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April 20, 2012

Ms. Lisa Orsaba – Energy Division  
Infrastructure Permitting & CEQA  
CALIFORNIA PUBLIC UTILITIES COMMISSION  
505 Van Ness Avenue  
San Francisco, CA 94102

**Re: A.12-01-012 – Santa Cruz 115 kV Reinforcement Project  
PG&E's Response to First Set of Data Requests**

Dear Ms. Orsaba:

Thank you for the February 22, 2012 letter regarding Pacific Gas and Electric Company's ("PG&E") Application (A.12-01-012) and Proponent's Environmental Assessment ("PEA") for a Permit to Construct the Santa Cruz 115 Kilovolt ("kV") Reinforcement Project ("Project"). This letter is intended to respond to each of the data requests identified in your letter. The original text for each data request is reproduced in italics followed by PG&E's response.

### ***Chapter 1: PEA Summary***

#### ***Section 1.5. Agency Coordination, page 1-2 through 1-5***

##### **CPUC Data Request Question #1:**

*The discussion of consultation with USFWS only addresses survey protocol and findings for California red-legged frog. The Santa Cruz long-toed salamander and the Monterey spineflower are both federally endangered species. Please provide the results of consultation with USFWS on these two species. A formal or informal consultation regarding Santa Cruz long-toed salamander will likely be required as well as consultation regarding the mitigation for impacts to Monterey spineflower.*

##### **PG&E's Response**

Initial documentation of PG&E's consultation with the United States Fish and Wildlife Service ("USFWS") related to the Santa Cruz long-toed salamander ("SCLTS") was provided in PG&E's March 23, 2012 response to CPUC Deficiency Question #1. An additional meeting between PG&E, its consultants, the USFWS, and the California Department of Fish and Game ("CDFG") was held on March 23, 2012 to discuss SCLTS and Monterey spineflower. Documentation of



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this meeting, as well as subsequent correspondence, is provided in Attachment A: USFWS and CDFG Consultation.<sup>1</sup>

**CPUC Data Request Question #2:**

*This section should also include a discussion of consultation with CDFG, since Santa Cruz long-toed salamander is a state endangered and fully protected species. Please provide the results of consultation with CDFG regarding this species.*

**PG&E's Response:**

Documentation of PG&E's initial consultation with CDFG related to SCLTS was provided in PG&E's March 23, 2012 response to CPUC Deficiency Question #1. An additional meeting between PG&E, its consultants, the USFWS, and CDFG was held on March 23, 2012 to discuss SCLTS and Monterey spineflower. Documentation of this meeting, as well as follow up correspondence, is provided in Attachment A: USFWS and CDFG Consultation.

***Section 1.7 Public Outreach Efforts, page 1-6 through 1-7***

**CPUC Data Request Question #3:**

*Please provide meeting notes or a summary of the outcome and concerns expressed in the public meetings on October 25 and 27, 2011. Page 1-8 of the PEA states that "public outreach efforts for the project to-date have not identified any issues." Please provide the supporting documentation for this assertion.*

**PG&E's Response:**

As described in Section 1.7 Public Outreach Efforts, two public open houses were held, one on October 25, 2011 and the other on October 27, 2011. A total of approximately 30 residents attended these open houses to discuss the project with project staff. Of these 30 attendees, 6 left written comments for PG&E, which are summarized in Attachment B Responses to Open House Comments.

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<sup>1</sup> The Meeting Notes from the March 23, 2012 meeting included in Attachment A differ from the Meeting Notes from the same meeting I previously provided to you by e-mail on April 20, 2012. Specifically, the following sentence has been added to page 3 of the Meeting Notes included in Attachment A: "Chad reiterated that the USFWS will not be issuing a take permit (Biological Opinion or Habitat Conservation Plan) for the species."



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PG&E notes that the PEA does not state that “public outreach efforts for the project to date have not identified any issues.” Rather, the PEA states, in Table 1-1: PEA Checklist Key that public outreach efforts for the project to date have not identified any “major issues.” PG&E does not consider the issues identified at the two public meetings to be “major issues.”

## ***Chapter 2: Project Description***

### **CPUC Data Request Question #4:**

*Section 2.1.1, page 2-1. and Section 2.6.1 page 2-23. Please indicate the ten locations where the easement may be expanded. While no buildings would be impacted by the expansion of the easement, the information would be helpful in assessing impacts to land uses. Please also indicate the locations on the Cox-Freedom segment where an easement width of 40 feet may be needed. This information should be provided on a graphic.*

### **PG&E’s Response:**

Based upon the preliminary design, PG&E has, to date, identified approximately 11 spans along the Northern Alignment that may require modification to PG&E’s existing right-of-way (ROW), primarily to accommodate the sway of the conductor or minor relocations. These locations are summarized in Table 1: Preliminary Northern Alignment ROW Modifications, below. Additional ROW may be required to accommodate other design factors.



Table 1: Preliminary Northern Alignment ROW Modifications

Span Location		ROW Width (feet)		Proposed ROW Modifications
Starting Pole	Ending Pole	Existing	Proposed	
C-16	C-17	49	60	Increase ROW width by approximately 11 feet to the south
C-17	C-18			
C-18	C-19			
C-31	C-32	60	67	Increase ROW width by approximately 7 feet to the southwest where the ROW crosses 225 and 285 Pioneer View Road
C-32	C-33	60 at 285 Pioneer View Road and 40 north of 285 Pioneer View Road	60	Increase ROW width by approximately 20 feet within the field/orchard located north of 285 Pioneer View Road
C-33	C-34			
C-41	C-42	52	52	This span is located within a new alignment; therefore, an approximately 52-foot-wide ROW will be required, and the existing ROW will be quitclaimed, resulting in no net increase in ROW
C-52	C-53	60	70	Increase ROW width by approximately 5 feet on both sides of the existing ROW
C-53	C-54			
C-54	C-55			
C-55	C-56			

Note: This table is preliminary and subject to change based on CPUC requirements, final engineering, and other factors.





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A more detailed review of the Cox-Freedom Segment has not identified any locations where a 40-foot-wide easement will be required. The preliminary property surveys indicate that a maximum overhang easement of 10 feet on adjacent private properties may be required in limited locations. These overhang easements will fall within the existing restricted building setback zones (15 feet for areas zoned R1 and R2, and 10 feet for areas zoned R3). Specific locations along the Cox-Freedom Segment where overhang easements will be required are still being determined and will be submitted to the CPUC when available.

**CPUC Data Request Question #5:**

*Section 2.1.3, page 2-2. Provide a figure showing the PG&E substation property lines. The property lines can be added to Figure 2-6. Figure 2-6 should also be revised to be legible.*

**PG&E's Response:**

A revised version of Figure 2-6: Rob Roy Substation Layout Drawing has been included as **Error! Reference source not found..**

**CPUC Data Request Question #6:**

*Section 2.3, page 2-5. Under the project objectives PG&E states that "With the completion of these system upgrades, the area transmission system will have sufficient capacity for many years." Please provide the projected peak demand for the area under projected growth for the area to support the contention the system will have capacity for many years.*

**PG&E's Response:**

The current peak electric demand in this area on cold winter evenings is approximately 175 megawatts ("MW"). Implementing the Santa Cruz 115 kV Reinforcement Project will allow PG&E to reliably serve a future winter peak demand of approximately 200 MW. With an estimated growth in area electric demand of almost 1.5 MW per year, it would be almost 20 years before overlapping outages of the new power line to Rob Roy Substation and one of the existing 115 kV power lines during the winter peak demand period would result in an overload of the remaining power line.

**CPUC Data Request Question #7:**

*Section 2.5.2, page 2-17. The 26 new poles identified in the first paragraph of the section do not match the number of pole presented in Table 2-1. The next*



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*paragraph states that there will be 25 new poles. Will there be 26 or 25 new poles? Please revise the text and table accordingly.*

**PG&E's Response:**

All pole numbers provided in the PEA are estimates, and a difference of one pole is included in the estimate. Nevertheless, the first paragraph in Section 2.5.2 Cox-Freedom Segment should be revised to indicate that approximately 25 new poles will be installed along the Cox-Freedom Segment, as that is the latest preliminary estimate. Table 2-1: Proposed Pole Summary Table and the second paragraph in Section 2.5.2 Cox-Freedom Segment do not require further revision.

**CPUC Data Request Question #8:**

*Section 2.7.2, page 2-26. Identify the poles/towers where helicopters would be used to transport or install the poles. Provide the flight paths for helicopter use in a graphic, showing whether helicopters flying with loads would fly over occupied structures.*

**PG&E's Response:**

Under current preliminary construction plans, helicopters will be used to transport or install poles C-44 through C-52, C-56, and C-57. All corresponding existing wood poles in these areas may also need to be removed by helicopter. Helicopters may also be used to transport workers and other project materials.

PG&E's helicopter contractor, P.J. Helicopters, has flown the project from end to end and verified that PG&E will not carry loads over occupied structures. PG&E cannot provide a map of the flight paths since flight paths are developed by the helicopter contractor in close temporal proximity to the actual flights and are subject to variance due to weather conditions, air traffic, and other factors. P.J. Helicopters will be responsible for verbally notifying the Federal Aviation Administration ("FAA") of proposed flight paths 24 hours in advance of helicopter operations, and for complying with all FAA regulations.

Although it is not anticipated, if a helicopter route is identified to cross over "congested areas," as described in Federal Aviation Regulation ("FAR"), Part 133, P.J. Helicopters will submit a formal written Lift Plan to the FAA at least 72 hours prior to helicopter operations. PG&E will submit any Lift Plan developed for the project to the CPUC.





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If helicopters are used to transport workers or materials to any other poles/towers, P.J. Helicopters will avoid congested areas where feasible and will comply with all applicable FAA regulations.

**CPUC Data Request Question #9:**

*Section 2.7.3 and 2.7.4, pages 2-26 through 2-27. Will two staging areas and one storage yard be enough to serve the project during construction? New staging areas and storage yards in the past have only been added by variance request during construction. Nesting bird issues can render staging areas unusable. Consider identifying additional staging area options and storage yards in the PEA so that they can be fully assessed in the impact assessment, reducing the need for variances during construction.*

**PG&E's Response:**

Two additional contractor storage yards and one additional staging area/landing zone have been identified for use during construction of the project. A map of these locations is included as **Error! Reference source not found..**

The first of the two contractor storage yards measures approximately 400 feet by 500 feet and is located within the parcel northeast of the intersection of Amesti Road and Paraiso Drive (Assessor's Parcel Number 050-421-01-000). For security purposes, an approximately 6-foot-tall chain-link fence, with approximately 1 foot of barbed wire on top, will be installed around the staging area's perimeter. One or more locking gates will also be installed to control access. The second contractor storage yard measures approximately 500 feet by 800 feet at its widest points and is located at the east end of Sakata Lane, adjacent to Watsonville Substation in the City of Watsonville (Assessor's Parcel Number 017-231-05-000). This location is currently secured by a fence and locking gate. Temporary power at the contractor storage yards will be supplied by a tap from distribution lines located adjacent to these areas.

The additional staging area/landing zone measures approximately 300 feet by 700 feet and is located in an agricultural field approximately 700 feet north of the intersection of Corralitos Road and Skylark Lane (Assessor's Parcel Number 108-202-17-000). For security purposes, an approximately 6-foot-tall chain-link fence, with approximately 1 foot of barbed wire on top, will be installed around the staging area's perimeter. One or more locking gates will also be installed to control access. A tap from an adjacent distribution line will be used to supply temporary power to this staging area/landing zone during construction.





