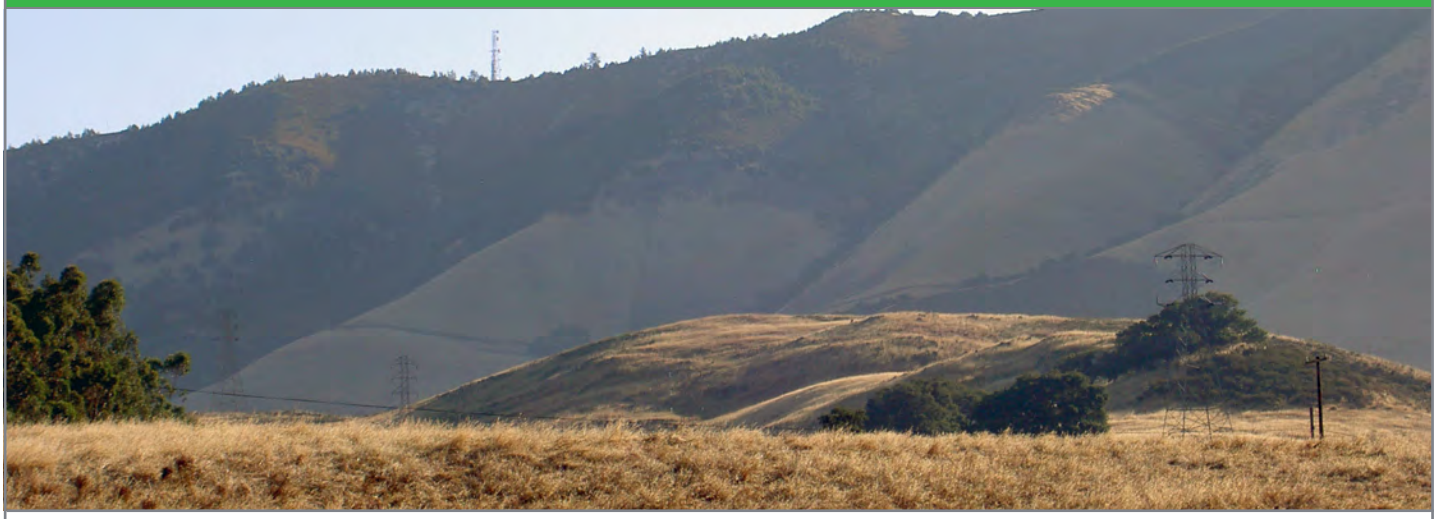

Atascadero – San Luis Obispo 70 kV Power Line Reconductoring Project

Initial Study/Mitigated Negative Declaration

Draft

October 2010

Prepared for:
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, California 94102

Prepared by:
RMT Inc.
4 West Fourth Avenue, Suite 303
San Mateo, California 94402

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PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

MITIGATED NEGATIVE DECLARATION

ATASCADERO – SAN LUIS OBISPO 70 kV POWER LINE RECONDUCTORING PROJECT

Lead Agency: California Public Utilities Commission
Energy Division
505 Van Ness Avenue, 4th Floor
San Francisco, California 94102

Contact: Billie Blanchard, Project Manager
(415) 703-2068 or billie.blanchard@cpuc.ca.gov

PROJECT INFORMATION

Project: Atascadero – San Luis Obispo 70 kV Power Line Reconductoring Project
San Luis Obispo County, California

Proponent: Pacific Gas and Electric Company
77 Beale Street
San Francisco, California 94105
(800) 743-5000

DESCRIPTION OF PROJECT

The proposed project includes reconductoring the Atascadero – San Luis Obispo 70 kV power line and replacing existing wood utility poles and lattice steel towers with light-duty steel poles, tubular steel poles, and new lattice steel towers. The upgrade of the power line would improve the reliability of electric service to the Atascadero – San Luis Obispo area.

REQUIRED APPROVALS

The proposed project would require federal and state permits for ground-disturbing work in seasonal wetlands located within the project area. State and local permits would also be required for construction work and actions required to reconductor the power line in sections that cross over Highways 101 and 58, as well as several San Luis Obispo County, City of Atascadero, and City of San Luis Obispo roads.

Table 1 lists the potential permits and approvals necessary for completing pole replacement and reconductoring activities.

Table 1: Permits and Approval Necessary for the Proposed Project

Permit, Approval, or Exemption	Purpose	Regulation Agency
Federal		
Section 404 Nationwide Permit	Work in "Waters of the United States," including wetlands.	U.S. Army Corps of Engineers (USACE)
Section 7 consultation (through federal review process)	Potential impacts to federally listed species or critical habitat.	U.S. Fish and Wildlife Service (USFWS); National Oceanic and Atmospheric Administration (NOAA) Fisheries
Notice of Proposed Construction or Alteration under Federal Aviation Regulations Part 77	Regulations apply to poles and towers over 200 feet in height above ground level at its site or within certain proximities to local airports.	Federal Aviation Administration (FAA)
State		
Permit to Construct (General Order No. 131-D)	Construction, modification, or alteration of power line facilities.	California Public Utilities Commission (CPUC)
Section 401 Water Quality Certification	Consistency with state water quality standards.	Central Coast Regional Water Quality Control Board (RWQCB)
1600 Streambed Alteration Agreement	Work that affects the bed or bank of a stream or lake.	California Department of Fish and Game (CDFG)
Consistency Determination	Potential impacts to federal and state-listed species.	CDFG
Standard Encroachment Permit	For use of California state highways for other than normal transportation purposes, including construction activities completed within the ROW.	California Department of Transportation (Caltrans)
National Pollution Discharge Elimination System (NPDES) Storm Water Permit	Construction activities disturbing 1 acre or more of soil must submit a Notice of Intent to comply with the terms of the general permit.	State Water Resources Control Board
Local		
Air Pollution Control District Permit	For conducting activities which may result in air pollution.	San Luis Obispo County Air Pollution Control District (SLOCAPCD)
Encroachment Permit	For the use of local roads for purposes other than normal transportation.	City of Atascadero; City of San Luis Obispo; County of San Luis Obispo
Tree Removal Permit	For the removal of trees.	City of San Luis Obispo; County of San Luis Obispo

ENVIRONMENTAL DETERMINATION

Based upon an Initial Study, it is determined that the proposed project WOULD NOT HAVE a significant effect on the environment with the incorporation of the proposed Applicant Proposed Measures (APMs) and mitigation measures (attached). The Initial Study is available for review at the CPUC, 505 Van Ness Avenue, San Francisco, California 94102.

Billie Blanchard
Project Manager

10/18/2010
Date

APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Pursuant to the Public Resources Code and the State CEQA Guidelines, the Lead Agency (CPUC) has prepared an Initial Study for the proposed project to evaluate the project's potential effects on the environment. Potential impacts associated with project implementation have been identified in the Initial Study. The project description includes applicant proposed measures (APMs), which would reduce potential impacts. Mitigation measures would be implemented to reduce potentially significant impacts to less than significant levels.

Aesthetics

APM AE-1. Construction Activities. PG&E will make an effort to keep construction activities as clean and inconspicuous as practical by storing building materials and equipment away from public view and keeping most construction activity within the right-of-way.

APM AE-2. Tree Replacement. In the City of Atascadero where project implementation requires native tree removal, native mature trees removed that come under the jurisdiction of the city's tree ordinance will be replaced at a rate of 5:1 and, pursuant to discussion with city officials, replacement trees will be sited to help screen new poles. In the City of San Luis Obispo some trees will be removed in back or side yards to provide sufficient working space for construction equipment, and safe electrical clearances for the new TSPs and conductor. Property owners have been consulted and written permission will be obtained from these property owners prior to removal of any trees.

APM AE-3. New Source of Substantial Light or Glare Avoidance. PG&E will replace the existing conductor with a non-specular conductor for the specific purpose of minimizing the reflectivity of any new project facilities.

APM AE-5. Replacement of Lattice Steel Towers with TSPs in SLO City Limits. In order to minimize the footprint and reduce potential visibility, TSPs will replace lattice steel towers within San Luis Obispo City limits. This allows for a small impact area within properties. Note: Previous discussions with property owners have resulted in the determination of low impact locations with respect to vegetation removal, future property use, TSP access, and visual impact.

Air Quality

Mitigation Measure AQ-1 (proposed to supersede APM AQ-1 "Fugitive Dust Minimization"). A Fugitive Dust Control Plan shall be developed at least 30 days prior to project construction. The plan shall be submitted to SLOCAPCD for approval. Copies of the finalized dust control measures shall be submitted to CPUC with documentation of approval from SLOCAPCD. Elements of the Fugitive Dust Control Plan shall include, but not be limited to, measures such as the following:

1. The amount of disturbed area shall be reduced wherever possible.
2. Water trucks or sprinkler systems shall be used to prevent airborne dust from leaving the site. Increased watering frequency shall be required whenever wind speeds exceed 15 miles per hour (mph). Reclaimed (non-potable) water shall be used whenever possible. Non-potable water shall not be used in or around crops used for human consumption.
3. Permanent dust control measures identified in the approved project revegetation and landscape plans shall be implemented as soon as possible following completion of any soil-disturbing activities. Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading shall be sown with a fast germinating, non-invasive grass seed and watered until vegetation is established. All disturbed soil areas not subject to revegetation shall be stabilized using approved chemical soil binders, jute netting, or other methods approved by SLOCAPCD.
4. Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface.
5. Wheel washers (or equivalent) shall be installed at all access points, or if appropriate, at designated landing zones and laydown areas, to prevent tracking of mud onto public roads. Other specific measures to prevent mud tracking shall be provided in the SWPPP.
6. Streets shall be swept at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water shall be used where feasible.
7. If county grading and building ministerial permits are required, all of these fugitive dust measures shall be shown on grading and building plans.
8. A person or persons shall be designated to monitor fugitive dust emissions and enhance implementation of the measures, as necessary, to minimize dust complaints, reduce visible emissions below 20 percent opacity, and prevent transport of dust off site. The name and telephone number of such person(s) shall be provided to the SLOCAPCD Compliance Division prior to the start of any grading, earthwork, or demolition.

APM AQ-2. NOA Emissions Prevention. The following measures will be implemented during construction. These measures are those required by SLOCAPCD District Rule 412 – Airborne Toxic Control Measures, Section 93105: Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations, part (e) for areas to be graded of one acre or less.

- Prior to any ground disturbance, sufficient water will be applied to the area to be disturbed to prevent visible emissions from crossing the property line.

- Areas to be graded or excavated will be kept adequately wetted to prevent visible emissions from crossing the property line.
- Construction vehicle speed at the work site will be limited to 15 mph or less.
- Equipment will be washed down before moving from the property onto a paved public road.
- Storage piles will be kept adequately wetted, treated with a chemical dust suppressant, or covered when material is not being added to or removed from the pile.
- Visible track-out on the paved public road will be cleaned using wet sweeping or a HEPA filter equipped vacuum device within 24 hours.

Mitigation Measure AQ-3. The following measures shall be implemented, as feasible, during construction to reduce toxic diesel PM emissions:

1. On- and off-road equipment shall be subject to the following restrictions:
    a. Staging and queuing areas shall not be located within 1,000 feet of sensitive receptors;
    b. Diesel idling within 1,000 feet of sensitive receptors shall not be permitted;
    c. Alternative-fueled equipment shall be used whenever possible; and
    d. Signs that specify the no idling requirements shall be posted and enforced at the project area.
2. Off-road diesel equipment shall comply with the 5-minute idling restriction identified in Section 2449(d)(3) of CARB's In-Use off-Road Diesel regulation:www.arb.ca.gov/regact/2007/ordiesl07/frooal.pdf.
3. Signs shall be posted in the designated queuing areas and job sites to remind off-road equipment operators of the 5-minute idling limit.

Greenhouse Gases

APM GHG-1. GHG Emissions Minimization. The following measures will be implemented during construction to minimize GHG emissions.

- Identify park-and-ride facilities in the project vicinity and encourage construction workers to carpool to the job staging area to the extent feasible. The ability to develop an effective carpool program for the proposed project will depend upon the proximity of carpool facilities to the staging area, the geographical commute departure points of construction workers, and the extent to which carpooling will not adversely affect worker arrival time and the project's construction schedule. Crew transportation to the project site is addressed in Section 3.11 Transportation and Traffic.
- Minimize unnecessary construction vehicle idling time. The ability to limit construction vehicle idling time is dependent upon the sequence of construction activities and when and where vehicles are needed or staged. Certain vehicles, such as large diesel powered vehicles, have extended warm-up times following start-up that limit their availability for use following start-up. Where such diesel powered vehicles are required for repetitive construction tasks, these vehicles may require more idling time. The project will apply a "common sense" approach to vehicle use, so that idling is reduced as far as

possible below the maximum of 5 consecutive minutes required by California law; if a vehicle is not required for use immediately or continuously for construction activities, its engine will be shut off. Construction foremen will include briefings to crews on vehicle use as part of pre-construction conferences. Those briefings will include discussion of a "common sense" approach to vehicle use.

- Minimize construction equipment exhaust by using low-emission or electric construction equipment where feasible. Portable diesel fueled construction equipment with engines 50 hp or larger and manufactured in 2000 or later will be registered under the California Air Resources Board (CARB) Statewide Portable Equipment Registration Program, or will meet at a minimum US EPA/CARB Tier 1 engine standards.
- Minimize welding and cutting by using compression of mechanical applications where practical and within standards.
- Encourage use of natural gas powered vehicles for passenger cars and light duty trucks where feasible and available.
- Encourage the recycling of construction waste where feasible.

Biological Resources

Mitigation Measure BO-1 (proposed to supersede APM BO-1 "Avoidance of and Minimization of Potential Impacts to Birds"). Removal of vegetation or any other ground disturbance activities shall not occur from February 1 to September 15 to avoid impacts to native breeding/nesting birds. If work during the breeding/nesting season cannot be avoided, a qualified biologist shall survey within the project footprint and encompassing adjacent habitats up to 500 feet from the project boundary for owls or raptors and up to 250 feet for all other bird species, unless state or federal protocols for listed or fully protected species dictate otherwise. Surveys shall occur within five working days of the start of construction or ground disturbing activities. If no active nests are found within the survey area, no further mitigation shall be necessary. If breeding activities and/or an active nest(s) are found within the survey area, a non-disturbance buffer shall be established at a minimum of 250 feet from breeding habitat/nest sites listed species, species of special concern, species protected under the Migratory Bird Treaty Act (raptors shall have a minimum of a 500 foot buffer established), or a qualified on-site biologist may determine a non-disturbance buffer distance sufficient to minimize disturbance based on the nest location, topography, cover, species' tolerance to disturbance, and type/duration of potential disturbance, as determined by the qualified on-site biologist. The appropriate agency(ies) shall be contacted regarding identified nests of listed and/or species of special concern.

If it is determined, based on the professional judgment of the biologist that work is unlikely to adversely impact the active nest(s) or disrupt breeding behavior, then work may proceed within the non-disturbance buffer as long as a qualified biologist is on site to monitor nest(s) for signs of disturbance. Alternatively, if it is determined that project activities are resulting in nest disturbance, no further work shall occur within the non-disturbance buffer(s) until the nest becomes inactive or the young have fledged, as determined by the biologist or by the appropriate agency.

Monitoring guidelines shall be provided in an Avian Protection Plan to be submitted to USFWS and CDFG for review and approval prior to construction. Documentation of plan approval shall be submitted to the CPUC for record-keeping.

Reconductoring the power lines shall conform to PG&E's most current version of Bird and Wildlife Protection Standards, and shall include the use of bird guards.

APM BO-2. General Avoidance of Biological Resources Impacts.

- Litter and trash management. All food scraps, wrappers, food containers, cans, bottles, and other trash from the project area will be deposited in closed trash containers. Trash containers will be removed from the project area at the end of each working day.
- Parking. Vehicles and equipment will be parked on pavement, existing roads, and previously disturbed or developed areas or work areas as identified in this document. Off-road parking will only be permitted in previously identified and designated work areas.
- Route and speed limitations. Vehicles will be confined to established roadways and pre-approved access roads, overland routes and access areas. Access routes and temporary work areas will be limited to the minimum necessary to achieve the project goals. Routes and boundaries of work areas, including access roads, will be clearly mapped prior to initiating project construction. Vehicular speeds will be kept to 15 mph on unpaved roads.
- Maintenance and refueling. All equipment will be maintained such that there will be no leaks of automotive fluids such as fuels, solvents, or oils. All refueling and maintenance of vehicles and other construction equipment will be restricted to designated staging areas located at least 100 feet from any down gradient aquatic habitat unless otherwise isolated from habitat. Proper spill prevention and cleanup equipment will be maintained in all refueling areas.
- Minimization of fire hazard. During fire season in designated State Responsibility Areas, all motorized equipment driving off paved or maintained gravel/dirt roads will have federal or state approved spark arrestors. All off-road vehicles will be equipped with a backpack pump filled with water and a shovel. All fuel trucks will carry a large fire extinguisher with a minimum rating of 40 B:C, and all equipment parking and storage areas will be cleared of all flammable materials.
- Pets and firearms. No pets or firearms will be permitted at the project site.

APM BO-3. Nesting Acorn Woodpeckers. PG&E currently holds a Special Use Permit with the USFWS for Removal and Relocation of Active Nests, dated July 15, 2008. All woodpecker cavities in wood poles will be visually inspected prior to pole removal, if safe to do so. All poles having cavities that contain elliptical, white eggs or those cavities that have live chicks in a nest will be managed as a pole having an active woodpecker nest. Cavities having nests containing slightly glossy, pale bluish- or greenish-white colored eggs will be considered starling nests and are not afforded protection and no further action will be required. Prior to disturbing the pole, the entrance to the nest cavity will be covered with duct tape or other suitable adhesive product to prevent the eggs or chicks from falling out of the nest cavity. The orientation of the cavity opening will be noted for future reference, and will then be cut out the section of pole containing the active

nest, 3 feet above the cavity and 3 feet below the cavity. The pole section containing the active nest will remain in a vertical position to minimize further disturbance to eggs or chicks in the nest. Once the replacement pole is set, the pole section containing the nest will be strapped to the replacement pole, orienting the cavity hole as noted prior to relocation. The section of pole containing the nest will be placed no lower than one-third the height of the pole. The pole section will be securely positioned on the replacement pole with rope or metal strapping. The adhesive cover will be removed over the cavity entrance. As a last step, the pole number, circuit name, number of chicks or eggs, date of relocation, and crew supervisor name will be documented and this nest relocation information will be sent electronically to Mike Best, PG&E Bird Protection Program Manager (MBB8). This information will be included in PG&E's annual report to the U.S. Fish and Wildlife Service as required by our Special Purpose Permit MB057942-0.

Mitigation Measure BO-4 (proposed to supersede APM BO-4 "Pre-construction Surveys and Relocation of Species"). Pre-construction surveys shall be conducted by a USFWS-approved biologist no more than two weeks prior to initiating any ground-disturbing activities to occur within 300 feet of suitable CRLF habitat. All suitable aquatic and upland habitat, including refugia habitat such as under shrubs, downed logs, small woody debris, and burrows, shall be thoroughly inspected. Before the start of work each morning, the biologist shall check under any equipment and stored construction supplies left in the work area overnight within 300 feet of suitable habitat. All pole holes or tower leg holes, in suitable habitat, shall be backfilled or covered at the end of each work day to prevent entrapment of special-status species. If CRLFs are encountered in the project area, work within 50 feet of the animal shall cease immediately and the USFWS-approved biologist shall be notified. Based on the professional judgment of the USFWS-approved biologist, and in coordination with the USFWS, if project activities can be conducted without harming or injuring the animal(s), the frog shall be left at the location of discovery and monitored by the USFWS-approved biologist. All project personnel shall be notified of the finding and at no time shall work occur within 50 feet of the animal without a biological monitor present. If it is determined by the USFWS-approved biologist that relocating the CRLF(s) is necessary, the following steps shall be followed:

1. Prior to handling and relocation, the USFWS-approved biologist shall take precautions to prevent introduction of amphibian diseases in accordance with the Revised Guidance on Site Assessments and Field Surveys for the California Red-legged Frog (USFWS 2005). Equipment and clothing of biologists shall be disinfected prior to mobilizing to the action area to handle amphibians after working in other aquatic habitats.
2. If relocation of CRLF is determined to be necessary, CRLFs shall be captured by hand, dipnet, or other USFWS-approved methods; transported by hand, dipnet, or temporary holding container; and released as soon as practicable the same day of capture. Handling of CRLFs shall be avoided to the maximum extent practicable. Holding/transporting containers and dipnets shall be thoroughly cleaned and disinfected prior to transporting to the action area and shall be rinsed with freshwater on site immediately prior to usage unless doing so would result in the injury or death of the animal(s) due to the time delay.
3. CRLFs shall be relocated to the nearest suitable habitat outside of an area where actions could result in mortality, harm, or harassment. The individual(s) shall be released

within suitable habitat at a location agreed upon by the USFWS. If suitable habitat cannot be identified, the USFWS shall be contacted to determine an acceptable alternative. Transporting CRLFs to a location other than the location described herein shall require authorization by the USFWS.

Mitigation Measure BO-5 (proposed to supersede APM BO-5 "Development and Implementation of a Worker Environmental Awareness Program" and APM BO-16 "Specialized CRLF Training"). A USFWS-approved biologist shall design and lead an Environmental Training and Monitoring Program (ETMP) for all construction and on-site personnel prior to beginning construction activities. Training shall include a discussion of avoidance and minimization measures to be implemented to protect biological resources, as well as the terms and conditions of the Biological Opinion and other permits. Training shall include information on the federal and state ESAs, the MBTA, and the Bald and Golden Eagle Protection Act, and the consequences of noncompliance with these acts. Workers shall be informed of the presence, life history, and habitat requirements of all special-status species, including the CRLF, with a potential to be affected within the project area. The training shall include a description of the CRLF and its habitat and the importance of the CRLF and its habitat, along with the general measures that are being implemented to conserve the CRLF, as they relate to the project. Training shall include information on state and federal laws protecting nesting birds, wetlands, and other water resources. An educational brochure shall be produced for construction crews working on the project. The brochure shall include color photos of sensitive species as well as a discussion of mitigation measures. No construction worker shall be involved in field operations without having participated in this special-status species/sensitive habitat informational training. A copy of the ETMP shall be submitted to the CPUC at least 30 days prior to construction. Training attendance sheet(s) shall be submitted to the CPUC after each training session.

APM BO-6. Designated Equipment Staging. PG&E will restrict equipment to designated staging areas and roads to avoid disturbance to existing vegetation.

APM BO-7. Storm Water Permit. PG&E will obtain coverage under the Construction Storm Water Permit Program and implement established Best Management Practices (BMPs) as identified by the Central Coast Regional Water Quality Control Board for erosion and sediment control. These BMPs may include, but are not limited to, silt fencing, temporary berms, restrictions on cleaning, installation of vegetative strips, and temporary sediment disposal.

APM BO-8. Avoidance of Environmentally Sensitive Resource Areas. Sensitive resources identified during pre-construction surveys in the project vicinity will be mapped and clearly marked in the field. Such areas will be avoided during construction to the extent practicable and/or additional measures specific to sensitive species types as described herein and that may be required by the USACE, FWS, CDFG, and RWQCB permits, will be implemented to avoid or minimize impacts.

APM BO-9. Biological Monitor On-site During Construction Activities in Sensitive Areas and Reporting and Communication. A qualified biological monitor will be on-site during all ground-disturbing construction activities in or near sensitive habitats previously identified by a qualified biologist. The monitor will ensure implementation of and compliance with all avoidance and

mitigation measures. The monitor will have the authority to stop work or determine alternative work practices in consultation with agencies and construction personnel as appropriate if construction activities are likely to impact sensitive biological resources. The biological monitor will document monitoring activities in daily logs to document construction activities and environmental compliance. The daily logs will be included in the project report submitted to the appropriate agencies following completion of construction. The biological monitor will be responsible for reporting any capture and relocation, harm, entrapment, or death of a listed species to the USFWS and/or the CDFG and for reporting any permit violations in a timely manner and as indicated in their respective permits. Weekly monitoring reports will be submitted to CPUC, and to any resource agencies (upon request), throughout construction. A final project summary report will be submitted to the CPUC 90 days after the completion of construction activities.

APM BO-10. Restricted Construction Hours. Construction activities within 300 feet of suitable aquatic habitat will not begin prior to 30 minutes after sunrise and will cease no later than 30 minutes before sunset

APM BO-11. Helicopter Avoidance of Known Nesting Birds. PG&E will avoid helicopter flights near known active nesting bird sites as determined in consultation with the USFWS and/or CDFG.

APM BO-12. Avoidance of and Minimization of Potential Impacts to Wetlands and Water Resources. A Stormwater Pollution Prevention Plan (SWPPP) will be developed that describes sediment and hazardous materials control, fueling and equipment management practices, and other factors deemed necessary for the project. Erosion control measures will be implemented where necessary to reduce erosion and sedimentation in wetlands, waters of the United States, and waters of the state, as well as aquatic habitat occupied by sensitive species. Erosion control measures will be monitored on a regularly scheduled basis, particularly during times of heavy rainfall. Corrective measures will be implemented in the event erosion control strategies are inadequate. Sediment/erosion control measures will be continued at the project site until such time that soil stabilization is deemed adequate. Brush or other similar debris material will not be placed within any stream channel or on its banks. No project work activity is planned within the limits of any stream channel.

APM BO-13. Avoidance of Impacts to Natural Habitats. Minimization of grading and vegetation along access roads and pole and tower work areas. Clearing and grading will be limited to previous access roads that have become overgrown with vegetation. Vegetation will be cut at ground level and leave existing root systems intact where possible.

Mitigation Measure BO-14 (proposed to supersede APM BO-14 "Avoidance of CRLF Habitat"). PG&E shall install exclusion fencing around aquatic habitat in areas where construction activities are within the vicinity of aquatic habitat (the upland habitat buffer). Prior to commencing construction activities, flagging, signage, and/or high visibility fencing shall be erected around the CRLF habitat to identify and protect it from the encroachment of personnel and equipment. These areas shall be avoided by all construction personnel. The fencing shall be inspected before the start of each workday and maintained until completion of the project. Only when the construction of the project is completed in that area shall the fencing be removed.

APM BO-15. Fencing of Staging Areas within Proposed Critical Habitat Boundaries. PG&E will install exclusion fencing around staging areas that will be used during the typical CRLF avoidance window, from April 1 through November 1, within the proposed critical habitat boundaries. Prior to the commencement of construction activities, exclusion fencing will be erected around the staging areas to preclude entry by CRLF. Fencing will be keyed at least 6 inches into the ground. The fencing will be inspected and maintained during the avoidance window until completion of the project. Only when the construction of the project, in a specified area, is completed, will the fencing be removed.

APM BO-17. Qualified Biologist CRLF Inspection. PG&E will obtain Section 7 of the Federal Endangered Species Act coverage under the Programmatic Biological Opinion for CRLF. The name(s) and credentials of biologists who will conduct activities specified in the following measures will be submitted at least 15 days prior to the onset of activities at specific locations. Project activities will not begin until PG&E has received written approval from the USFWS that the biologist(s) is qualified to conduct the work. A USFWS-approved biologist will survey the work site, locations that include the primary constituent elements of suitable habitat, a minimum of two weeks before the onset of activities. If CRLF, tadpoles, or eggs are found, the approved biologist will contact the USFWS to determine if moving any of these life-stages is appropriate. In making this determination, the USFWS will consider if an appropriate relocation site exists. If the USFWS approves moving animals, the approved biologist will be allowed sufficient time to move CRLF from the work site before work activities begin. Only USFWS-approved biologists will participate in activities associated with the capture, handling, and monitoring of CRLF. The USFWS-approved biologist will be present at the work site until such time as all removal of CRLF, instruction of workers, and habitat disturbance has been completed. For the purpose of this measure, habitat disturbance refers to clearing or grading in areas of dense vegetation within 100 feet of aquatic habitat, as well as culvert placement or fill activities in drainages within the proposed critical habitat boundaries. After this time, the contractor or permittee will designate a person to monitor on-site compliance with all minimization measures. The USFWS-approved biologist will ensure that this individual receives training outlined above and in the identification of the CRLF. The monitor and the USFWS-approved biologist will have the authority to halt any action that might result in impacts that exceed the levels anticipated by the USACE and USFWS during review of the proposed action. If work is stopped, the USACE and USFWS will be notified immediately by the USFWS-approved biologist or on-site biological monitor.

APM BO-18. Work Timing Window to Protect CRLF. PG&E will complete work activities within California red-legged frog proposed critical habitat areas between April 1 and November 1. If PG&E demonstrates a need to conduct activities outside this period, the USACE may authorize such activities after obtaining the USFWS's approval.

