <i>Eucalyptus</i> grove; portion of the site within an active goat corral.	Land to the east is fragmented by residences and extensive agriculture; upland habitats to the south are relatively contiguous between work area and Merk Pond approximately 0.5 mile southwest of the site.	No upland habitat present; work area is highly disturbed with some grass and brush present. The site provides dispersal habitat	No
C-44/E-48	Pole Work Area	0.5	0.6	Ruderal/grassland	Disturbed grassland within corral currently used to raise goats.	Land to the east is fragmented by residences and extensive agriculture; upland habitats to the south are relatively contiguous between work area and Merk Pond approximately 0.5 mile southwest.	No upland habitat present; work area is highly disturbed within a pasture used to raise goats; no vegetative canopy or understory is present. The site provides dispersal habitat.	No
C-45/E-49	Pole Work Area	0.6	0.6	Coastal scrub	Coastal scrub dominated by dense poison oak, coffeeberry, and coyote bush with scattered small live oaks.	A suitable dispersal corridor connects work area to Merk Pond approximately 0.6 mile southwest of the site.	Site contains suitable upland habitat with connectivity to relatively undisturbed lands extending southwest to Merk Pond.	Yes
C-46	Pole Work Area	0.7	0.5	Coastal scrub	Coastal scrub dominated by dense poison oak, coffeeberry, cotoneaster, coyote bush with scattered oaks and <i>Eucalyptus</i> saplings.	A suitable dispersal corridor connects work area to Merk Pond approximately 0.7 mile southwest	Site provides suitable upland habitat with connectivity to Merk Pond.	Yes
E-50	Pole Work Area	0.7	0.5	Coastal scrub	Coastal scrub dominated by dense poison oak and coyote bush; oak canopy nearby.	Suitable dispersal corridor connects work area to Merk Pond approximately 0.7 mile southwest	Site provides suitable upland habitat with connectivity to Merk Pond.	Yes
C-47/E-51	Pole Work Area	0.8	0.4	Oak woodland/pine/ <i>Eucalyptus</i> woodland/coastal scrub	Oak woodland with pine/ <i>Eucalyptus</i> woodland with relatively dense understory of toyon, coyote bush, cotoneaster, and poison oak.	Suitable dispersal corridor connects work area to Merk Pond approximately 0.8 mile southwest of the site.	Site provides suitable upland habitat with connectivity to breeding habitat via relatively undisturbed lands to the south.	Yes

**Appendix C1
Work Area Habitat Suitability**

PG&E Site #	Work Area Type	Distance (miles) to Nearest Known SCLTS Breeding Aquatic Feature	Distance (miles) to Nearest Suitable SCLTS Breeding Aquatic Feature	Habitat Type(s)	Canopy/Understory Description	Habitat Connectivity of Adjacent Areas to Breeding Habitat	Assessment of SCLTS Habitat within Project Site Boundaries*	Fence Work Area during Construction (Yes/No)
C-48/E-52	Pole Work Area	0.9	0.4	Landscaped ornamental plants/ruderal grassland	Landscaped residence backyard.	Suitable dispersal corridor connects work area to Merk Pond approximately 0.8 mile southwest of the site.	No upland habitat is present; work area is highly disturbed with no native canopy or understory. Provides marginal SCLTS dispersal habitat due to adjacent nearby oak woodland and connectivity to the west and south.	No
C-49/E-53	Pole Work Area	0.9	0.3	Oak woodland	Oak woodland with madrone and understory of poison oak, California blackberry, monkey flower; grassy patches.	Surrounding native habitats contain intact oak woodland, coastal scrub, and grassland with connectivity in all directions to relatively undisturbed habitat.	Site provides suitable upland habitat as well as extensive connectivity with relatively undisturbed habitat and known/potential breeding ponds.	Yes
C-50/E-54	Pole Work Area	1.2	0.3	Annual grassland/coastal scrub	Scattered oaks with open understory of cotoneaster, grasses.	Surrounding habitats contain intact oak woodland, coastal scrub, grassland, and <i>Eucalyptus</i> forest. Site has connectivity in all directions to relatively undisturbed habitat.	Site provides upland habitat but lacks a native understory; extensive connectivity with relatively undisturbed lands to southwest.	Yes
C-51/E-55	Pole Work Area	1.2	0.3	Annual grassland/coastal scrub/oak woodland	Oak woodland with relatively open understory of toyon, coyote bush, cotoneaster, and bracken fern; patches of grassland present.	Surrounding native habitats comprised of intact oak woodland, coastal scrub, grassland, and <i>Eucalyptus</i> forest provide connectivity to surrounding areas and suitable breeding habitat.	Site provides suitable upland habitat; extensive connectivity with relatively undisturbed lands to south, southwest and east.	Yes
Hames Hollow Guard Structure	Guard Structure	1.3	0.4	Agriculture	Disked field; recently planted tomatoes.	Surrounding native habitats heavily fragmented by residences; limited connectivity to suitable breeding habitats.	No upland habitat is present; work area is disturbed with no canopy or understory. Site provides marginal dispersal habitat.	No
C-52/E-56	Pole Work Area	1.3	0.5	Ruderal/developed	Landscaped residence backyard; no understory present.	Surrounding native habitats heavily fragmented by presence of numerous residences that limit connectivity to suitable breeding habitats.	No upland habitat is present the site provides marginal and limited SCLTS dispersal habitat.	No
C-53/E-57	Pole Work Area	1.2	0.6	Oak woodland	Oak woodland with madrone and understory of poison oak, California blackberry, French broom; much of understory recently cleared.	Surrounding native habitats heavily fragmented by presence of numerous residences that limit connectivity to suitable breeding habitats.	Marginal and limited upland habitat and suitable dispersal habitat.	Yes
Pleasant Valley Road Guard Structure	Guard Structure	1.2	0.6	Ruderal (roadside)	Ruderal roadside with adjacent oak woodland to the east and ruderal roadside vegetation to the west.	Surrounding habitats are fragmented by agriculture and residences; limited connectivity to suitable breeding habitat.	No upland habitat due to the lack of understory vegetation, previous disturbance, and limited connectivity to breeding sites. Site provides marginal dispersal habitat.	No
Hames Road Guard Structure	Guard Structure	1.2	0.6	Ruderal (roadside)	Disked orchard on north side; landscaped backyard of residence on south side.	Surrounding habitats are fragmented by agriculture and residences; limited connectivity to suitable breeding habitat.	No upland habitat due to the lack of understory vegetation. Previous disturbance and limited connectivity to breeding sites. Site provides marginal dispersal habitat.	No
Hames Road Staging Area	Staging Area	0.9	0.5	Agriculture	Disked field in apple orchard; limited understory of sparse grasses present.	Surrounding habitats are fragmented by agriculture and residences; limited connectivity to suitable breeding habitat.	No upland habitat; site provides marginal dispersal habitat,	No