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Biological resource and cultural resource surveys are currently being conducted at the two contractor storage yards, as well as at the staging area/landing zone. Results of these surveys will be submitted to the CPUC within the next few weeks.

**CPUC Data Request Question #10:**

*Section 2.7.3, page 2-26. Would diesel generators be used at staging areas or storage yards for any activities? Describe all activities that may occur at staging areas including but not limited to pole assembly.*

**PG&E's Response:**

Diesel generator use is not anticipated at the staging areas/landing zones or at the contractor storage yards. As described in Section 2.7.3 Staging Areas/Landing Zones and Section 2.7.4 Contractor Storage Yards, all power will be supplied by tapping into adjacent distribution lines. Uses at these locations may include, but will not be limited to, the following:

- Equipment and construction vehicle storage, refueling, and repair;
- Construction material storage;
- Pole assembly/disassembly;
- Refuse collection/storage;
- Construction personnel parking/reporting; and
- Construction trailer staging.

**CPUC Data Request Question #11:**

*Section 2.7.6, pages 2-29 through 2-30. The total acreage of vegetation clearing is identified as up to 30 acres in Section 2.7.6; however, the total acreage cleared from Tables 2-3 and 2-4 totals 32.1 acres. Please provide clarification on the total acreage of vegetation to be cleared.*

**PG&E's Response:**

Table 2-3: Access Summary Table, indicates that approximately 14.5 acres of access roads or overland access routes will be used during construction. However, vegetation clearing will be required only at access roads that will be improved and at the overland access routes. This vegetation removal totals approximately 3.2 acres.

Table 2-4: Temporary Work Area Table Summary indicates that approximately 28.9 acres of temporary work areas will be established for construction. However, of these 28.9 acres, only



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approximately 23.4 acres may require some vegetation clearing (the two staging areas/landing zones [approximately 4.2 acres] and the contractor storage yard [approximately 1.3 acres] will not require vegetation clearing).

When combined, the total anticipated area of vegetation cleared is approximately 26.6 acres (3.2 acres + 23.4 acres = 26.6 acres). Because the work areas and access requirements indicated in the PEA are preliminary and subject to change based on CPUC requirements, final engineering, and other factors, the total area of vegetation clearing was rounded up to 30 acres.

As described previously in response to CPUC Data Request Question #9, two additional contractor storage yards and one additional staging area/landing zone will be added to the project. The contractor storage yard at Amesti Road and the staging area/landing zone will be completely mowed of vegetation prior to use. A portion of the contractor storage yard at Sakata Road will also be mowed prior to construction. These areas of vegetation clearing total approximately 11 acres. With these additional temporary construction areas included, a total of approximately 40 acres of vegetation clearing will be required.

**CPUC Data Request Question #12:**

*Section 2.7.6, pages 2-29 through 2-30. Tree removal is a concern in Santa Cruz County. Please indicate the type, size, number and location of trees that would be removed for project construction. Please identify the location of vegetation removal on maps, including the type of vegetation. Describe the type and size of equipment used for vegetation removal and tree removal.*

**PG&E's Response:**

Currently, PG&E believes that approximately 150 trees will need to be removed along the project alignment. This estimate is based on current conditions; the quantity of trees removed may change due to unforeseen construction modifications, unanticipated management of trees during storm response, and/or from dynamic environmental conditions.

PG&E currently anticipates the following variety of tree species will need to be removed or trimmed for project construction: cedar, Douglas fir, elm, eucalyptus, live oak, maple, Monterey pine, pine, redwood, stone pine, sycamore, and willow. Approximately 60 percent of the 150 trees removed (approximately 90 trees) will be eucalyptus, Monterey pine, and Douglas fir, with eucalyptus constituting the greatest number of trees removed. The trees to be removed will likely have a range of heights between 20 and 100 feet and will range from 5 to 85 inches in diameter at breast height. The majority of the trees to be removed are located along the Cox-





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Freedom Segment of the project. Attachment E: Potential Tree Removal and Trimming Locations depicts the general locations where tree removal and trimming will occur.

PG&E anticipates using the following typical equipment for vegetation removal and tree removal: chain saws, boom/bucket truck, hand tools, and chippers.

**CPUC Data Request Question #13:**

*Section 2.7.8, page 2-31. Please provide a graphic showing a crossing structure.*

**PG&E's Response:**

Attachment F: Crossing Structure Typical Drawing depicts a typical crossing structure.

**CPUC Data Request Question #14:**

*Section 2.7.8, page 2-31. The transmission line spans waterways such as Corralitos Creek, although no poles would be located within waterways or riparian areas. Please identify routes of travel for equipment to cross these drainages. Would temporary crossings need to be made over the drainages? If so, provide detailed information on crossing structures and methods of installation as well as potential impacts to the water features and riparian areas being crossed, and any effects to sensitive plants, communities, or wildlife.*

**PG&E's Response:**

The pole locations and access roads/overland access routes, described in Section 2.7.1 Access Roads/Overland Access Routes and depicted in Attachment 2-A: Detailed Route Maps, have been designed to eliminate the need for drainage crossings. Public roadways will be used to augment these project-specific access roads/overland access routes. As a result, no temporary crossings are planned.

**CPUC Data Request Question #15:**

*Section 2.7.10, page 2-34. The project schedule should provide information indicating when PG&E will complete final engineering and obtain permits.*

**PG&E's Response:**

Assuming that the project is not revised based on the environmental analysis, final engineering is anticipated to be completed by August 2012. While PG&E does not currently anticipate





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obtaining permits or authorizations outside of those listed in Table 2-5: Potential Permits and Approval, the need for a Section 1602 Lake and Streambed Alteration Agreement for the trimming of riparian vegetation is being evaluated. The response to CPUC Data Request Question #17 provides additional discussion regarding the acquisition of permits.

**CPUC Data Request Question #16:**

*Section 2.7.11, page 2-34. Would PG&E use monitoring personnel during construction? If so, these personnel should be included in the description and in the count of workers on-site during construction.*

**PG&E's Response:**

The analysis prepared for Section 3.3 Air Quality and Greenhouse Gas Emissions, assumes that up to three monitors may be on site during construction (note that the number of monitors will vary based upon the types and locations of construction activities and the number of crews working simultaneously). However, the discussion in Section 2.7.11 Personnel, does not account for these personnel. Consequently, PG&E conservatively estimates that the total number of personnel on site each day, including monitors, will be between 12 and 75, and not between 12 and 70 as stated in Section 2.7.11 Personnel.

**CPUC Data Request Question #17:**

*Section 2.9, page 2-35, Table 2-5 Potential Permits and Approvals. This table should include the potential need for a Section 10A consultation with the USFWS for impacts to the Santa Cruz long-toed salamander.*

**PG&E's Response:**

The SCLTS is a CDFG Fully Protected species. As such, take of the species in any form, with the exception of conducting research to contribute to the recovery of the species in accordance with California Fish and Game Code Section 505, cannot be permitted. During the consultation process, the USFWS stated that it does not anticipate issuing a Biological Opinion for the species. Documentation of consultation with the USFWS and the CDFG related to the SCLTS is provided in Attachment A: USFWS and CDFG Consultation.



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### ***Chapter 3.1 Aesthetics***

#### **CPUC Data Request Question #18:**

*Section 3.1.2.3, page 3.1-2. These photos were taken with a 28mm camera. This setting does not accurately simulate what the viewer would see and makes images appear further away than their actual location. The photo simulations should be retaken with the appropriate settings including a 50 mm analog and 75mm digital settings, which are appropriate industry standard methodology for simulations.*

#### **PG&E's Response:**

The visual simulations have been reformatted to present a horizontal viewing angle of approximately 40 degrees, equivalent to a 50-millimeter ("mm") lens when mounted on a 35-mm film or full-frame digital single-lens reflex camera. The resulting images, provided in Attachment G: Reformatted Visual Simulations are approximately 9.5 inches wide and should be viewed at a distance of approximately 13 inches to gain an optimal impression of the project's scale in relationship to the surrounding landscape.

#### **CPUC Data Request Question #19:**

*Section 3.1.4.2, page 3.1-34. Please indicate who will be responsible for the maintenance of trees and shrubs as identified in APM AES-05.*

#### **PG&E's Response:**

Trimming of vegetation during the operations phase within the project ROW or easement to maintain CPUC GO 95 clearance requirements will be the responsibility of PG&E's vegetation management department. All other maintenance of trees and shrubs located on private property will be the responsibility of the individual resident/homeowner. PG&E will be responsible for the reimbursement costs associated with potential purchase and installation of trees and shrubs as stated in Applicant-Proposed Measure ("APM") AES-05. APM AES-05 has been revised as follows to include a more specific description of where PG&E will consider purchasing and installing vegetation for the purpose of screening the project.

#### **APM AES-05. New Poles Near Residences.**

~~To reduce the potential visibility of new poles as seen from a limited number of residences within approximately 250 feet, where relatively unobstructed views of the project are seen and the new structures appear prominent, PG&E will consult with residential property owners whose~~





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properties are occupied by the utility easement for the project, and with residential property owners in the Cox-Freedom Landscape Unit whose properties are located within 150 feet of the project, regarding the potential purchase of trees and large shrubs for visual screening to be installed at key locations on occupied residential properties, where feasible, and where (1) new relatively unobstructed views of the project are seen from the occupied residential property and (2) the new poles appear prominent. Trees will not exceed 15-gallon container size and shrubs will not exceed 5-gallon container size. The selected plant materials will be ecologically appropriate to the local landscape setting (in terms of water usage, horticultural and soil requirements, etc.) and will be consistent with PG&E and CPUC requirements for landscaping in proximity to power facilities.

**CPUC Data Request Question #20:**

*Section 3.1.4.5, page 3.1-43, Figure 3.1-5. The shadow of the existing pole as seen in the figure seems to indicate that the pole has lights on it. This pole will be removed and will not be replaced. Will the lighting be replaced?*

**PG&E's Response:**

Figure 3.1-5: Existing View from Pinto Lake Park shows Existing Pole E-18 and a shadow cast by Existing Pole E-19. Existing poles E-18 and E-19 do not have any light fixtures attached to them. No new lighting is planned for this area.

***Chapter 3.2 Agriculture and Forestry, Land Use and Planning, and Recreational Resources***

**CPUC Data Request Question #21:**

*Section 3.2.3.2, page 3.2-12. Under the discussion of Habitat Conservation Plans/Natural Community Conservation Plans, please identify if and how the Ellicott Slough Community Conservation Plan is relevant to the project as well as the PG&E HCP addressing Santa Cruz long-toed salamander.*

**PG&E's Response:**

The Calabazas Unit of the Ellicott Slough National Wildlife Refuge is located approximately 1.5 miles southeast of Rob Roy Substation. The referenced Final Comprehensive Conservation Plan and Environmental Assessment (USFWS 2010) applies specifically to the Ellicott Slough National Wildlife Refuge and, as a result, is not applicable to the project.





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As described in PG&E's March 23, 2012 response to CPUC Deficiency Question #1, PG&E is in the process of developing a Habitat Conservation Plan for the greater Bay Area. However, this document is still under development and will not be used for the permitting of the project.