APM BO-19. Dewatering Method that Protects CRLF. If a work site is to be temporarily dewatered by pumping, intakes will be completely screened with wire mesh not larger than five millimeters (mm) to prevent CRLF from entering the pump system. Water will be released or pumped downstream at an appropriate rate to maintain downstream flows during construction. Upon completion of construction activities, any barriers to flow will be removed in a manner that will allow flow to resume with the least disturbance to the substrate.

APM BO-20. Removal of Exotic Species. A USFWS-approved biologist will permanently remove, from within the project area, any individuals of exotic species identified during regular surveys or monitoring, such as bullfrogs, crayfish, and centrarchid fishes, to the maximum extent possible. The permittee will have the responsibility to ensure that their activities are in compliance with the CDFG.

Mitigation Measure BO-21 (proposed to supersede APM BO-21 "Refueling and Equipment Maintenance Methods that Protect CRLF"). All fueling and maintenance of vehicles and other equipment and staging shall only occur at distances greater than 100 feet from any riparian habitat or water body. The USACE and the permittee shall ensure contamination of habitat does not occur during such activities. Prior to the onset of work, the USACE shall ensure that the permittee has prepared a plan to allow a prompt and effective response to any accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

APM BO-22. Limitation of Vehicle Access, Potential Impact Areas, and Potential Disturbance. PG&E will limit the number of access routes, number and size of staging areas, and the total area of the proposed project activity to the minimum necessary. Routes and boundaries will be clearly demarcated. Movement of heavy equipment to and from the project site will be restricted to established roadways where possible to minimize habitat disturbance. If saturated soils are encountered, timber mats will be employed to prevent rutting and compaction. Staging areas will be located outside of an appropriate buffer established from aquatic habitat.

APM BO-23. Staging and Stockpiling Restrictions. During construction, PG&E will restrict stockpiling of construction materials, portable equipment, vehicles, and supplies to the designated construction staging areas. PG&E will ensure that contamination of habitat does not occur during such operations. All workers will be informed of the importance of preventing spills and the appropriate measures to take should a spill occur.

Mitigation Measure BO-24 (proposed to supersede APM BO-24 "Avoidance of and Minimization of Potential Impacts to Burrowing Owls"). Pre-construction surveys shall be conducted by a qualified biologist for burrowing owls for all project work areas that provide suitable nesting or wintering habitat (annual grasslands and pastures). Although burrowing owls are not likely to nest in the project area, the potential for nesting owls cannot be precluded. The work area surveys shall be conducted within the ROW, covering the work area and surrounding areas visible from the ROW. The survey shall include checking for the burrowing owl and owl signs (e.g., white wash at burrow entrances). If ground-disturbing activities in suitable habitat are delayed or suspended for more than 30 days after the pre-construction surveys, the site shall be resurveyed. If no burrowing owls are detected, no further mitigation shall be necessary. If active burrows are found near a work area, work in the vicinity of the burrows shall be limited as follows:

a. No disturbance shall occur within approximately 160 feet (50 meters) of occupied burrows during the non-breeding season of September 1 through January 31, or within approximately 250 feet (75 meters) during the breeding season of February 1 through August 31.

b. Limits of the exclusion zone in the project work area shall be clearly marked with signs, flagging, and/or fencing.

If work within these limits is unavoidable while burrows are active, work shall only be conducted in the presence of a qualified monitor who shall determine if the owls show signs of disturbance. Alternatively, upon prior approval from the CDFG, a passive relocation effort (displacing the owls from the work area) may be conducted as described below, and subject to approval from the CDFG. Passive relocation of owls may occur during the non-breeding season (September 1 through January 31) with prior approval from the CDFG. Passive relocation shall include installing one-way doors on the entrances of burrows. The one-way doors shall be left in place for 48 hours to ensure the owls have vacated the nest site. Owls shall not be relocated during the breeding season. All pole and tower leg holes shall be backfilled or covered at the end of the work day to prevent entrapment of burrowing owls. The open ends of LDS poles, in suitable habitat, shall be covered during storage to prevent burrowing owls from inhabiting the pole openings.

Mitigation Measure BO-25/26 (proposed to supersede APMs BO-25 "Biological Surveys Prior to Bat Breeding Season" and BO-26 "Bat Avoidance Measures"). Before the spring breeding season (and prior to start of construction), a qualified biologist shall perform a survey for roosting bats or maternity colonies at the proposed project site. Surveys shall evaluate the probability for trees to host roosting bats. For trees considered to have a high probability for bats, acoustic monitoring shall be performed in early summer to detect if there are any roosting sites in the trees. If avoidance of an active roosting bat or maternity colony is not practicable, a sufficient buffer shall be established in consultation with the CDFG. If acoustic monitoring detects that bats are using trees that need to be cut down, exclusionary one-way doors shall be installed in late August, after completion of the maternity season. Roost trees shall be removed after it has been confirmed that roosting bats have departed. If a roost is lost, PG&E shall consult with the CDFG to see if the agency recommends bat boxes be installed in the vicinity of the cut tree.

APM BO-27. Biological Monitoring of Existing Bats in Project Area. In the event that a roosting bat or maternity colony occurs within or near the project area, a qualified biological monitor will be provided and will remain on-site during construction activities to ensure there is no nest abandonment.

Mitigation Measure BO-28 (proposed to supersede APM BO-28 "Implementation of Revegetation and Monitoring Plan" and APM AE-4 "Revegetation and Regrading"). PG&E shall prepare a Revegetation and Monitoring Plan prior to construction. A copy of the plan shall be submitted to the CPUC prior to construction. The plan shall include, but not be limited to, the following provisions:

a. All old conductors shall be removed from the project site.

b. Disturbed areas(ground disturbance for pole placements, tower footings, and minor grading for small concrete staging areas located approximately 80 feet uphill from towers), other than existing access roads, shall be stabilized and revegetated with appropriate (i.e., conducive with PG&E line clearance requirements) native species.

c. If applicable, the site shall be monitored following construction for an appropriate period of time to ensure the successful re-establishment of native species, to prevent establishment of weeds, and to ensure the successful reestablishment of native species.

d. Stream contours shall be returned to their original condition once coffer dams are removed, unless consultation with the USFWS has determined that it is not beneficial to the species or is not feasible.

e. Permanent dust control measures shall be implemented through revegetation and landscaping as soon as any ground-disturbing activities are completed. Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading shall be sown with a fast-germinating, non-invasive grass seed, or otherwise covered with mulch or plastic.

f. All disturbed soil areas not subject to revegetation shall be stabilized using best management practices.

g. Disturbed serpentine grassland areas shall be restored, as determined by the project biologist, and may be reseeded with local genotypes of native serpentine grassland species.

Mitigation Measure BO-29 (proposed to supersede APM BO-29 "Avoidance of and Minimization of Potential Impacts to Special-Status Plants"). The following measures shall be implemented:

a. Focused botanical surveys within suitable habitat shall be conducted during the appropriate blooming period for the following species to determine if additional special-status plant species that have the potential to occur are present within the work areas:

   - La Panza mariposa lily *(Calochortus simulans)*
   - Round-leaved filaree *(California macrophylla)*
   - Hardham's evening primrose *(Camissonia hardhamiae)*
   - San Luis Obispo owl's-clover *(Castilleja densiflora ssp. obispoensis)*
   - Dwarf soaproot *(Chlorogalum pomeridianum var. minus)*
   - Yellow-flowered eriastrum *(Eriastrum luteum)*
   - Ojai fritillary *(Fritillaria ojaiensis)*
   - San Benito fritillary *(Fritillaria viridea)*
   - Jones' layia *(Layia jonesii)*
   - Chaparral ragwort *(Senecio aphanactis)*
   - Most beautiful jewel-flower *(Streptanthus albidus ssp. peramoenus)*
   - Caper-fruited tropidocarpum *(Tropidocarpum capparideum)*

b. Prior to construction, any special-status plant species that are known to occur on the project site shall be enumerated, photographed, and conspicuously flagged for avoidance. If timing of field surveys and flagging must occur outside of the appropriate blooming period, the data map and global positioning system (GPS) locations collected during focused botanical surveys can be used to meet this condition.

c. Work within areas occupied by special-status plant species shall be limited to existing access roads and to the smallest area that is safely practical. Where possible, staging areas, spoils storage, and equipment/vehicle parking shall be restricted to areas outside of where special-status plant species are located.

d. If possible, for annual plant species, timing of work activities within areas occupied by special-status plant species shall occur after seeds have set in the spring but prior to fall rains to minimize project effects on the seed bank.

e. Mature seeds shall be collected from sensitive plant species that are likely to be impacted by project construction activities. The seeds shall be properly stored for post-construction propagation and re-establishment. Sensitive plants that are likely to be impacted shall be translocated, if possible, under the supervision of the project biologist by digging up the plant and replanting it in suitable habitat.

f. If ground disturbance is required in an area, the first 6 inches of topsoil, if available, within occupied habitat shall be stored separately on site and protected from exotic weeds seed dispersal. The stored soil shall be used as topsoil when soils are redistributed to the project sites during post-construction in an attempt to salvage any viable seeds in the seed bank.

g. In the event that any special-status plants cannot be avoided, PG&E shall consult with the USFWS and/or the California Department of Fish and Game (CDFG) (depending on whether the species is on the federal or state list of sensitive species) to determine the appropriate measures to minimize effects to the species and its habitat during construction and operation of the project. The CPUC shall be informed of the results of any agency consultations. A mitigation and monitoring plan may be required that identifies the impacts to special-status plant species and remedial actions to mitigate impacts. Monitoring may be required for subsequent years to ensure compliance with mitigation activities and evaluate plant recovery.

In addition to the aforementioned avoidance measures, the following plant-specific mitigation measures shall be implemented:

a. San Luis Obispo Dudleya: Any damaged plants shall be salvaged by moving them into in a botanical garden for cultivation. Salvaged individuals may be replanted in suitable areas as identified by the biologist during post-construction.

b. San Luis Mariposa Lily and Mesa Horkelia: Any damaged plants shall be salvaged by digging up bulbs (San Luis Mariposa Lily) or plants (Mesa Horkelia) to be replanted in suitable areas as identified by the biologist during post-construction. Seeds for replanting shall also be collected from plants that are likely to be impacted.

c. Brewer's Spineflower and Straight-awned Spineflower: Work shall occur after plants have dispersed their seeds for the year and during the dry season (May 1 to October 15). If construction is to occur during the active growth and flowering period, individual species shall be flagged and avoided. Individuals collected shall be counted and reported.

   Plants located in impacted areas shall be monitored during subsequent growing seasons post-construction. Supplemental seeding from garden-grown seeds shall occur if necessary.

d. Santa Lucia Manzanita: Damage to shrub branches shall be avoided. All damaged branches shall be removed and discarded.

APM BO-30. Weed Control. PG&E will clean equipment and vehicles prior to arriving on-site. Equipment will be inspected and cleaned as needed prior to use in areas with rare plants. All plant material (e.g., straw, mulch, seeds, etc.) used for erosion control and/or road maintenance will be weed-free. If weed-free straw or mulch is not available, rice straw and mulch will be used. A USFWS-approved biologist will ensure that the spread or introduction of invasive exotic plant species will be avoided to the maximum extent possible. When practicable, invasive exotic plant in the project areas will be removed. The weed control measures under the Special Status Plants heading below describe the steps that PG&E will be taking. Seed mixes will be approved by a biologist prior to application. Where possible, local or on site seed sources will be used. Gravel used for road maintenance will be from weed free-sources. Gravel sources will be inspected for the presence/absence of noxious weeds prior to utilization of gravel in the project area as appropriate.

APM BO-31. Implementation of Dust Control Plan. PG&E will prepare a Dust Control Plan prior to construction in coordination with the appropriate agencies to ensure impacts to special-status plants and associated vegetation communities are avoided or minimized.

APM BO-32. Hazardous Substance Control and Emergency Response Plan. PG&E has and will implement its system-wide program which includes established procedures for handling and managing hazardous substances and emergency response in the event of a hazardous substance spill.

APM BO-33. Project-specific Fire Prevention and Response Plan Development and Implementation. PG&E will incorporate established system-wide Fire Prevention and Response procedures that will include reducing the potential for igniting combustible materials. The procedures will cover electrical hazards, flammable materials, smoking, vehicle and equipment access, and fire watches during construction and maintenance procedures during subsequent operation. Project personnel will be directed to park away from dry vegetation; not to smoke; and to equip vehicles with appropriate firefighting equipment; such as water dispensers and shovels, in times of high fire hazard. The procedures will also describe methods to reduce the potential fire hazard from operation of the power line.

APM BO-34. Restricted Access to Pole 66/10. Pole 66/10, which is located in a seasonal wetland, shall be accessed from the south side to eliminate the need to cross the drainage north of Pole 66/10 (shown as S17 in the Wetland Delineation Report). Trampling and compaction of the wetland at Pole 66/10 shall be minimized. If necessary, timber mats shall be installed to avoid surface disturbance to the wetland from equipment.

Mitigation Measure BO-35 (proposed to supersede APM BO-35 "Water-crossing Construction Timing" and APM WQ-9 "Water-crossing Construction Timing"). Water-crossing construction shall be scheduled during dry months, typically between May 1 and October 15, when the waterways have low or no flow, to minimize potential impacts.

Mitigation Measure BO-36 (proposed to supersede APM BO-36 "Use of Coffer Dams" and APM WQ-10 "Use of Coffer Dams"). If any creek flow is present during installation of a permanent culvert along the access road to Tower 69/0 a coffer dam shall be installed and the entire flow of the creek shall be diverted around the work area during construction. The water diversion system shall comply with Section 404 of the Clean Water Act and/or Section 1602 of the Fish and Game Code. Measures, such as the following, shall be implemented prior to installation of, during the use of, and during the removal of, as appropriate, the coffer dam:

a. Water shall be diverted by use of appropriate-sized flumes or pumps capable of handling 150 percent of the anticipated flows.
b. Water discharge rates shall be controlled by use of energy dissipaters to avoid downstream erosion and water quality degradation, as necessary.
c. Water quality (turbidity) shall be monitored during construction downstream of the flume or pump discharge point to ensure no significant impacts to water quality occur.
d. Restoration of impacted areas outside of the road prism shall occur immediately after the culvert is installed and the coffer dam is removed.
e. Documentation of studies, construction activities, monitoring, and restoration shall be submitted to the CPUC upon completion of each task.

APM BO-37. Sediment Barriers to Protect Wetland (W3). Sediment barriers between the wetland and the access road that leads to Tower 73/1 will be maintained while re-establishing this road.

Mitigation Measure BO-38 (proposed to supersede APM BO-38 "Reporting Requirement"). PG&E shall prepare a compliance certification to be filed with the USACE and the USFWS to certify, after completion of construction, that the project was completed in accordance with the permit conditions. The information contained in the compliance certification shall include:

1. The type(s) of action(s) that occurred;
2. The number of acres affected and habitat type (e.g., upland or riparian.);
3. The linear feet of work;
4. How the site(s) was restored and a description of the area after the completion of the action;
5. What measures were employed to protect CRLF;
6. How the site(s) was restored or, if no restoration occurred, the justification for not conducting this work; and
7. A description of the area after completion of the action.

Each compliance certification provided by PG&E shall contain maps, as appropriate, that indicate the location of all actions. Each report shall have a table and photos cross-referenced to locations on the map as appropriate. The compliance certification shall also document the number of CRLFs that were known to be taken, and the form of take (e.g., harassment by moving or mortality) during project activities. The USFWS recognizes that accurately quantifying the number of individuals that may have been taken may not be possible; in these cases, the reporting of all observations and relative numbers shall provide useful information. The report shall also

recommend modifications to future measures to enhance the protection of the CRLF. A copy of the certified compliance certificate shall be submitted to CPUC once provided by USACE and USFWS.

Mitigation Measure BO-39. To prevent CRLFs and other amphibians and reptiles from becoming entangled or trapped in erosion control materials, plastic mono-filament netting (i.e., erosion control matting) or similar material shall not be used within the project area. Acceptable substitutes include coconut coir matting or tackified hydroseeding compounds.

Cultural Resources

Mitigation Measure CR-1 (proposed to supersede APM CR-1 "Archaeological and Paleontological Site Avoidance"). At historical sites P-40-041211 and P-40-040213 and any other known cultural resources within 50 meters of the project area, the limits of the project area near the resource shall be marked with visible flagging tape prior to construction. The construction crews shall be instructed that no vehicle access, travel, equipment staging, storage, or other construction-related work shall occur outside the flagged areas to ensure known cultural resources are not inadvertently damaged during implementation of the project. PG&E shall avoid known cultural resources. Poles, towers, or other facilities shall be relocated, if necessary, to avoid these resources.

APM CR-2. Pre-construction Worker Education. PG&E will design and implement a Worker Education Program that will be provided to all project personnel who may encounter and/or alter historical resources or unique archaeological properties, including construction supervisors and field personnel. No construction worker will be involved in field operations without having participated in the Worker Education Program. The Worker Education Program will include, at a minimum:

- A review of archaeology, history, prehistory and Native American cultures associated with historical resources in the project vicinity.
- A review of applicable local, state and federal ordinances, laws and regulations pertaining to historic preservation.
- A discussion of site avoidance requirements and procedures to be followed in the event that unanticipated cultural resources are discovered during implementation of the project.
- A discussion of disciplinary and other actions that could be taken against persons violating historic preservation laws and PG&E policies.
- A statement by the construction company or applicable employer agreeing to abide by the Worker Education Program, PG&E policies and other applicable laws and regulations.

Environmental training will also be provided to workers regarding the protection of paleontological resources and procedures to be implemented in the event fossil remains are encountered by ground-disturbing activities.

The Worker Education Program may be conducted in concert with other environmental or safety awareness and education programs for the project, provided that the program elements pertaining

to cultural resources are provided by a qualified instructor meeting applicable professional qualifications standards.

APM CR-3. Unanticipated Discoveries Management. In the unlikely event that previously unidentified cultural resources are uncovered during implementation of the project, all work within 165 feet (50 meters) of the discovery will be halted and redirected to another location. PG&E's cultural resource specialist or his/her designated representative will inspect the discovery and determine whether further investigation is required. If the discovery can be avoided and no further impacts will occur, the resource will be documented on California State Department of Parks and Recreation cultural resource record forms and no further effort will be required. If the resource cannot be avoided and may be subject to further impact, PG&E will evaluate the significance and CRHR eligibility of the resource and implement data recovery excavation or other appropriate treatment measures if warranted.

In the unlikely event that previously unidentified paleontological resources are uncovered during implementation of the project, all ground disturbing work will be temporarily halted or diverted away from the discovery to another location. PG&E's paleontological resources specialist or his/her designated representative will inspect the discovery and determine whether further investigation is required. If the discovery is significant, but can be avoided and no further impacts will occur, the resource will be documented in the appropriate paleontological resource records and no further effort will be required. If the resource is significant, but cannot be avoided and may be subject to further impact, PG&E will evaluate the significance of the resources, and implement data recovery excavation or other appropriate treatment measures as recommended by a qualified paleontologist.

Mitigation Measure CR-4. Prior to construction, all project personnel shall attend environmental training regarding the protection of paleontological resources and procedures to be implemented in the event fossil remains are encountered by ground-disturbing activities. The training shall include, but shall not be limited to:

1. A review of applicable local, state and federal ordinances, laws and regulations pertaining to paleontologic preservation.
2. A discussion of disciplinary and other actions that could be taken against persons violating historic preservation laws and PG&E policies.

This training may be combined with other environmental training for the project, provided that the program elements pertaining to paleontological resources are provided by a qualified instructor meeting applicable professional qualification standards (including SVP [1991, 1995, 2005]). Attendance sheets shall be submitted to the CPUC within one week of training events.

Mitigation Measure CR-5. Prior to construction, a qualified Principal Paleontologist (qualified according to SVP standards) or his/her designee shall conduct on-site inspection of high sensitivity units in areas where ground-disturbing project activities shall occur. Designation of areas of avoidance, special interest, and concern may be appropriate. During construction, deeper excavations or grading (more than 2' deep, excluding augering or hand-digging for pole or tower fitting holes) in high-sensitivity units shall be monitored closely by a qualified Principal

Paleontologist or his/her designated assistant. Paleontological monitors shall have the authority to temporarily halt or redirect work at specific locations in order to assess and/or recover paleontological remains, and to establish buffer zones around potentially significant specimens using flagging on lath until the find is assessed by the Principal Paleontologist.

The paleontological monitor will maintain a daily log of monitoring activities to document the location of monitoring, observations of sediment type and distribution, observations regarding fossils, collection of fossils and other information. Daily logs and photographs will be supplied to the Principal Paleontologist. Upon completion of construction, if no paleontological resources are identified during the project, the Principal Paleontologist will compile a simple summary letter report of monitoring. A copy of the summary report shall be submitted to the CPUC for recordkeeping.

If paleontological resources are identified, upon completion of construction, the Principal Paleontologist shall compile a final monitoring report. This report shall include, but shall not be limited to:

1. Inclusive dates of monitoring
2. Present personnel qualifications
3. Summary of the monitoring effort and coverage using text and maps
4. Documentation of paleontological localities discovered and resources identified
5. Interpretation fossil discoveries
6. Evaluation of the adequacy of the monitoring effort
7. Suggestions for improving paleontological resource monitoring procedures
8. A copy of the final monitoring report shall be submitted to the CPUC for recordkeeping.

Mitigation Measure CR-6. If previously unidentified paleontological resources are uncovered during implementation of the project, all ground disturbing work shall be temporarily halted or diverted away from the discovery to another location. PG&E's paleontological resources specialist (i.e., a Principal Paleontologist qualified according to SVP standards) or his/her designated representative shall inspect the discovery and determine whether further investigation is required. If the discovery is determined to be "unique" under CEQA, but can be avoided and no further impacts shall occur, the resource and locality shall be documented in the appropriate paleontological resource records and no further effort shall be required. Locality documentation shall include:

1. One or more UTM readings using a global positioning system unit
2. Accurate elevation measurement
3. Depth below surface
4. Lithologic analysis
5. Detailed field map of the locality

Additional information may include:

a. One or more stratigraphic columns

b. Sedimentary structure analysis

c. Taphonomic analysis and photographs of the fossil in situ, if recommended by the Principal Paleontologist

If the resource is determined to be "unique" under CEQA and cannot be avoided and may be subject to further impact, PG&E shall ensure that the fossils are recovered, prepared, identified, catalogued, and analyzed according to current professional standards under the direction of a qualified Principal Paleontologist. All recovered fossils shall be curated at an accredited and permanent scientific institution according to SVP standards; typically the Natural History Museum of Los Angeles County and UC Berkeley accept paleontological collections at no cost to the donor.

Geology and Soils

APM GE-1. Appropriate Design Measures Implementation. A landslide survey of the planned project alignment was conducted, which included a reconnaissance to identify potential problems at planned pole and tower locations. Appropriate design features have been developed where potential problems were found to exist. Appropriate design features may include excavation of potentially problematic soils during construction and replacement with engineered backfill, relocation of poles to avoid problematic soils or landslide areas, and pole depth specifications. Where significant potential for damage due to surface fault rupture is identified, towers/poles siting and design will be modified to the extent feasible to avoid or reduce damage.

APM GE-2. Conduct Geotechnical Surveys for Landslides and Protect Against Slope Instability. A geologic hazard and foundation evaluation was conducted by Kleinfelder (2008 & 2010) to explore the tower locations along the project route for the presence of geologic hazards that may affect the foundations of the new power line towers/poles and to provide remedial measures for the foundations. The geotechnical survey included slope stability analyses in areas of planned grading and excavation that cross and are immediately adjacent to areas with the potential for unstable slopes, landslides, earth flows, and debris flows along the approved project route. The existing access roads will be re-established eliminating the necessity for grading new access and spur roads and subsequent potential ground disturbance. The geotechnical survey included identification of potential landslide hazards, and provided information for development of excavation plans and procedures. In addition, the geotechnical survey indicated the presence of unstable slopes at or adjacent to the proposed project structures. Where appropriate, foundation support and protection measures will be designed and implemented; this will help to maintain the stability of slopes adjacent to newly graded or re-graded access roads, work areas, and project structures during and after construction, and to minimize potential for damage to project facilities.

APM GE-3. Slope Instability During Construction Minimization. During pole replacement activities along the hilly terrain, construction slopes and existing natural slopes impacted by construction operations will be evaluated for stability. In developing grading plans and construction procedures for re-establishing access roads and replacing power poles, slope stability will be analyzed. Construction slopes and grading plans will be designed to limit the potential for slope instability and minimize the potential for erosion and flooding during construction. The

project will not result in any new cut or fill slopes, either permanent or temporary. Construction activities likely to result in slope instability will be suspended, as necessary, during and immediately following periods of heavy precipitation when unstable slopes are more susceptible to failure.

Mitigation Measure GE-4 (proposed to supersede APM GE-4 "Avoid Unstable Slope Elements"). During construction, PG&E shall avoid areas where boulders on slopes could pose risks to structures, where feasible. If avoidance of areas just downslope of boulders is not possible, PG&E shall either remove or stabilize boulders located immediately uphill of structures that pose potential high risk of damage to those structures. In addition, PG&E shall position structures to span over potential landslide areas or relocate structures to avoid landslide hazards. Boulder removal shall involve either removal of intact boulders or removal of boulders that have been fractured into multiple pieces.

A qualified geotechnical engineer shall evaluate boulders to determine the best methods to stabilize boulders located upslope of project structures that are removed. Recommendations shall be developed and implemented to mitigate hazards posed by the boulders. Boulder stabilization could involve any of the following practices, but is not limited to:

1. Installing and securing wire mesh on the downslope side of the boulder, as approved by a qualified biologist;
2. Installing rock anchors and shotcrete;
3. Depending on the slope on which the boulder rests, constructing an earthen berm in front of the boulder on the downslope side; or Other methods recommended by a geotechnical expert.

APM GE-5. Soft or Loose Soils During Construction Minimization. Where soft or loose soils are encountered during construction, appropriate measures will be implemented to avoid, accommodate, replace, or improve soft or loose soils encountered during construction. Such measures may include:

- Locating construction facilities and operations away from areas of soft and loose soil.
- Over-excavating soft or loose soils and replacing them with engineered backfill materials.
- Increasing the density and strength of soft or loose soils through mechanical vibration and/or compaction.
- Treating soft or loose soils in place with binding or cementing agents.

Construction activities in areas where soft or loose soils are encountered will be scheduled for the dry season to allow safe and reliable equipment access.

APM GE-6. Erosion Control and Sediment Transport Plan Implementation. An Erosion Control and Sediment Transport Plan will be prepared in association with the SWPPP. This plan will be prepared in accordance with the State Water Board guidelines and other applicable BMPs.

Implementation of the plan will help stabilize disturbed areas and waterways and will reduce erosion and sedimentation. The plan will designate BMPs that will be followed during construction activities. Erosion-minimizing efforts may include measures such as:

- Avoiding excessive disturbance of steep slopes,
- Using drainage control structures (straw wattles or silt fencing) to direct surface runoff away from disturbed areas,
- Strictly controlling vehicular traffic,
- Implementing a dust-control program during construction,
- Restricting access to sensitive areas,
- Using vehicle mats in wet areas, and
- Revegetating disturbed areas where applicable following construction.

In areas where soils are to be temporarily stockpiled, soils will be placed in a controlled area and will be managed with similar erosion control techniques. Where construction activities occur near a drainage channel and drainage from these areas flows towards a water body, stockpiles will be placed at least 100 feet from the water body or will be properly contained (such as covering with plastic sheeting to minimize risk of sediment transport to the drainage). Plywood and plastic covering will be used to cover the excavated holes until pole installation activities begin.

Erosion-control measures will be installed, as necessary, before any clearing during the wet season and before the onset of winter rains. Temporary measures such as silt fences or straw wattles intended to minimize erosion from temporarily disturbed areas will remain in place until disturbed areas have stabilized.

The SWPPP will be designed specifically for the hydrologic setting of the proposed project, which includes slopes, intermittent and seasonal streams, and the Salinas River. BMPs documented in the Erosion Control and Sediment Transport Plan will also be included in the SWPPP.

APM GE-7. Minimize Road Construction. PG&E is not planning on constructing new access roads, but instead utilizing existing access roads. Some roads will require minimal grading to re-establish the road integrity and allow safe movement for construction equipment and/or moving or trimming of vegetation to allow vehicle passage. In these cases, PG&E will implement BMPs for road re-establishment; and these modifications will be permanent for continued use of the roads for power line maintenance, eliminating long-term impacts from temporary roads.

APM GE-8. Minimize Soil and Bedrock Impact to Foundation Design. Appropriate design measures for protection of reinforcement, concrete, and metal-structural components against corrosion will be utilized, such as the use of corrosion-resistant materials and coatings, increased thickness of project components exposed to potentially corrosive conditions, and use of passive and/or active cathodic protection systems.