**Appendix C1
Work Area Habitat Suitability**

PG&E Site #	Work Area Type	Distance (miles) to Nearest Known SCLTS Breeding Aquatic Feature	Distance (miles) to Nearest Suitable SCLTS Breeding Aquatic Feature	Habitat Type(s)	Canopy/Understory Description	Habitat Connectivity of Adjacent Areas to Breeding Habitat	Assessment of SCLTS Habitat within Project Site Boundaries*	Fence Work Area during Construction (Yes/No)
Hames Road Landing Zone	Landing Zone	1.2	0.6	Grassland/agriculture	Chicken farm with grassland and scattered coyote bush.	Surrounding habitats are fragmented by agriculture and residences; limited connectivity to suitable breeding habitat.	No upland habitat due to the lack of canopy and understory cover. Grassland provides suitable SCLTS dispersal habitat.	No
C-54/E-58	Pole Work Area	1.1	0.6	Agriculture	Disked field in apple orchard; limited understory of sparse grasses present.	Surrounding native habitats are fragmented by agriculture and residences; limited connectivity to suitable breeding habitat exists.	No upland habitat is present, since the work area is regularly disked and there is no canopy or understory. Site provides disturbed dispersal habitat.	No
Pull Site between C-54 & C-55	Tension Pull Site	1.0	0.5	Agriculture/oak woodland	Much of site in disked apple orchard; portion contains oak woodland with scattered pines and understory of toyon, cotoneaster, pampas, and poison oak.	Surrounding native habitats are largely fragmented by agriculture and residences. Site has some connectivity to suitable oak woodland habitat to the south and west.	A small portion of the site that supports oak woodland provides upland habitat, despite a relatively open understory with some nonnative under-story species; the remainder of the site in the orchard does not provide upland but does provide disturbed dispersal habitat.	Yes
C-55/E-59	Pole Work Area	1.1	0.5	Grassland/coastal scrub/oak woodland	Oak woodland with scattered pines and relatively open understory of toyon, poison oak, cotoneaster, and pampas.	Surrounding native habitats are fragmented by agriculture and residences. Site has some connectivity with suitable upland habitat to the south and west.	Site provides upland habitat on a relatively undisturbed low hill; work area is surrounded by orchards and fields.	Yes
C-56/E-60	Pole Work Area	1.0	0.6	Agriculture/grassland	Disked field with scattered mature orchard trees.	Surrounding native habitats are fragmented by agriculture and residences. Site has connectivity to suitable oak woodland habitat to the south and west.	No upland habitat is present; work area is highly disturbed and there is no canopy or understory. Site provides disturbed dispersal habitat.	No
C-57/E-61	Pole Work Area	0.9	0.6	Oak woodland	Oak woodland with understory of ceanothus, coffeeberry, and monkey flower.	Surrounding native habitats include intact oak woodland and <i>Eucalyptus</i> forest. Site has connectivity to oak woodland and <i>Eucalyptus</i> habitats to the south and southeast.	Site provides upland habitat due to the presence of undisturbed oak woodland with intact understory vegetation.	Yes
C-58/E-62	Pole Work Area	0.9	0.6	Coastal scrub	Coastal scrub on ridgeline with ceanothus, coyotebush, poison oak, monkey flower, pampas, and broom.	Connectivity exists with surrounding oak woodland and coastal scrub habitats. Larger tracts of contiguous habitat are present to the southeast and south.	Site provides upland habitat due to the presence of suitable coastal scrub and adjacent oak woodlands.	Yes
C-59/E-63	Pole Work Area	0.9	0.7	Oak woodland/grassland	Oak woodland with understory of poison oak, California blackberry, and bracken fern; patches of grassland present.	Surrounding native habitats are fragmented by scattered residences surrounding the site. Some connectivity exists with uplands to the east and south.	Site provides upland habitat due to the presence of suitable vegetation and some habitat connectivity.	Yes
Quail Run Guard Structure	Guard Structure	0.9	0.8	Ruderal (roadside)/grassland	Ruderal habitat on compacted, graded area; no canopy is present.	Surrounding native habitats are heavily fragmented by residences; surrounding residential development limits connectivity to surrounding areas.	No upland habitat is present due to a lack of suitable vegetation and compacted substrate at the site. Site is highly disturbed and in a residential area. Site provides disturbed dispersal habitat.	No

**Appendix C1
Work Area Habitat Suitability**

PG&E Site #	Work Area Type	Distance (miles) to Nearest Known SCLTS Breeding Aquatic Feature	Distance (miles) to Nearest Suitable SCLTS Breeding Aquatic Feature	Habitat Type(s)	Canopy/Understory Description	Habitat Connectivity of Adjacent Areas to Breeding Habitat	Assessment of SCLTS Habitat within Project Site Boundaries*	Fence Work Area during Construction (Yes/No)
C-60	Pole Work Area	0.9	0.8	Ruderal/developed	Ruderal habitat on compacted driveway with temporary car port; scattered manicured oaks.	Surrounding native habitats are heavily fragmented by residences. Residential development limits connectivity to surrounding areas.	No upland habitat is present due to a lack of suitable vegetation and compacted substrate at the site; Site is within a parking area between residences; provides disturbed dispersal habitat.	No
E-64	Pole Work Area	0.9	0.8	Ruderal/developed	Backyard garden under manicured oaks; weedy understory with scattered landscaped ornamental plants.	Surrounding native habitats are heavily fragmented by residences. Residential development limits connectivity to surrounding areas.	No upland habitat is present due to a lack of suitable vegetation and compacted substrate at the site; provides disturbed dispersal habitat.	No
C-61/E-65	Pole Work Area	0.9	0.9	Grassland	Grassy lot with a landscaped tree. No understory vegetation other than grasses.	Surrounding native habitats are heavily fragmented by residences. Residential development limits connectivity to surrounding areas.	No upland habitat is present because the site consists of grassland in a residential area with no canopy; site provides dispersal habitat.	No
C-62/E-66	Pole Work Area	1.0	0.9	Ruderal/developed/grassland	Landscaped backyard with olive tree, oleander, and bottlebush; mowed grassland.	Surrounding native habitats are heavily fragmented by residences. Residential development limits connectivity to surrounding areas.	No upland habitat is present because the site lacks appropriate vegetation and cover. Grassland portion of site provides dispersal habitat.	No
C-63/E-67	Pole Work Area	1.0	1.0	Ornamental trees/grassland	Landscaped redwood/Douglas fir canopy with grassland understory that is periodically mowed.	Surrounding native habitats are fragmented by scattered residences. Limited connectivity exists with habitats to the south.	No suitable upland habitat is present due to the lack of suitable understory. Site provides suitable dispersal habitat.	No
C-64/E-68	Pole Work Area	1.1	1.2	Oak woodland	Oak woodland with intact understory of California blackberry and poison oak; grassy patch also present.	Surrounding native habitats are fragmented by scattered residences. Surrounding residential development limits connectivity to surrounding areas.	Site contains suitable upland vegetation, but is outside the current reported SCLTS range; site is greater than 1 mile from nearest known or potential breeding pond. Due to the location of the site outside of the reported range of the species, as well as the distance to known breeding habitat, it is unlikely that SCLTS would utilize this site.	No
C-65/E-69	Pole Work Area	1.1	1.2	Ruderal/nonnative trees (pine)	Introduced lodgepole pine/scattered madrone canopy with grassy understory that is periodically mowed.	Surrounding native habitats are fragmented by scattered residences. Adjacent residential development limits connectivity to surrounding areas.	No upland habitat is present due to a lack of suitable vegetation. Site contains suitable dispersal vegetation, but is outside the current reported SCLTS range; site is greater than 1 mile from nearest known or potential breeding pond. Due to the location of the site outside of the reported range of the species, as well as the distance to known breeding habitat, it is unlikely that SCLTS would utilize this site.	No
C-66/E-70	Pole Work Area	1.2	1.2	Coastal scrub	Coastal scrub on ridge with chamise, black sage, and monkey flower; no tree canopy present.	Surrounding native habitats are fragmented by scattered residences. Residential development limits connectivity to surrounding areas.	Site contains suitable upland vegetation, but is outside the current reported SCLTS range; site is greater than 1 mile from nearest known or potential breeding pond. Due to the location of the site outside of the reported range of the species, as well as the distance to known breeding habitat, it is unlikely that SCLTS would utilize this site.	No