The following reference was used to prepare this response:

USFWS. 2010. Ellicott Slough National Wildlife Refuge; Final Comprehensive Conservation Plan and Environmental Assessment. September 2010.

**CPUC Data Request Question #22:**

*Section 3.2.4.2, page 3.2-27. During the meeting with the CPUC in January 2012, PG&E identified measures to reduce impacts to recreation within Pinto Lake Park; however, no related APMs are identified and the methodology to reduce impacts to recreation within the park is not discussed in the PEA. Please provide the methodology and measures.*

**PG&E's Response:**

Section 1.5.6 Pinto Lake County and City Park, describes the results of consultation with Santa Cruz County Parks Department staff ("County Staff") regarding potential impacts during construction activities within Pinto Lake County Park. During the meeting with the CPUC on January 10, 2012, PG&E indicated that it would limit construction to weekdays within Pinto Lake County Park, and coordinate construction activities with County Staff to ensure no pre-scheduled special events would be interrupted. The following APM describes the approach planned for construction within Pinto Lake County Park:

APM REC-01. Limit Construction within Pinto Lake County Park.

To the extent practical, active construction within Pinto Lake County Park will be limited to Monday through Friday. PG&E will coordinate with Santa Cruz County Parks Department staff at least 4 weeks in advance of construction within Pinto Lake County Park to ensure no pre-scheduled special events will be interrupted by construction activities.

***Chapter 3.4 Biological Resources***

**CPUC Data Request Question #23:**

*Section 3.4.2.2, page 3.4-4. Please provide correspondence with USFWS and CDFG as described in the first paragraph. Please provide communications*



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*regarding the federal and state Endangered Species Act permitting process for impacts to Santa Cruz long-toed salamander and Monterey spineflower.*

**PG&E's Response:**

The requested correspondence with USFWS and CDFG was provided by PG&E as Attachment B to its March 23, 2012 response to the CPUC's Deficiency Letter of February 22, 2012. Additional documentation of consultation with the USFWS and the CDFG, including communications regarding the Santa Cruz long-toed salamander and Monterey spineflower, is provided herein as Attachment A: USFS and CDFG Consultation.

As described in PG&E's response to CPUC Data Request Question #17, because the Santa Cruz long-toed salamander is a CDFG Fully Protected Species, PG&E will not be obtaining permits related to the Santa Cruz long-toed salamander under the Endangered Species Act. In addition, Monterey spineflower is not a California state-listed species under the California Endangered Species Act; therefore, an incidental take permit for this species is not appropriate.

**CPUC Data Request Question #24:**

*Section 3.4.2.4, page 3.4-9. The definition of "No Potential" for occurrence in the project area includes species that have been sporadically observed in the project area. Please clarify this definition. No potential should mean that the species has not been observed. If it is sporadically observed, it should be identified under "Low Potential" or "Present." Please update Tables 3.4-1 and 3.4-2 if revisions to the definition are merited.*

**PG&E's Response:**

The criteria used to determine the potential for special-status species to occur within the project area were incorrectly reported in Section 3.4.2.4, Species Occurrence Potential Determination. The definition of "No Potential" should be refined as follows:

- No Potential: The project area is not located within the range of the species; no suitable habitat does not exist in the project area; the species is restricted to a specific area outside of the project area; previous CNDDDB occurrences of the species in the project area may have been misidentified or are known to be extirpated; and/or the species has not been observed in the project area there are no CNDDDB records of the species within the past 50 years; and/or protocol-level surveys failed to identify the species.





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The modified definition affects one plant species referenced in Table 3.4-1: Special-Status Plant Species—woodland woollythreads (*Monolopia gracilens*). Woodland woollythreads should be listed as having a “low potential,” rather than “no potential,” to occur.

**CPUC Data Request Question #25:**

*Section 3.4.3.6, page 3.4-33. Please provide results of the assessment of usage of the project area by Santa Cruz long-toed salamander.*

**PG&E's Response:**

Biosearch Associates—a firm with expertise on SCLTS—was selected to perform a habitat assessment for this species. PG&E provided the results of this habitat assessment to the CPUC in its March 23, 2012 response to CPUC Deficiency Question #1.

**CPUC Data Request Question #26:**

*Section 3.4.4.3, page 3.4-46. APM BIO-16 states that if woodrat houses cannot be avoided, PG&E will work with a qualified biologist to prepare a Woodrat Trapping and Relocation Plan and will coordinate with CDFG to handle and relocate wood rats. Please provide evidence such as literature citations in the impact discussion on page 3.4-46 indicating that these methods can reduce impacts to woodrats to less than significant levels.*

**PG&E's Response:**

PG&E has conducted additional research on San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*) and has consulted with an expert who has developed and implemented trapping and relocation plans with approval from the CDFG. A more detailed discussion of potential impacts to woodrats, and a revised APM BIO-16, designed to avoid and minimize potential impacts to San Francisco dusky-footed woodrat, are provided in the subsections that follow. APM BIO-16 supersedes the discussion provided in Section 2.7.6 Vegetation Clearing, which states that brush and shrubs cleared during construction will be disposed of at an approved landfill. The disposal of vegetation will be decided on a case-by-case basis and with landowner consultation.

**Impacts**

San Francisco dusky-footed woodrat, a special-status mammal species, was found to be present within the project area. Potential impacts to San Francisco dusky-footed woodrat could occur





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through habitat removal or direct mortality if houses are impacted or destroyed by construction activities. To avoid impacts to this species, PG&E will implement APM BIO-16, which specifies that a qualified biologist will identify all San Francisco dusky-footed woodrat houses before construction begins. The houses will be flagged and avoided wherever feasible. If avoidance is not possible, PG&E will develop a Woodrat Trapping and Relocation Plan for this species, as discussed in APM BIO-16. Because the abundance of woodrats in an area is probably limited by the availability of wood suitable for building houses (CDFG 2008), houses that cannot be avoided will be dismantled by hand and artificial shelters will be built using the dismantled stick material and inverted wooden planter boxes or half wine barrels. Although there is no published literature on the efficacy of woodrat relocation, Mark Allaback of Biosearch Associates has found that approximately 50 percent of the reconstructed houses become occupied by woodrats (Allaback, pers. comm.). Woodrats maintain an average of 1.8 houses each (Allaback, pers. comm.). For linear, narrow impacts—such as those associated with the project—if one woodrat house is dismantled, it is likely that the individual woodrat will be able to move to another nearby house it maintains that will be outside of the impact area. These impacts are anticipated to be less than significant when compared to the overall available upland habitat in the surrounding area, as the impacts will be limited to small areas within the narrow transmission line corridor. PG&E will also implement APMs BIO-05, BIO-08, BIO-09, BIO-10, and BIO-14 to reduce the risk of take of the species and disturbance to the species habitat. These measures include, but are not limited to, environmental training for construction personnel, pre-construction surveys, ensuring that a qualified biologist is present for work in sensitive areas, restricting vehicle speeds on overland access routes, and stopping work if a special-status species is observed on site. With implementation of these APMs, impacts to San Francisco dusky-footed woodrat will be less than significant.

#### **APM BIO-16. Avoidance and Minimization of Impacts to San Francisco Dusky-Footed Woodrat.**

During the pre-construction surveys, described in APM BIO-14, a qualified biologist will identify potential San Francisco dusky-footed woodrat houses within 50 feet of project activities. ~~At the discretion of a qualified biologist, an exclusion buffer will be established around any~~ Woodrat houses that can be avoided within the work site, and these exclusion zones will be ~~flagged or fenced for avoidance to the extent feasible.~~ If impacts to a woodrat house are unavoidable, PG&E will work with a qualified biologist to develop a Woodrat Trapping and Relocation Plan, and will coordinate with the CDFG to handle and relocate the San Francisco dusky-footed woodrats: prior to construction activities. The relocation plan will entail a live-trapping effort conducted by a qualified biologist in possession of appropriate handling permits from the CDFG. This method has been approved by the CDFG for other projects on a case-by-



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case basis (D. Johnston, pers. comm.). Upon capturing individual woodrats at occupied houses on the ground that cannot be avoided, the stick material from the associated house will be dismantled by hand by the qualified biologist and his or her designated assistants. Under the guidance of the biologist, a tree crew may assist in dismantling arboreal houses. An alternative shelter (e.g. wooden planter or half wine barrel) will be installed within suitable nearby habitat and covered with the salvaged dismantled stick material. Upon completion of assemblage of an alternative structure, the trapped woodrat will be immediately released into the structure and monitored to observe if the animal utilizes the shelter. The relocation plan will also include a provision that some piles of cut vegetation/slash be retained near the work site, where feasible, to provide refuge for woodrats that may become displaced after being relocated (Lee and Tietje 2005). A qualified biologist will visually monitor and document the activity of the alternative structures to determine if they become occupied by woodrats. The frequency interval of monitoring will be coordinated and determined by the qualified biologist and the CDFG upon authorization of the relocation plan.

The following references were used to prepare this response:

Allaback, Mark. Principal, Biosearch Associates. Personal communication with J. Kunna, Insignia Environmental. March 2, 2012.

CDFG. California Wildlife Habitat Relationships System Species Profile: Dusky-footed Woodrat. 2008. Natural Community Conservation Planning Program. Online. <http://www.dfg.ca.gov/biogeodata/cwhr/cawildlife.aspx>. Site visited March, 2012.

Johnston, David. Environmental Scientist, Habitat Conservation Planning Branch of CDFG. Personal communication with Mark Allaback, Biosearch Associates.

Lee, D.E. and W.D. Tietje. 2005. Dusky-footed Woodrat Demography and Prescribed Fire in a California Oak Woodland. *Journal of Wildlife Management*. 69(3):1211-1220.

### ***Chapter 3.5 Cultural Resources***

#### **CPUC Data Request Question #27:**

*Section 3.5.2, page 3.5-2. PG&E indicates that the study area was primarily focused on the pole placement locations and on portions of the easement that were accessible to PG&E. Does this methodology provide coverage for potential future changes in pole placement? Larger areas should be surveyed to minimize the number of variances that could be required during construction and to allow for greater flexibility during construction.*





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### **PG&E's Response:**

The initial records search was conducted within 0.25 mile of the proposed Northern Alignment and Cox-Freedom Segment. The field survey area consisted of a 200-foot-wide survey corridor, centered on the Northern Alignment and Cox-Freedom Segment.<sup>2</sup> This survey corridor was widened to include the proposed access roads, pull sites, staging areas/landing zones, and the contractor storage yard. While the inventory focused on areas where ground-disturbing activities are planned, all accessible portions of the survey area were evaluated. In total, approximately 140 acres were accessed and surveyed, representing more than half of the project's total area of approximately 222 acres. The size of the survey area was selected to allow for flexibility during construction, evolution of the preliminary engineering data, and modifications to pole locations.