Hazards and Hazardous Materials

APM HM-1. Hazardous Substance Control and Emergency Response Plan Development and Implementation. PG&E will submit a Hazardous Substance Control and Emergency Response

Plan to the CPUC for recordkeeping at least 30 days prior to project construction. The plan will identify methods and techniques to minimize the exposure of the public to potentially hazardous materials during all phases of project construction through operation. The plan will require implementing appropriate control methods and approved containment and spill-control practices (i.e., spill control plan) for construction and materials stored on-site. All hazardous materials and hazardous wastes will be handled, stored, and disposed of, in accordance with all applicable regulations, by personnel qualified to handle hazardous materials. With the exception of the poles, all hazardous materials will be collected in project-specific containers at the site, and transported to a PG&E service center designated as a PG&E consolidation site. Poles will be scheduled for transportation to the appropriate licensed Class 1 or a composite-lined portion of a solid waste landfill. The plan will include, but not be limited to, the following:

- Proper disposal of potentially contaminated soils
- Vehicles and equipment parking near sensitive resource areas during construction
- Emergency response and reporting procedures to address hazardous material spills

Emergency-spill supplies and equipment will be available to respond in a timely manner if an incident should occur. Response materials such as oil-absorbent material, tarps, and storage drums will be used as needed to contain and control any minor releases.

A search of government databases indicates that there are no hazardous waste sites located within the project area. If hazardous materials are encountered in excavated soils or groundwater as noted through sheen, odor, or other non-typical appearance, work will be stopped until the material is properly characterized and appropriate measures are taken to protect human health and the environment. If excavation of hazardous materials is required, they will be managed, transported, and disposed of in accordance with federal, state, and local regulations.

Removed wood poles will be collected in project-specific containers at a PG&E service center designated as a PG&E consolidation site. Poles will be scheduled for transport to an appropriate licensed Class 1 or composite lined portion of a solid waste landfill as containers are filled. Chemical Waste Management's Kettlemen Hills Facility is typically used. There is no disposal capacity issue at this facility associated with the treated wood poles generated by this project.

Mitigation Measure HM-2 (proposed to supersede APM HM-2 "Environmental Training and Monitoring Program (ETMP) Development and Implementation"). An ETMP shall be established to communicate to all field personnel any environmental concerns and appropriate work practices, including spill prevention and response measures and BMPs. The training program shall emphasize site-specific physical conditions to improve hazard prevention (e.g., identification of flow paths to nearest water bodies) and shall include a review of all site-specific plans, including, but not limited to, the project's SWPPP, Erosion Control and Sediment Transport Plan, Health and Safety Plan, and Hazardous Substances Control and Emergency Response Plan.

A PG&E-designated representative shall be identified to ensure that the plans are followed throughout the construction period. BMPs, as identified in the project SWPPP and Erosion Control and Sediment Transport Plan, shall be implemented during project construction to minimize the risk of an accidental release and to provide the necessary information for emergency response. A

copy of the ETMP shall be submitted to the CPUC at least 30 days prior to construction. Training attendance sheet(s) shall be submitted to the CPUC after each training session.

APM HM-3. Project-specific Fire Prevention and Response Plan Development and Implementation. PG&E will prepare and submit a Fire Prevention and Response Plan to the CPUC and to local fire protection authorities for notification at least 30 days prior to construction. The plan will include fire protection and prevention methods for all components of the project during construction. The plan will include procedures to reduce the potential for igniting combustible materials by preventing electrical hazards, use of flammable materials, and smoking onsite during construction and maintenance procedures. Project personnel will be directed to park away from dry vegetation; to equip vehicles with fire extinguishers; not to smoke; and to carry water, shovels, and fire extinguishers in times of high fire hazard.

APM HM-4. Health and Safety Plan Development and Implementation. PG&E will prepare a site-specific Health and Safety Plan (HSP) to ensure that potential safety hazards will be kept at a minimum. The HSP will include elements that establish worker training and emergency response procedures relevant to project activities. The plan will be submitted to the CPUC at least 30 days prior to construction for CPUC recordkeeping.

APM HM-5. Safe Practices and Record Keeping for Storage of Chemicals On-site. If it is necessary to store any chemicals on-site, they will be managed in accordance with all applicable regulations. Material Safety Data Sheets will be maintained and kept available on-site, as applicable.

APM HM-6. Safety Precautions Used for Removal of Contaminated Soils. In the event that soils suspected of being contaminated (based on evidence from visual, olfactory, or other means) are removed during excavation activities along the power line corridor, the excavated soil will be tested and, if contaminated above hazardous levels, will be contained and disposed of at a licensed waste facility. The presence of known or suspected contaminated soil will require testing and investigation procedures to be supervised by a qualified person, as appropriate, to meet state and federal regulations.

Hydrology and Water Quality

APM WQ-1. Development and Implementation of a Stormwater Pollution Prevention Plan. Following project approval, PG&E will prepare and implement a SWPPP to minimize construction impacts on surface and groundwater quality. Implementation of the SWPPP will help stabilize graded areas and waterways and reduce erosion and sedimentation. The plan will designate BMPs that will be adhered to during construction activities. Erosion and sediment control measures, such as straw wattles, water bars, covers, silt fences, and sensitive area access restrictions (e.g., flagging) will be installed before the onset of winter rains or any anticipated storm events. Mulching, seeding, or other suitable stabilization measures will be used to protect exposed areas during construction activities, as necessary. During construction, measures will be in place to ensure that contaminants are not discharged from the construction sites.

APM WQ-2. Environmental Training and Monitoring Program (ETMP) Development and Implementation. Worker environmental awareness will communicate environmental issues and

appropriate work practices specific to this project. This awareness will include spill prevention and response measures and proper BMP implementation. The SWPPP training will emphasize site-specific physical conditions to improve hazard prevention (e.g., identification of flow paths to nearest waterbodies) and will include a review of all site-specific water quality requirements, including applicable portions of , the Erosion Control and Sediment Transport Plan, Health and Safety Plan, and PG&E's Hazardous Substances Control and Emergency Response program. Details about the program will be described in the SWPPP.

APM WQ-3. Preparation of an Erosion Control and Sediment Transport Plan (ECSTP). PG&E will prepare an Erosion Control and Sediment Transport Plan (ECSTP) as an element of the SWPPP describing BMPs, to be used during construction. PG&E will ensure all BMPs are inspected before and after each storm event, maintained on a regular basis, and replaced as necessary through the course of construction. The plan will address construction in or near sensitive areas described in Section 3.4 Biological Resources. BMPs, where applicable will be designed based on specific criteria from recognized BMP design guidance manuals. Erosion-minimizing efforts may include measures such as:

- Avoiding excessive disturbance of steep slopes
- Defining ingress and egress within the project area
- Implementing a dust control program during construction
- Restricting access to sensitive areas (e.g. usage of silt fencing for the protection of wetland features)
- Using vehicle mats in wet areas
- Revegetating disturbed areas where applicable following construction
- Proper containment of stockpiled soils (including construction of berms in areas near water bodies, wetlands, or drainage channels)

Erosion control measures identified in the ECSTP will be installed in an area before clearing begins during the wet season in that area and before the onset of winter rains or any anticipated storm events. Temporary measures such as silt fences or wattles, intended to minimize sediment transport from temporarily disturbed areas, will remain in place until disturbed areas have stabilized. Such temporary measures will be placed and monitored by a qualified inspector to ensure effectiveness and these measures are repaired as needed.

PG&E will keep water equipment such as water trucks and water truck filling areas well-maintained and make repairs as soon as possible; will use water minimally for dust control and to clean construction areas and sweep and vacuum to the maximum extent possible; and will direct runoff to areas where it can be reused or absorbed into the ground. Water for dust control will be applied at a rate that will not lead to significant water runoff or potentially cause a nuisance.

The ECSTP will be submitted to the CPUC for review at least 30 days prior to the commencement of construction. The plan will be revised and updated as needed, and resubmitted to the CPUC if construction activities evolve to the point that the existing approved ECSTP does not adequately address the project.

APM WQ-4. Limited On-site Vehicle and Equipment Fueling. PG&E will use offsite fueling stations to the extent possible, including refueling of helicopters. On-site fueling is not likely, however, if necessary, conditions specified in SWPPP will be implemented. No refueling or fuel storage will occur within 100 feet of sensitive areas, including intermittent streams, wetlands, biological and cultural areas, or within 150 feet of wells, unless otherwise approved by the environmental inspector.

APM WQ-5. Proper Concrete Curing Techniques. PG&E will use proper storage and handling techniques for concrete curing compounds and will protect drain inlets prior to the application of curing compounds. If necessary, concrete washout will be performed in a designated area to be determined in the field and in the SWPPP, or concrete trucks will provide self-contained cleanout units. Temporary concrete washout facilities will be located a minimum of 50 feet from storm drain inlets, open drainage facilities, and watercourses. Concrete will be washed only from mixer chutes into approved concrete washout facilities. Concrete washout from concrete pumper bins can be washed into concrete pumper trucks and discharged into designated washout areas or properly disposed of offsite.

APM WQ-6. Proper Sanitary/Septic Waste Management. PG&E will locate sanitary facilities away from drainage facilities and watercourses and at least 100 feet from sensitive areas in a location convenient for pump-out; ensure that no untreated raw wastewater will be discharged or buried; treat temporary septic systems wastes to appropriate levels before discharging; and arrange for regular waste collection by a licensed hauler before facilities overflow.

APM WQ-7. Restricted Access to Pole 66/10. Pole 66/10, which is located in a seasonal wetland, shall be accessed from the south side to eliminate the need to cross the drainage north of Pole 66/10 (shown as S17 in the Wetland Delineation Report). Trampling and compaction of the wetland at Pole 66/10 shall be minimized. If necessary, timber mats shall be installed to avoid surface disturbance to the wetland from equipment.

APM WQ-8. Hazardous Substance Control and Emergency Response Plan. PG&E has and will implement its system-wide program which includes established procedures for handling and managing hazardous substances and emergency response in the event of a hazardous substance spill. These procedures will add to the requirements in the project SWPPP. PG&E crew members will arrange to have emergency-spill supplies and equipment immediately available at all work areas. Oil-absorbent materials, tarps, and storage drums will be used to contain and control any minor releases. Detailed information for responding to accidental spills, and for handling any resulting hazardous materials, will be provided in the project's Hazardous Substances Control and Emergency Response Plan.

APM WQ-11. Sediment Barriers to Protect Wetland (W3). Sediment barriers between the wetland and the access road that leads to Tower 73/1 will be maintained while re-establishing this road.

Land Use and Planning

APM AG-1. Public Education Program. A governmental relations representative will provide local governmental agencies with a briefing of the project scope and schedule in advance of

construction activities. A PG&E contact name and phone number will be provided for project related inquiries.

APM AG-2. Coordination with Nearby Residences. PG&E will coordinate with property owners within 300 feet of the project area at least 30 days prior to construction to alert them of project activities.

APM AG-3. Review of Project by San Luis Obispo County Airport and the Federal Aviation Administration. PG&E will submit the project for review to San Luis Obispo County Airport and the Federal Aviation Administration to determine what, if any, hazards are posed by the project. PG&E will address any potential hazards identified during this review.

Noise

APM NS-1. Noise Minimization with "Quiet" Equipment. "Quiet" equipment (i.e., equipment that incorporates noise control elements into the design—compressors have "quiet" models) will be used during construction whenever possible.

APM NS-2. PG&E Construction Hours. PG&E will limit construction to the hours between 7 a.m. and 7 p.m., Monday through Saturday, to the extent feasible. If nighttime work is needed because of clearance restrictions on the power line, PG&E will take appropriate measures to minimize disturbance to local residents, including contacting nearby residences to inform them of the work schedule and probable inconveniences.

APM NS-3. Limit of Unnecessary Engine Idling. PG&E will encourage construction crews to limit unnecessary engine idling. (See Air Quality measures.)

APM NS-4. Equipment Noise Emissions. PG&E construction crews will use equipment that is specifically designed for low noise emissions.

APM NS-5. Noise Minimization with Portable Barriers. Compressors and other small stationary equipment will be shielded with enclosures or portable barriers when used in proximity to residential areas.

APM NS-6. Noise Minimization through Direction of Exhaust. Equipment exhaust stacks and vents will be directed away from buildings, to the extent feasible for crews to comply with safe work procedures.

APM NS-7. Noise Minimization through Truck Traffic Routing. Truck traffic will be routed away from noise-sensitive areas where feasible.

APM NS-8. Noise Disruption Minimization through Residential Notification. PG&E will coordinate with San Luis Obispo County, the City of Atascadero, and the City of San Luis Obispo to notify residents that are located near the alignment of the timeframe for construction activities.

Transportation and Traffic

APM TT-1. Impacts to Existing Traffic Flows. PG&E will develop a project-specific Transportation Management Plan (TMP), which will be submitted to the CPUC for review at least 30 days prior to construction. The TMP will conform to the California Joint Utility Traffic Control

Committee's Work Area Protection and Traffic Control Manual. The TMP will include the following:

- Standard safety practices, including installation of appropriate barriers between work zones and transportation facilities, placement of appropriate signage, and use of traffic control devices.
- Flaggers and/or signage will be used to guide vehicles through or around construction zones using proper construction techniques.
- Provision that all equipment and materials will be stored in designated staging areas on or adjacent to the work sites in a manner that minimizes traffic obstructions and maximizes sign visibility.
- Acceptable vehicle speeds on project roadways. Vehicle speeds will be limited to safe levels as appropriate for all roads, including access roads and overland routes without existing, posted speed limits.
- PG&E will avoid equipment/material transportation via helicopter, to the extent practical, during high traffic hours along the Highway 101 corridor.
- PG&E will obtain Cal Trans encroachment permits and comply with permit conditions as necessary.

APM TT-2. Lift Plan Development and Implementation. A Lift Plan will be prepared and approved by the FAA prior to all construction helicopter operations and will not result in a change in air traffic patterns either temporarily or permanently. PG&E does not anticipate that residents will be required to temporarily vacate their homes. In the unlikely event that final construction plans and the Lift Plan require otherwise, PG&E will coordinate with potentially affected residents (providing a minimum of 30 days notice) to minimize the duration of the necessary work and any resultant inconvenience.

APM TT-3. Emergency Route Access. PG&E will coordinate with local emergency personnel in the event that project activities may impact an access point or route during an emergency. All construction activities will be coordinated with local law enforcement and fire protection services and the project will not result in inadequate emergency access.

APM TT-4. Notification of Road Closure. PG&E will coordinate with users of Forest Service Road 30S11 to ensure that closure of the road will minimize any inconveniences, and will work with any affected parties to make alternative arrangements for access. PG&E will post signs on the road informing bikers and hikers of the anticipated schedule for closure of this road.

FINDINGS

The Initial Study was prepared to identify the potential effects on the environment from the reconductoring of the Atascadero – San Luis Obispo 70 kV power line and to evaluate the significance of these effects. Based on the Initial Study and the Findings listed below, the Lead Agency (CPUC) has determined that the proposed project would not have a significant effect on the environment.

- With the implementation of the above APMs and mitigation measures, the proposed project would not significantly degrade the quality of the environment.

- With the implementation of the above mitigation measures, both short-term and long-term environmental effects associated with the proposed project would be less than significant.
- When potential impacts associated with implementing the proposed project are considered cumulatively, the incremental contribution of the project-related impacts are insignificant.
- Based on the Initial Study, there is no evidence that implementing the proposed project would have any adverse impacts on people.

Billie Blanchard
Project Manager

10/18/2010
Date

INITIAL STUDY ENVIRONMENTAL CHECKLIST FORM

1. PROJECT TITLE

Atascadero – San Luis Obispo 70 kV Power Line Reconductoring Project
Pacific Gas and Electric Company (PG&E) Application No. A10-03-006

2. LEAD AGENCY NAME AND ADDRESS

California Public Utilities Commission
Energy Division
505 Van Ness Avenue, 4th Floor
San Francisco, California 94102

3. CONTACT PERSON AND PHONE NUMBER

Billie Blanchard, Project Manager
Energy Division
Phone: (415) 703-2068
E-mail: bcb@cpuc.ca.gov

4. PROJECT LOCATION

The project is located in San Luis Obispo County, California, between the cities of Atascadero and San Luis Obispo. The project right-of-way (ROW) runs roughly north to south, generally paralleling US Highway 101. The power line connects Atascadero Substation (Santa Rosa Road and State Route 41 in Atascadero) to San Luis Obispo Substation (Orcutt Road and Johnson Avenue in San Luis Obispo).

5. PROJECT SPONSOR'S NAME AND ADDRESS

Pacific Gas and Electric Company
77 Beale Street
San Francisco, California 94105

6. GENERAL PLAN DESIGNATION

The proposed project passes through portions of the cities of Atascadero and San Luis Obispo and unincorporated San Luis Obispo County. The northern portion of the project, with existing wood poles, is within a 40-foot-wide PG&E ROW. The southern portion of the project, with existing steel lattice towers, is within a 50-foot-wide PG&E ROW. In the City of Atascadero, the project traverses land designated "Public" and "Residential" by the City of Atascadero General Plan. The PG&E ROW runs through "Rural Lands," "Agriculture," and "Open Space," as designated by the San Luis Obispo County General Plan. In the City of San Luis Obispo, the project is located on land designated "Low Density Residential" by the City of San Luis Obispo General Plan.

7. ZONING

A portion of the project area is within the City of Atascadero and is zoned "Public," "Residential Suburban," and "Residential Single Family." A portion of the project area is located within unincorporated San Luis Obispo County and is zoned "Residential Rural," "Rural Lands," "Agriculture," and "Open Space." The portion of the project within the City of San Luis Obispo is zoned "Low Density Residential."

8. DESCRIPTION OF THE PROJECT

PG&E is proposing to upgrade a deteriorating segment of an existing 70 kilovolt (kV) power line. The four main elements of the project are the following:

1. Replacing the existing 4/0 aluminum, 3/0 copper, 397.5 KCmil[1] aluminum and 266.8 KCmil aluminum conductors with a 715.5 KCmil non-specular all aluminum conductor (AAC) along approximately 15.5 miles of the 70 kV power line from Atascadero Substation to San Luis Obispo Substation.
2. Modifying 137 of the 139 existing poles along 8.13 miles of the 70 kV power line. Two existing light-duty steel (LDS) poles do not need to be replaced. Pole modifications to support the new 715.5 KCmil AAC include:
   - Replace 131 existing wood poles with LDS poles
   - Remove the top section of five existing wood poles that provide support for existing distribution conductor
   - Install five new LDS poles, approximately 30 feet away from the aforementioned poles, within the existing alignment
   - Remove one existing wood pole
   - Install one new LDS pole in a new location within the existing power line alignment
3. Replacing 41 of the existing 45 lattice steel towers with 36 new lattice steel towers and five tubular steel poles (TSP) along approximately 7.3 miles of the 70 kV power line. Two of the existing towers would be eliminated and two existing towers do not need to be replaced.
4. Developing construction access and work areas, which will include re-establishing existing access roads and constructing associated temporary work areas, including helicopter landing zones, equipment laydown areas, and pull and tension sites.

9. SURROUNDING LAND USES AND SETTING

Land use along the project alignment is primarily agricultural, rural, residential, and rural-estate. The northern section of the alignment, within the City of Atascadero, passes through land designated as rural estate. The alignment is also adjacent to single-family residences and one small commercial recreational development. Unincorporated lands are located northeast of the alignment as the alignment leaves the City of Atascadero.

10. OTHER PUBLIC AGENCIES WHOSE APPROVAL IS REQUIRED

The Applicants may be required to obtain the permits listed in Table-1 of the MND.

[1] KCmil is equal to 1,000 circular mil. A circular mil is a unit of area equal to the area of a circle with a diameter of 1 mil (one thousandth of an inch).

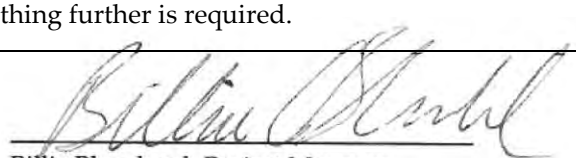
ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

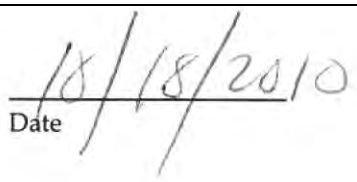
☐ Aesthetics	☐ Agricultural Resources	☐ Air Quality
☐ Greenhouse Gases	☐ Biological Resources	☐ Cultural Resources
☐ Geology and Soils	☐ Hazards and Hazardous Materials	☐ Hydrology and Water Quality
☐ Land Use	☐ Mineral Resources	☐ Noise
☐ Population and Housing	☐ Public Services	☐ Recreation
☐ Transportation and Traffic	☐ Utilities and Service Systems	☐ Mandatory Findings of Significance

ENVIRONMENTAL DETERMINATION

On the basis of this initial evaluation: I find that the Proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.	☐
I find that although the Proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the applicant. A MITIGATED NEGATIVE DECLARATION will be prepared.	☒
I find that the Proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT (EIR) is required.	☐
I find that the Proposed Project MAY have a "potentially significant impact" or "potentially significant impact unless mitigated" on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets, if the effect is a "potentially significant impact" or "potentially significant unless mitigated." An EIR is required, but it must analyze only the effects that remain to be addressed.	☐
I find that although the Proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the Proposed Project, nothing further is required.	☐



Billie Blanchard, Project Manager
Energy Division
California Public Utilities Commission



Date

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List of Acronyms

$\mu g/m^3$	micrograms per cubic meter
AAC	all aluminum conductor
AB	Assembly Bill
ALUP	Airport Land Use Plan
amsl	above mean sea level
APM	Applicant Proposed Measure
AUSD	Atascadero Unified School District
BMPs	Best Management Practices
Caltrans	California Department of Transportation
CAP	Clean Air Plan
CARB	California Air Resources Board
CDC	California Department of Conservation
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
CGS	California Geological Survey
CH_4	methane
CHP	California Highway Patrol
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CRLF	California red-legged frog
dB	decibels
dBA	A-weighted decibels
DTSC	Department of Toxic Substances Control
ECSTP	Erosion Control and Sediment Transport Plan
EM	Environmental Monitor

ESA	Endangered Species Act
EPA	U.S. Environmental Protection Agency
ETMP	Environmental Training and Monitoring Program
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FHA	Federal Highway Administration
FMMP	Farmland Mapping and Monitoring Program
g	gravity
GHG	greenhouse gas
GO	General Order
HSP	Health and Safety Plan
in/sec	inches per second
IS	Initial Study
KOP	Key Observation Point
kV	kilovolt
L_{dn}	day/night noise level
L_{eq}	equivalent noise level
kV	kilovolt
LDS	light-duty steel
LOS	Level of Service
MBTA	Migratory Bird Treaty Act
MDM	Mount Diablo Baseline and Meridian
mgd	million gallons per day
MND	Mitigated Negative Declaration
MMP	Mitigation Monitoring Plan
mph	miles per hour
MRZ	Mineral Resource Zone
NAHC	Native American Heritage Commission
NOA	naturally occurring asbestos
NOAA	National Oceanic and Atmospheric Administration

NO_x	nitrous oxide
NO_2	Nitrous dioxide
NPDES	National Pollutant Discharge Elimination System
PEA	Proponent's Environmental Assessment
PG&E	Pacific Gas and Electric Company
PGA	peak ground acceleration
PISA	power-installed screw anchor
ppm	parts per million
$PM_{2.5}$	particulate matter less than 2.5 microns in size
PM_{10}	particulate matter less than 10 microns in size
PTC	Permit to Construct
ROG	reactive organic gases
ROW	right-of-way
RSP	rock slope protection
Sa	spectral acceleration
SBP	San Luis Obispo County Regional Airport
SCAQMD	South Coast Air Quality Management District
SF_6	sulfur hexafluoride
SFHA	Special Flood Hazard Area
SLCUSD	San Luis Coastal Unified School District
SLOCAPCD	San Luis Obispo County Air Pollution Control Board
SMARA	California Surface Mining and Reclamation Act
SO_2	sulfur dioxide
sq. ft.	square foot
SR	State Route
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TMP	Transportation Management Plan
tpq	tons per quarter
TSP	tubular steel pole

US 101	Highway 101
USA	Underground Service Alert
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USDOT	U.S. Department of Transportation
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
USFS	U.S. Forest Service
v/c	traffic volume-to-road capacity
WEAP	worker environmental awareness program

1: Introduction

1.1 Proposed Project Overview

Pacific Gas and Electric Company (PG&E), a regulated California utility, filed an application with the California Public Utilities Commission (CPUC) on March 10, 2010, for a Permit to Construct (PTC) the Atascadero-San Luis Obispo 70 kilovolt (kV) Reconductoring Project (project). The application was deemed complete by the CPUC on May 18, 2010. PG&E is proposing to replace the existing deteriorating conductors and supporting structures with new, light-duty steel (LDS) poles, tubular steel poles (TSPs), and lattice steel towers along an existing segment of a 70 kV power line. The objective of the project is to improve transmission system reliability and provide sufficient peak-period transmission voltage support for the cities of Atascadero and San Luis Obispo and surrounding unincorporated areas of San Luis Obispo County (County).

The project is located in San Luis Obispo County, California, between the cities of Atascadero and San Luis Obispo. The project right-of-way (ROW) is aligned roughly north to south, paralleling Highway 101 (US 101) between State Route (SR) 41 and the City of San Luis Obispo. This line connects the Atascadero Substation (located at the intersection of Santa Rosa Road and SR 41/Morro Road in Atascadero) to the San Luis Obispo Substation (located at the intersection of Orcutt Road and Johnson Avenue in San Luis Obispo). The project region is shown on Figure 1.1-1.

1.2 Environmental Analysis

1.2.1 CEQA PROCESS

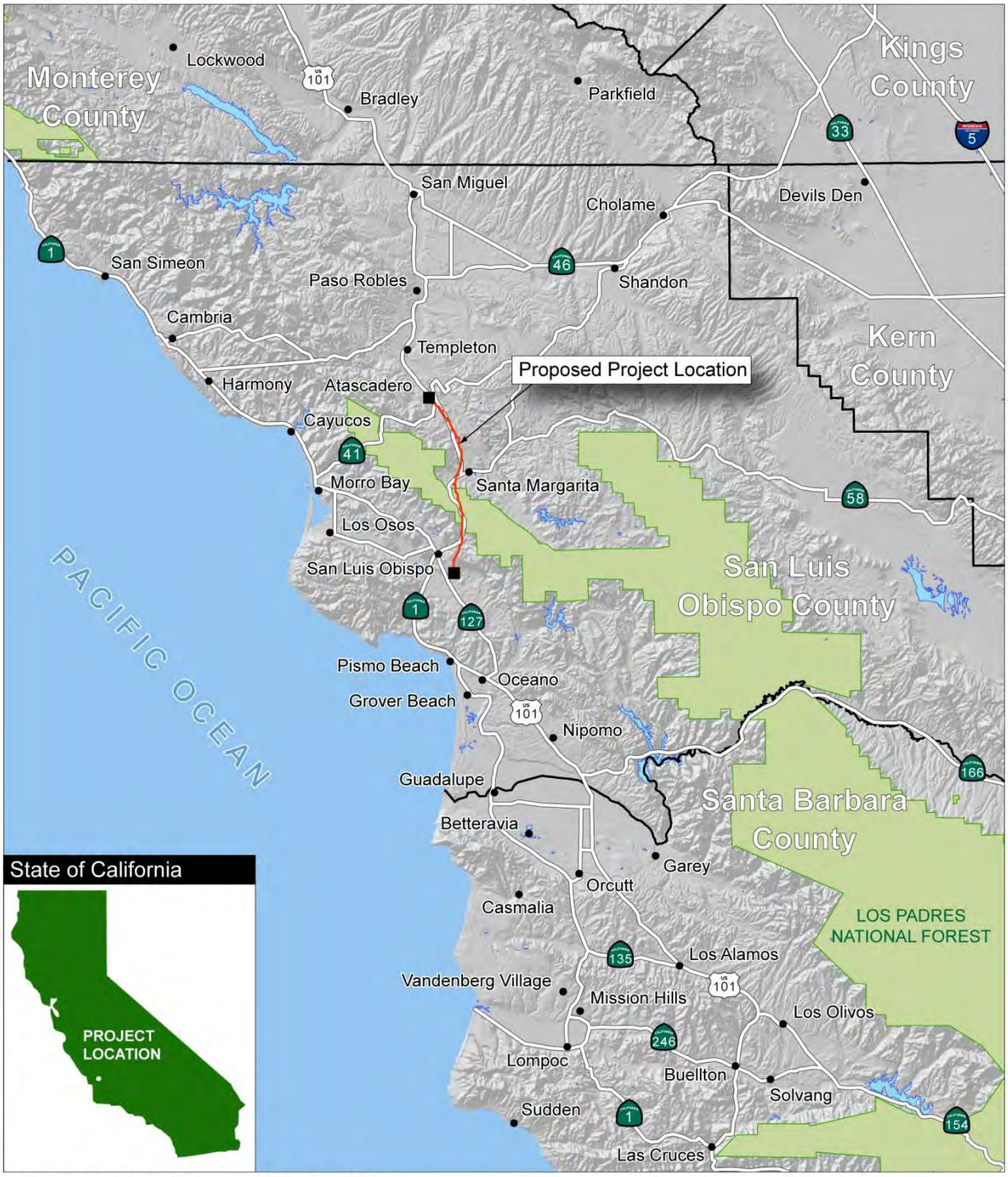
This Initial Study (IS) has been prepared pursuant to the California Environmental Quality Act (CEQA), the amended State CEQA Guidelines (14 CCR 15000 et seq.), and the CPUC CEQA rules (Rule 2.4). The purpose of the IS is to inform the decision-makers, responsible agencies, and the public of the proposed project, the existing environment that would be affected by the project, the environmental effects that would occur if the project is approved, and proposed mitigation measures that would avoid or reduce environmental effects.