**Appendix C1
Work Area Habitat Suitability**

PG&E Site #	Work Area Type	Distance (miles) to Nearest Known SCLTS Breeding Aquatic Feature	Distance (miles) to Nearest Suitable SCLTS Breeding Aquatic Feature	Habitat Type(s)	Canopy/Understory Description	Habitat Connectivity of Adjacent Areas to Breeding Habitat	Assessment of SCLTS Habitat within Project Site Boundaries*	Fence Work Area during Construction (Yes/No)
C-67/E-71	Pole Work Area	1.2	1.2	Oak woodland/coastal scrub	Approximately 50 percent grassland and 50 percent oak woodland with an understory of coffeeberry, poison oak, and California blackberry.	Surrounding native habitats are fragmented; located adjacent to residences and active agriculture with greenhouses. Connectivity of the area to suitable breeding habitat is limited by development.	Site contains suitable SCLTS upland vegetation, but is outside the current reported SCLTS range; site is greater than 1 mile from nearest known or potential breeding pond. Due to the location of the site outside of the reported range of the species, as well as the distance to known breeding habitat, it is unlikely that SCLTS would utilize this site.	No
Cox Road Pull Site	Tension Pull Site	1.2	1.3	Ruderal/developed	Active agricultural field along driveway. No native habitat types or understory vegetation is present.	Surrounding native habitats are fragmented; connectivity of the area to suitable breeding habitat is limited by development.	No upland habitat is present due to a lack of suitable vegetation. Site contains suitable dispersal vegetation, but is outside the current reported SCLTS range; site is greater than 1 mile from nearest known or potential breeding pond. Due to the location of the site outside of the reported range of the species, as well as the distance to known breeding habitat, it is unlikely that SCLTS would utilize this site.	No
C-68/E-71A	Pole Work Area	1.3	1.3	Oak woodland	Scattered oaks with grassy understory that is periodically mowed; some woody debris and landscaped plants present.	Surrounding native habitats are fragmented; connectivity of the area to suitable breeding habitat is limited by development.	Site contains suitable upland vegetation, but is outside the current reported SCLTS range; site is greater than 1 mile from nearest known or potential breeding pond. Due to the location of the site outside of the reported range of the species, as well as the distance to known breeding habitat, it is unlikely that SCLTS would utilize this site.	No
E-72	Pole Work Area	1.3	1.2	Oak woodland/coastal scrub	Disturbed/sparse coastal scrub on ridge; oak woodland adjacent to site; understory of pampas, monkey flower, and bracken fern.	Surrounding native habitats fragmented, along shared driveway/lane off of Cox Road; site has connectivity to oak woodland and redwood forest to the west.	Site contains suitable upland vegetation, but is outside the current reported SCLTS range; site is greater than 1 mile from nearest known or potential breeding pond. Due to the location of the site outside of the reported range of the species, as well as the distance to known breeding habitat, it is unlikely that SCLTS would utilize this site.	No
C-69/E-74	Pole Work Area	1.2	1.2	Ruderal (roadside)	Ruderal, bare dirt along roadside.	Surrounding native habitats are fragmented; some connectivity to oak woodlands southwest of the project alignment.	No upland habitat is present due to a lack of suitable vegetation. Site contains suitable dispersal vegetation, but is outside the current reported SCLTS range; site is greater than 1 mile from nearest known or potential breeding pond. Due to the location of the site outside of the reported range of the species, as well as the distance to known breeding habitat, it is unlikely that SCLTS would utilize this site.	No

**Appendix C1
Work Area Habitat Suitability**

PG&E Site #	Work Area Type	Distance (miles) to Nearest Known SCLTS Breeding Aquatic Feature	Distance (miles) to Nearest Suitable SCLTS Breeding Aquatic Feature	Habitat Type(s)	Canopy/Understory Description	Habitat Connectivity of Adjacent Areas to Breeding Habitat	Assessment of SCLTS Habitat within Project Site Boundaries*	Fence Work Area during Construction (Yes/No)
C-70/E-76	Pole Work Area	1.1	1.1	Ruderal (roadside)	Redwood/Douglas fir canopy with mixed understory of landscaping, California blackberry, wild cucumber.	Surrounding native habitats are fragmented due to residential development; some connectivity to oak woodlands southwest of the project.	No upland habitat is present due to a lack of suitable vegetation. Site contains suitable dispersal vegetation, but is outside the current reported SCLTS range; site is greater than 1 mile from nearest known or potential breeding pond. Due to the location of the site outside of the reported range of the species, as well as the distance to known breeding habitat, it is unlikely that SCLTS would utilize this site.	No
C-71/E-77	Pole Work Area	1.1	1.1	Ruderal (roadside)	Conifer canopy in front of residence; ruderal and grassy understory, along roadside ditch.	Surrounding native habitats are fragmented due to residential development; some connectivity to oak woodlands southwest of the site exists.	Site provides suitable dispersal vegetation but is outside known SCLTS range; site is greater than 1 mile from the nearest known or potential breeding pond. Due to the location of the site outside of the reported range of the species, as well as the distance to known breeding habitat, it is unlikely that SCLTS would utilize this site.	No
C-72s	Pole Work Area	1.1	1.1	Ruderal (roadside)	No canopy; ruderal, grassland along roadside ditch.	Surrounding native habitats are fragmented; Connectivity of the area to suitable breeding habitat is limited by development.	No upland habitat is present due to a lack of suitable vegetation. Site provides suitable dispersal vegetation but is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond. Due to the presence of the site outside of the reported range of the species, as well as the distance to known breeding habitat, it is unlikely that SCLTS would utilize this site.	No
C-72/E-78	Pole Work Area	1.1	1.1	Oak woodland/ruderal (roadside)	Oak woodland with intact understory of California blackberry, poison oak, bracken fern and grassy/ruderal roadside.	Surrounding native habitats are fragmented; Connectivity of the area to suitable breeding habitat is limited by development.	Site provides suitable upland vegetation but is outside known SCLTS range; site is greater than 1 mile from nearest known or potential breeding pond. Due to the location of the site outside of the reported range of the species, as well as the distance to known breeding habitat, it is unlikely that SCLTS would utilize this site.	No
C-73/E-80	Pole Work Area	1.0	1.0	Ruderal (roadside)	No canopy; ruderal, landscaped roadside.	Site is located along a roadside; surrounding native habitats are fragmented; connectivity of the area to suitable breeding habitat is limited by development.	No upland habitat is present due to a lack of suitable vegetation. Site provides disturbed dispersal habitat.	No
CD-81/E-81	Pole Work Area	1.0	1.0	Ruderal (roadside)	No canopy; grassy/ruderal roadside.	Site is located along a roadside; surrounding native habitats are fragmented; connectivity of the area to suitable breeding habitat is limited by development.	No upland habitat is present due to a lack of suitable vegetation. Site provides disturbed dispersal habitat.	No