### **CPUC Data Request Question #28:**

*Section 3.5.2.1, pages 3.5-2 through 3.5-3. The PEA states that three portions of the project route were not available for surveying, two of which do not require surveys because they are located in areas extensively trampled by livestock and within a landscaped lawn. However, historic resources could still be located within these areas. APM CUL-3 requires surveys of the one area prior to construction and avoidance if anything is found or mitigation if it cannot be avoided. Please revise this measure to indicate that all three areas need to be subject to pre-construction surveys.*

### **PG&E's Response:**

As described in Section 3.5 Cultural Resources, three work areas were not surveyed due to landowner denial of access. Portions of the easement not directly accessed were observed from property lines. The following revisions have been made to APM CUL-03 to include provisions for the three areas that have not been surveyed:

#### **APM CUL-03. Archaeological Field Survey.**

Three areas not accessible due to landowner restrictions will be surveyed prior to construction. These areas consist of one pole located approximately 1,580 feet northwest of the intersection of Corralitos Road and Skylark Lane and the associated pull site; one pole located approximately 400 feet north of the intersection of Jingle Lane and Day Valley Road; and, The area between the three poles located approximately 1,000 feet northeast of the intersection of Whiteman

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<sup>2</sup> A 200-foot-wide corridor was maintained except in areas where existing land uses precluded surveys (i.e., fenced, landscaped backyards).



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Avenue and Harrison Way<sup>5</sup>. These areas will be examined by a qualified archaeologist prior to any ground-disturbing activities. In addition, any newly added project elements subject to ground disturbance (e.g., pole replacements, pull sites, access roads, staging areas) outside the surveyed areas will be surveyed prior to construction. Any identified cultural resources that can be avoided will be flagged and marked with proper signage that states “Exclusion Zone, No Access” in the restricted area. All crew members will be directed not to enter the exclusion zone. If avoidance of an identified cultural resource is not feasible, the resource will be formally evaluated for its eligibility to be listed on the California Register of Historical Resources (“CRHR”) by a qualified professional historian prior to project construction. Once the find has been identified and evaluated, PG&E’s Cultural Resources Specialist will make the necessary plans for treatment of the find and mitigation of impacts if the find is determined to be significant as defined by the CEQA. This mitigation could include, for example, data recovery excavation of the resource.

**CPUC Data Request Question #29:**

*Section 3.5.4.3, page 3.5-19. The paragraph discussing construction impacts to historical resources identifies five historic resources within the existing transmission alignment. Four are not identified within pole work areas. The analysis then states that the heights of the new poles would not physically or visually impact the integrity of these “three sites.” Please clarify which sites would not be impacted. A discussion of Site SCPL-2 is included, but the impacts to the “fourth” site are not addressed. Please describe the impacts to the fourth site.*

**PG&E’s Response:**

The discussion in Section 3.5 Cultural Resources, with respect to impacts to historical resources, contains some inconsistencies. Day Valley Cemetery (HR-15), as well as five additional historic resources—HR-3, HR-5, HR-12, HR-14, and SCPL-2—that may be potentially eligible for listing on the CRHR, were identified during the field surveys for the project. All six resources are located within the existing Northern Alignment corridor. Five of these resources—HR-3, HR-5, HR-12, HR-14, and HR-15—are not within identified pole work areas, access roads, pull sites, or other project work areas or contractor storage yards. Because the new tubular steel poles (“TSPs”) will be located within the identified work areas for the project, and because they will be screened from view by dense tree cover from winding roads, implementation of the project will not significantly impact the integrity of these five resources physically or visually. Potential impacts to SCPL-2—the sixth potentially eligible historic resource identified during field surveys—are discussed in Section 3.5.4.3. As a result of this clarification, and further studies, Table 3.5-1: Cultural Resources Identified in the Project’s Study Area, should be





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modified to indicate that SCPL-2 is a potentially significant resource. With the implementation of APM CUL-02, impacts to SCPL-2 will be less than significant.

### ***Chapter 3.6 Geology, Soils, and Mineral Resources***

#### **CPUC Data Request Question #30:**

*Section 3.6.4.2 page 3.6-14. Please provide the geotechnical report when it becomes available.*

#### **PG&E's Response:**

PG&E will contract a professional geotechnical engineer to conduct a geotechnical investigation in areas that are suspected to have unstable soils or that could be subject to strong ground shaking. This report will be provided to the CPUC when it is available.

### ***Chapter 3.7 Hazards and Hazardous Materials***

#### **CPUC Data Request Question #31:**

*Section 3.7.2, page 3.7-2. Please provide a copy of the EDR report if one was obtained for the project area.*

#### **PG&E's Response:**

An EDR report was not obtained for the project area. By letter dated February 1, 2012, PG&E provided the CPUC with a CD containing electronic copies of the records search conducted for hazardous materials.

### ***Chapter 3.8 Hydrology and Water Quality***

#### **CPUC Data Request Question #32:**

*Section 3.8.3.2, page 3.8-21. Table 3.8-2 identifies Ditch 22, 23, and 25 within the project work area. Impacts to these ditches are not discussed in this section. Please define and describe the impacts to these surface water resources.*

#### **PG&E's Response:**

Features 22, 23, and 25 described in Table 3.8-2: Hydrologic Resources Inventory, are ditches that are located adjacent to existing public roadways. As described in Section 3.8.4.3, hydrologic features located within these drainages will be flagged for avoidance. As a result, no



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direct impact to these features will occur. In addition, APM HYD-01 requires the implementation of best management practices for each activity that has the potential to degrade surrounding water quality through erosion, sediment runoff, and other pollutants in accordance with the Storm Water Pollution Prevention Plan.

**CPUC Data Request Question #33:**

*Section 3.8.4.5, page 3.8-28. The transmission line spans waterways such as Corralitos Creek. Describe routes of travel and how equipment would cross the Creek. Would temporary crossings need to be made over the drainages? If so, provide detailed information on crossing structures and methods of installation as well as potential impacts to hydrology and drainage.*

**PG&E's Response:**

As described in response to CPUC Data Request Question #14, the pole locations and access roads/overland access routes have been designed to eliminate the need for drainage crossings. Public roadways will be used to reach the appropriate project-specific access roads/overland access routes. As a result, no temporary crossings are planned.

**Chapter 3.9 Noise**

**CPUC Data Request Question #34:**

*Section 3.9.4.6, page 3.9-15. This table does not include noise associated with helicopter use. Please identify the estimated noise impacts from helicopter use.*

**PG&E's Response:**

The helicopters used during construction were assumed to have a maximum noise level of 110 A-weighted decibels at a distance of 50 feet. Noise impacts associated with helicopter use have been identified in Section 3.9.4.6 (Section 3.9 Noise, page 3.9-17).

**CPUC Data Request Question #35:**

*Section 3.9.4.2, page 3.9-11. APM NOI-04 includes the use of a 3 foot tall temporary noise barrier around any noise generating equipment that cannot move under its own power when construction occurs within 50 feet of residences. Please describe the appearance, composition, and installation of this barrier. On page 3.9-17, please indicate the amount of noise reduction provided by the 3 foot barrier.*





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### PG&E's Response:

The type of temporary barrier utilized will depend upon the noise source. Types of barriers typically used include stacked hay bales, standing 0.75-inch-thick plywood, or a noise-attenuating blanket hung on a frame. A well-placed and well-designed temporary barrier can provide a minimum of a 7-decibel (dB) reduction at lower frequencies and up to a 20 dB reduction at higher frequencies for receivers within 50 feet of the source.

Diesel-powered equipment has most of its sound energy in the lower frequencies and represents a worst-case scenario. The A-weighted noise reduction of a typical diesel-powered piece of equipment is provided in Table 2: Temporary Barrier Attenuation at 50 Feet, below. This table indicates the sound level at a receiver located 50 feet from the noise source, the approximate attenuation created by the barrier, and the resulting sound level at the receiver with the barrier installed. Typically, the maximum attenuation possible is approximately 20 dB.

**Table 2: Temporary Barrier Attenuation at 50 Feet**

Frequency (Hz)	Sound Level at the Receiver without Barrier (dB)	Approximate Barrier Attenuation <sup>3</sup> (dB)	Attenuated Sound Level and the Receiver (dB)
63	76.0	-6.6	69.4
125	81.0	-9.7	71.9
250	84.0	-11.8	72.2
500	79.0	-14.7	64.3

<sup>3</sup> The attenuation  $\Delta L$  is approximated by:

$$\Delta L = 10 \times \log(1 + 20N)$$

where  $N$  is the Fresnel number:

$$N \cong Hb_{eff}^2 \times \frac{1}{\lambda} \times \left( \frac{1}{Dsb} \times \frac{1}{Dbr} \right)$$

$Hb_{eff}$  is the effective height of the barrier,  $Dsb$  is the distance from the receiver to the barrier, and  $Dbr$  is the distance between the barrier and the source.



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1,000	77.0	-17.6	59.4
2,000	74.0	-20.0	54.0
4,000	68.0	-20.0	48.0
8,000	62.0	-20.0	42.0

The barriers will be installed within 3 feet of the noise source and will be approximately 3 feet taller than the piece of equipment. The distance between the barrier and the piece of equipment may be adjusted to ensure safe equipment operation. Construction at each work area within 50 feet of residences is anticipated to be short-term, lasting only a few days. The temporary noise barriers will be removed at the end of the noise-generating activities at each location.

**CPUC Data Request Question #36:**

*Section 3.9.4.3, page 3.9-11. The analysis states that Santa Cruz County does not have a quantitative noise standard related to the use of construction equipment; however, it is stated on page 3.9-6 that the Santa Cruz General Plan requires mitigation of construction noise as a condition of approvals for projects within County jurisdiction. Please indicate the types of noise reduction mitigation measures required under the General Plan and whether PG&E would implement these measures (even if not required since the project is not subject to local requirements).*

**PG&E's Response:**

Section 6.9.7 of Chapter 6 of the Santa Cruz County General Plan requires "mitigation of construction noise as a condition of future project approvals." This chapter of the plan does not elaborate on types of mitigation expected, nor does it provide a menu of measures to select from. The measures presented in PEA Section 3.9.4 Potential Impacts and Applicant-Proposed Measures, were developed to reduce noise impacts to be less than significant.

**CPUC Data Request Question #37:**

*Section 3.9.4.6, page 3.9-14. Some residences are identified as being within noise impact zones. Please provide the number of residences that would be exposed to these noise levels.*





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**PG&E's Response:**

While approximately 126 residential parcels are located within potential zones of adverse public reaction, no residential structures are located within these zones. The statement to the contrary in Section 3.9.4.6 is in error and should be corrected.

**CPUC Data Request Question #38:**

*Section 3.9.4.6, page 3.9-17. How many residences are located within 180 feet of foundation installation and 280 feet of TSP installation by helicopter? The PEA states that helicopters will spend "limited" time hovering at each pole. Please define the length of time considered "limited" in this context.*

**PG&E's Response:**

Section 3.9.4.6 originally stated that residential structures located within 180 feet of TSP foundation installation may be exposed to 8-hour average noise levels in excess of 80 dBA. This calculation assumed that helicopters would hover at each foundation location for a total of 0.1 hour (6 minutes) per day to unload concrete. Upon further evaluation, PG&E anticipates that helicopters will be used for 8 hours per day when required to assist in TSP foundation installation and could hover near each foundation site for approximately 0.75 hour each day (45 minutes). As a result of this change in helicopter estimated hovering times, the area for potential exposure to 8-hour average noise levels in excess of 80 dBA would increase from 180 feet to 490 feet. A total of approximately 31 residential structures are located within 490 feet of TSP foundation installation by helicopter.

A total of approximately nine residential structures are located within 280 feet of TSP installation by helicopter. PEA Attachment 2-B: Construction Equipment Summary, states that helicopters will be used for approximately 3 hours throughout the day for TSP installation, but hover time is expected to be limited to approximately 0.25 hour at each TSP location.