A Mitigated Negative Declaration (MND) has been prepared based on the assessment of potential environmental impacts identified in the IS. All potentially significant impacts associated with the project can be mitigated to a level below significance; therefore, an MND can be adopted by the CPUC in accordance with Section 21080 of the CEQA Public Resources Code.

1.2.2 CEQA LEAD AGENCY

The CPUC is the lead agency for review of the project under CEQA because it must make a decision whether to adopt the MND and to approve or deny the PTC.

Figure 1.1-1: Proposed Project Location



1.2.3 INITIAL STUDY

The IS presents an analysis of potential effects of the proposed project on the environment. The IS is based on information from PG&E's Proponent's Environmental Assessment (PEA) and associated submittals, site visits, CPUC data requests, and additional research.

Reconductoring activities could have direct and indirect impacts on the environment. The following environmental parameters are addressed based on the potential effects of the proposed project and potential growth-inducing or cumulative effects of the project in combination with other projects:

- Aesthetics
- Agricultural Resources
- Air Quality
- Greenhouse Gases
- Biological Resources
- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Traffic and Transportation
- Utilities and Service Systems
- Mandatory Findings of Significance
- Corona and Induced Current Effects

The IS has been organized into the following sections:

- Chapter 1: Introduction. Provides an introduction and overview describing the proposed project and the CEQA process, and identifies key areas of environmental concern.
- Chapter 2: Project Description. Presents the project objectives and provides an in-depth description of the proposed project, including construction details and methods.
- Chapter 3: Environmental Setting and Environmental Impacts. Includes a description of the existing conditions and analysis of the proposed project's potential environmental impacts, and identifies mitigation measures to reduce potentially significant impacts to less than significant levels.
- Chapter 4: Mitigation Monitoring Plan. Includes applicant proposed measures (APMs) and mitigation measures that PG&E must implement as part of the project, actions required to implement these measures, monitoring requirements, and timing of implementation for each measure.
- Chapter 5: References. Lists the sources of information used to prepare the IS.
- Chapter 6: Report Preparation. Lists the preparers of the IS and identifies public agencies that were consulted during preparation.

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2: Project Description

2.1 Overview

PG&E proposes to replace the conductor and associated supporting wood poles and steel towers along 15.5 miles of the 70 kV power line that connects the Atascadero Substation to the San Luis Obispo Substation in San Luis Obispo County, California.

The project includes four primary components:

1. Replacing the existing 4/0 aluminum, 3/0 copper, 397.5 KCmil[1] aluminum and 266.8 KCmil aluminum conductors with a 715.5 KCmil non-specular all aluminum conductor (AAC) along approximately 15.5 miles of the 70 kV power line from Atascadero Substation to San Luis Obispo Substation.
2. Modifying 137 of the 139 existing poles along 8.13 miles of the 70 kV power line. Two existing LDS poles along this segment would not need to be replaced. Pole modifications to support the new 715.5 KCmil AAC are summarized below:
   - Replace 131 existing wood poles with LDS poles
   - Remove the top section of five existing wood poles that provide support for existing distribution conductor
   - Install five new LDS poles, approximately 30 feet away from the aforementioned poles, within the existing alignment
   - Remove one existing wood pole
   - Install one new LDS pole in a new location within the existing power line alignment
3. Replacing 41 of the existing 45 lattice steel towers with 36 new lattice steel towers and five TSPs along approximately 7.3 miles of the 70 kV power line. Two of the existing towers would be eliminated and two existing towers would not need to be replaced.
4. Developing construction access and work areas, which would include re-establishing existing access roads and constructing associated temporary work areas, including helicopter landing zones, equipment laydown areas, and pull and tension sites.

All pole, tower, and conductor replacements would occur within the existing PG&E ROW. No work would occur within the substations other than structure replacement and reconductoring.

2.2 Purpose and Need

The project is needed to improve transmission reliability, replace aging structures, and provide sufficient peak period transmission voltage for the City of Atascadero, the City of San Luis Obispo, and nearby areas within San Luis Obispo County. By reconductoring the 70 kV power line and

[1] KCmil is equal to 1,000 circular mil. A circular mil is a unit of area equal to the area of a circle with a diameter of 1 mil (one thousandth of an inch).

replacing the associated structures of this alignment, PG&E would be able to continue to provide safe and reliable electric service to customers in the area.

The purpose of the project does not include increasing the capacity of the power line. The new 715.5 KCmil AAC proposed for the line addresses reliability problems caused by coastal climate deterioration, as well as voltage support issues. Tension sleeves and aluminum conductors/connectors smaller than 715.5 KCmil AAC have shown accelerated corrosion.

2.2.1 SYSTEM RELIABILITY

The existing Atascadero – San Luis Obispo 70 kV Power Line primarily consists of copper and aluminum conductors that were installed as early as the 1930s and 1940s. The existing 70 kV power line contains approximately 134 splices between the Atascadero and San Luis Obispo Substations, resulting mostly from fires occurring in 1993 and 1994. Although several fire-damaged transmission poles were replaced along the project alignment, the poles still support the original conductor that was exposed to the fires.

The existing lattice steel towers that traverse Cuesta Pass have been in place more than 70 years. The lattice towers are rusted and near the end of their functional lifecycle. The project alignment is subjected to high winds, fires, and lightning, which has resulted in the need to replace the existing conductor and to upgrade the existing structures.

Some of the existing towers along US 101 are in close proximity to potential landslide areas. A geotechnical engineering firm conducted inspections of these towers and the entire power line. Recommendations based on these inspections included relocating towers to more stable grounds within the existing alignment and/or providing more robust concrete foundations than is standard design practice.

Implementation of the project would help PG&E maintain compliance with applicable grid reliability criteria, and would provide for sufficient transmission voltage in the area during peak and abnormal operating conditions.

2.2.2 INCREASED VOLTAGE SUPPORT NEEDS

The existing regional 70 kV electric system supplies almost 31,000 customers, including California Polytechnic State University, San Luis Obispo. The existing regional system consists of approximately 90 miles of 70 kV line, approximately 50 miles of transmission loop, and an additional 40 miles of radial line. This system has only two local contributing high-voltage sources (Templeton and San Luis Obispo Substations). Consequently, an increasing emphasis is placed on each section of the loop for continued support to sustain the electrical demand.

In the event of a Templeton Transformer Bank #1 outage, the entire northern portion of San Luis Obispo County would rely on the Atascadero – San Luis Obispo 70 kV Power Line, making this line a critical part of the County's regional transmission system. Similarly, in the event of a San Luis Obispo Transformer Bank #3 outage, the southern portion of the 70 kV system would also rely on the Atascadero – San Luis Obispo 70 kV Power Line. These potential scenarios further illustrate the need to improve circuit reliability for this power line.

2.2.3 REPLACEMENT OF AGING STRUCTURES

The line that would be reconductored is supported by wood poles and lattice steel towers, some of which are up to 70 years old. These structures were designed to achieve proper clearances for conductor sag based on existing conductor types and would not support proper clearance for the new, heavier 715.5 KCmil AAC.

PG&E would replace the existing wood poles with LDS poles, and existing lattice steel towers with new lattice steel towers, and TSPs designed to meet General Order (GO) 95 clearance requirements for the new 715.5 KCmil AAC. LDS poles, with a surface treatment designed to render the appearance of natural weathering, are PG&E's new design standard to replace wood poles. This pole design provides superior protection from wildfires, pole rotting, and woodpecker damage.

2.3 Project Location

2.3.1 PROJECT ALIGNMENT

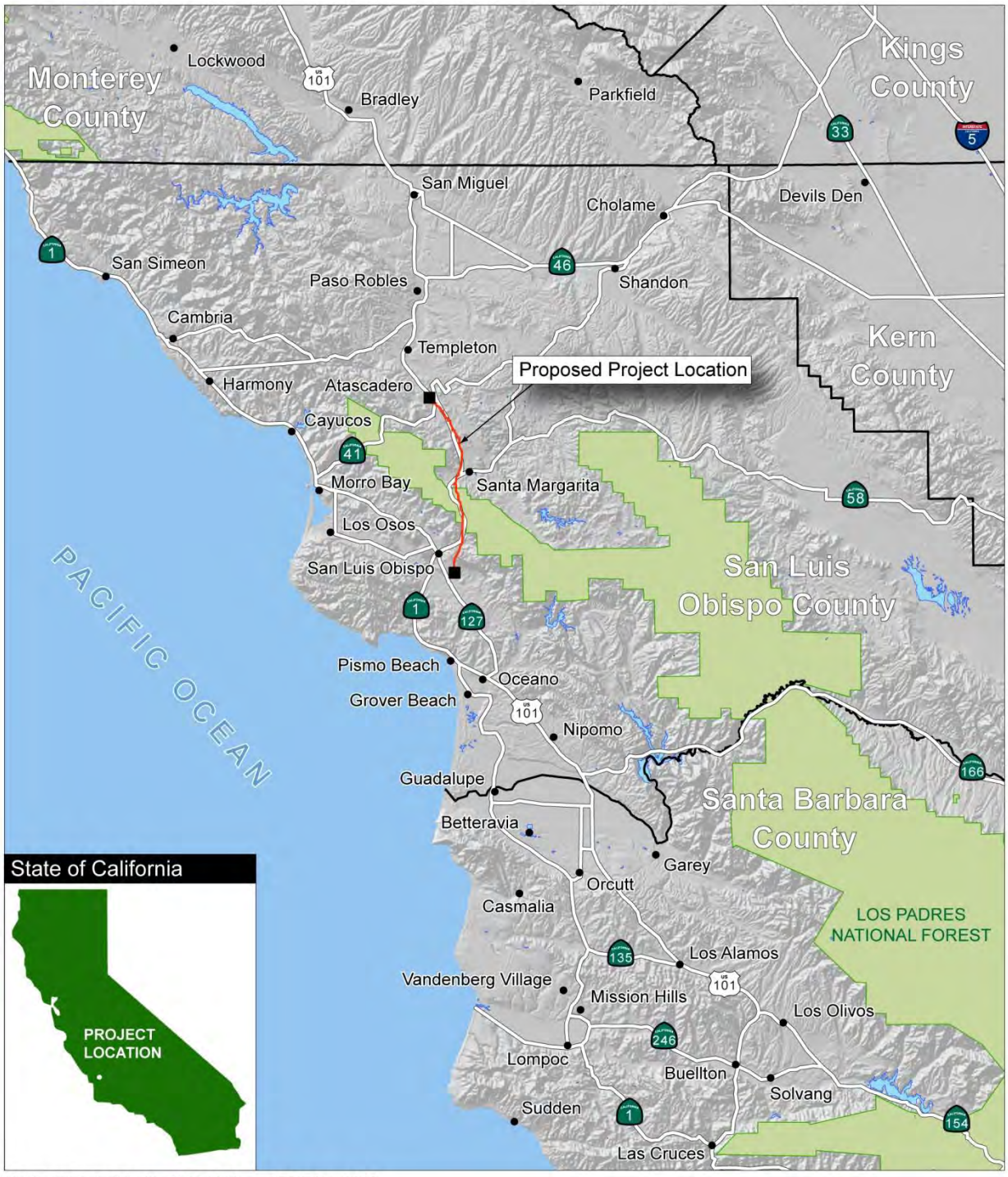
The project is located in San Luis Obispo County, California, between the cities of Atascadero and San Luis Obispo. The wood pole segment of the project ROW begins in the City of Atascadero at PG&E Atascadero Substation, located at the intersection of Santa Rosa Road and SR 41/Morro Road (Section 27, Township 28 South, Range 12 East, and Mount Diablo Baseline and Meridian [MDM]). The existing alignment runs south on the west side of US 101, through the City of Atascadero, and crosses US 101 south of Santa Barbara Road. The segment continues south along the east side of US 101, and passes through Santa Margarita to the top of Cuesta Pass, at which point the wood poles transition to lattice steel towers. The line continues south down Cuesta Pass, along the east side of US 101, and through Reservoir Canyon. It terminates at PG&E San Luis Obispo Substation, located at the intersection of Orcutt Road and Johnson Avenue in the City of San Luis Obispo (Section 1, Township 31 South, Range 12 East, MDM). Figure 2.3-1 shows an overview of the project alignment.

2.3.2 RIGHT-OF-WAY

The existing 70 kV power line is located in an existing easement owned by PG&E. The easement is 25 to 40 feet wide along the wood pole segment and 25 to 50 feet wide along the tower segment. Some portions of the wood pole segment are within an existing PG&E franchise with the City of Atascadero and San Luis Obispo County where the existing alignment spans city streets. PG&E holds Utility Agreements with the California Department of Transportation (Caltrans) in locations where the existing alignment crosses over US 101 and SR 58. No additional permanent easements or ROWs would be obtained for this project.

Transmission and power line ROWs and easements are normally clear of encumbrances, such as above ground structures or underground pipelines. An unencumbered ROW is required to allow for proper transmission facility maintenance and to minimize any operational electric hazards. However, if a pipeline is within the ROW and parallel to the transmission line for more than 1 mile, a detailed electrical induction analysis must be performed to assess the specific condition and, if required, to determine proper measures to reduce potential impacts to these pipelines. There are no pipelines with the easement that parallel the alignment for 1 mile or more.

Figure 2.3-1: Project Location Overview



Conoco-Phillips owns and operates a petroleum pipeline that runs through the project area. PG&E contacted Conoco-Phillips while preparing the 2008-2009 Preliminary Design to discuss locations and clearance requirements for the existing pipeline that is in proximity to the power line easement, and incorporated design features to avoid the Conoco Phillips' pipeline.

2.3.3 REGIONAL CONTEXT

Land use along the project alignment is primarily agricultural, rural, residential, and rural-estate. The northern section of the alignment, within the City of Atascadero, passes through some land designated as rural-estate. The alignment is also adjacent to some single-family residences and one small commercial recreational development. There are some unincorporated lands northeast of the alignment as the alignment leaves the City of Atascadero.

The alignment traverses San Luis Obispo County, mostly across designated agricultural lands and some rural lands, until it reaches the City of San Luis Obispo. In San Luis Obispo, land is mainly designated residential. Detailed information on land use is provided in Section 3.10 Land Use and Planning.

Vegetation communities found along the approximately 15.5-mile project alignment include annual grasslands, valley wildrye grasslands, serpentine grasslands, central coast scrub, northern mixed chaparral, mixed oak woodland, mixed oak savannah, open foothill pine woodland, central coast sycamore riparian forest, central coast live oak riparian forest, ruderal, and developed areas. Detailed information on existing habitat and plant communities is provided in Section 3.5 Biological Resources. In addition, the project alignment spans approximately 17 streams. For further information on hydrological features in the project area, see Section 3.9 Hydrology and Water Quality.

2.4 Project Components

The components of the proposed project are described below and are illustrated on Figures 2.4-0 through 2.4-35.

2.4.1 POWER LINE

The existing 15.5-mile 70 kV power line connects PG&E's Atascadero Substation to its San Luis Obispo Substation. The project would not result in any changes to existing capacity or the length of the line.

The project includes reconductoring 12.8 miles of existing single-circuit section (supported by both wood poles and lattice steel towers) extending from Atascadero Substation to Tower 73/0. The project also includes reconductoring 2.7 miles of the existing double-circuit section (supported by lattice steel towers) extending from Tower 73/0 to San Luis Obispo Substation. Existing collocated utilities would be transferred from the existing structures to the new replacement structures.

The existing structures supporting the existing conductor would be replaced approximately one for one. However, at five wood pole locations new LDS poles would be installed along the

Figure 2.4-0: Power Line Segment Index and Legend

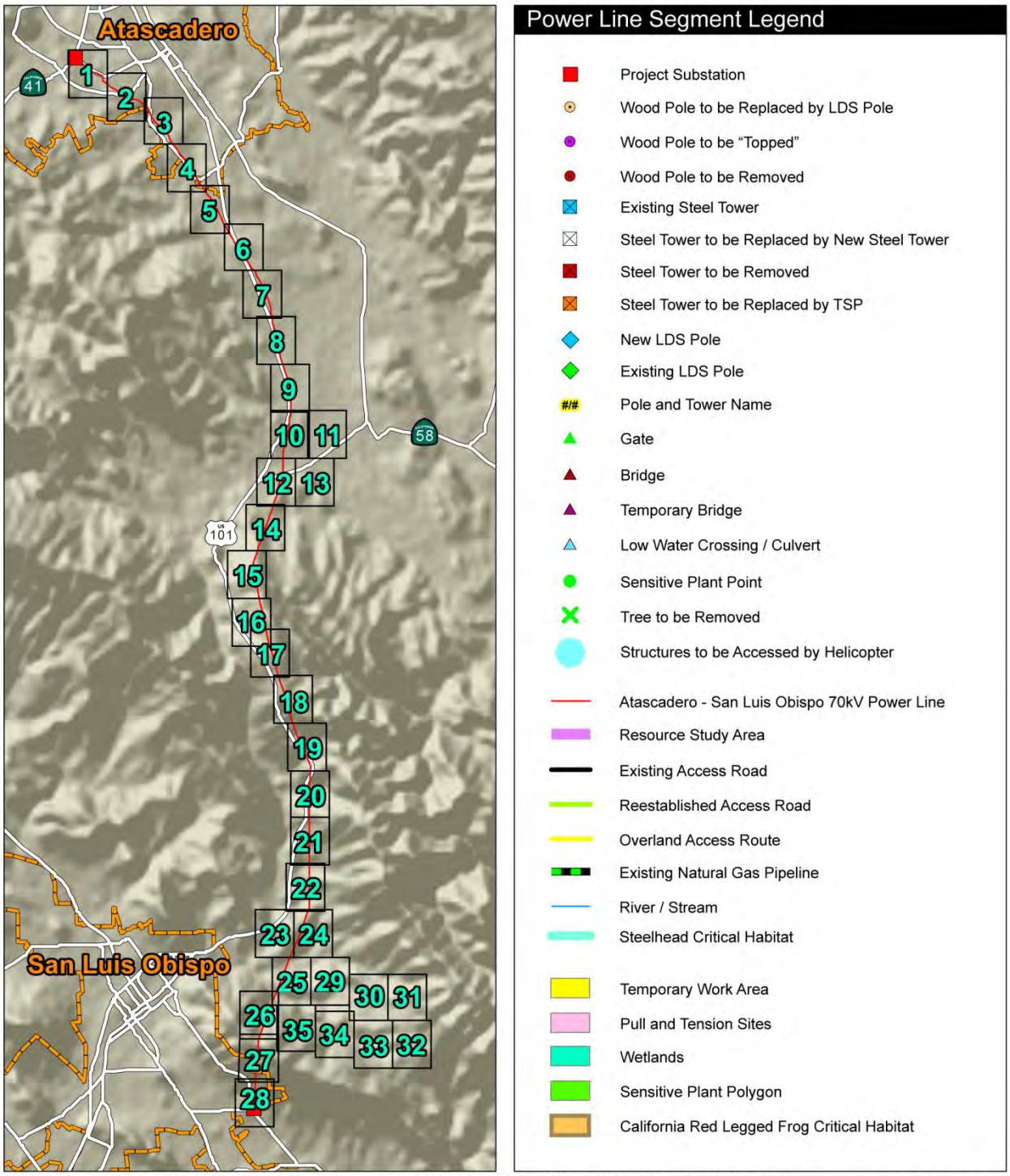
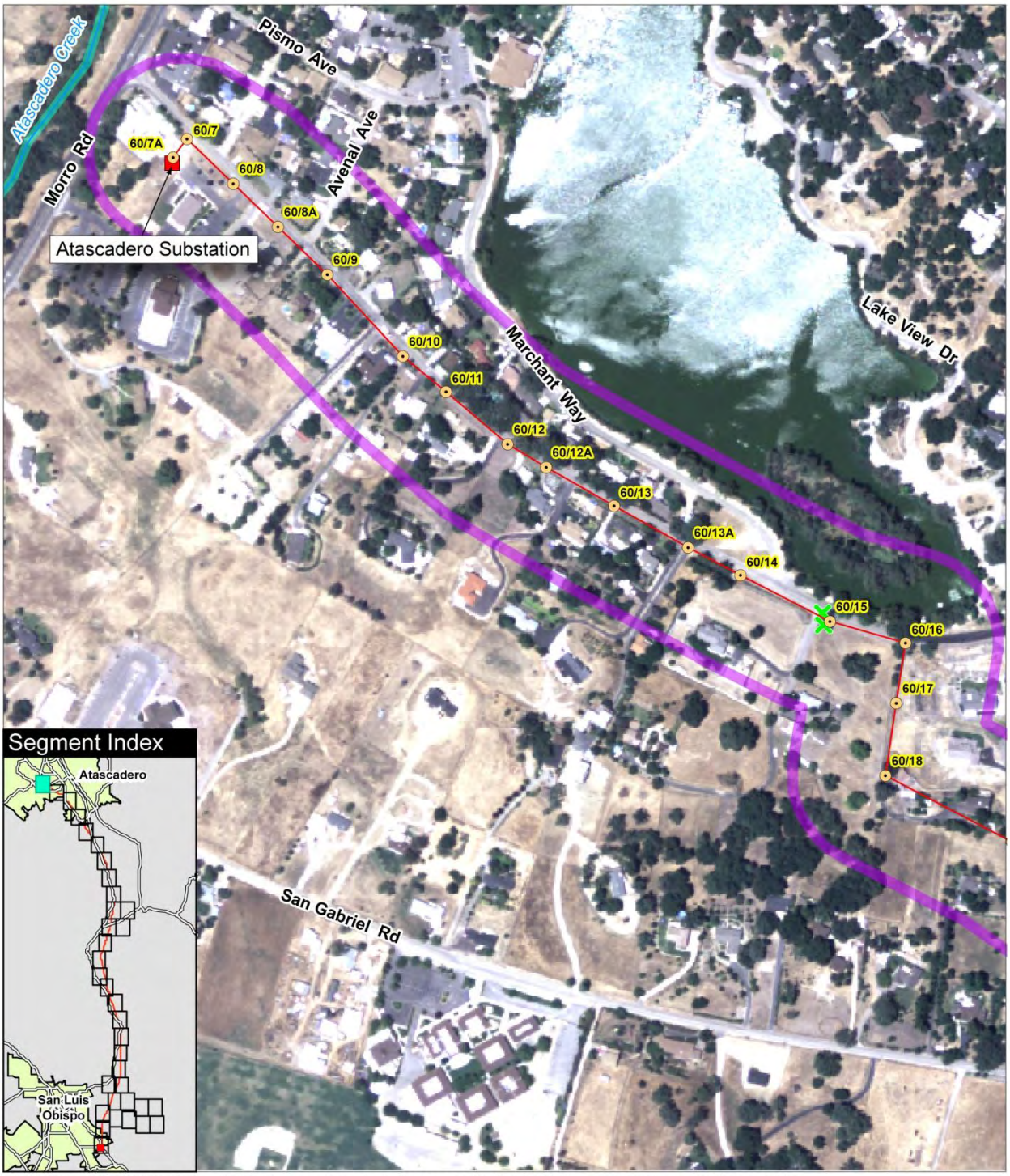


Figure 2.4-1: Power Line Segment (1 of 35)



SOURCE: PG&E 2010, Ventyx 2010, County of San Luis Obispo 2010, USGS 2010, ESRI 2006, and RMT Inc. 2010

Scale 1:5,000

LEGEND

* Refer to Figure 2.4-0 for legend explanation

N W E S

0 125 250 500 750 1,000 Feet

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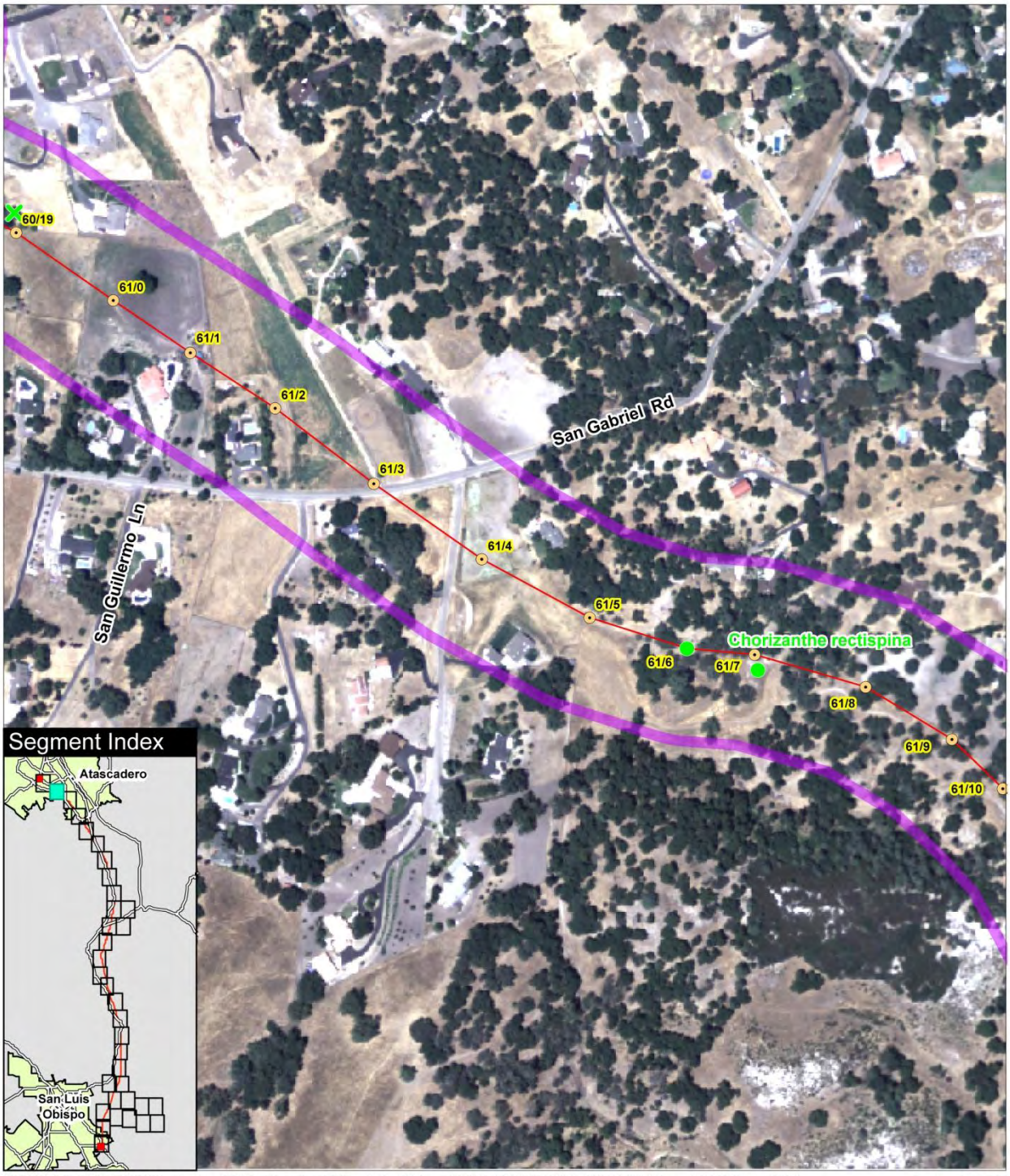
Figure 2.4-2: Power Line Segment (2 of 35)



SOURCE: PG&E 2010, Ventyx 2010, County of San Luis Obispo 2010, USGS 2010, ESRI 2006, and RMT Inc. 2010 Scale 1:5,000