**Appendix C1
Work Area Habitat Suitability**

PG&E Site #	Work Area Type	Distance (miles) to Nearest Known SCLTS Breeding Aquatic Feature	Distance (miles) to Nearest Suitable SCLTS Breeding Aquatic Feature	Habitat Type(s)	Canopy/Understory Description	Habitat Connectivity of Adjacent Areas to Breeding Habitat	Assessment of SCLTS Habitat within Project Site Boundaries*	Fence Work Area during Construction (Yes/No)
C-74/E-82	Pole Work Area	0.9	1.0	Ruderal (roadside)	Grassy/ruderal roadside.	Site is located along a roadside; surrounding native habitats are fragmented; connectivity of the area to suitable breeding habitat is limited by development.	No upland habitat is present due to a lack of suitable vegetation. Site provides disturbed dispersal habitat.	No
C-75	Pole Work Area	0.9	0.9	Oak woodland	Oak woodland/mixed hardwoods with intact understory of coffeeberry, poison oak, California blackberry, bracken fern.	Land to the north is fragmented by residential development; habitats to the south are relatively undisturbed, providing connectivity to Tucker Pond 0.9 mile southeast of the site.	Site provides upland habitat; site is located at the base of a mesic, north-facing slope with extensive appropriate habitat to south.	Yes
C-76/E-85	Pole Work Area	0.9	0.9	Ruderal (roadside)	Landscaped roadside near residence.	Site is located along a roadside; land to north fragmented by residential development; habitats to south relatively undisturbed, providing connectivity to Tucker Pond 0.9 mile southeast of the site.	No upland habitat is present due to a lack of suitable vegetation. Site provides disturbed dispersal habitat.	No
C-77	Pole Work Area	0.9	0.9	Ruderal (roadside)	No understory; 2 mature oaks near edge of site.	Site is located along a roadside. Surrounding native habitats are fragmented; connectivity of the area to suitable breeding habitat is limited by development.	No upland habitat is present due to a lack of suitable vegetation. Site provides disturbed dispersal habitat.	No
CD-86/E-86	Pole Work Area	0.9	0.9	Ruderal (roadside)/oak woodland	Oak and black locust canopy with ruderal/grassy understory.	Site is located along a roadside. Surrounding native habitats are fragmented; connectivity of the area to suitable breeding habitat is limited by development.	Oak woodland within portion of work area provides suitable upland habitat. Remainder of site provides disturbed dispersal habitat.	Yes
CD-87/E-87	Pole Work Area	0.9	0.9	Ruderal (roadside)	Black locust canopy with ruderal/grassy understory.	Site is located along a roadside. Surrounding native habitats are fragmented; connectivity of the area to suitable breeding habitat is limited by development.	No upland habitat is present due to a lack of suitable vegetation. Site provides disturbed dispersal habitat.	No
C-78/E-78	Pole Work Area	0.9	0.9	Ruderal (roadside)/oak woodland	Ruderal grassland along roadside with oak woodland within 15-feet with dense poison oak and California blackberry understory.	Site is located along a roadside. Surrounding native habitats are fragmented; connectivity of the area to suitable breeding habitat is limited by development.	Oak woodland within portion of work area provides suitable upland habitat. Remainder of site provides disturbed dispersal habitat.	Yes,
CD-89/E-89	Pole Work Area	0.9	0.8	Ruderal (roadside)/willow riparian	Willow riparian with grassy understory and landscaped hedge.	Site is located along a roadside. Surrounding native habitats are fragmented; connectivity of the area to suitable breeding habitat is limited by development.	Willow riparian within portion of work area provides suitable upland habitat. Remainder of site provides disturbed dispersal habitat.	Yes
C-79	Pole Work Area	0.9	0.8	Ruderal (roadside)	Landscaped ornamental tree with no understory, some iceplant.	Site is located along a roadside. Surrounding native habitats are fragmented; connectivity of the area to suitable breeding habitat is limited by development.	No upland habitat is present due to a lack of suitable vegetation. Site provides disturbed dispersal habitat.	No

**Appendix C1
Work Area Habitat Suitability**

PG&E Site #	Work Area Type	Distance (miles) to Nearest Known SCLTS Breeding Aquatic Feature	Distance (miles) to Nearest Suitable SCLTS Breeding Aquatic Feature	Habitat Type(s)	Canopy/Understory Description	Habitat Connectivity of Adjacent Areas to Breeding Habitat	Assessment of SCLTS Habitat within Project Site Boundaries*	Fence Work Area during Construction (Yes/No)
CS-90	Pole Work Area	0.9	0.8	Ruderal (roadside)	Grassy/ruderal roadside.	Site is located along a roadside. Surrounding native habitats are fragmented; connectivity of the area to suitable breeding habitat is limited by development.	No upland habitat is present due to a lack of suitable vegetation. Site provides disturbed dispersal habitat.	No
CD-90/E-90	Pole Work Area	0.9	0.8	Ruderal (roadside)	Ice plant.	Site is located along a roadside. Surrounding native habitats are fragmented; connectivity of the area to suitable breeding habitat is limited by development.	No upland habitat is present due to a lack of suitable vegetation. Site provides disturbed dispersal habitat.	No
CD-91/E-91	Pole Work Area	0.9	0.8	Ruderal (roadside)	Landscaped plants, bare dirt, ruderal roadside.	Site is located along a roadside. Surrounding native habitats are fragmented; connectivity of the area to suitable breeding habitat is limited by development.	No upland habitat is present due to a lack of suitable vegetation. Site provides disturbed dispersal habitat.	No
CD-92/E-92	Pole Work Area	0.8	0.8	Ruderal (roadside)/oak woodland	Dense understory of poison oak.	Site is located along a roadside. Surrounding native habitats are fragmented; connectivity of the area to suitable breeding habitat is limited by development.	Oak trees are present in the western part of the work area, with a dense understory that provides upland habitat. Remainder of site provides disturbed dispersal habitat.	Yes
C-80	Pole Work Area	0.8	0.8	Ruderal (roadside)/oak woodland	Grassy/ruderal roadside with scattered mature oaks.	Site is located along a roadside. Surrounding native habitats are fragmented; connectivity of the area to suitable breeding habitat is limited by development.	Oak trees are present in the western part of the work area, which provides suitable upland habitat. Remainder of site provides disturbed dispersal habitat.	Yes
E92A	Pole Work Area	0.8	0.8	Ruderal (roadside)	Grassy/ruderal roadside.	Site is located along a roadside. Surrounding native habitats are fragmented; connectivity of the area to suitable breeding habitat is limited by development.	No upland habitat is present due to a lack of suitable vegetation. Site provides disturbed dispersal habitat.	No
C-81/E-94	Pole Work Area	0.8	0.7	Ruderal (roadside)	Grassy/ruderal roadside.	Site is located along a roadside. Surrounding native habitats are fragmented; connectivity of the area to suitable breeding habitat is limited by development.	No upland habitat is present due to a lack of suitable vegetation. Site provides disturbed dispersal habitat.	No
C-81s	Pole Work Area	0.7	0.6	Ruderal (roadside)/oak woodland	Oak woodland with moderately dense understory of poison oak, mugwort, and <i>Vinca</i> .	Site is located along a roadside. Surrounding native habitats are fragmented; connectivity of the area to suitable breeding habitat is limited by development.	Work area with live oaks and a suitable understory that provides upland habitat. Remainder of site provides disturbed dispersal habitat.	Yes
C-82/E-96	Pole Work Area	0.7	0.6	Ruderal (roadside)	Work area is largely denuded of vegetation.	Site is located along a roadside. Surrounding native habitats are fragmented; connectivity of the area to suitable breeding habitat is limited by development.	No upland habitat is present due to a lack of suitable vegetation. Site provides disturbed dispersal habitat.	No