***Chapter 3.10 Population, Housing, Public Services, and Utilities***

**CPUC Data Request Question #39:**

*Section 3.10.4.3, page 3.10-15. The number of project personnel identified here (75) is more than identified in Section 2.7.9, which includes a total number of personnel and vendors to range from 12 to 70. Please clarify and correct the numbers as appropriate, including construction monitors.*



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**PG&E's Response:**

All numbers provided in the PEA are estimates. As described in response to CPUC Data Request Question #16, Section 2.7.11 omitted a discussion of monitoring personnel. With the inclusion of monitoring personnel, the approximate number of project personnel identified in Section 3.10.4.3 – 75 – is accurate.

***Chapter 3.11 Traffic and Transportation***

**CPUC Data Request Question #40:**

*Section 3.11.4.3, page 3.11-11. Would an encroachment permit be obtained for work within the County roadways? Please indicate whether these permits would be required and whether they will be obtained prior to construction.*

**PG&E's Response:**

As indicated in Table 2-5: Potential Permits and Approvals, an encroachment permit will be obtained from Santa Cruz County prior to the start of construction.

**CPUC Data Request Question #41:**

*Section 3.11.4.5, page 3.11-13. The project requires the use of helicopters. The analysis does not identify the flight paths of the helicopters. If helicopters will be carrying loads and flying over occupied structures, a Lift Plan will be required by the Federal Aviation Administration. Please identify the flight paths for helicopter usage and if a Lift Plan will be required.*

**PG&E's Response:**

As described in response to CPUC Data Request Question #8, PG&E cannot provide a map of the flight paths since flight paths are developed by the helicopter contractor in close temporal proximity to the actual flights and are subject to variance due to weather conditions, air traffic and other factors. PG&E's helicopter contractor, P.J. Helicopters, has verified that loads will not be carried over occupied structures. In addition, P.J. Helicopters will verbally notify the FAA of proposed flight paths 24 hours in advance of helicopter operations, and will be responsible for complying with all FAA regulations.

Although not anticipated, if a helicopter route is identified to cross over "congested areas"—as described in FAR, Part 133—P.J. Helicopters will submit a formal written Lift Plan to the FAA





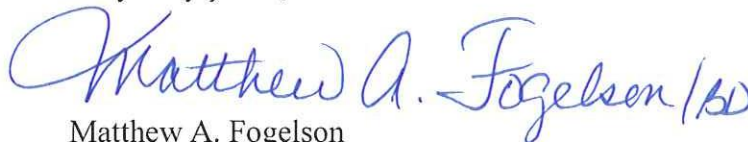
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at least 72 hours prior to helicopter operations. PG&E will submit any Lift Plan developed for the project to the CPUC.

We greatly appreciate the CPUC's expeditious efforts to review the PEA filing and trust that the information provided herein is fully responsive to your requests. However, should you have any further questions, please do not hesitate to contact me at (415) 973-7475.

Very truly yours,

A handwritten signature in blue ink that reads "Matthew A. Fogelson /BD". The signature is fluid and cursive.

Matthew A. Fogelson

MAF:bd  
Attachments

Dictated but not read.





# MEETING NOTES



**Pacific Gas and  
Electric Company®**

## Santa Cruz 115 kV Reinforcement Project Meeting U.S. Fish and Wildlife Service & California Department of Fish and Game

**Date:** Friday, March 23, 2012  
**Time:** 10:00 a.m. – 11:30 a.m.  
**Location:** Ventura Field Office – Santa Cruz Sub-office  
1100 Fiesta Way  
Watsonville, CA 95076  
**Attendees:** Chad Mitcham, U.S. Fish and Wildlife Service (USFWS)  
Brandon Liddell, Pacific Gas and Electric Company (PG&E)  
Andrea (Andi) Henke, PG&E  
Kim Glinka, PG&E  
Anne Marie McGraw, Insignia Environmental (Insignia)  
Roy Buck, Insignia  
Mark Allaback, Biosearch Associates (Biosearch)  
Lorie Hammerli, California Department of Fish and Game (CDFG) – by phone

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### Project Overview

- Brandon provided an overview of the project's purpose and need, which is to reinforce the electric supply in the area and provide redundancy.
  - Brandon provided an overview of the project, which included the following:
    - The project is located in an existing utility corridor.
    - Minimal right-of-way expansion will be required.
    - The existing Northern Alignment is composed of structures that will be double-circuited.
    - The Cox-Freedom Segment will be rebuilt over an existing distribution line. Only every other third or fourth pole will be replaced.
    - All poles will be flown in where potential Santa Cruz long-toed salamander (SCLTS) habitat is present along the Northern Alignment. The majority of the poles along the Cox Freedom Road Segment will be installed from the pavement except at Rob Roy Substation. PG&E is looking into whether it will be feasible to fly in poles around Rob Roy Substation that will not be installed from the paved road. Where helicopters are used, the work area will be approximately 30 feet in radius around the pole location. A tracked D-6 excavator will still be required to access each site via access roads and dig the pole excavations at all locations where helicopters will be used.
    - Most poles will be placed within 8 to 10 feet of the existing poles.
  - Chad inquired whether we could provide a map that has all of the project impact areas (staging yards, landing zones, access roads, work areas, etc.) with the SCLTS information on them. Brandon replied that we would and that we also would provide maps for a few new staging areas that are being proposed (but that these new staging areas are not located in areas of sensitive habitat).
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## Santa Cruz Long-toed Salamander

- Mark provided background regarding his experience with SCLTS.
  - Mark provided information about the status of the species in the Santa Cruz area, including the following pertinent points:
    - Highway 1 is a primary barrier for the species.
    - There are three to four subpopulations that no longer have any genetic exchange.
    - The Northern Alignment was selected primarily to avoid SCLTS impacts.
    - The project just touches portions of the SCLTS' historic range, but is at the edge of it.
    - Valencia Road, approximately 0.8 mile northwest of Freedom Boulevard in Aptos, is a large barrier to their movement; however, animals try to cross in some locations.
    - SCLTS are unlikely to successfully cross Freedom Boulevard because it is a very busy street. There is good habitat on the southeast side of the street and low-quality habitat on the northwest side, which is where the Cox-Freedom Segment of the project is located.
    - The best available data on SCLTS movement indicates that they travel up to 0.6 mile from upland areas to breeding habitat. 95 percent of the species captured were within 0.5 mile of a breeding pond. This assumes that there is homogeneous habitat in all directions.
    - The species does not typically utilize upland grassland habitat like California tiger salamander. SCLTS utilize upland refuge features in oak woodland and coastal scrub habitat. They may temporarily seek refuge in features available in grassland habitat while dispersing across it.
    - There are many known and potential ponds in the Santa Cruz area that may provide breeding habitat for SCLTS. Mark summarized the information, which is contained within the SCLTS Habitat Assessment.
  - Chad mentioned that it would be nice to dip net some of the ponds, but understood the difficulties of obtaining access to private properties.
  - Chad also agreed that there is very little habitat for SCLTS north of Freedom Boulevard.
  - Mark then discussed his proposal to install drift fencing and pit-fall traps on both sides of the drift fencing at 18 work areas the fall before construction to assess whether the species is likely to be in the area. The traps on the inside would indicate presence of SCLTS within the affected work areas, while traps on the outside would indicate if SCLTS were migrating through the work area. Mark stated that any found SCLTS would be removed from the traps, identified and photographed for research purposes, and released in the presumed direction they were traveling unless they were migrating towards a busy street. The traps would be opened up anytime rain is forecasted and checked throughout the rainy period. They would also be checked on a weekly basis when the weather is dry. Mark described this as a mini-study since the work areas would likely only be about 50 feet by 50 feet in size. This would also serve to exclude the species from the work areas. The study would likely occur from October through March. Mark stated he prefers to conduct these types of studies when rainfall is within 80 percent of normal, but that the species emerges with the first rain regardless. Mark indicated that he expects zero to a low number of SCLTS because the study sites are small, located a ways from a breeding pond, and on the edge of the species range.
  - Chad inquired about the number of study locations and whether the traps would be opened at the same time for all sites. Mark responded that all 18 sites would have the traps open and appropriately closed at the same time for the entire duration of the wet season.
  - Mark noted that Biosearch's Seascape study will be going on at the same time as this project, so it will serve as a good control for baseline information for the local area.
  - Mark further explained that males emerge first followed by the females. He stated that you usually find them on peak nights; there tend to be three to four nights per winter when there is a mass migration.
  - Mark is proposing to use photographs to identify the species since they are expecting such low numbers.
  - Chad inquired whether the traps would be immediately closed after the first SCLTS detection and the study terminated. Mark responded that he prefers to see the study all the way through once the fence is installed. Andi added that it will be nice for PG&E to have the information since they conduct regular maintenance on their facilities in the area.
  - Chad inquired about the potential for vandalism of the fence. Mark responded that they accounted for
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that in the plan and that they will be checking the fence twice weekly and making repairs as needed. They also check it when they open all of the traps prior to each rain.

- Chad and Lorie inquired if PG&E will re-evaluate their access to the towers based on the findings. Brandon replied that they would not; they are planning to primarily use helicopters to deliver the poles and other materials at those sites regardless of the findings, and still need to access the site with tracked excavators to dig the pole holes
  - Mark indicated that he thought the highest likelihood to find SCLTS would be at Rob Roy Substation or along Merk Road. He reiterated that the project is at the edge of their range, as opposed to being in an area where they would travel through. Mark also stated that Biosearch will be able to tell where the animal is going based on its age. All of the SCLTS individuals caught will be released on the outside of the fence so that they are out of the work area.
  - Chad stated that the study would provide beneficial information on the extent of the SCLTS range. He requested that the study proposal be submitted to him on paper for review. He requested that the plan include maps that show the work areas and the study locations. He stated that he is supportive of the study.
  - Mark discussed the study that was conducted for the building in which the meeting was taking place in 2008/2009. Through that study, it was determined that the SCLTS have an affinity for returning to the same upland habitat after breeding.
  - Lorie indicated that the CDFG will defer to the USFWS on the plan. The CDFG will provide input on avoidance measures, but will not approve or deny anything.
  - Chad reiterated that the USFWS will not be issuing a take permit (Biological Opinion or Habitat Conservation Plan) for the species.
  - Brandon stated that both agencies will likely receive calls from the California Public Utilities Commission (CPUC) or its consultant, Panorama, to obtain their opinion on the issue.
  - Brandon also stated that PG&E is filing a deficiency response associated with its CPUC application today. The deficiency includes a copy of the SCLTS Habitat Assessment that has been provided to the agencies.
  - Brandon also noted that the project has been designed to avoid impacts to all waters/drainages.
- 