LEGEND

* Refer to Figure 2.4-0 for legend explanation

Feet
0 125 250 500 750 1,000

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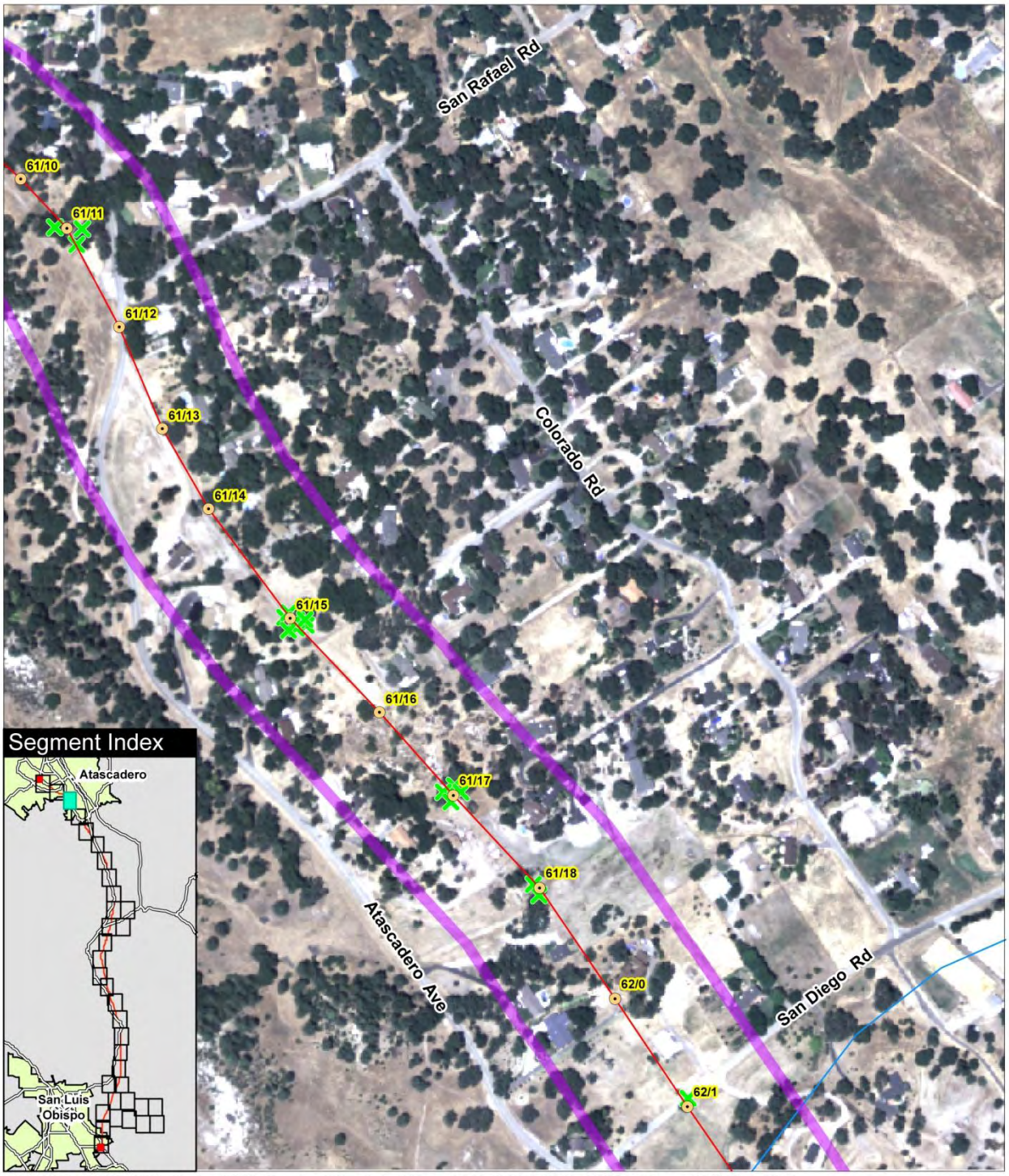
Figure 2.4-3: Power Line Segment (3 of 35)



SOURCE: PG&E 2010, Ventyx 2010, County of San Luis Obispo 2010, USGS 2010, ESRI 2006, and RMT Inc. 2010

Scale 1:5,000

LEGEND

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* Refer to Figure 2.4-0 for legend explanation

Feet
0 125 250 500 750 1,000

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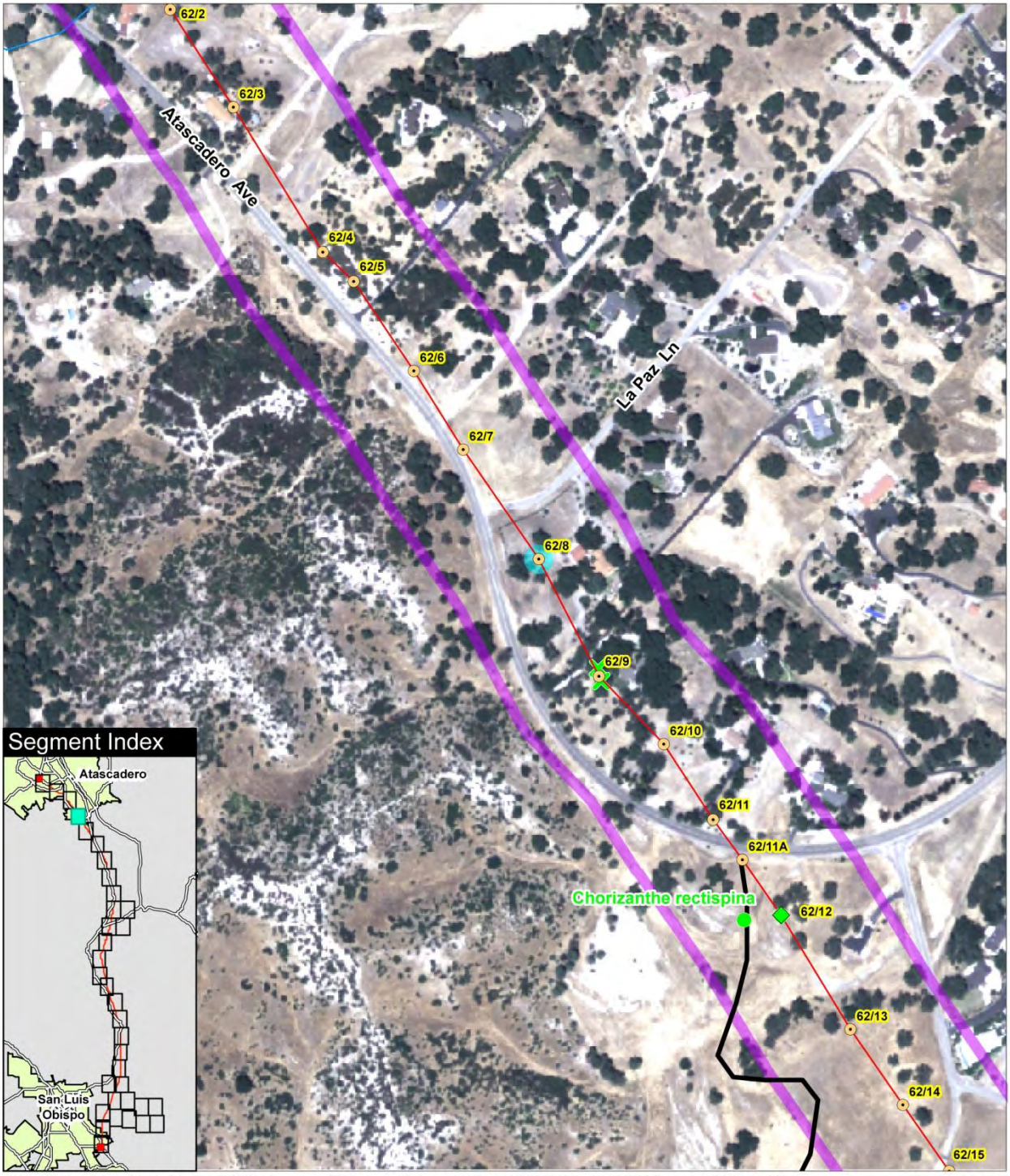
Figure 2.4-4: Power Line Segment (4 of 35)



SOURCE: PG&E 2010, Ventyx 2010, County of San Luis Obispo 2010, USGS 2010, ESRI 2006, and RMT Inc. 2010

Scale 1:5,000

LEGEND

* Refer to Figure 2.4-0 for legend explanation

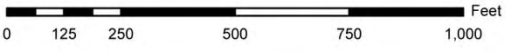


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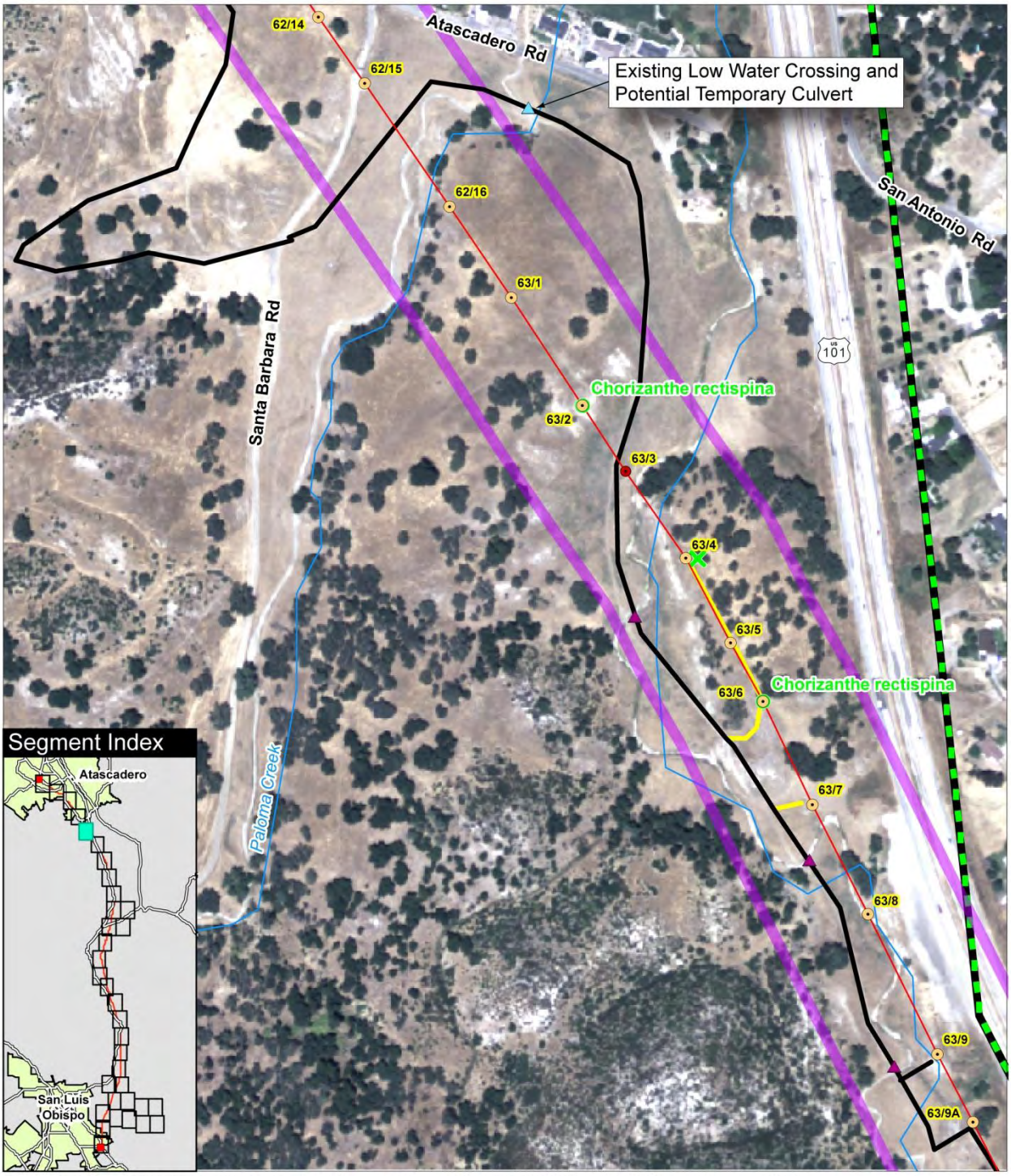
Figure 2.4-5: Power Line Segment (5 of 35)



SOURCE: PG&E 2010, Ventyx 2010, County of San Luis Obispo 2010, USGS 2010, ESRI 2006, and RMT Inc. 2010

Scale 1:5,000

LEGEND

* Refer to Figure 2.4-0 for legend explanation

N W E S

0 125 250 500 750 1,000 Feet

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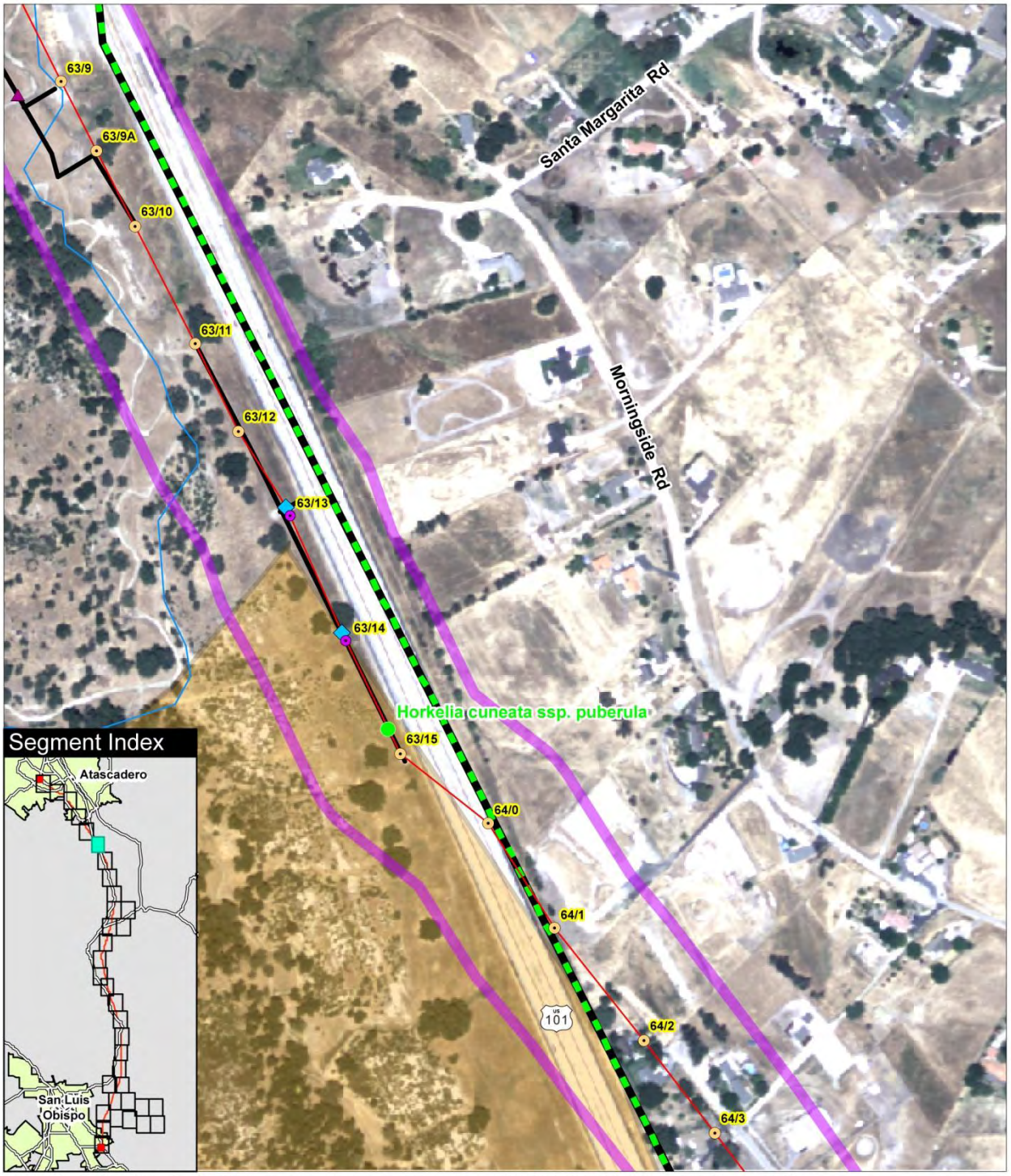
Figure 2.4-6: Power Line Segment (6 of 35)



SOURCE: PG&E 2010, Ventyx 2010, County of San Luis Obispo 2010, USGS 2010, ESRI 2006, and RMT Inc. 2010

Scale 1:5,000

LEGEND

* Refer to Figure 2.4-0 for legend explanation

N W E S

Feet
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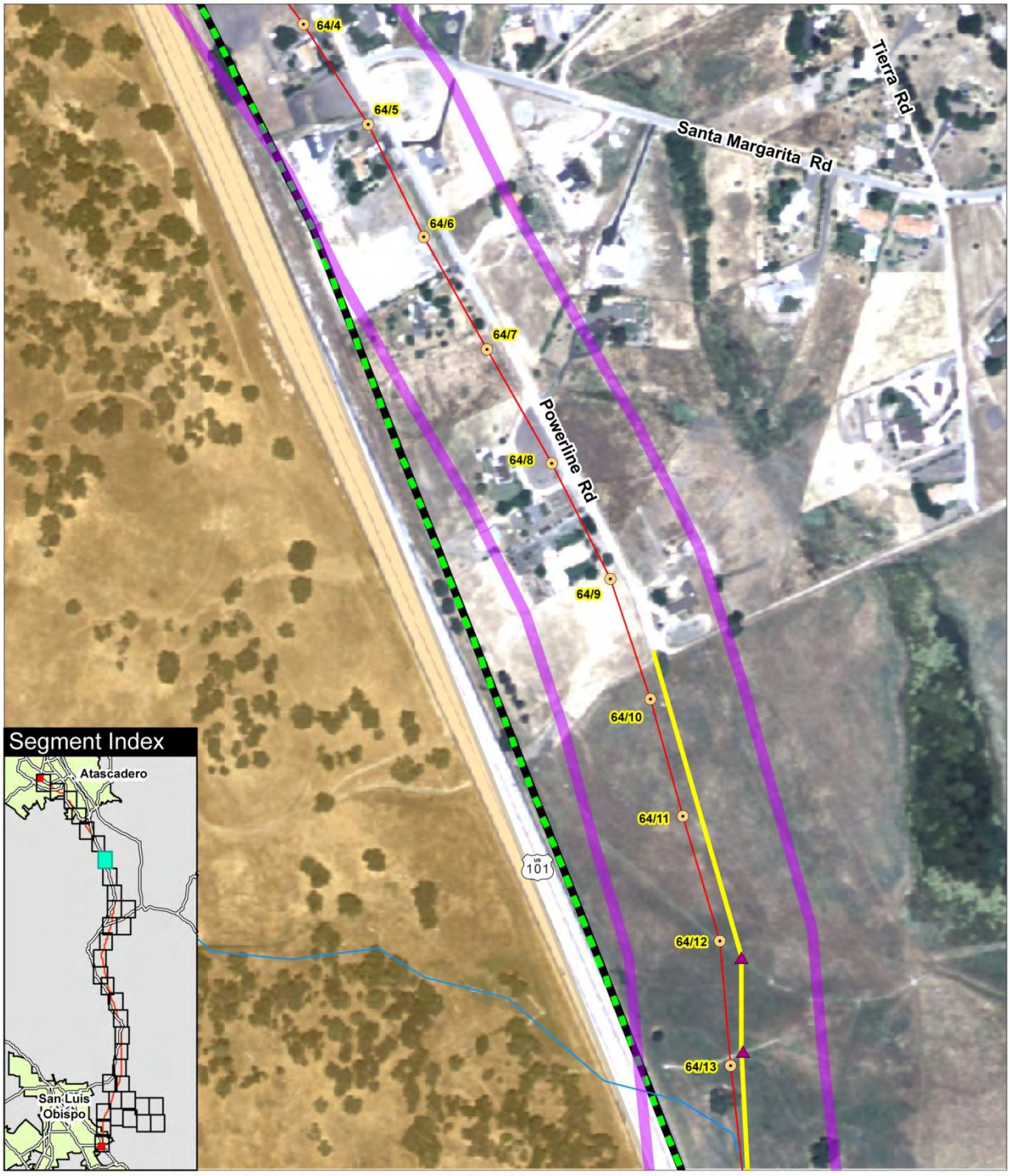
Figure 2.4-7: Power Line Segment (7 of 35)



SOURCE: PG&E 2010, Ventyx 2010, County of San Luis Obispo 2010, USGS 2010, ESRI 2006, and RMT Inc. 2010

Scale 1:5,000

LEGEND

* Refer to Figure 2.4-0 for legend explanation

N W E S

0 125 250 500 750 1,000 Feet

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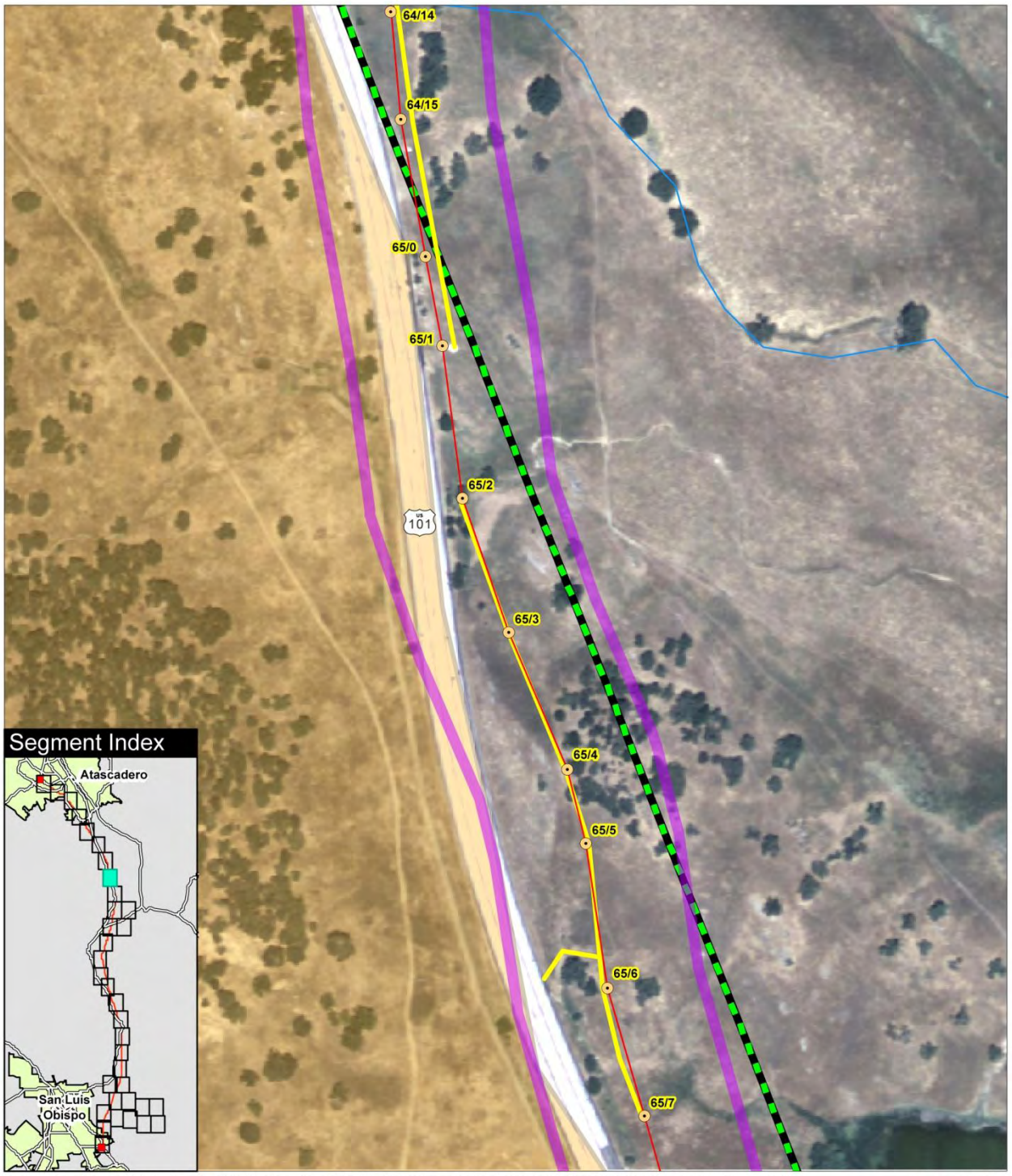
Figure 2.4-8: Power Line Segment (8 of 35)



SOURCE: PG&E 2010, Ventyx 2010, County of San Luis Obispo 2010, USGS 2010, ESRI 2006, and RMT Inc. 2010

Scale 1:5,000

LEGEND

N W E S

* Refer to Figure 2.4-0 for legend explanation

Feet

0 125 250 500 750 1,000

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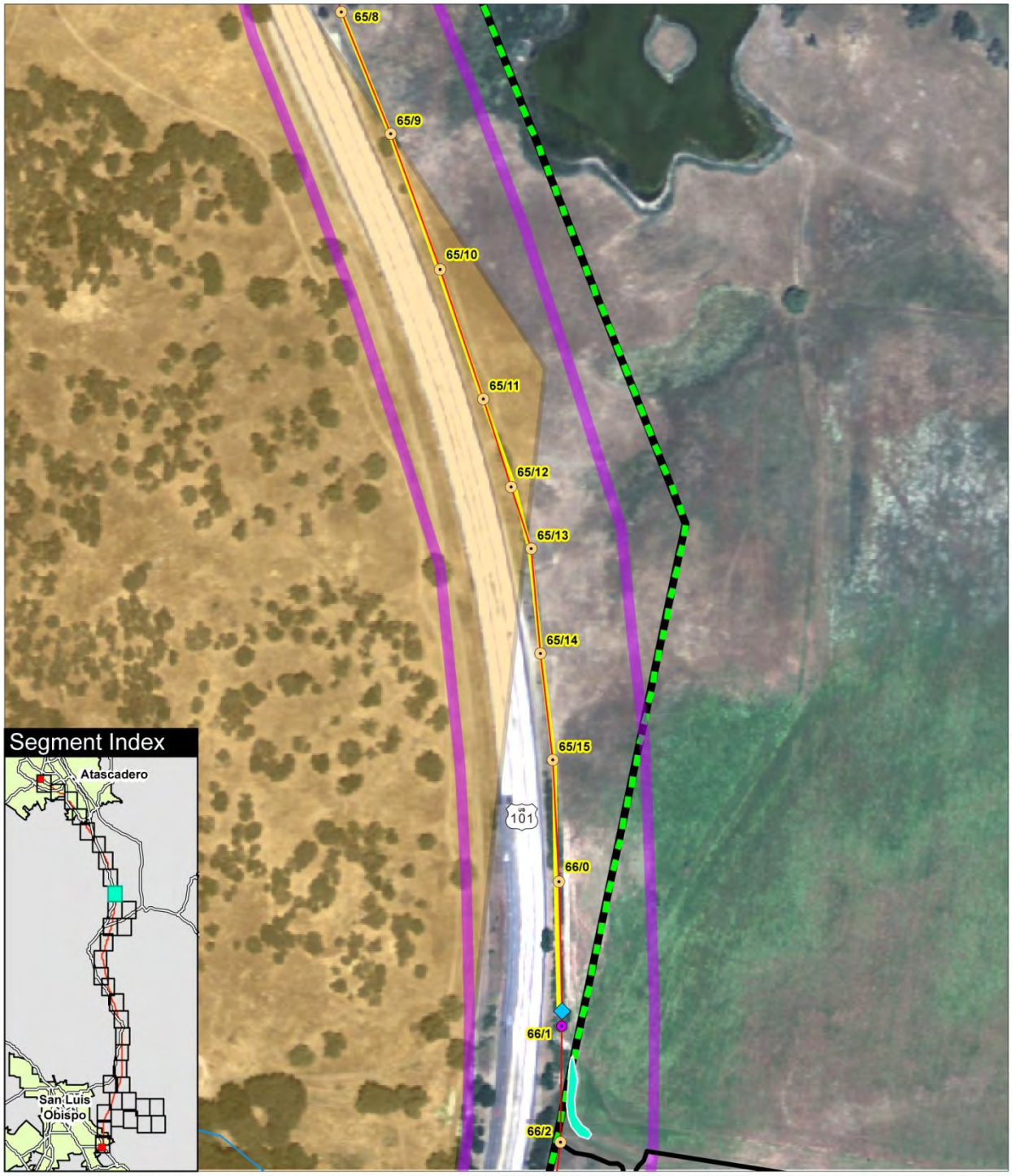
Figure 2.4-9: Power Line Segment (9 of 35)



SOURCE: PG&E 2010, Ventyx 2010, County of San Luis Obispo 2010, USGS 2010, ESRI 2006, and RMT Inc. 2010