**Appendix C1
Work Area Habitat Suitability**

PG&E Site #	Work Area Type	Distance (miles) to Nearest Known SCLTS Breeding Aquatic Feature	Distance (miles) to Nearest Suitable SCLTS Breeding Aquatic Feature	Habitat Type(s)	Canopy/Understory Description	Habitat Connectivity of Adjacent Areas to Breeding Habitat	Assessment of SCLTS Habitat within Project Site Boundaries*	Fence Work Area during Construction (Yes/No)
CD-97	Pole Work Area	0.6	0.6	Ruderal (roadside)	Landscaping.	Site is located along a roadside. Surrounding native habitats are fragmented; connectivity of the area to suitable breeding habitat is limited by development.	No upland habitat is present due to a lack of suitable vegetation. Site provides disturbed dispersal habitat.	No
C-83/E-98	Pole Work Area	0.6	0.5	Ruderal (roadside)	Work area is ruderal grassland.	Site is located along a roadside. Surrounding native habitats are fragmented; connectivity of the area to suitable breeding habitat is limited by development.	No upland habitat is present due to a lack of suitable vegetation. Site provides disturbed dispersal habitat.	No
CD-99	Pole Work Area	0.6	0.5	Ruderal (roadside)	Area cleared of vegetation.	Site is located along a roadside. Surrounding native habitats are fragmented; connectivity of the area to suitable breeding habitat is limited by development.	No upland habitat is present due to a lack of suitable vegetation. Site provides disturbed dispersal habitat.	No
CD-100	Pole Work Area	0.5	0.5	Ruderal (roadside)/oak woodland	Existing pole at edge of road-site drainage course; oak woodland canopy with sparse understory, dominated by <i>Vinca</i> .	Site is located along a roadside. Surrounding native habitats are fragmented; connectivity of the area to suitable breeding habitat is limited by development.	Work area under canopy of live oaks which provides suitable upland habitat.	Yes
C-84	Pole Work Area	0.5	0.5	Ruderal/grassland	Area cleared of vegetation.	Surrounding native habitats fragmented, but upland habitats relatively contiguous between site and Tucker Pond and Palmer Pond. Freedom Boulevard presents partial barrier to movements.	No upland habitat is present due to a lack of suitable vegetation. Site provides dispersal habitat.	No
CD-101	Pole Work Area	0.5	0.5	Ruderal (roadside)/oak woodland/willow riparian	Area surrounding existing pole highly disturbed.; northern portion of work area with an understory of California blackberry, wild cucumber.	Site is located along a roadside. Surrounding native habitats fragmented, but upland habitats relatively contiguous between site and Tucker Pond and Palmer Pond. Freedom Boulevard presents partial barrier to movements.	Northern edge of work area supports oaks and willows with an appropriate understory and provides suitable upland habitat. Remainder of site provides disturbed dispersal habitat.	Yes
C-85/E-101	Pole Work Area	0.5	0.5	Ruderal (roadside)	Work area is largely denuded of native vegetation; portion of work area with landscaping.	Site is located along a roadside. Surrounding native habitats fragmented, but upland habitats relatively contiguous between site and Tucker Pond and Palmer Pond. Freedom Boulevard presents partial barrier to movements.	No upland habitat is present due to a lack of suitable vegetation. Site provides disturbed dispersal habitat.	No

**Appendix C1
Work Area Habitat Suitability**

PG&E Site #	Work Area Type	Distance (miles) to Nearest Known SCLTS Breeding Aquatic Feature	Distance (miles) to Nearest Suitable SCLTS Breeding Aquatic Feature	Habitat Type(s)	Canopy/Understory Description	Habitat Connectivity of Adjacent Areas to Breeding Habitat	Assessment of SCLTS Habitat within Project Site Boundaries*	Fence Work Area during Construction (Yes/No)
E-103	Pole Work Area	0.4	0.5	Ruderal (roadside)	Work area is largely denuded of vegetation.	Site is located along a roadside. Surrounding native habitats fragmented, but upland habitats relatively contiguous between site and Tucker Pond and Palmer Pond. Freedom Boulevard presents partial barrier to movements.	No upland habitat is present due to a lack of suitable vegetation. Site provides disturbed dispersal habitat.	No
C-86	Pole Work Area	0.4	0.5	Ruderal (roadside)	Work area is ruderal grassland.	Site is located along a roadside. Surrounding native habitats fragmented, but upland habitats relatively contiguous between site and Tucker Pond and Palmer Pond. Freedom Boulevard presents partial barrier to movements.	No upland habitat is present due to a lack of suitable vegetation. Site provides disturbed dispersal habitat.	No
C-87	Pole Work Area	0.4	0.5	Ruderal (roadside)	Work area is ruderal grassland.	Site is located along a roadside. Surrounding native habitats fragmented, but upland habitats relatively contiguous between site and Tucker Pond and Palmer Pond. Freedom Boulevard presents partial barrier to movements.	No upland habitat is present due to a lack of suitable vegetation. Site provides dispersal habitat.	No
CD-105	Pole Work Area	0.4	0.5	Ruderal (roadside)	Work area is ruderal grassland.	Site is located along a roadside. Surrounding native habitats fragmented, but upland habitats relatively contiguous between site and Tucker Pond and Palmer Pond. Freedom Boulevard presents partial barrier to movements.	No upland habitat is present due to a lack of suitable vegetation. Site provides disturbed dispersal habitat.	No
C-88/E-106	Pole Work Area	0.3	0.5	Ruderal (roadside)	Work area is ruderal grassland.	Site is located along a roadside. Surrounding native habitats fragmented, but upland habitats relatively contiguous between site and Tucker Pond and Palmer Pond. Freedom Boulevard presents partial barrier to movements.	No upland habitat is present due to a lack of suitable vegetation. Site provides disturbed dispersal habitat.	No
C-89/E-108	Pole Work Area	0.3	0.5	Ruderal (roadside)	Work area is ruderal grassland.	Site is located along a roadside. Surrounding native habitats fragmented, but upland habitats relatively contiguous between site and Tucker Pond and Palmer Pond. Freedom Boulevard presents partial barrier to movements.	No upland habitat is present due to a lack of suitable vegetation. Site provides disturbed dispersal habitat.	No