### **San Francisco Dusky-footed Woodrat**

- Mark stated that he is a wildlife biologist, so works with more species than just the SCLTS.
  - He stated that avoidance of San Francisco dusky-footed woodrat houses is best. If PG&E cannot avoid a woodrat house, he proposes to identify suitable relocation sites, live-trap the species, move the material that forms the house to a safe and suitable location, place the material around an artificial structure, add material and seed in the structure, and release the woodrat to the new alternative shelter. The woodrats usually stay there at least through the night.
  - Mark has found that 50 percent of the houses get recolonized.
  - PG&E is also proposing to leave woody debris in the project areas to be used by the rats to build new houses.
  - Mark noted that the species is doing so well that it may not be listed as a species of special concern in the near future.
  - Lorie inquired if the artificial structure would be placed in close proximity to the original habitat location? Mark responded that it would because they have to be careful to try not to put the woodrat in a new territory. He also noted that the woodrats average two houses per adult, so you might only be disturbing one house if you have to disturb them at all. He also stated that the houses are usually placed in an area with some sun and some shade and are anchored well to something else so that predators cannot destroy them.
  - Kim emphasized that PG&E's preference is to avoid the houses and that relocation would be used as a last resort.
- 

### **Monterey Spineflower**

- Roy provided an overview of the Monterey spineflower, including the following information:
    - It is an annual species with a range of Santa Cruz and northern Monterey counties.
    - It grows in sandy soils.
-

- 
- It likes open habitat and minimal competition.
  - Disturbance is beneficial for the plant.
  - Roy explained that there are seven locations in the project area where the plant was found during the 2011 surveys that will have permanent impacts from the project.
  - Brandon explained that the permanent disturbance will be small as it is the difference between the existing wood pole and the slightly larger steel pole foundation at these locations.
  - Andi explained that PG&E will survey for the plant the year before construction and map, count, and photograph the species. PG&E plans to retain the topsoil in these areas, replace it, and reseed in the fall after the period of disturbance. They will also remove existing invasive plants. They will then check for the plant the following year. If the area has not improved in terms of the spineflower population, PG&E will conduct additional enhancement and reseedling. A revegetation plan will be prepared that establishes the performance criteria for the plant and associated monitoring. Andi indicated that the intent of the revegetation will be for the species population to be enhanced from the pre-construction conditions.
  - Roy noted that there is a lot of pampas grass (an invasive species) near Rob Roy Substation that could be removed to enhance the habitat for spineflower.
  - Lorie requested we prepare a written plan and provide it to her for review. She also requested that the locations of the plant be depicted on a map.
  - Andi noted that the boundaries of the spineflower populations may change in 2012/2013.
  - Chad indicated that the USFWS would not be involved with the spineflower except to consult informally with PG&E on it and the avoidance and minimization measures. This is largely due to the fact that the USFWS will not be consulting on any wildlife species on the project due to a lack of federal nexus.
  - Lorie indicated that she thought an incidental take permit could be required for the species, but that she was going to research the matter on Monday. [She contacted Brandon Liddell by phone on March 26 and informed him that an incidental take permit would not be required for spineflower.]
-





**Date:** 28 March 2012

**To:** Meeting Notes- File

**CC:** Brandon Liddell, PG&E Land Planner  
Maggie Trumbly, PG&E Supervisor, Environmental Planning and Permitting

**From:** Kim Glinka, PG&E Wildlife Biologist

**Subject:** Phone discussion summary with California Department of Fish and Game representative, Lori Hammerli, regarding bat roost avoidance and minimization measures for the Santa Cruz 115kV Reinforcement Project, Santa Cruz County California [Order No. 30733631].

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Phone Call Date: 26 March 2012

Phone call Attendees: Lori Hammerli, CDFG; Kim Glinka, PG&E; Brandon Liddell, PG&E

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Below is a brief summary of a recent phone discussion with CDFG representative, Lorie Hammerli, regarding PG&E's proposed bat roost avoidance measures for the Santa Cruz 115kV Reinforcement Project.

A brief overview was provided of the three bat species that are discussed in the PEA for the project: the Townsend's big eared bat, pallid bat, and western red bat. A distinction was made between which of these bat species utilize cavity/crevice features versus tree/vegetation foliage to roost in. We further explained to CDFG that various survey techniques may be employed when conducting preconstruction surveys (as described in APM Bio 14 & 15), primarily prior to tree removal or other construction activities producing loud noises. These survey techniques may include evaluating and determining which trees provide potential roost features, sampling for guano, and conducting evening emergence and/or acoustic monitoring at potential roost features. We explained that appropriate survey methods would be implemented according to the weather, season, timing of tree removal/construction, and site conditions at the discretion of the project bat biologist.

PG&E stressed that any maternal roosts observed along the project during the reproductive season (April through August) would be appropriately excluded from construction activities and monitored as proposed in APM Bio 15 in the PEA for the project. Once a biologist determines that young bats are able to fly from maternity roosts previously excluded from project activities, we discussed the timing of tree removal and methods that could be used to passively and humanely evict the bats as described in PG&E's APM Bio 15 revision submitted to the CPUC on March 23, 2012. It was emphasized that if passive evictions of post-reproductive (fall/early spring) bat roosts were necessary; those actions would be coordinated with CDFG.

Based on our discussion, it is my impression CDFG came away with a better understanding of PG&E's bat roost survey and avoidance/minimization measures and agreed with our various approaches. CDFG requested a written copy of the details proposed in APM Bio15 prior to reviewing them in the future CEQA document for the project.

D. KIM GLINKA

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Pacific Gas and Electric Company  
3401 Crow Canyon Road  
San Ramon, California 94583  
Cell: 925.334.1013 | [D3G7@pge.com](mailto:D3G7@pge.com)

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# **ATTACHMENT B**

## **RESPONSES TO OPEN HOUSE COMMENTS**





## ATTACHMENT B: RESPONSES TO OPEN HOUSE COMMENTS

Comment Number	Name	Address/Location	Comment	PG&E's Response
1	Sherry Barnard (horse owner)	Near Pole C-47	The landowner owns horses and conducts equestrian events on her property. She requested advanced notice/coordination for any helicopter activities during construction.	PG&E will coordinate construction activity, especially during helicopter stringing, with the owner to assure no impact to equestrian activities.
2	Ralph Carney	97 Aldridge Lane, Corralitos	The landowner is concerned about the size and the location of Pole C-52 and would like to initiate a conversation/discussion with PG&E about the placement of the pole.  He was also unhappy with the level of correspondence provided to this point. He stated that there has been "no mention that this project involved an extra circuit, with extra line (6 in total)." He also stated that the communication has been "spotty so that the true scope of the project has not been available before now."	PG&E met with the owner and discussed structure placement outside of his backyard and removal of all anchor guys from the existing three-pole structure. PG&E will provide notice in advance of construction following the CPUC's approval of the project.
3	Richard Faggioli	500 Senda del Valle, Watsonville (near poles C-48 and C-49)	The landowner requested that PG&E provide a newsletter following the PEA filing (regardless if the CPUC does one).	PG&E will provide project updates following project approval by the CPUC.
4	John and Stephen Pista	P.O. Box 506, Watsonville (near Pole C-41)	The landowner requested a construction schedule following the CPUC's approval. They also stated that they would work with PG&E on providing access in the berry fields.	PG&E will provide a construction schedule following CPUC approval of the project.

Comment Number	Name	Address/Location	Comment	PG&E's Response
5	Suzanne Epstein	23828 Ravensbury Avenue, Los Altos (Lettis Property)	<p>The landowner's property is greater than 52 acres. Due to the water shortage, the land is not used to grow crops and they plan to subdivide the property. The landowner wanted to discuss the proposed pole locations and the potential for rerouting the line.</p> <p>The landowner also expressed interest in leasing a portion of their property for use as a staging area/landing zone during construction.</p> <p>She also requested that the following people be added to the mailing list for the project:</p> <p>Jim Lettis 280 Tycker Crossing Cave Junction, OR 97523</p> <p>William Lettis 201 Wayne Ave. Alamo, CA 94507-2452</p> <p>Lloyd Lettis 30 Martell St. Oakland, CA 94611</p>	<p>PG&amp;E provided the owners with a map of the project and the original easement grant via mail. PG&amp;E also sent an email, with contact information, explaining how a possible reroute of the project would be initiated. PG&amp;E has called to follow up on the information contained in the mailings. PG&amp;E is currently working with the landowner as a customer for potentially moving the pole locations.</p>



Comment Number	Name	Address/Location	Comment	PG&E's Response
6	John and Sherry Hall	240 Pioneer View Road, Watsonville	<p>The landowner stated that the present easement does not allow relocation or installation of "metal towers." They are concerned about the negative property value impact and visual impact of the project.</p> <p>The landowner indicated that they may want Pole C-31 moved to the existing pole's location. The existing pole is located adjacent to the roadway.</p>	<p>PG&amp;E explained that the easement predates the owner's purchase and no additional easement is required; therefore, property usage opportunities do not change. PG&amp;E will follow up with an onsite siting discussion at the 60-percent design review. PG&amp;E explained the easement is not location specific and does not describe where structures must be located. PG&amp;E also explained that the replacement structures will be tubular steel poles, not towers as stated and these structures are an allowable use within the easement.</p> <p>The current 30-percent design re-spans this segment and had relocated the structure closer to Pioneer View Road. After coordinating with John Hall, PG&amp;E agreed to move Pole C-31 southeast of the existing pole structure.</p>