Scale 1:5,000

LEGEND

* Refer to Figure 2.4-0 for legend explanation

N W E S

0 125 250 500 750 1,000 Feet

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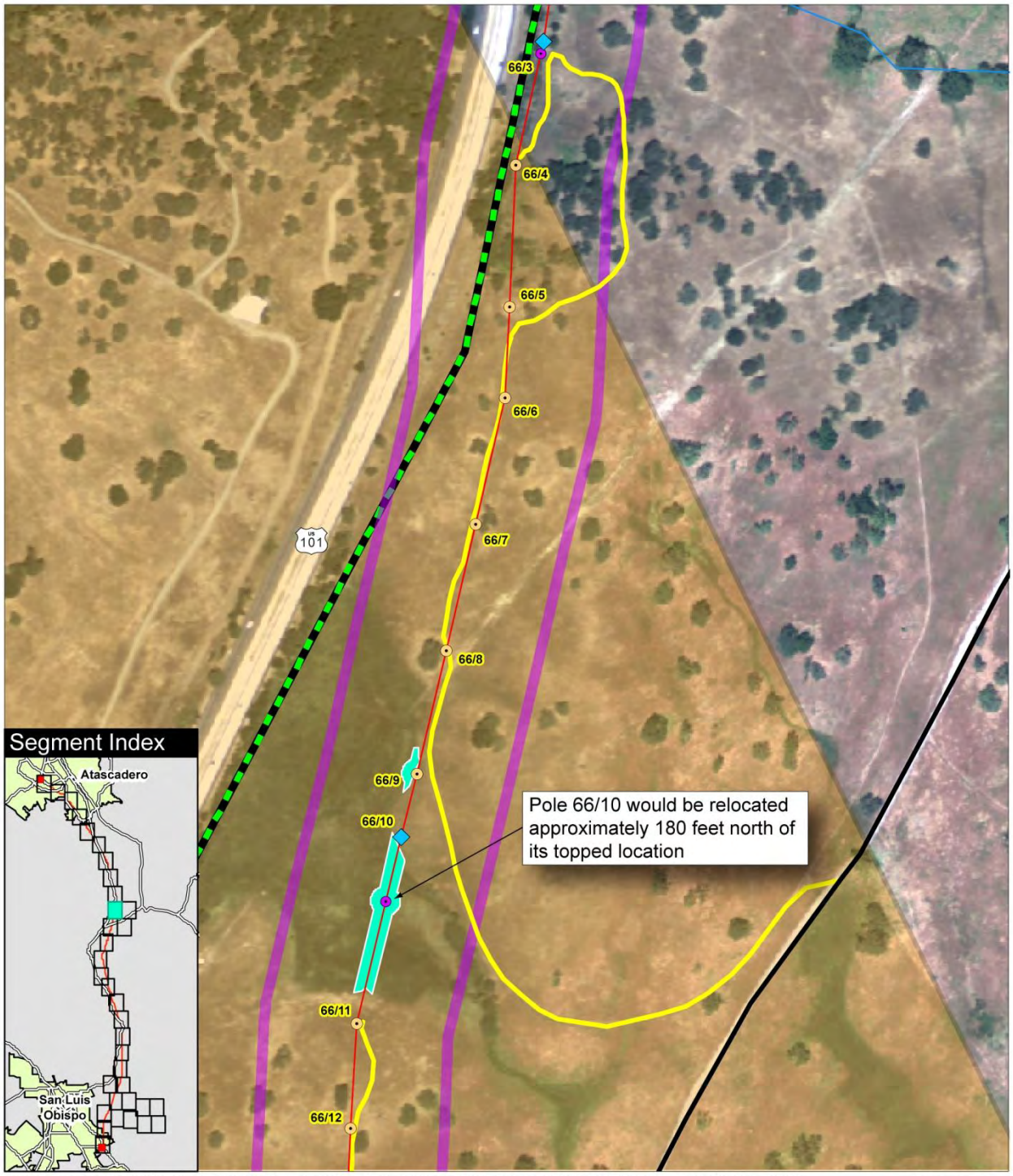
Figure 2.4-10: Power Line Segment (10 of 35)



SOURCE: PG&E 2010, Ventyx 2010, County of San Luis Obispo 2010, USGS 2010, ESRI 2006, and RMT Inc. 2010

Scale 1:5,000

LEGEND

* Refer to Figure 2.4-0 for legend explanation

N W E S

0 125 250 500 750 1,000 Feet

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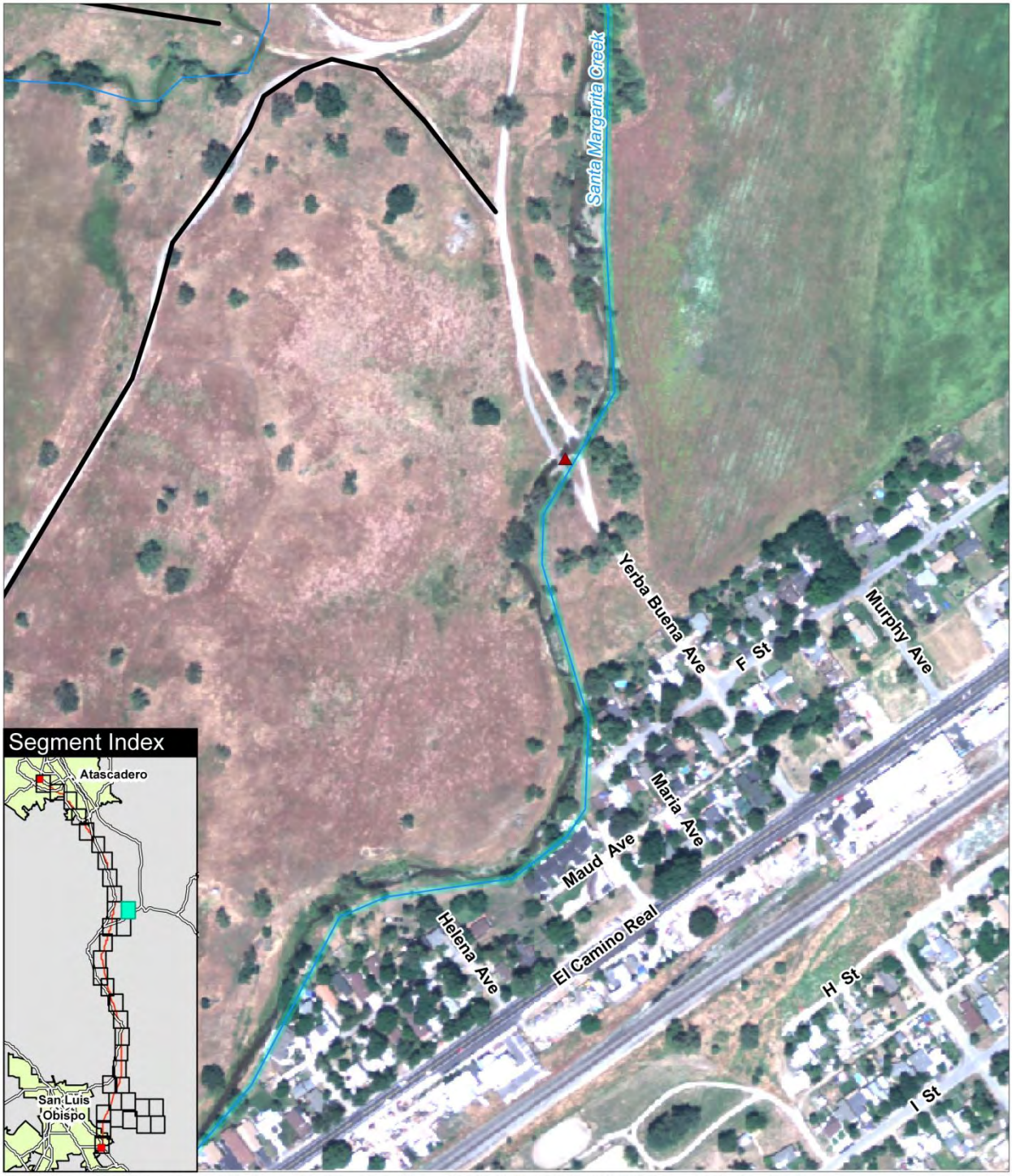
Figure 2.4-11: Power Line Segment (11 of 35)



SOURCE: PG&E 2010, Ventyx 2010, County of San Luis Obispo 2010, USGS 2010, ESRI 2006, and RMT Inc. 2010

Scale 1:5,000

LEGEND

* Refer to Figure 2.4-0 for legend explanation

N W E S

0 125 250 500 750 1,000 Feet

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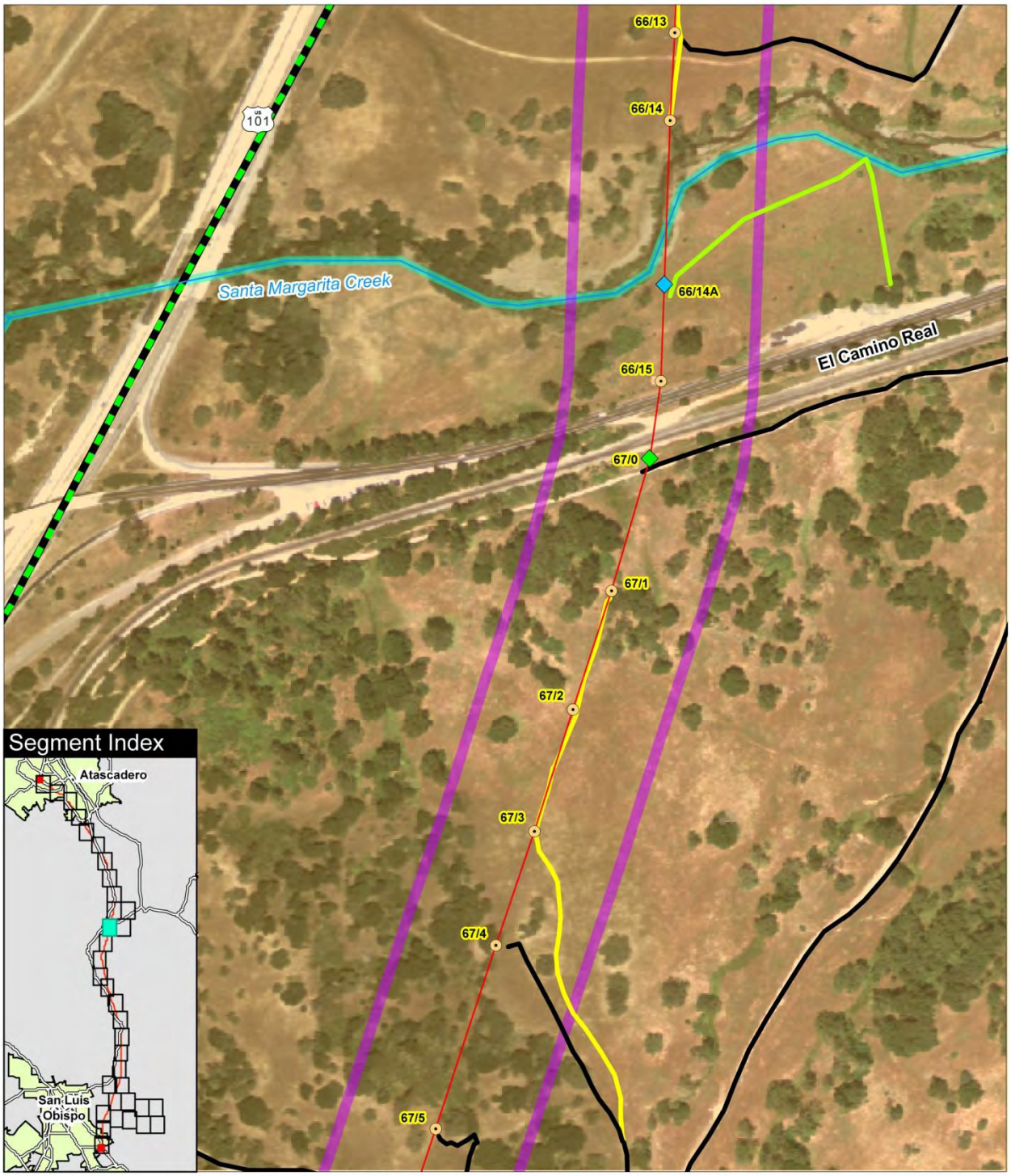
Figure 2.4-12: Power Line Segment (12 of 35)



SOURCE: PG&E 2010, Ventyx 2010, County of San Luis Obispo 2010, USGS 2010, ESRI 2006, and RMT Inc. 2010

Scale 1:5,000

LEGEND

* Refer to Figure 2.4-0 for legend explanation

N W E S

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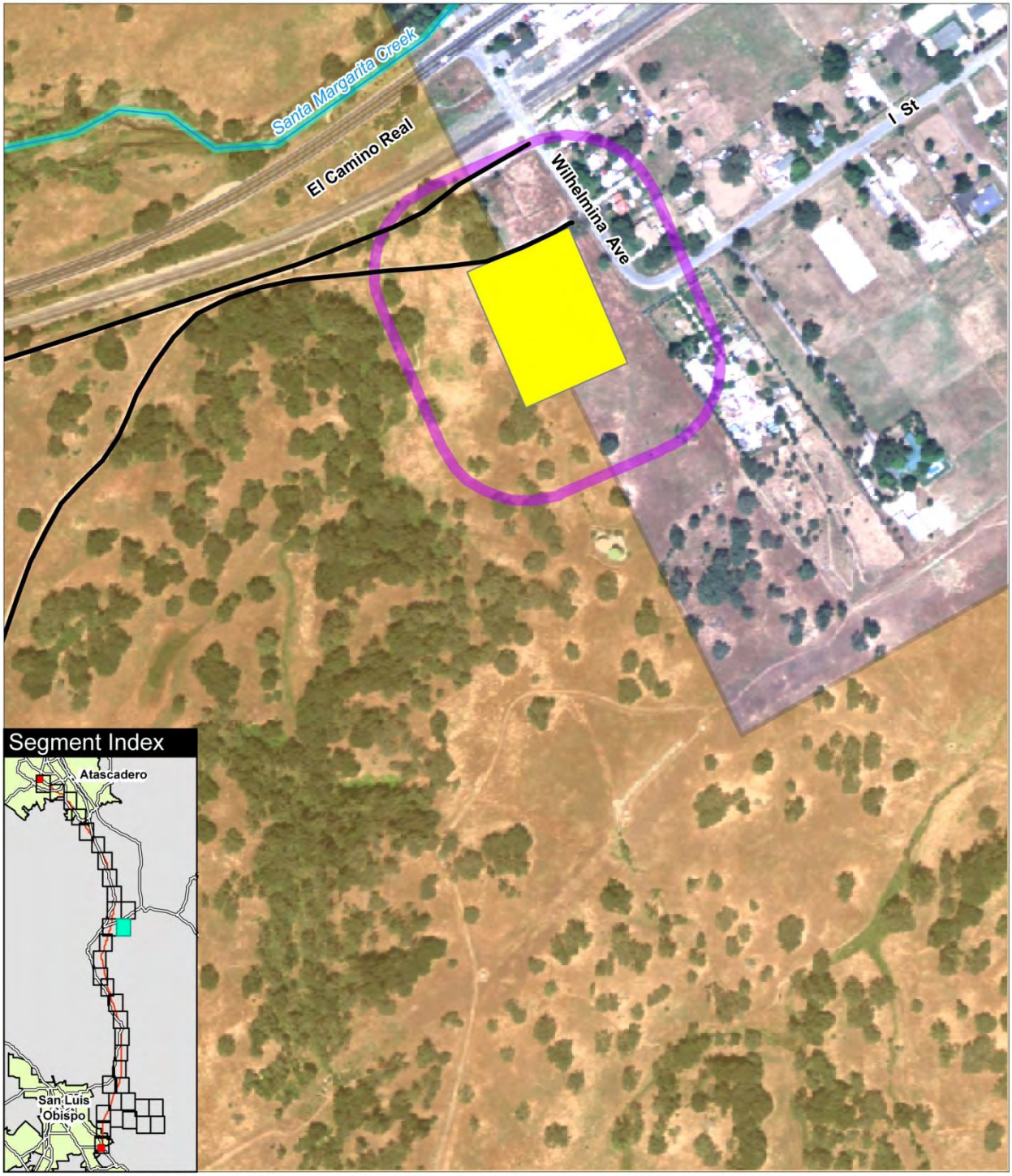
Figure 2.4-13: Power Line Segment (13 of 35)



SOURCE: PG&E 2010, Ventyx 2010, County of San Luis Obispo 2010, USGS 2010, ESRI 2006, and RMT Inc. 2010

Scale 1:5,000

LEGEND

* Refer to Figure 2.4-0 for legend explanation

N W E S

0 125 250 500 750 1,000 Feet

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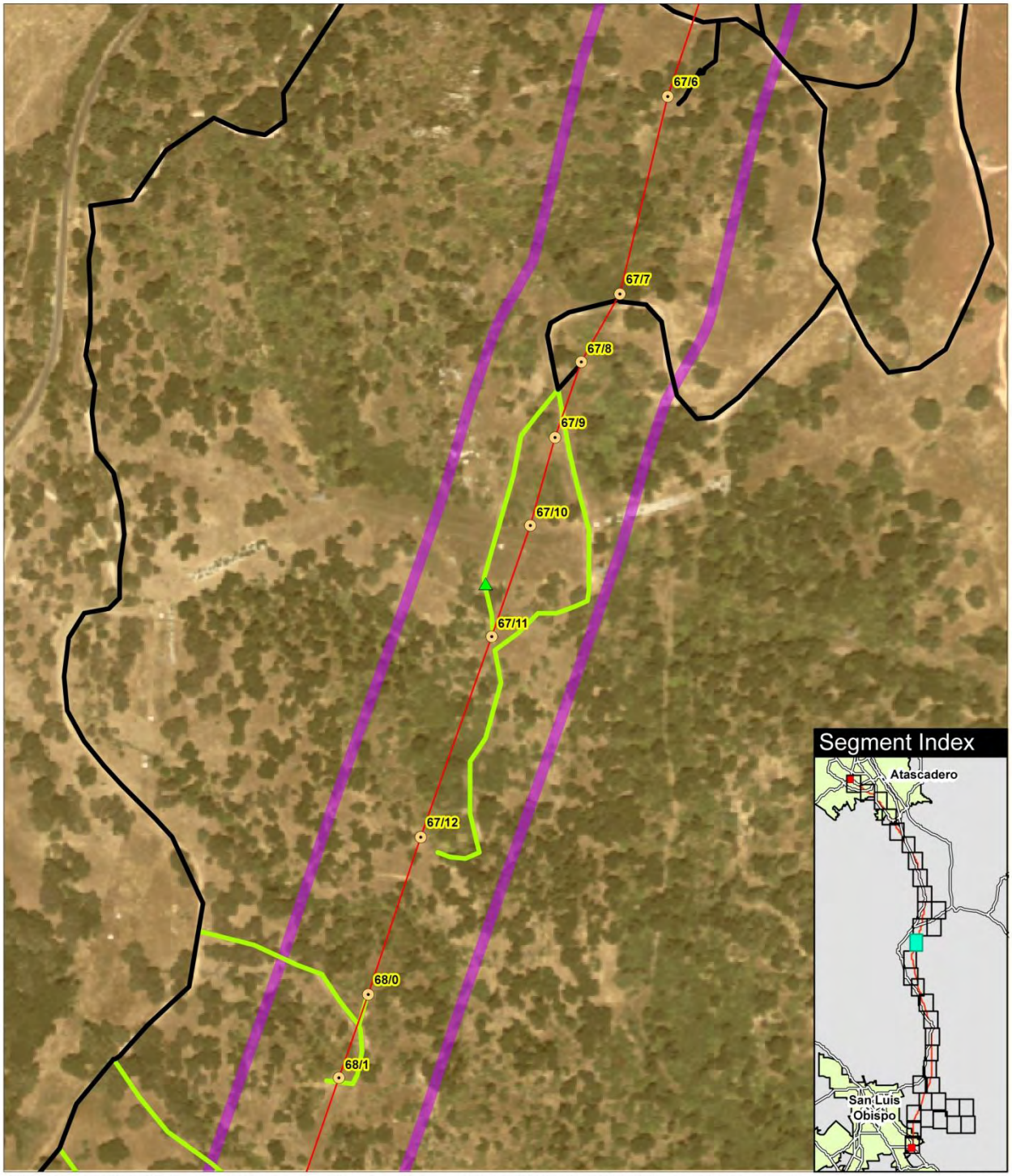
Figure 2.4-14: Power Line Segment (14 of 35)



SOURCE: PG&E 2010, Ventyx 2010, County of San Luis Obispo 2010, USGS 2010, ESRI 2006, and RMT Inc. 2010

Scale 1:5,000

LEGEND

* Refer to Figure 2.4-0 for legend explanation

Feet

0 125 250 500 750 1,000

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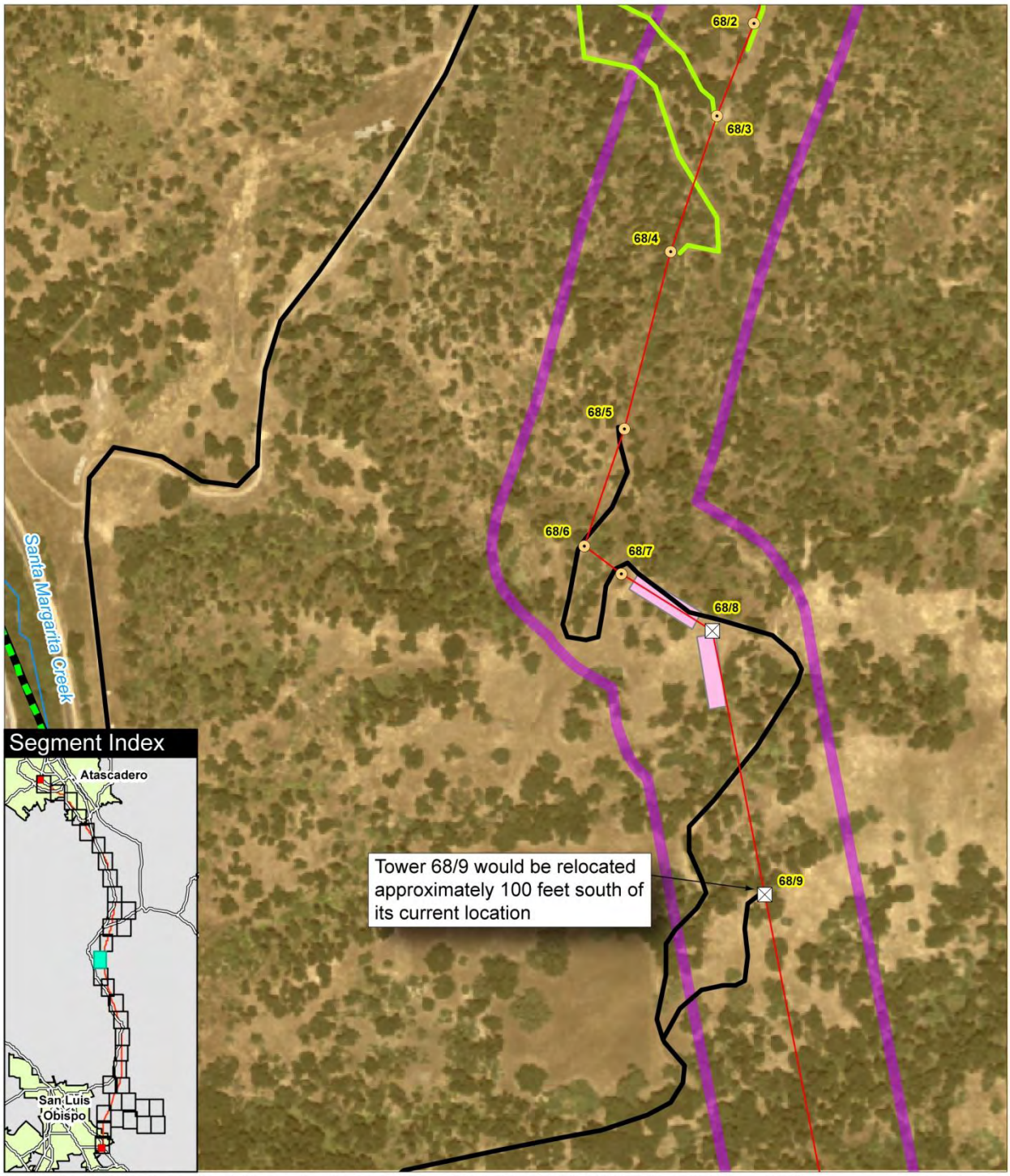
Figure 2.4-15: Power Line Segment (15 of 35)



SOURCE: PG&E 2010, Ventyx 2010, County of San Luis Obispo 2010, USGS 2010, ESRI 2006, and RMT Inc. 2010

Scale 1:5,000

LEGEND

N W E S

* Refer to Figure 2.4-0 for legend explanation

Feet

0 125 250 500 750 1,000

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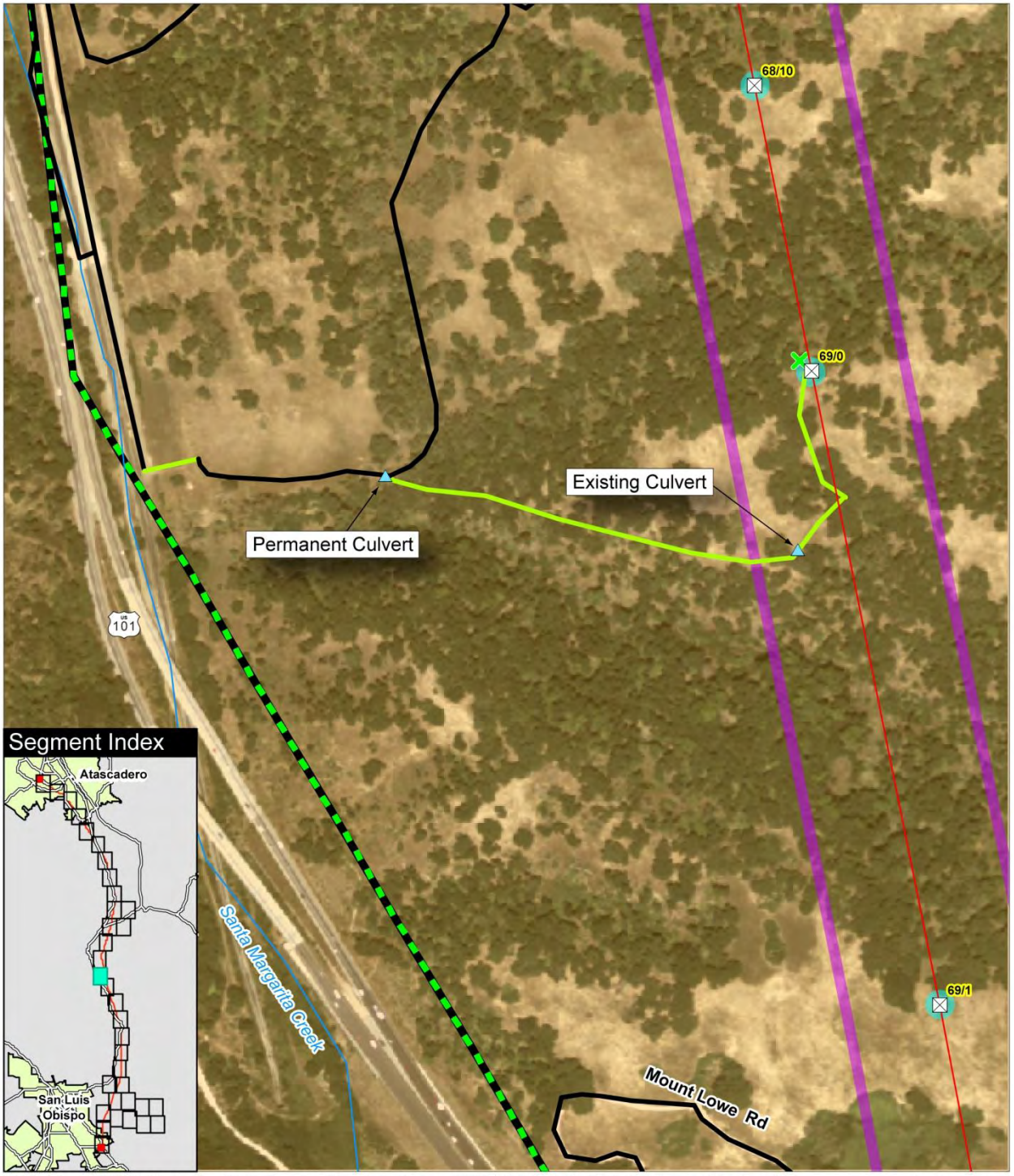
Figure 2.4-16: Power Line Segment (16 of 35)



SOURCE: PG&E 2010, Ventyx 2010, County of San Luis Obispo 2010, USGS 2010, ESRI 2006, and RMT Inc. 2010