**Appendix C1
Work Area Habitat Suitability**

PG&E Site #	Work Area Type	Distance (miles) to Nearest Known SCLTS Breeding Aquatic Feature	Distance (miles) to Nearest Suitable SCLTS Breeding Aquatic Feature	Habitat Type(s)	Canopy/Understory Description	Habitat Connectivity of Adjacent Areas to Breeding Habitat	Assessment of SCLTS Habitat within Project Site Boundaries*	Fence Work Area during Construction (Yes/No)
C-90/E-109	Pole Work Area	0.3	0.4	Ruderal (roadside)	Work area is largely denuded of native vegetation; portion of work area with landscaping.	Site is located along a roadside. Surrounding native habitats fragmented, but upland habitats relatively contiguous between site and Tucker Pond and Palmer Pond. Freedom Boulevard presents partial barrier to movements.	No upland habitat is present due to a lack of suitable vegetation. Site provides disturbed dispersal habitat.	No
C-91/E-111	Pole Work Area	0.2	0.4	Ruderal (roadside)	Work area is largely denuded of vegetation; no canopy or understory.	Site is located along a roadside. Surrounding native habitats fragmented, but upland habitats relatively contiguous between site and Tucker Pond and Palmer Pond. Freedom Boulevard presents partial barrier to movements.	No upland habitat is present due to a lack of suitable vegetation. Site provides disturbed dispersal habitat.	No
CD-112	Pole Work Area	0.2	0.4	Ruderal (roadside)/oak woodland	Area surrounding pole is denuded of vegetation. Edge of work area under canopy of oak trees with a moderately dense understory with poison oak.	Site is located along a roadside. Surrounding native habitats fragmented, but upland habitats relatively contiguous between site and Tucker Pond and Palmer Pond. Freedom Boulevard presents partial barrier to movements.	Western edge of work area supports oak woodland, which provides suitable upland habitat. Remainder of site provides dispersal habitat.	Yes
C-92s	Pole Work Area	0.2	0.4	Oak woodland	Moderately dense understory with periwinkle, wild rose, California blackberry.	Surrounding native habitats fragmented, but upland habitats mostly contiguous between site and known SCLTS breeding pond.	Site is under canopy of large oak tree. Shaded conditions and understory provide suitable upland habitat	Yes
C-92/E-113	Pole Work Area	0.2	0.4	Ruderal (roadside)/oak woodland	Most of site is denuded of vegetation. Western edge of work area has an understory of California blackberry.	Site is located along a roadside. Surrounding native habitats fragmented, but upland habitats relatively contiguous between site and Palmer Pond. Freedom Boulevard presents partial barrier to movements.	Western part of work area supports oak woodland, which provides upland habitat. Remainder of site provides disturbed dispersal habitat.	Yes
C-93s	Pole Work Area	0.2	0.3	Oak woodland/willow riparian	Dense understory of California blackberry, wild cucumber.	Surrounding native habitats fragmented, but upland habitats relatively contiguous between site and Palmer Pond.	Site is along a roadside ditch, which supports oaks and willows with a dense understory. Site provides suitable upland habitat.	Yes
C-93/E-115	Pole Work Area	0.2	0.3	Ruderal (roadside)/oak woodland	Most of site is denuded of vegetation. Western edge of work area has an understory of California blackberry.	Site is located along a roadside. Surrounding native habitats fragmented, but upland habitats relatively contiguous between site and Palmer Pond. Freedom Boulevard presents partial barrier to movements.	Western part of work area supports oak woodland, which provides upland habitat. Remainder of site provides disturbed dispersal habitat.	Yes
C-94s	Pole Work Area	0.3	0.3	Ruderal (roadside)/willow riparian	Willows and <i>Acacia</i> with sparse understory—blackberry, thistle.	Site is located along a roadside. Surrounding native habitats fragmented, but upland habitats relatively contiguous between site and Palmer Pond.	Site is along a roadside ditch, which supports oaks and willows with a dense understory. Site provides suitable upland habitat.	Yes

**Appendix C1
Work Area Habitat Suitability**

PG&E Site #	Work Area Type	Distance (miles) to Nearest Known SCLTS Breeding Aquatic Feature	Distance (miles) to Nearest Suitable SCLTS Breeding Aquatic Feature	Habitat Type(s)	Canopy/Understory Description	Habitat Connectivity of Adjacent Areas to Breeding Habitat	Assessment of SCLTS Habitat within Project Site Boundaries*	Fence Work Area during Construction (Yes/No)
C-94	Pole Work Area	0.3	0.3	Grassland/oak woodland	Oak woodland with dense understory—poison oak blackberry, hazel, grasses.	Site is located along a roadside. Surrounding native habitats fragmented, but upland habitats relatively contiguous between site and Palmer Pond. Freedom Boulevard presents partial barrier to movements.	Northern portion of site supports oak woodland with a dense understory and a complete canopy, which provides suitable upland habitat. Remainder of site contains disturbed dispersal habitat.	Yes
C-95/E-120	Pole Work Area	0.3	0.2	Grassland/ Monterey pine/ <i>Acacia</i> /oak woodland	Mixed woodland with moderately dense understory—grasses, coffeeberry, blackberry.	Surrounding native habitats fragmented, but upland habitats relatively contiguous between site and Palmer Pond. Freedom Boulevard presents partial barrier to movements.	Eastern portion of site supports a mixed woodland with moderately dense understory and a complete canopy, which provides SCLTS upland habitat; Western portion of site is grassland that provides suitable dispersal habitat only.	Yes
C-75A/C-96	Pole Work Area	0.3	0.2	Oak woodland	Mostly sparse, but moderately dense in areas—Poison oak, toyon.	Surrounding native habitats fragmented; Connectivity of the area to suitable breeding habitat is limited by development. Freedom Boulevard presents partial barrier to movements.	Site supports oak woodland with areas of moderately dense understory and a complete canopy. Site provides suitable upland habitat.	Yes
C-76A	Pole Work Area	0.3	0.3	Coastal scrub/oak woodland	Oak woodland with sparse understory—toyon, pampas grass.	Surrounding native habitats fragmented. Connectivity of the area to suitable breeding habitat is limited by development. Freedom Boulevard presents partial barrier to movements.	Site supports oak woodland with areas of moderately dense understory. Site provides suitable upland habitat.	Yes
C-76C	Pole Work Area	0.4	0.3	Coastal scrub/oak woodland	Oak woodland with moderately dense understory—ferns.	Surrounding native habitats fragmented. Connectivity of the area to suitable breeding habitat is limited by development. Freedom Boulevard presents partial barrier to movements.	Oak woodland with moderately dense understory, which provides suitable upland habitat; remainder of site provides dispersal habitat only	Yes
GV(RR)-PS C-77	Pole Work Area	0.5	0.5	Oak woodland	Oak woodland with dense understory of California blackberry, honeysuckle, toyon; dense pampas grass in open areas.	Situated in valley with mostly intact oak woodland. Connectivity of the area to suitable breeding habitat is limited by development. Freedom Boulevard presents a partial barrier to movements.	Site is in oak woodland with a relatively dense understory, which provides suitable upland habitat.	Yes
GV(RR)-PS C-78	Pole Work Area	0.6	0.4	Oak woodland	Oak woodland with sparse understory of periwinkle, English ivy, poison oak.	Surrounding native habitats fragmented. Connectivity of the area to suitable breeding habitat is limited by development. Freedom Boulevard presents partial barrier to movements.	Site is in an isolated patch of oaks, that provides upland habitat, between houses	Yes
GV-PS (RR) C-75	Pole Work Area	0.3	0.2	Ruderal/oak woodland	Most of site is ruderal and grassland habitats. Edges of work area support oak woodland with moderately dense understory of poison oak, blackberry.	Surrounding native habitats fragmented, but wooded habitats mostly contiguous between site and known SCLTS breeding pond.	Northern part of work area supports dense vegetation that provides suitable upland habitat. Remainder of site provides dispersal habitat.	Yes
Rob Roy Substation	Cut and Fill Area	0.3	0.3	Ruderal/coastal scrub/oak woodland/non-native pines	Oak woodland and nonnative pine canopy with sparse understory of manzanita, pampas grass.	Surrounding native habitats fragmented, but upland habitats relatively contiguous between site and Palmer Pond. Freedom Boulevard presents partial barrier to movements.	Eastern part of work area supports oaks with a sparse understory; considered suitable upland habitat.	Yes