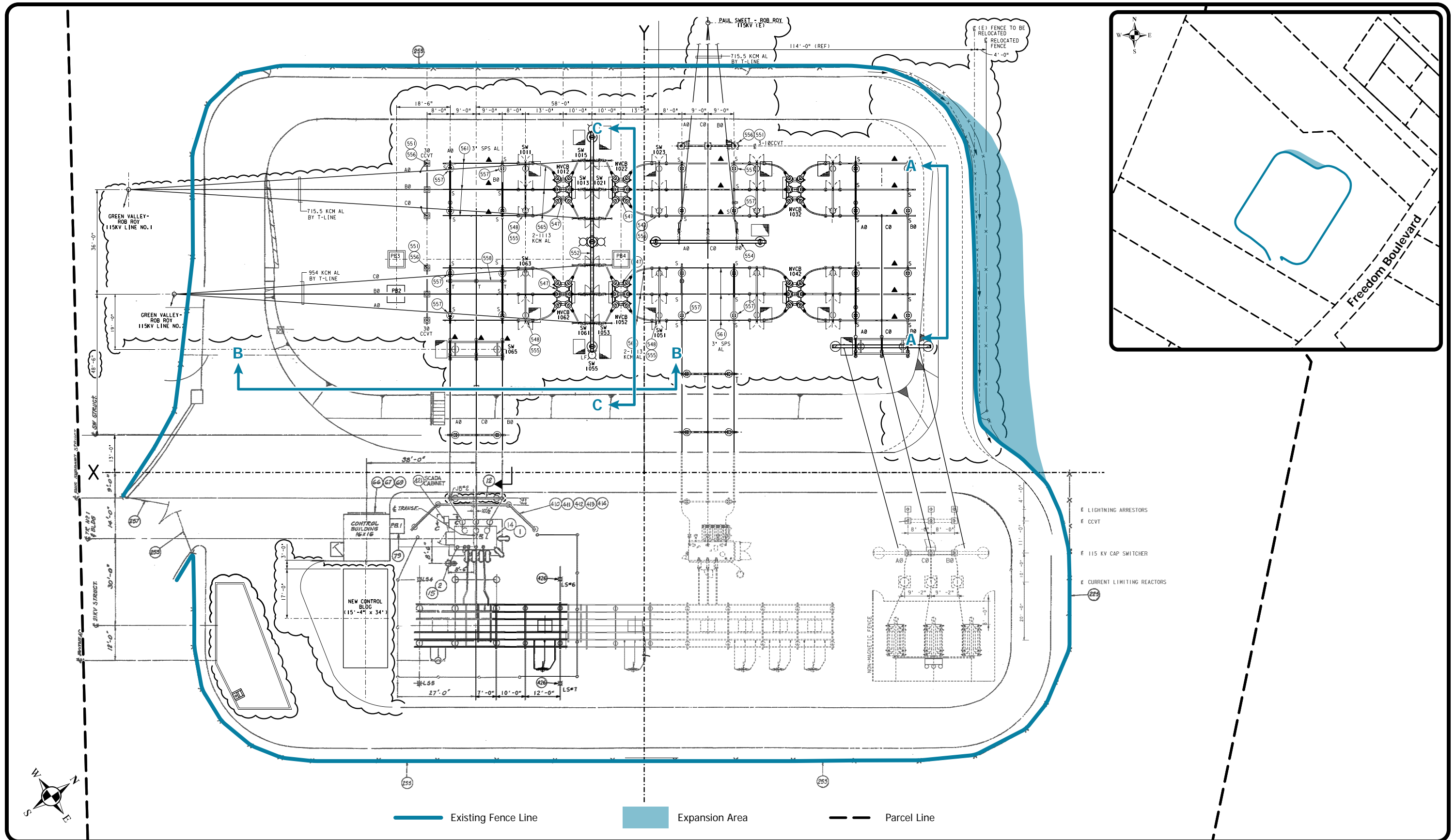


# **ATTACHMENT C**

## **REVISED ROB ROY SUBSTATION LAYOUT DRAWING**











# **ATTACHMENT D**

## **TEMPORARY CONSTRUCTION AREAS MAP**



# Santa Cruz 115 kV Reinforcement Project

## Attachment D: Additional Temporary Construction Areas Map



▲ Existing Substation

○ Milepost

● Existing Structure

■ New TSP

— Cox-Freedom Segment

— Northern Alignment

— Existing 115 kV Power Line

### Pole Numbering

E-X Existing Pole

C-X New Pole

### Access Road

... Overland Access Route

... Existing Unpaved Road

... Existing Paved Road

### Work Area

□ Contractor Storage Yard

□ Landing Zone/Staging Area

Preliminary and subject to  
change based on California  
Public Utilities Commission  
requirements, final engineering,  
and other factors.



Scale 1:4,200  
when printed on 8.5x11 paper

0 200 400 Feet





**Santa Cruz 115 kV  
Reinforcement Project**

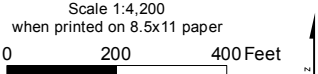
**Attachment D:  
Additional Temporary  
Construction Areas Map**

- ▲ Existing Substation
- Milepost
- Existing Structure
- New TSP
- Cox-Freedom Segment
- Northern Alignment
- Existing 115 kV Power Line

- Pole Numbering**
- E-X Existing Pole
  - C-X New Pole

- Access Road**
- Overland Access Route
  - Existing Unpaved Road
  - Existing Paved Road

- Work Area**
- Contractor Storage Yard
  - Landing Zone/Staging Area



Preliminary and subject to change based on California Public Utilities Commission requirements, final engineering, and other factors.







# Santa Cruz 115 kV Reinforcement Project

## Attachment D: Additional Temporary Construction Areas Map

- ▲ Existing Substation
- Milepost
- Existing Structure
- New TSP
- Cox-Freedom Segment
- Northern Alignment
- Existing 115 kV Power Line

### Pole Numbering

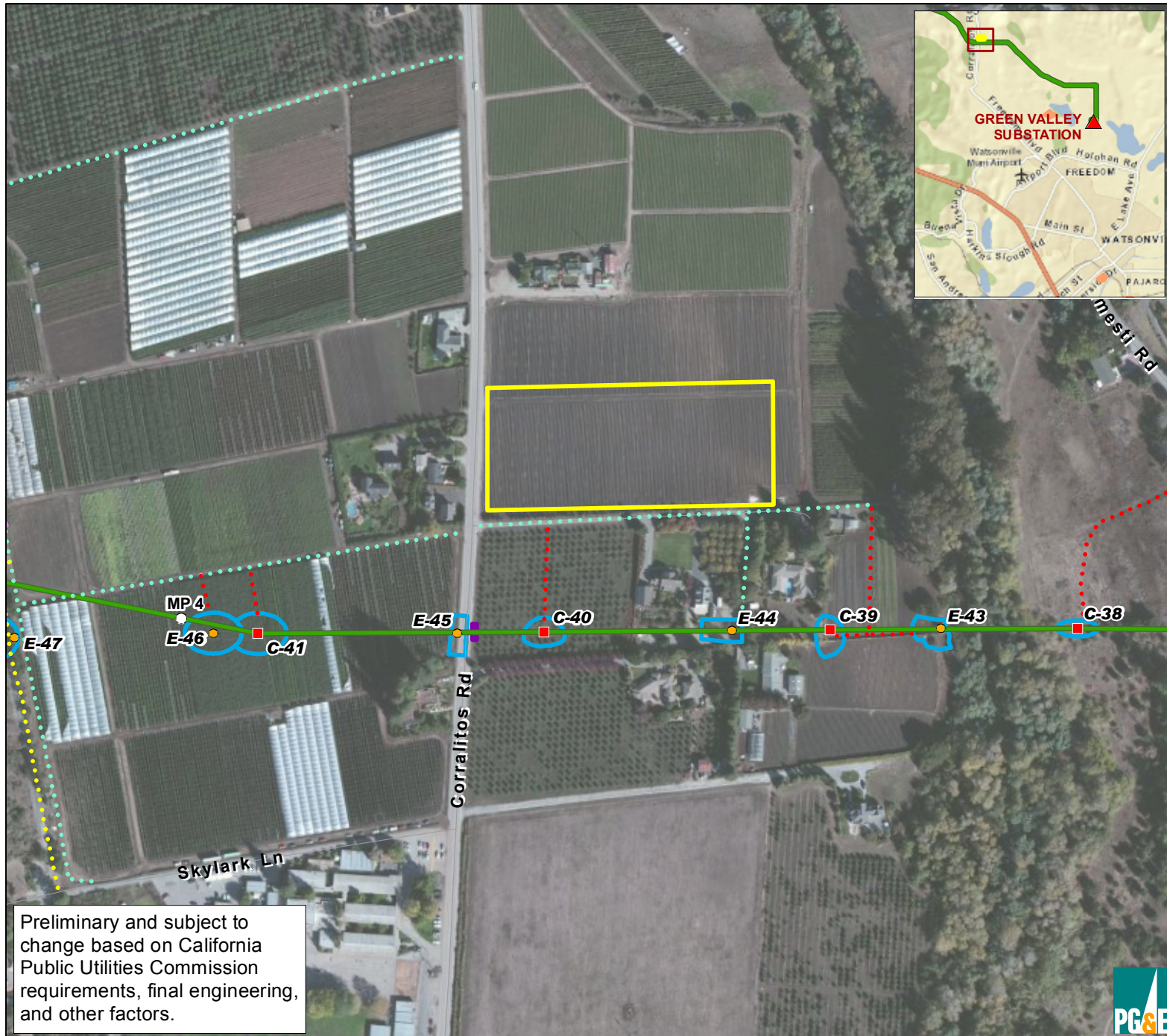
**E-X** Existing Pole  
**C-X** New Pole

### Access Road

- ⋯ Overland Access Route
- ⋯ Existing Unpaved Road
- ⋯ Existing Paved Road

### Work Area

- Contractor Storage Yard
- Landing Zone/Staging Area



Preliminary and subject to change based on California Public Utilities Commission requirements, final engineering, and other factors.



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when printed on 8.5x11 paper

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# **ATTACHMENT E**

## **POTENTIAL TREE REMOVAL AND TRIMMING LOCATIONS**



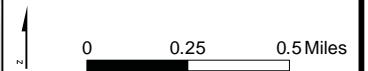
# Santa Cruz 115 kV Reinforcement Project