Scale 1:5,000

LEGEND

* Refer to Figure 2.4-0 for legend explanation

N W E S

Feet
0 125 250 500 750 1,000

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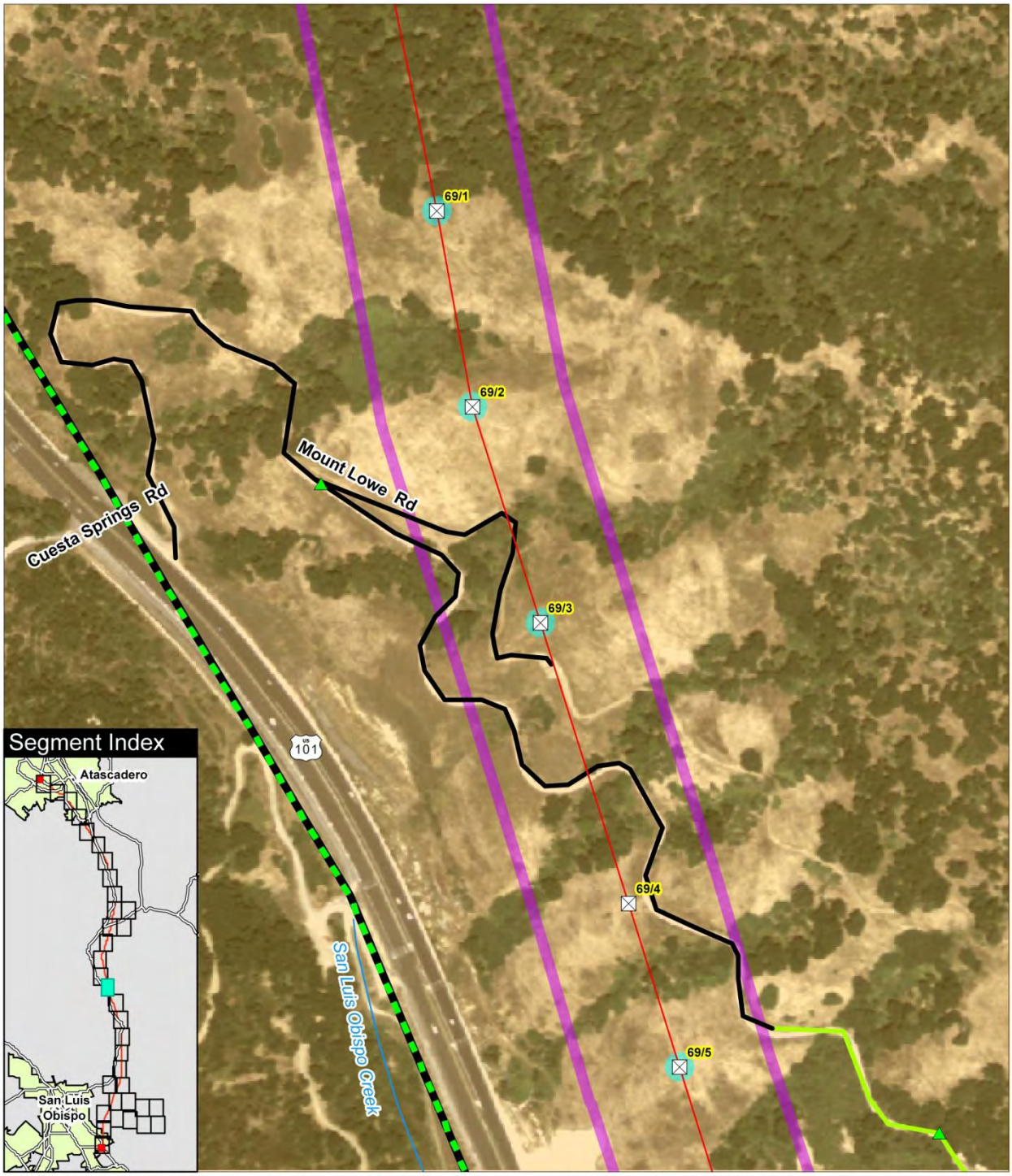
Figure 2.4-17: Power Line Segment (17 of 35)



SOURCE: PG&E 2010, Ventyx 2010, County of San Luis Obispo 2010, USGS 2010, ESRI 2006, and RMT Inc. 2010 Scale 1:5,000

LEGEND

* Refer to Figure 2.4-0 for legend explanation

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0 125 250 500 750 1,000

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Figure 2.4-18: Power Line Segment (18 of 35)

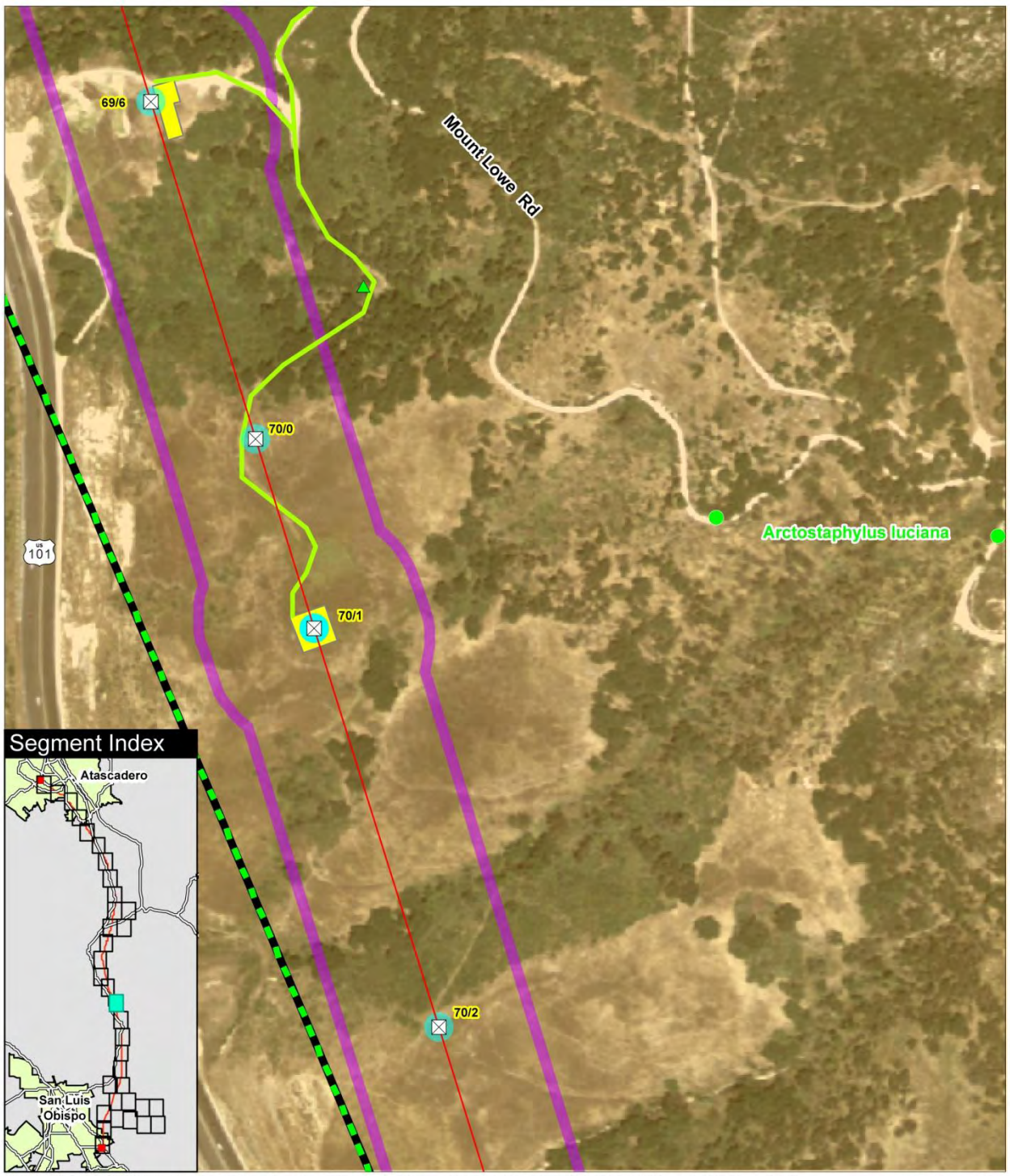
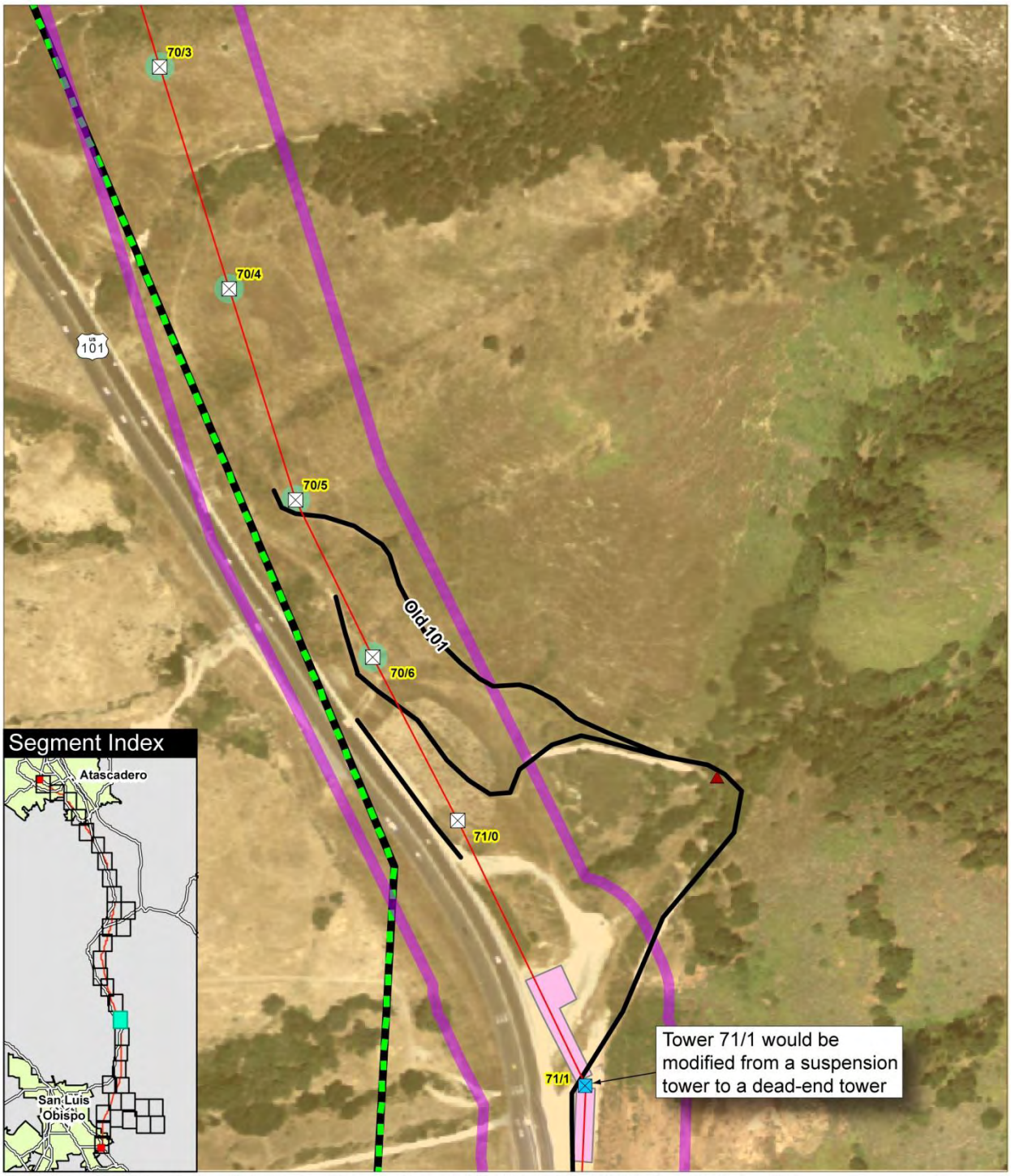


Figure 2.4-19: Power Line Segment (19 of 35)



SOURCE: PG&E 2010, Ventyx 2010, County of San Luis Obispo 2010, USGS 2010, ESRI 2006, and RMT Inc. 2010 Scale 1:5,000

LEGEND

* Refer to Figure 2.4-0 for legend explanation

N W E S

0 125 250 500 750 1,000 Feet

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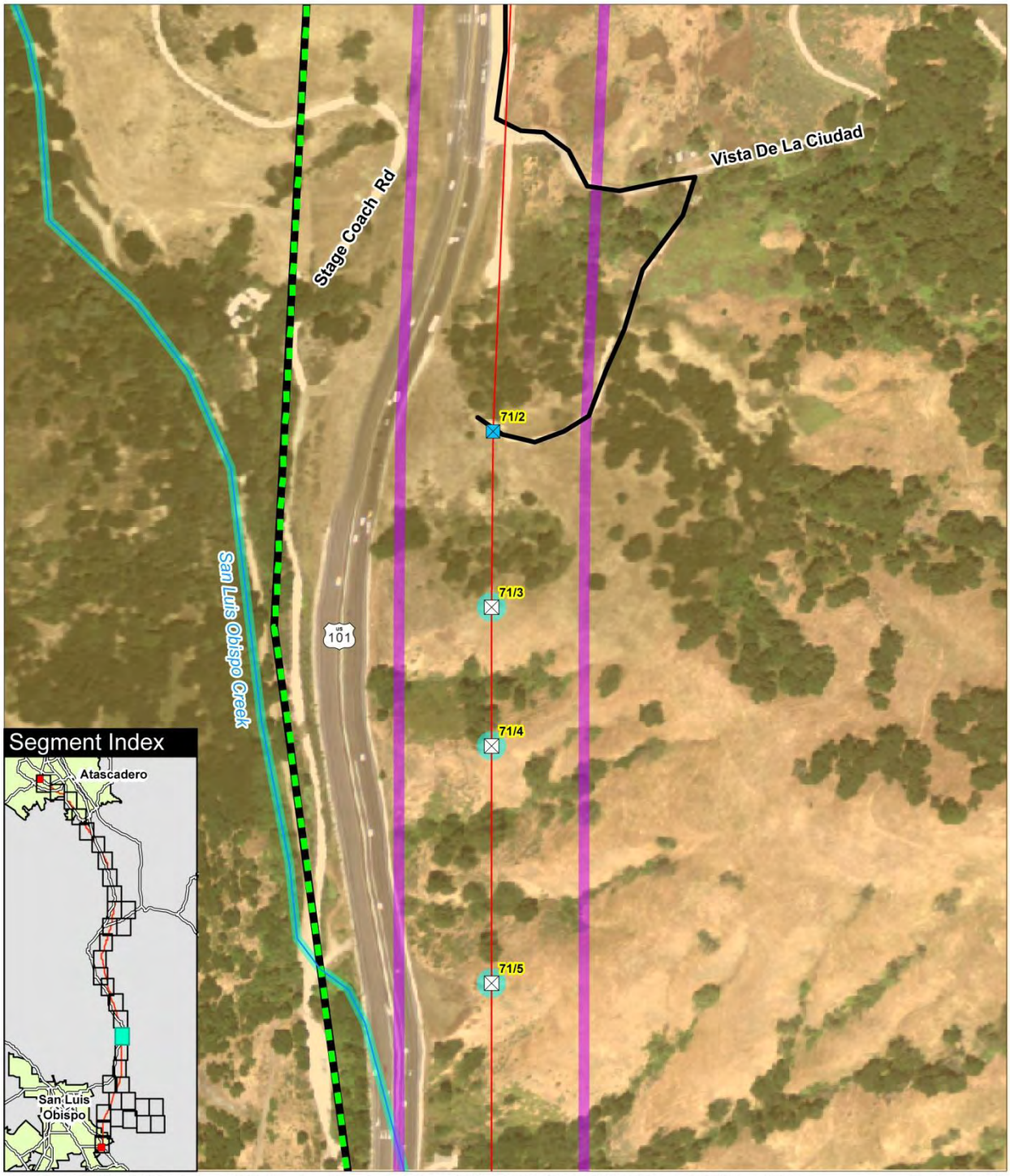
Figure 2.4-20: Power Line Segment (20 of 35)



SOURCE: PG&E 2010, Ventyx 2010, County of San Luis Obispo 2010, USGS 2010, ESRI 2006, and RMT Inc. 2010

Scale 1:5,000

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* Refer to Figure 2.4-0 for legend explanation

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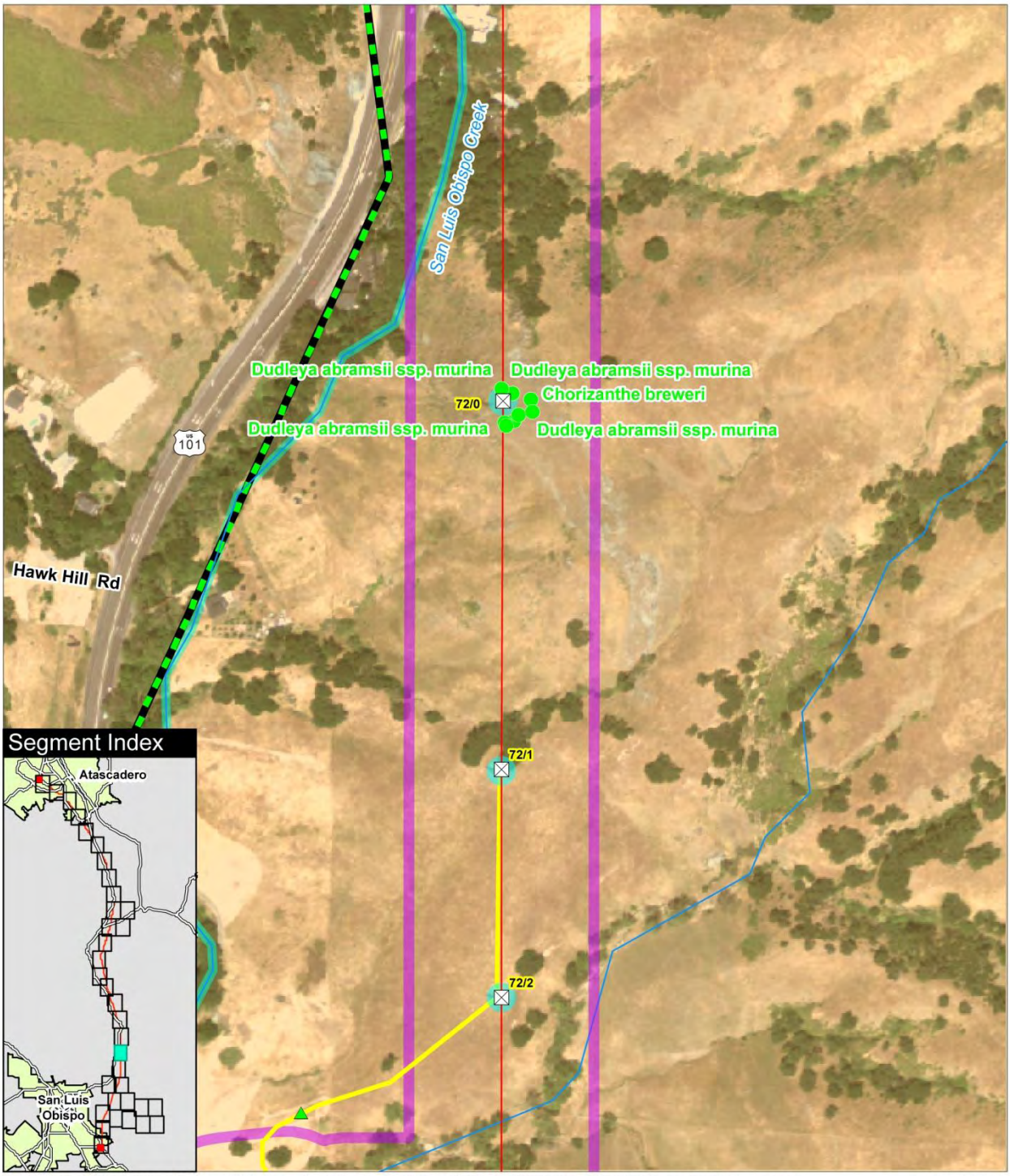
Figure 2.4-21: Power Line Segment (21 of 35)



SOURCE: PG&E 2010, Ventyx 2010, County of San Luis Obispo 2010, USGS 2010, ESRI 2006, and RMT Inc. 2010

Scale 1:5,000

LEGEND

* Refer to Figure 2.4-0 for legend explanation

N W E S

0 125 250 500 750 1,000 Feet

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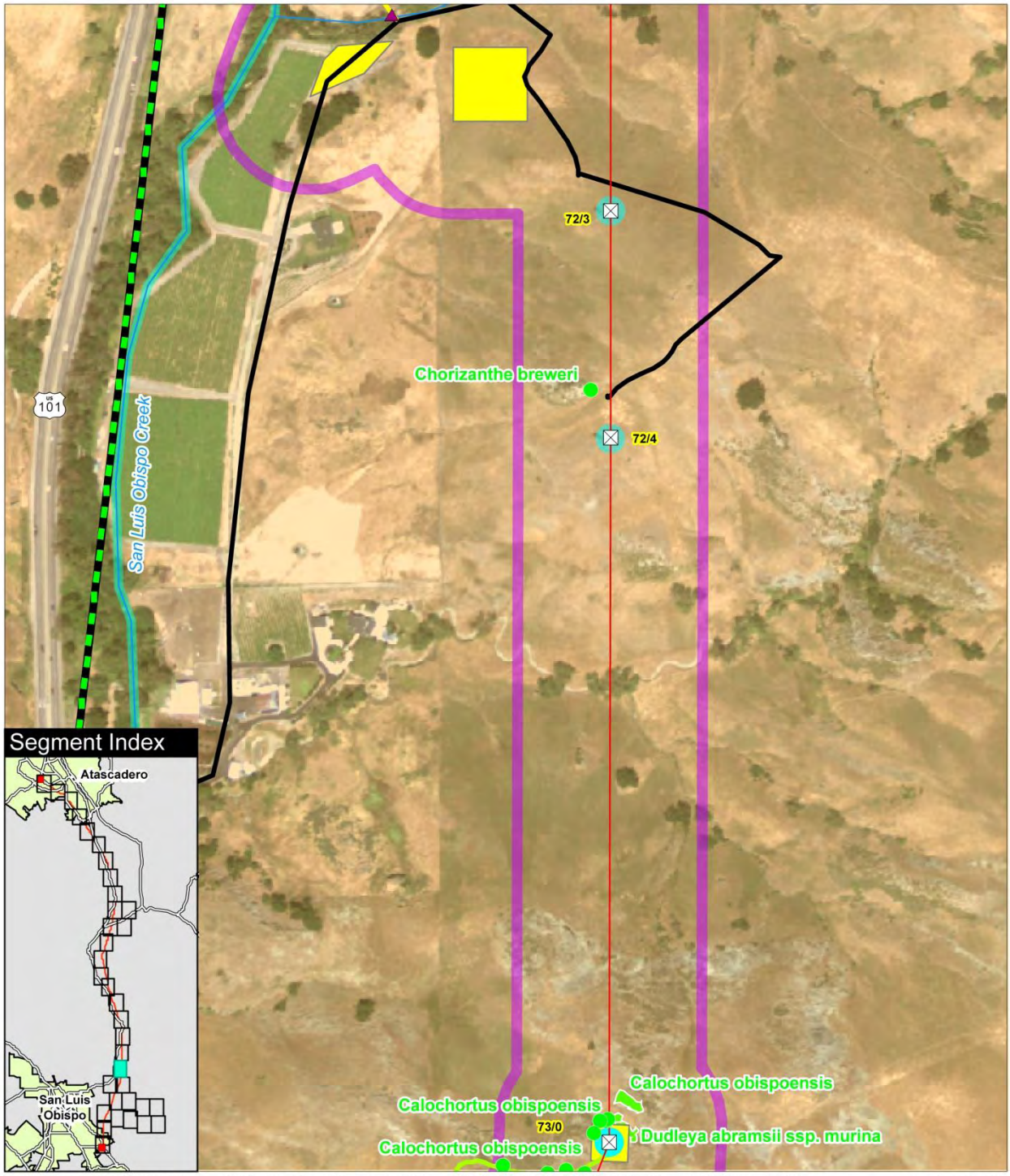
Figure 2.4-22: Power Line Segment (22 of 35)



SOURCE: PG&E 2010, Ventyx 2010, County of San Luis Obispo 2010, USGS 2010, ESRI 2006, and RMT Inc. 2010

Scale 1:5,000

LEGEND

N W E S

* Refer to Figure 2.4-0 for legend explanation

Feet

0 125 250 500 750 1,000

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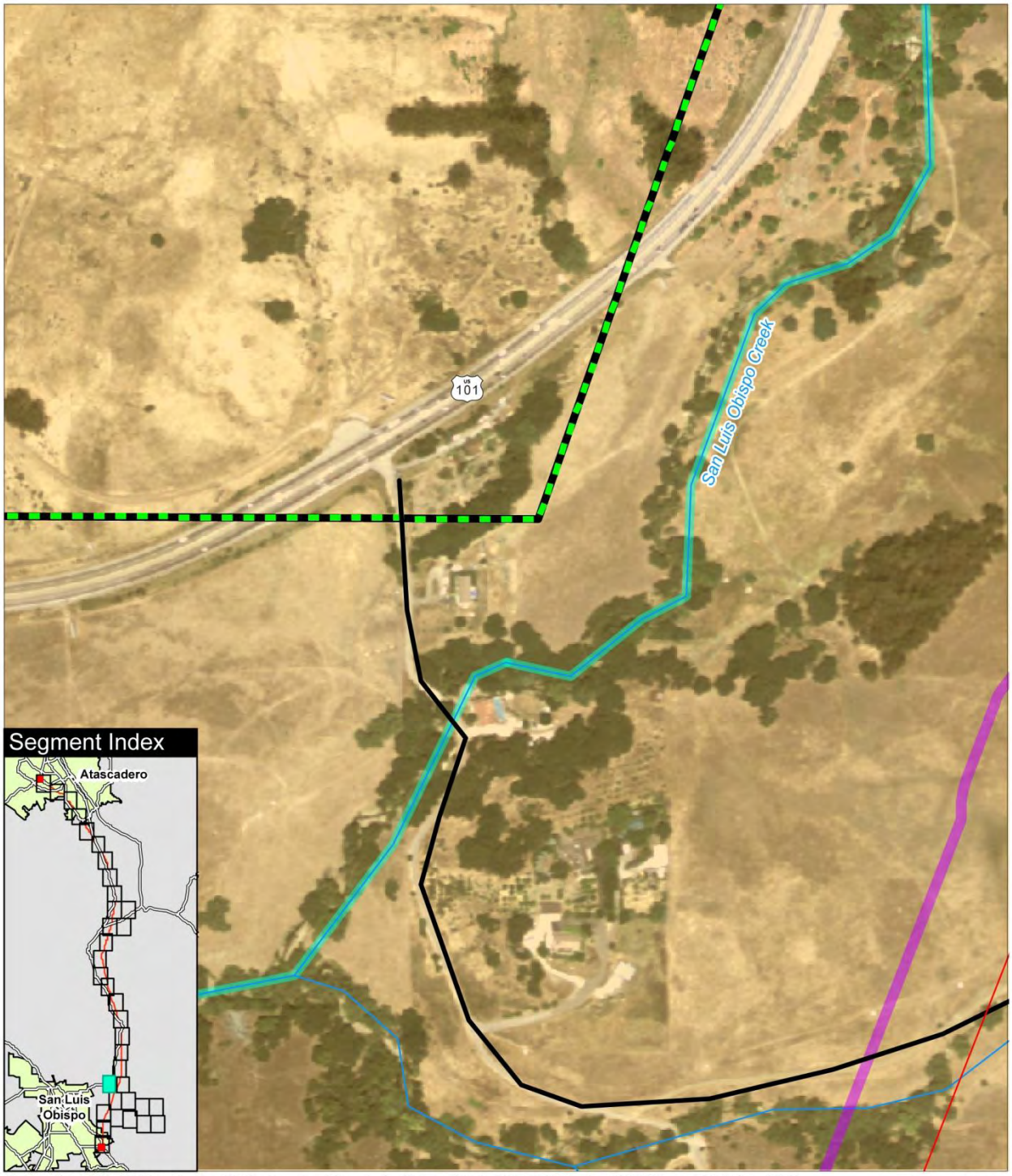
Figure 2.4-23: Power Line Segment (23 of 35)



SOURCE: PG&E 2010, Ventyx 2010, County of San Luis Obispo 2010, USGS 2010, ESRI 2006, and RMT Inc. 2010

Scale 1:5,000

LEGEND

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* Refer to Figure 2.4-0 for legend explanation