**Appendix C1
Work Area Habitat Suitability**

PG&E Site #	Work Area Type	Distance (miles) to Nearest Known SCLTS Breeding Aquatic Feature	Distance (miles) to Nearest Suitable SCLTS Breeding Aquatic Feature	Habitat Type(s)	Canopy/Understory Description	Habitat Connectivity of Adjacent Areas to Breeding Habitat	Assessment of SCLTS Habitat within Project Site Boundaries*	Fence Work Area during Construction (Yes/No)
<p>Notes:</p> <p>*—Description of upland and dispersal habitats</p> <p>SCLTS upland habitat = Woodland and scrub habitats in which SCLTS can be found year-round; this habitat provides underground refugia during the dry season (typically 15 April–15 October); SCLTS could take refuge in such locations. Upland habitat is also considered to be dispersal habitat.</p> <p>SCLTS dispersal habitat = Open native habitats such as grassland and oak savannah supporting aboveground during juvenile dispersal or adult breeding migration in the wet season (typically 15 October–15 April). These areas would not be utilized as refuge sites during the dry season.</p> <p>SCLTS disturbed dispersal habitat = Converted lands including roads, disked fields, landscaped yards and other areas cleared of vegetation that do not provide suitable breeding or upland habitat. SCLTS can be encountered aboveground during juvenile dispersal or adult breeding migration in the wet season (typically 15 October–15 April).</p>								

**Appendix C2
Overland Access Route Habitat Suitability**

PG&E Site #	Work Area Type	Distance (miles) to Nearest Known SCLTS Breeding Aquatic Feature	Distance (miles) to Nearest Suitable SCLTS Breeding Aquatic Feature	Habitat Type(s)	Canopy/Understory Description	Habitat Connectivity of Adjacent Areas to Breeding Habitat	Assessment of SCLTS Habitat within Project Area*
C-06	Cross-Country Access	3.0	3.0	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.
C-07	Cross-Country Access	3.0	3.0	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.
C-08	Cross-Country Access	3.0	3.0	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.
C-18	Cross-Country Access	2.4	2.4	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.
C-21	Cross-Country Access	2.1	2.1	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.
C-24	Cross-Country Access	1.8	1.8	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.
C-26	Cross-Country Access	1.7	1.7	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.
E-29	Cross-Country Access	1.6	1.6	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.
C-28	Cross-Country Access	1.6	1.6	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.
E-32	Cross-Country Access	1.4	1.4	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.
C-30	Cross-Country Access	1.4	1.4	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.
C-31	Cross-Country Access	1.3	1.3	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.
C-32	Cross-Country Access	1.2	1.9	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.
C-33	Cross-Country Access	1.2	1.8	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.

**Appendix C2
Overland Access Route Habitat Suitability**

PG&E Site #	Work Area Type	Distance (miles) to Nearest Known SCLTS Breeding Aquatic Feature	Distance (miles) to Nearest Suitable SCLTS Breeding Aquatic Feature	Habitat Type(s)	Canopy/Understory Description	Habitat Connectivity of Adjacent Areas to Breeding Habitat	Assessment of SCLTS Habitat within Project Area*
C-34	Cross-Country Access	1.1	1.7	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.
C-37	Cross-Country Access	1.0	1.4	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Not assessed as it is outside known SCLTS range	Site is outside known SCLTS range; greater than 1 mile from nearest known or potential breeding pond.
C-39	Cross-Country Access	0.8	1.2	Grassland	No tree or scrub canopy; grassland, periodically disked.	No connectivity to suitable breeding habitat; isolated from nearest known breeding pond (Merk Pond) by extensive area of active agriculture.	Access route provides potential SCLTS dispersal vegetation, but SCLTS is not expected to migrate across Corralitos Valley to this area due to the dispersal barrier created by intensive agriculture.
E-43	Cross-Country Access	0.7	1.1	Agriculture	No canopy; disked field/commercial flower field.	No connectivity to suitable breeding habitat; surrounding native habitats converted to agricultural and residential uses; isolated from nearest known breeding pond (Merk Pond) by extensive area of active agriculture.	Access route provides potential disturbed dispersal vegetation, but SCLTS is not expected to migrate across Corralitos Valley to this area due to the dispersal barrier created by intensive agriculture.
C-40	Cross-Country Access	0.7	1.1	Agriculture	No canopy; disked field/commercial flower field.	No connectivity to suitable breeding habitat; surrounding native habitats converted to agricultural and residential uses; isolated from nearest known breeding pond (Merk Pond) by extensive area of active agriculture.	Access route provides potential disturbed dispersal vegetation, but SCLTS is not expected to migrate across Corralitos Valley to this area due to the dispersal barrier created by intensive agriculture.
C-41	Cross-Country Access	0.7	1.1	Active orchard	Commercial apple orchard.	No connectivity to suitable breeding habitat; surrounding native habitats converted to agricultural and residential uses; isolated from nearest known breeding pond (Merk Pond) by extensive area of active agriculture.	Access route provides potential disturbed dispersal vegetation, but SCLTS is not expected to migrate across Corralitos Valley to this area due to the dispersal barrier created by intensive agriculture.
C-42	Cross-Country Access	0.5	0.7	Agriculture	Active blackberry field.	No connectivity to suitable breeding habitat; surrounding native habitats converted to agricultural and residential uses; isolated from nearest known breeding pond (Merk Pond) by extensive area of active agriculture.	Access route provides potential disturbed dispersal vegetation, but SCLTS is not expected to migrate across Corralitos Valley to this area due to the dispersal barrier created by intensive agriculture.
C-45	Cross-Country Access	0.6	0.6	Coastal scrub	Coastal scrub dominated by dense poison oak, coffee berry, coyote bush with scattered small oaks.	Suitable dispersal corridor connects work area to Merk Pond approximately 0.6 mile southwest of the site.	No upland habitat present; suitable dispersal habitat only; access route follows old track such that no scrub will be removed; some limbing of shrubs and trees may be necessary.
C-46	Cross-Country Access	0.5	0.7	Coastal scrub	Based on aerial photos, similar to Site C-45 and C-50.	Suitable dispersal corridor connects work area to Merk Pond approximately 0.6 mile southwest of the site.	Could not visit short access road between E-50 and C-46 due to dense poison oak. Aerials photographs indicate that the habitat is similar to that present at E-50 and C-46, which provides suitable upland and dispersal habitats.
E-50	Cross-Country Access	0.7	0.5	Coastal scrub	Coastal scrub dominated by poison oak and coyote bush; oak canopy/ <i>Eucalyptus</i> forest nearby.	Suitable dispersal corridor connects work area to Merk Pond approximately 0.7 mile southwest.	No upland habitat present; follows old track; site provides dispersal habitat.
E-51	Cross-Country Access	0.8	0.4	Grassland	Grassland and mixed ruderal species.	Suitable dispersal corridor connects work area to Merk Pond approximately 0.7 mile southwest.	No upland habitat present; follows old track; site provides dispersal habitat.