## Attachment E: Potential Tree Removal and Trimming Locations

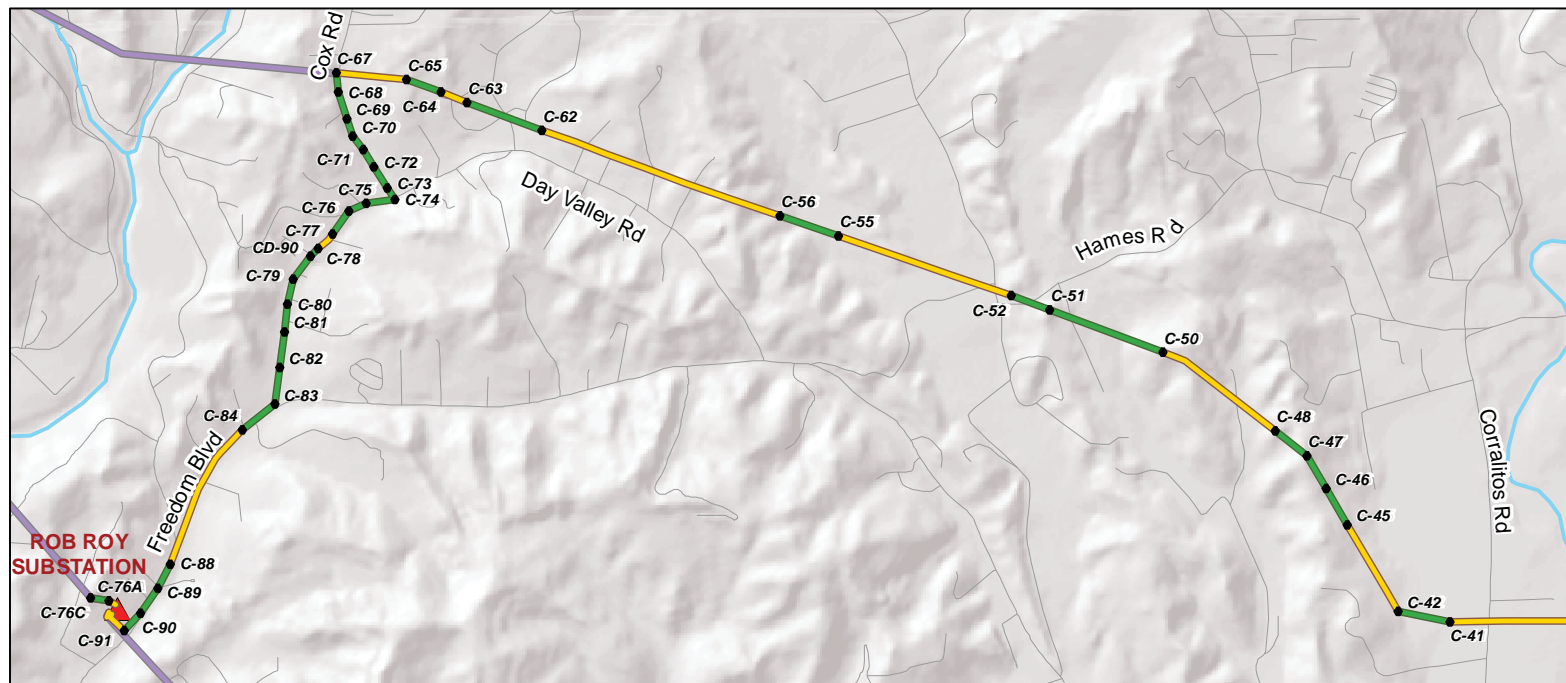
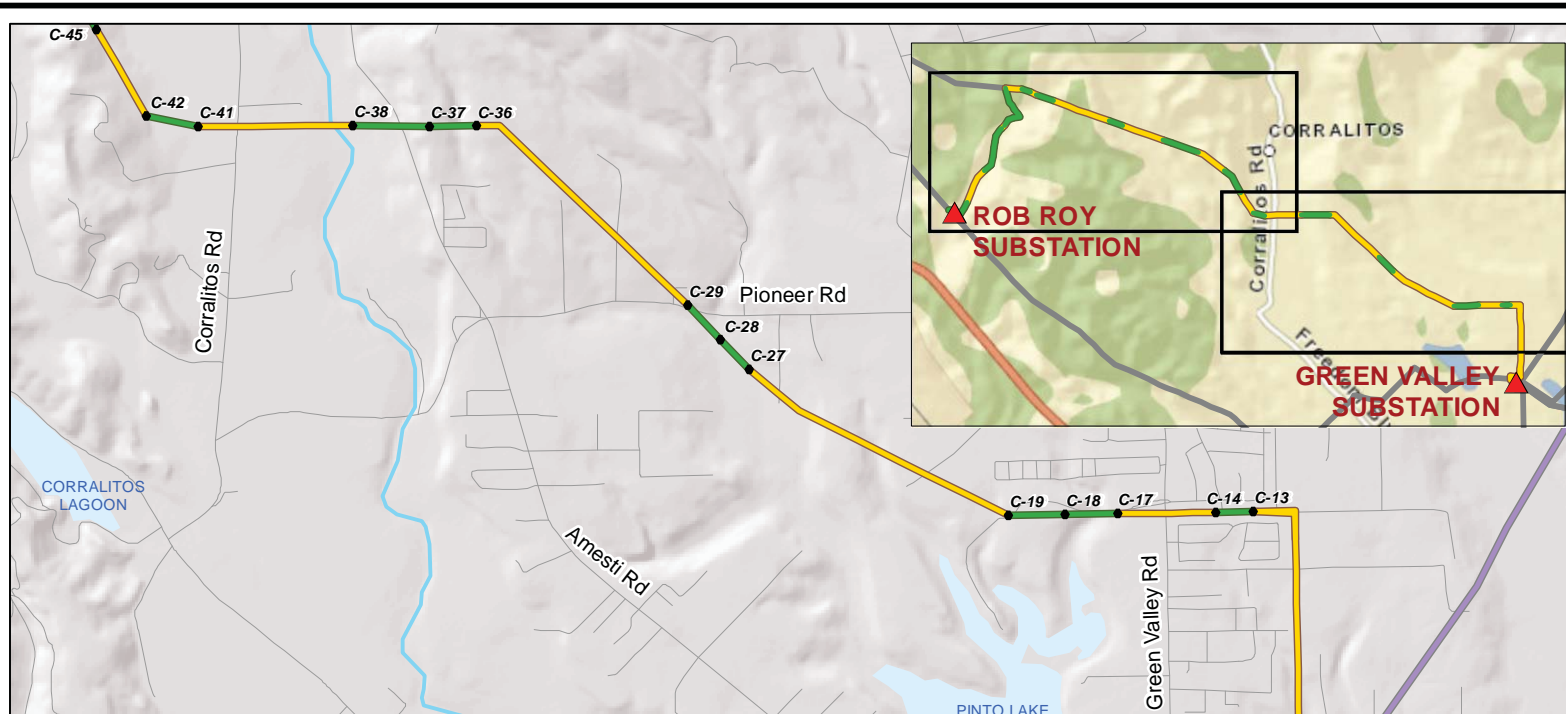
-  Existing Substation
-  Structures
-  Potential Tree Removal or Trimming Locations
-  No Planned Tree Removal or Trimming
-  Existing 115 kV Power Line

Highlighted green spans between pole locations do not indicate tree removal will occur along the entire segment. Selective tree removal or trimming will likely occur along portions of these spans between poles. Tree removal and trimming may occur in other locations as well due to the dynamic nature of tree growth, changes in required access, and other factors.

Preliminary and subject to change based on California Public Utilities Commission requirements, final engineering, and other factors.



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when printed on 8.5x11 paper



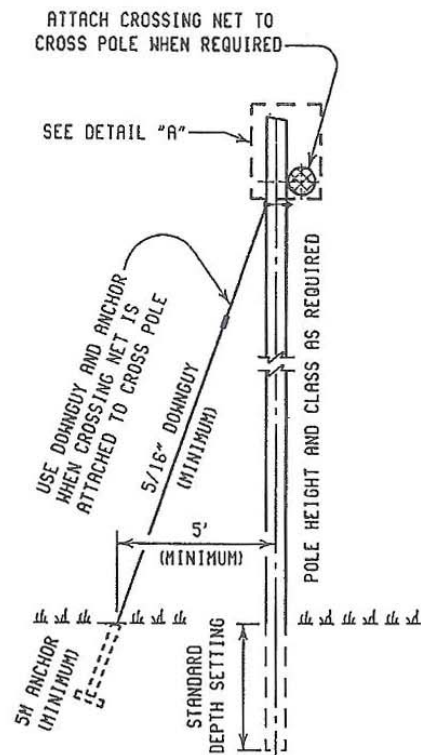




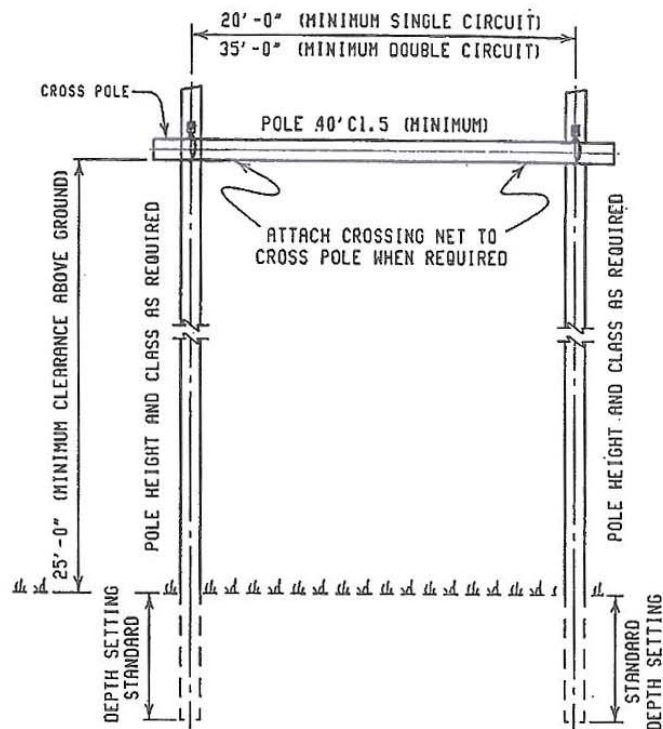
# **ATTACHMENT F**

## **CROSSING STRUCTURE TYPICAL DRAWING**

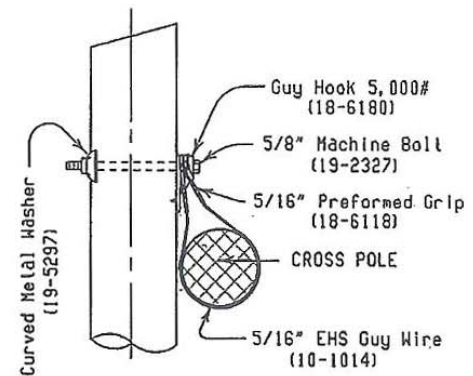




**Side View**



**Front View**



**Detail A**

Not to Scale





# **ATTACHMENT G**

## **REFORMATTED VISUAL SIMULATIONS**





View from Arroyo Drive at Mark Avenue looking southwest (VP 4)

Source: Truescape, 2011

Refer to Figure 3.1-1: Landscape Units and Photo Viewpoint Locations

**Figure 3.1-3: Existing View from Arroyo Drive**  
Santa Cruz 115 kV Reinforcement Project







**Visual Simulation of Proposed Project (VP 4)**

Source: Truescape, 2011

Refer to Figure 3.1-1: Landscape Units and Photo Viewpoint Locations

**Figure 3.1-4: Visual Simulation from Arroyo Drive**  
Santa Cruz 115 kV Reinforcement Project







View from Pinto Lake Park looking east (VP 5)

Source: Truescape, 2011

Refer to Figure 3.1-1: Landscape Units and Photo Viewpoint Locations

**Figure 3.1-5: Existing View from Pinto Lake Park**  
Santa Cruz 115 kV Reinforcement Project







**Visual Simulation of Proposed Project (VP 5)**

Source: Truescape, 2011

**Refer to Figure 3.1-1: Landscape Units and Photo Viewpoint Locations**

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**Figure 3.1-6: Visual Simulation from Pinto Lake Park  
Santa Cruz 115 kV Reinforcement Project**







View from Corralitos Road near Skylark Lane looking north (VP 9)

Source: Truescape, 2011

Refer to Figure 3.1-1: Landscape Units and Photo Viewpoint Locations

**Figure 3.1-7: Existing View from Corralitos Road**  
Santa Cruz 115 kV Reinforcement Project







**Visual Simulation of Proposed Project (VP 9)**

Source: Truescape, 2011

**Refer to Figure 3.1-1: Landscape Units and Photo Viewpoint Locations**

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**Figure 3.1-8: Visual Simulation from Corralitos Road**  
Santa Cruz 115 kV Reinforcement Project







**View from Hames Road near Pleasant Valley Road looking north (VP14)**

Source: Truescape, 2011

**Refer to Figure 3.1-1: Landscape Units and Photo Viewpoint Locations**

**Figure 3.1-9: Existing View from Hames Road**  
Santa Cruz 115 kV Reinforcement Project







**Visual Simulation of Proposed Project (VP 14)**

Source: Truescape, 2011

**Refer to Figure 3.1-1: Landscape Units and Photo Viewpoint Locations**

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**Figure 3.1-10: Visual Simulation from Hames Road**  
Santa Cruz 115 kV Reinforcement Project







View from Jingle Lane near Day Valley Road looking southeast (VP15)

Source: Truescape, 2011

Refer to Figure 3.1-1: Landscape Units and Photo Viewpoint Locations

**Figure 3.1-11: Existing View from Jingle Lane**  
Santa Cruz 115 kV Reinforcement Project







Visual Simulation of Proposed Project (VP 15)

Source: Truescape, 2011

Refer to Figure 3.1-1: Landscape Units and Photo Viewpoint Locations

**Figure 3.1-12: Visual Simulation from Jingle Lane**  
Santa Cruz 115 kV Reinforcement Project







**View from Freedom Boulevard near Rob Roy Substation looking north (VP 21)**

Source: Truescape, 2011

**Refer to Figure 3.1-1: Landscape Units and Photo Viewpoint Locations**

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**Figure 3.1-13: Existing View from Freedom Boulevard  
Santa Cruz 115 kV Reinforcement Project**







**Visual Simulation of Proposed Project (VP 21)**

Source: Truescape, 2011

**Refer to Figure 3.1-1: Landscape Units and Photo Viewpoint Locations**

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**Figure 3.1-14: Visual Simulation from Freedom Boulevard**  
Santa Cruz 115 kV Reinforcement Project