**Appendix C2
Overland Access Route Habitat Suitability**

PG&E Site #	Work Area Type	Distance (miles) to Nearest Known SCLTS Breeding Aquatic Feature	Distance (miles) to Nearest Suitable SCLTS Breeding Aquatic Feature	Habitat Type(s)	Canopy/Understory Description	Habitat Connectivity of Adjacent Areas to Breeding Habitat	Assessment of SCLTS Habitat within Project Area*
C-49	Cross-Country Access	0.9	0.3	Oak woodland/grassland	Mostly mowed grassland until it reaches C-49 with intact oak woodland.	Surrounding native habitats contains intact oak woodland, coastal scrub, grassland with connectivity in all directions to surrounding areas.	Access route provides dispersal habitat and small amount of upland habitat associated with oak woodlands near C-49
C-53	Cross-Country Access	1.2	0.6	Oak woodland/ruderal	Recently cleared land along oak woodland ecotone, grassy areas, but mostly bare dirt.	Surrounding native habitats fragmented by residences with limited connectivity to suitable breeding habitats.	No upland habitat present due to lack of suitable vegetation; access route provides suitable dispersal habitat.
C-54	Cross-Country Access	1.1	0.6	Agriculture/orchard	Disked fields with scattered mature orchard trees.	Surrounding native habitats are fragmented by agriculture and residences. Site has limited connectivity with suitable upland habitat to the south and west.	No upland habitat present due to lack of suitable vegetation; site provides disturbed SCLTS habitat.
C-55	Cross-Country Access	1.1	0.5	Grassland/coastal scrub	Grassland/coyote bush scrub with scattered cotoneaster, pampas.	Surrounding native habitats are fragmented by agriculture and residences. Site has limited connectivity with suitable upland habitat to the south and west.	No upland habitat present due to lack of suitable vegetation; site provides SCLTS dispersal habitat.
C-56	Cross-Country Access	1.0	0.6	Agriculture/grassland	Disked field with no canopy.	Surrounding native habitats are fragmented by agriculture and residences. Site has limited connectivity with suitable upland habitat to the south and west.	No upland habitat present due to lack of suitable vegetation; site provides disturbed dispersal habitat.
C-57	Cross-Country Access	0.9	0.6	Oak woodland/coastal scrub	Oak woodland/coastal scrub portions of which are heavily vegetated with coffeeberry, coyotebush, poison oak, monkey flower, pampas, broom.	Surrounding native habitats include intact oak woodland and <i>Eucalyptus</i> forest. Site has connectivity to oak woodland and <i>Eucalyptus</i> habitats to the south and southeast.	Access route provides upland habitat; route follows old road cut, portions of which are heavily vegetated and have reverted to native under-story..
C-58	Cross-Country Access	0.9	0.6	Oak woodland/ <i>Eucalyptus</i> forest	Oak woodland/ <i>Eucalyptus</i> forest portions of which are heavily vegetated with coffeeberry, coyotebush, poison oak, monkey flower, pampas, broom.	Surrounding native habitats include intact oak woodland and <i>Eucalyptus</i> forest. Site has connectivity to oak woodland and <i>Eucalyptus</i> habitats to the south and southeast.	Access route provides upland habitat; route follows old road cut, portions of which are heavily vegetated and have reverted to native under-story
C-61	Cross-Country Access	0.9	0.9	Grassland	Grassy lot, no canopy.	Surrounding native habitats are heavily fragmented by residences. Residential development limits connectivity to surrounding areas.	No upland habitat is present due to the lack of suitable vegetation. Grassland provides suitable dispersal habitat.
C-64	Cross-Country Access	1.1	1.2	Oak woodland	Oak woodland with grassy understory periodically mowed.	Surrounding native habitats are heavily fragmented by residences. Residential development limits connectivity to surrounding areas.	Access route contains suitable upland and dispersal habitats, but is outside the current reported SCLTS range; site is greater than 1 mile from nearest known or potential breeding pond. Due to the location of the route outside of the reported range of the species, as well as the distance to known breeding habitat, it is unlikely that SCLTS would utilize this area.

**Appendix C2
Overland Access Route Habitat Suitability**

PG&E Site #	Work Area Type	Distance (miles) to Nearest Known SCLTS Breeding Aquatic Feature	Distance (miles) to Nearest Suitable SCLTS Breeding Aquatic Feature	Habitat Type(s)	Canopy/Understory Description	Habitat Connectivity of Adjacent Areas to Breeding Habitat	Assessment of SCLTS Habitat within Project Area*
C-66	Cross-Country Access	1.2	1.2	Grassland/non-native pines	Grassland and patch of pines with open, grassy understory.	Surrounding native habitats are heavily fragmented by residences. Residential development limits connectivity to surrounding areas.	Access route contains suitable upland and dispersal habitat, but is outside the current reported SCLTS range; site is greater than 1 mile from nearest known or potential breeding pond. Due to the location of the route outside of the reported range of the species, as well as the distance to known breeding habitat, it is unlikely that SCLTS would utilize this site.
C-95	Cross-Country Access	0.3	0.2	Grassland	No canopy; grassy with Monterey spineflower.	Surrounding native habitats fragmented. Freedom Boulevard presents partial barrier to SCLTS movements	No upland habitat is present due to the lack of canopy and understory cover. Grassland provides suitable dispersal habitat.
C-76A	Cross-Country Access	0.3	0.3	Oak woodland/coastal scrub	Oak woodland/coastal scrub with sparse understory—scattered manzanita, grassy.	Surrounding native habitats fragmented; Connectivity of the area to suitable breeding habitat is limited by development. Freedom Boulevard presents partial barrier SCLTS to movements	No upland habitat is present due to the lack of suitable vegetation. Grassland provides suitable dispersal habitat.
C-76C	Cross-Country Access	0.4	0.3	<i>Eucalyptus</i> forest/oak woodland/coastal scrub	<i>Eucalyptus</i> /oak canopy nearby; spare understory mostly grassy with some patches of scrub.	Surrounding native habitats fragmented; Connectivity of the area to suitable breeding habitat is limited by development. Freedom Boulevard presents partial barrier to SCLTS movements	No upland habitat is present due to the lack of suitable vegetation. Coastal scrub provides suitable dispersal habitat;
GV(RR)-PS C-77	Cross-Country Access (mapped by KB 5/22/13)	0.5	0.5	Ruderal (roadside)/oak woodland	Overgrown road cut dominated by pampas grass; passes through oak woodland.	Surrounding land mostly undisturbed oak woodland/coastal scrub. Freedom Road distant but still presents a partial barrier between the study site and SCLTS breeding habitat.	Route passes through patches of suitable upland and dispersal habitats (oak woodland). Remainder of route passes through suitable dispersal habitat.

Notes:
 *—Description of upland and dispersal habitats
 SCLTS upland habitat = Woodland and scrub habitats in which SCLTS can be found year round; this habitat provides underground refugia during the dry season (typically 15 April–15 October); SCLTS could take refuge in such locations. Upland habitat is also considered to be dispersal habitat.
 SCLTS dispersal habitat = Open native habitats such as grassland and oak savannah supporting aboveground during juvenile dispersal or adult breeding migration in the wet season (typically 15 October–15 April). These areas would not be utilized as refuge sites during the dry season.
 SCLTS disturbed dispersal habitat = Converted lands including roads, disked fields, landscaped yards and other areas cleared of vegetation that do not provide suitable breeding or upland habitat. SCLTS can be encountered aboveground during juvenile dispersal or adult breeding migration in the wet season (typically 15 October–15 April).