Feet
0 125 250 500 750 1,000

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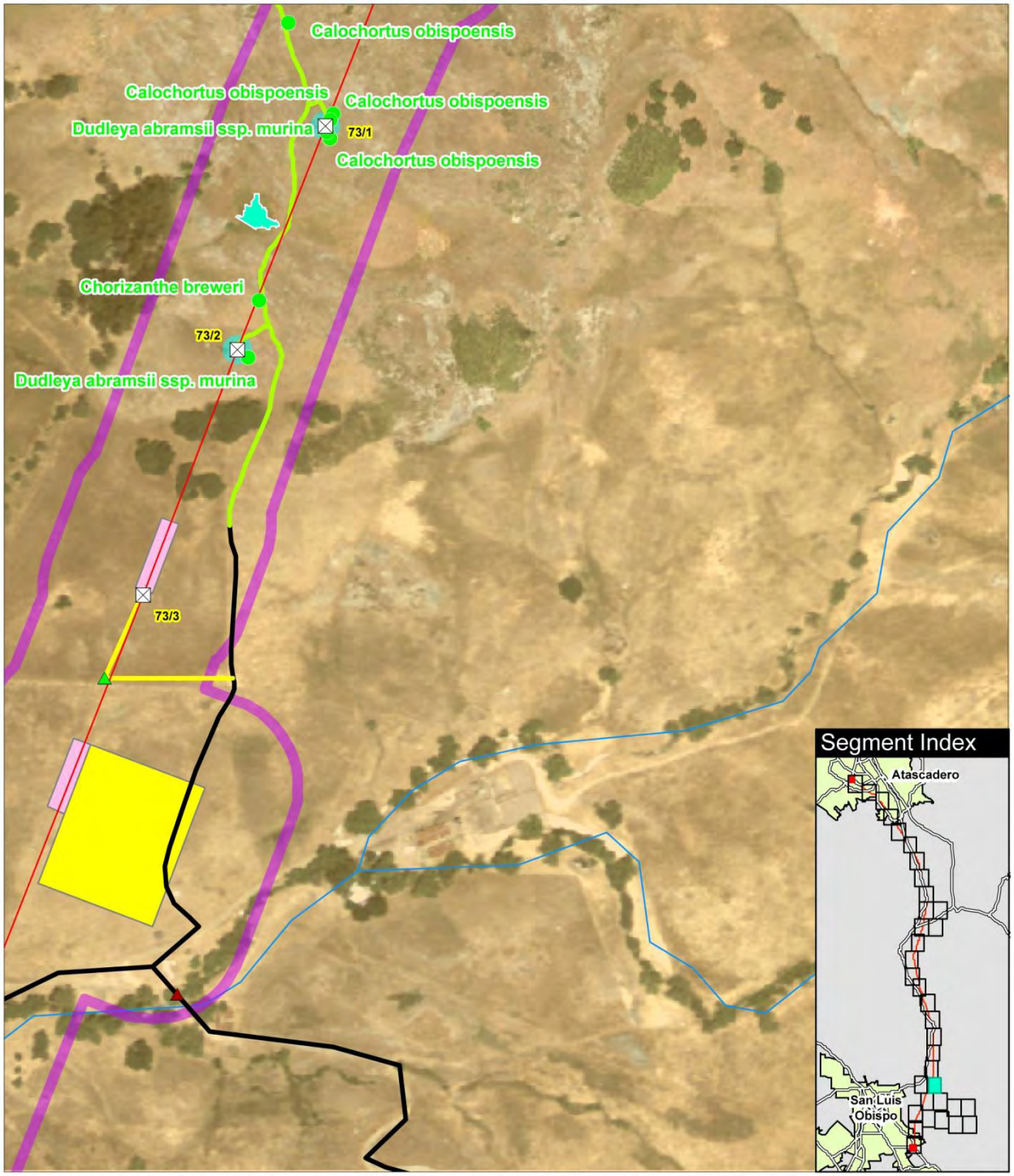
Figure 2.4-24: Power Line Segment (24 of 35)



SOURCE: PG&E 2010, Ventyx 2010, County of San Luis Obispo 2010, USGS 2010, ESRI 2006, and RMT Inc. 2010

Scale 1:5,000

LEGEND

N W E S

* Refer to Figure 2.4-0 for legend explanation

0 125 250 500 750 1,000 Feet

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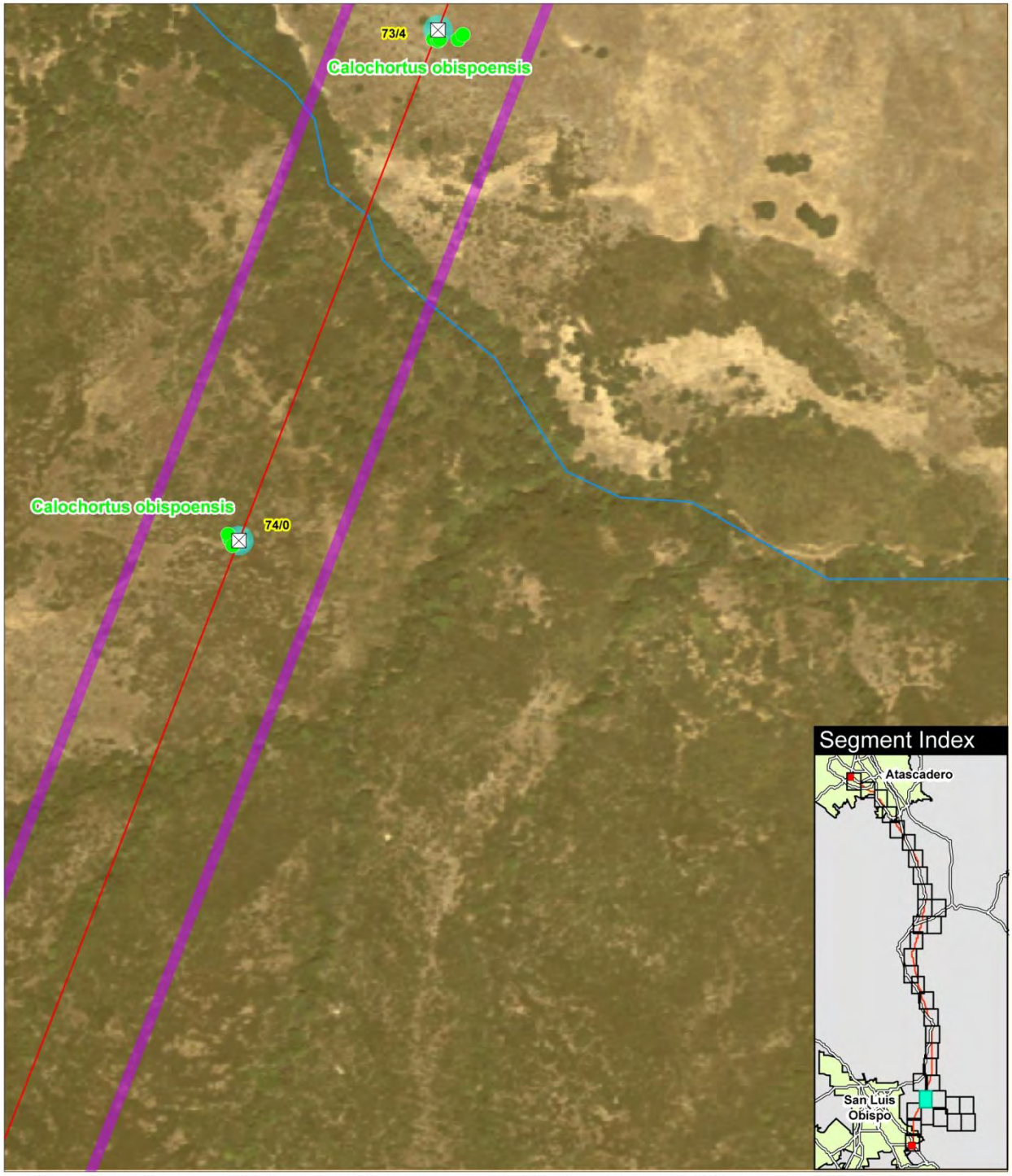
Figure 2.4-25: Power Line Segment (25 of 35)



SOURCE: PG&E 2010, Ventyx 2010, County of San Luis Obispo 2010, USGS 2010, ESRI 2006, and RMT Inc. 2010

Scale 1:5,000

LEGEND

* Refer to Figure 2.4-0 for legend explanation

N W E S

0 125 250 500 750 1,000 Feet

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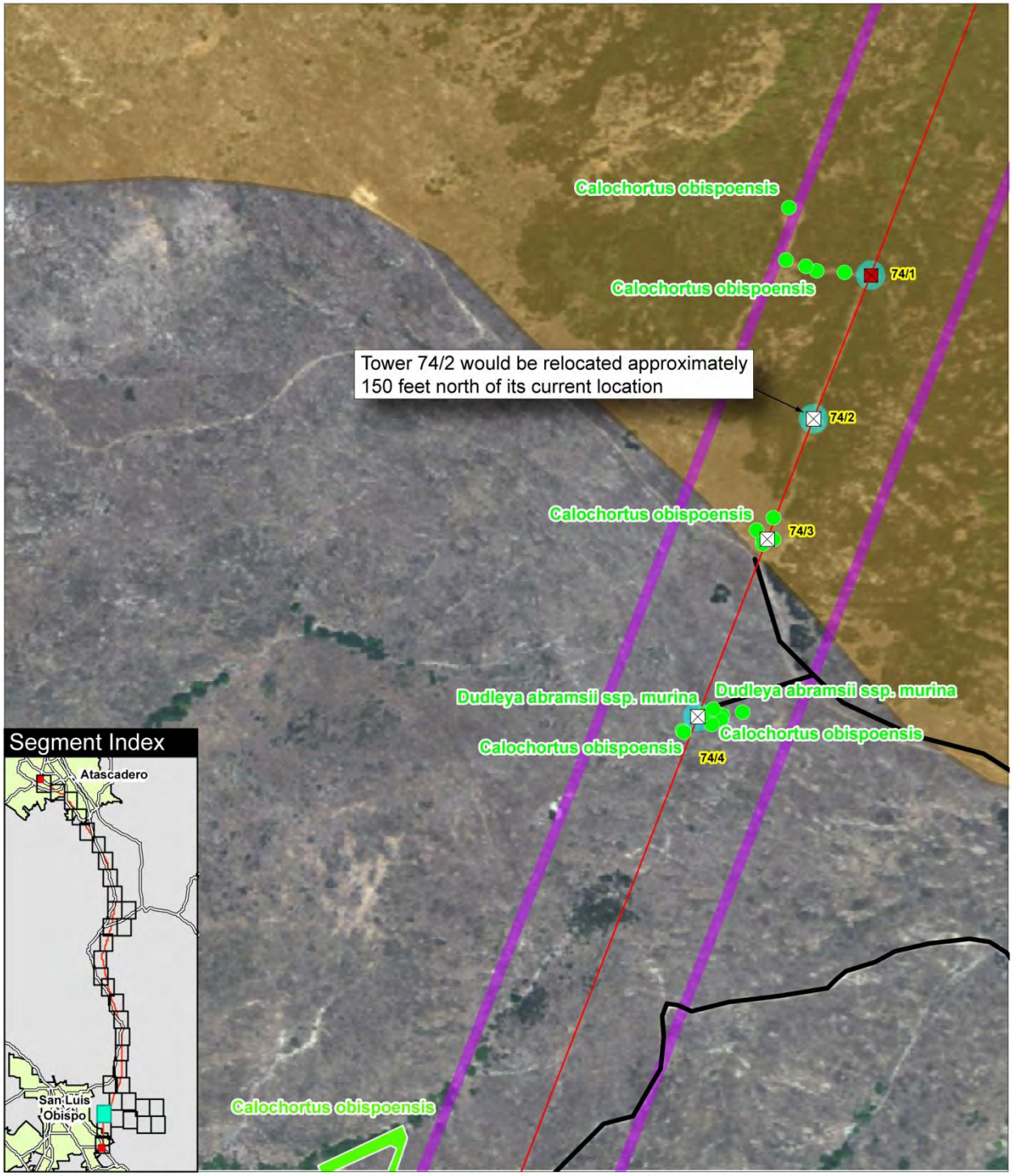
Figure 2.4-26: Power Line Segment (26 of 35)



SOURCE: PG&E 2010, Ventyx 2010, County of San Luis Obispo 2010, USGS 2010, ESRI 2006, and RMT Inc. 2010

Scale 1:5,000

LEGEND

* Refer to Figure 2.4-0 for legend explanation

Feet

0 125 250 500 750 1,000

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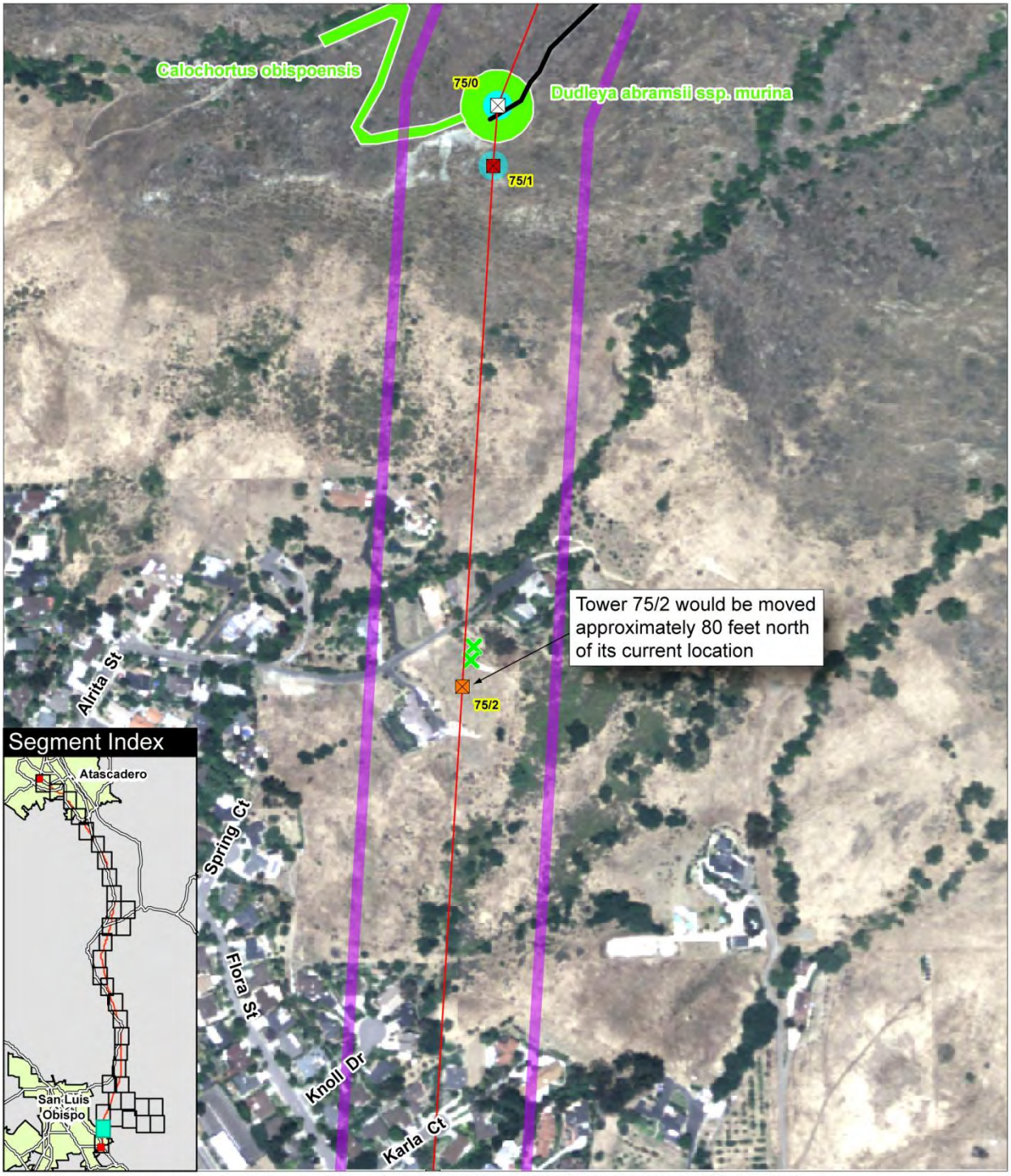
Figure 2.4-27: Power Line Segment (27 of 35)



SOURCE: PG&E 2010, Ventyx 2010, County of San Luis Obispo 2010, USGS 2010, ESRI 2006, and RMT Inc. 2010

Scale 1:5,000

LEGEND

* Refer to Figure 2.4-0 for legend explanation

N W E S

0 125 250 500 750 1,000 Feet

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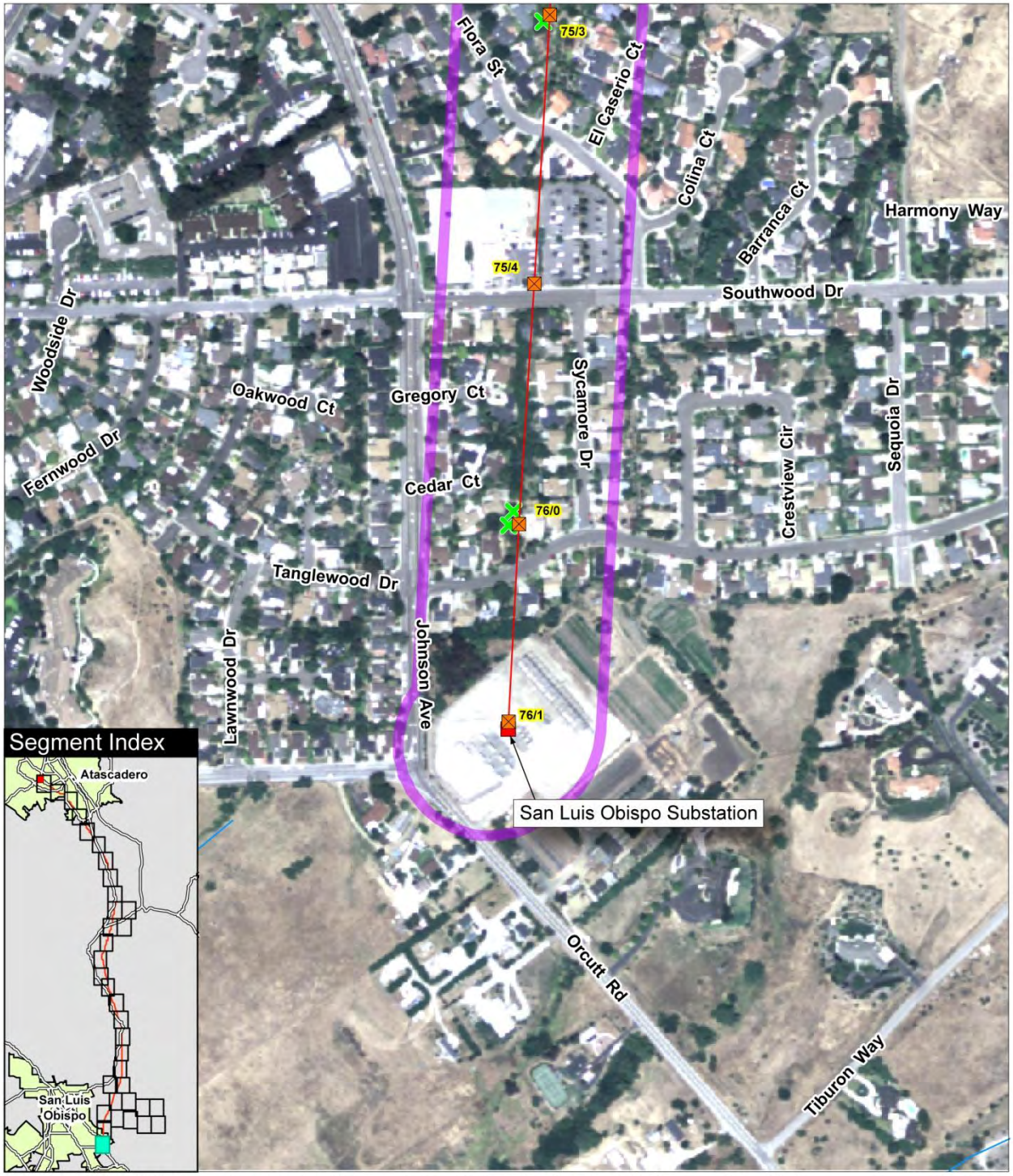
Figure 2.4-28: Power Line Segment (28 of 35)



SOURCE: PG&E 2010, Ventyx 2010, County of San Luis Obispo 2010, USGS 2010, ESRI 2006, and RMT Inc. 2010

Scale 1:5,000

LEGEND

* Refer to Figure 2.4-0 for legend explanation

N W E S

0 125 250 500 750 1,000 Feet

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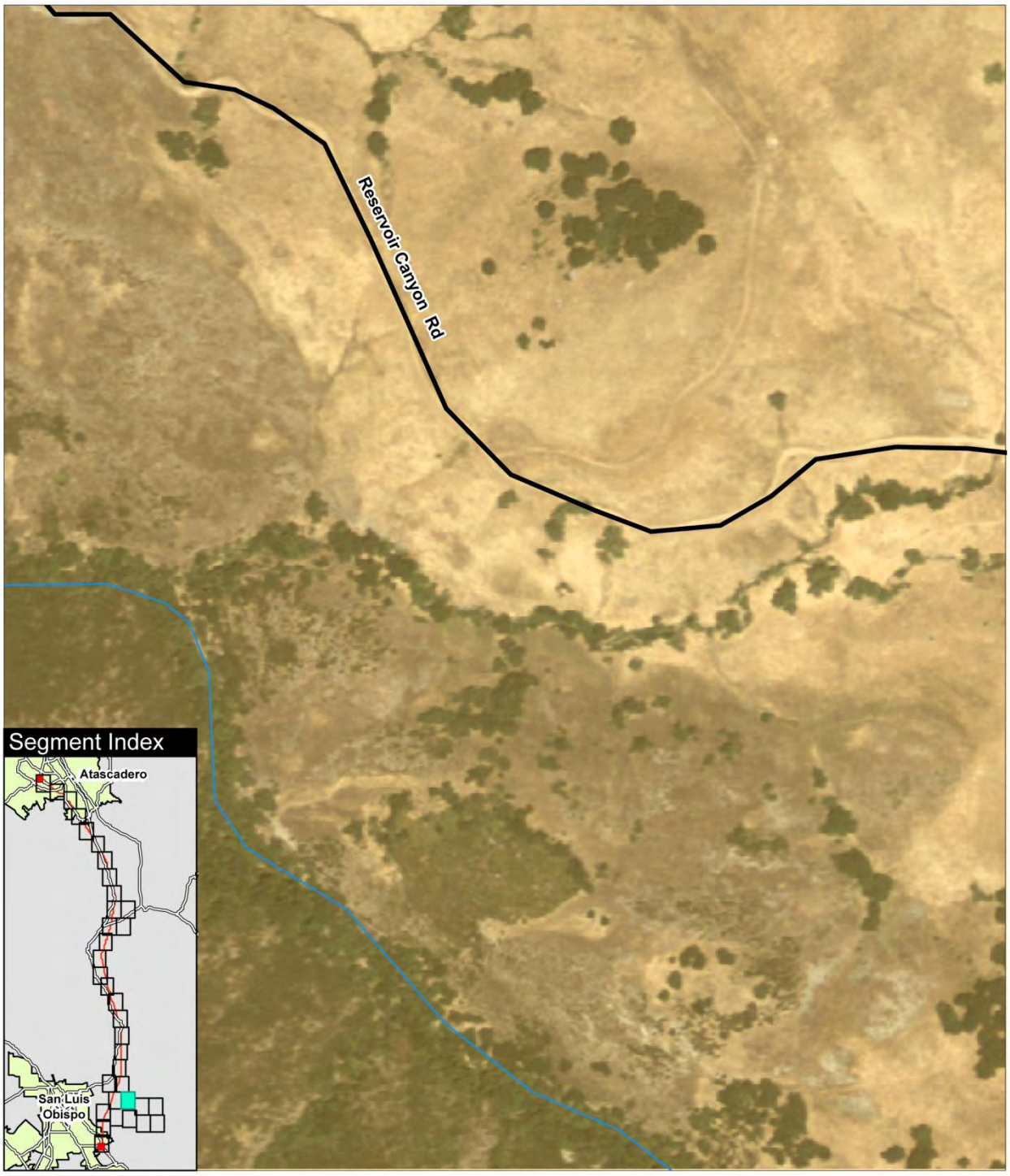
Figure 2.4-29: Power Line Segment (29 of 35)



SOURCE: PG&E 2010, Ventyx 2010, County of San Luis Obispo 2010, USGS 2010, ESRI 2006, and RMT Inc. 2010

Scale 1:5,000

LEGEND

* Refer to Figure 2.4-0 for legend explanation

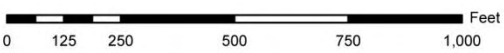


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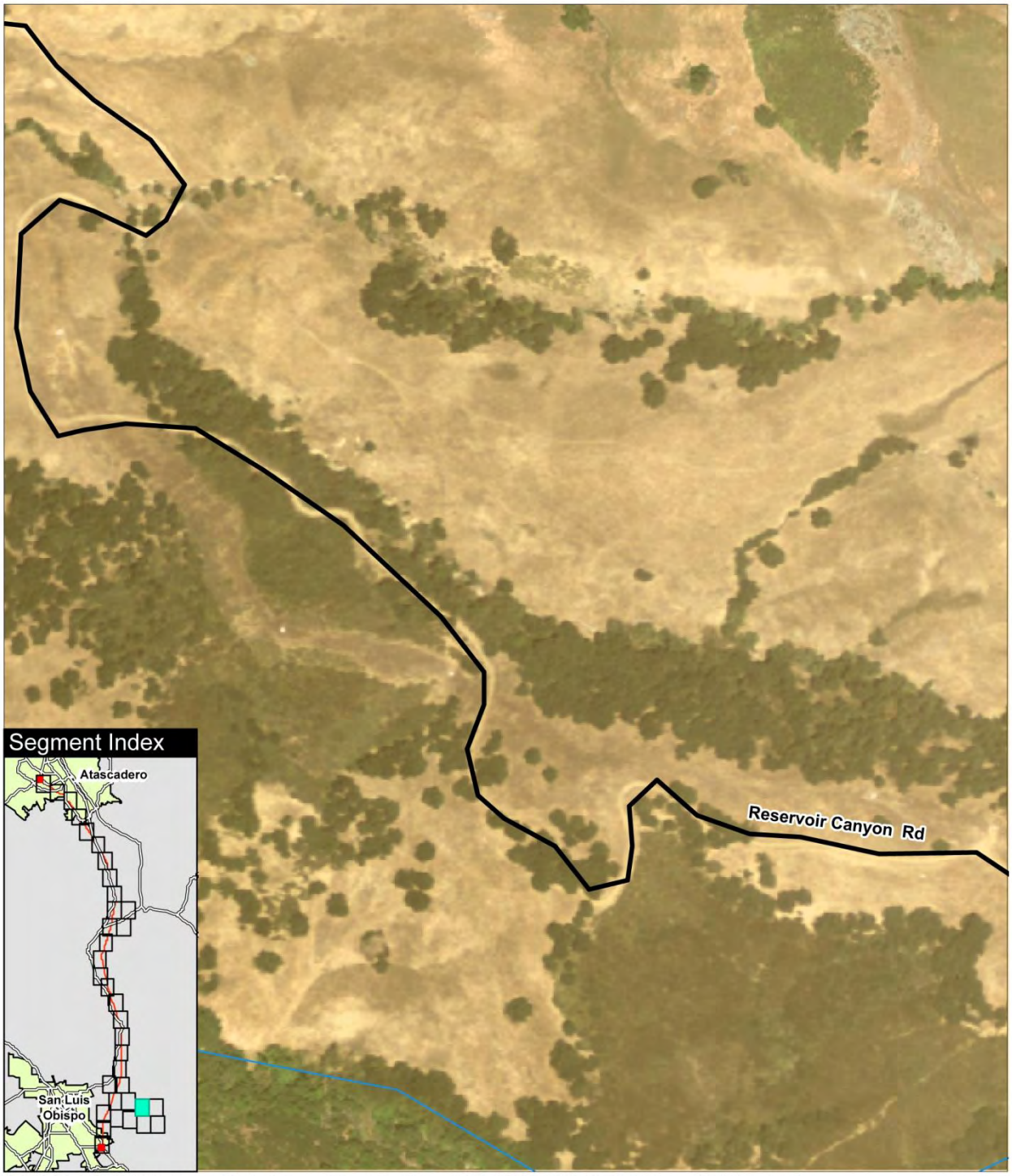
Figure 2.4-30: Power Line Segment (30 of 35)



SOURCE: PG&E 2010, Ventyx 2010, County of San Luis Obispo 2010, USGS 2010, ESRI 2006, and RMT Inc. 2010

Scale 1:5,000

LEGEND

* Refer to Figure 2.4-0 for legend explanation

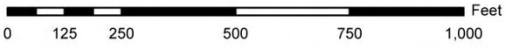


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Figure 2.4-31: Power Line Segment (31 of 35)

SOURCE: PG&E 2010, Ventyx 2010, County of San Luis Obispo 2010, USGS 2010, ESRI 2006, and RMT Inc. 2010

Scale 1:5,000

LEGEND

* Refer to Figure 2.4-0 for legend explanation

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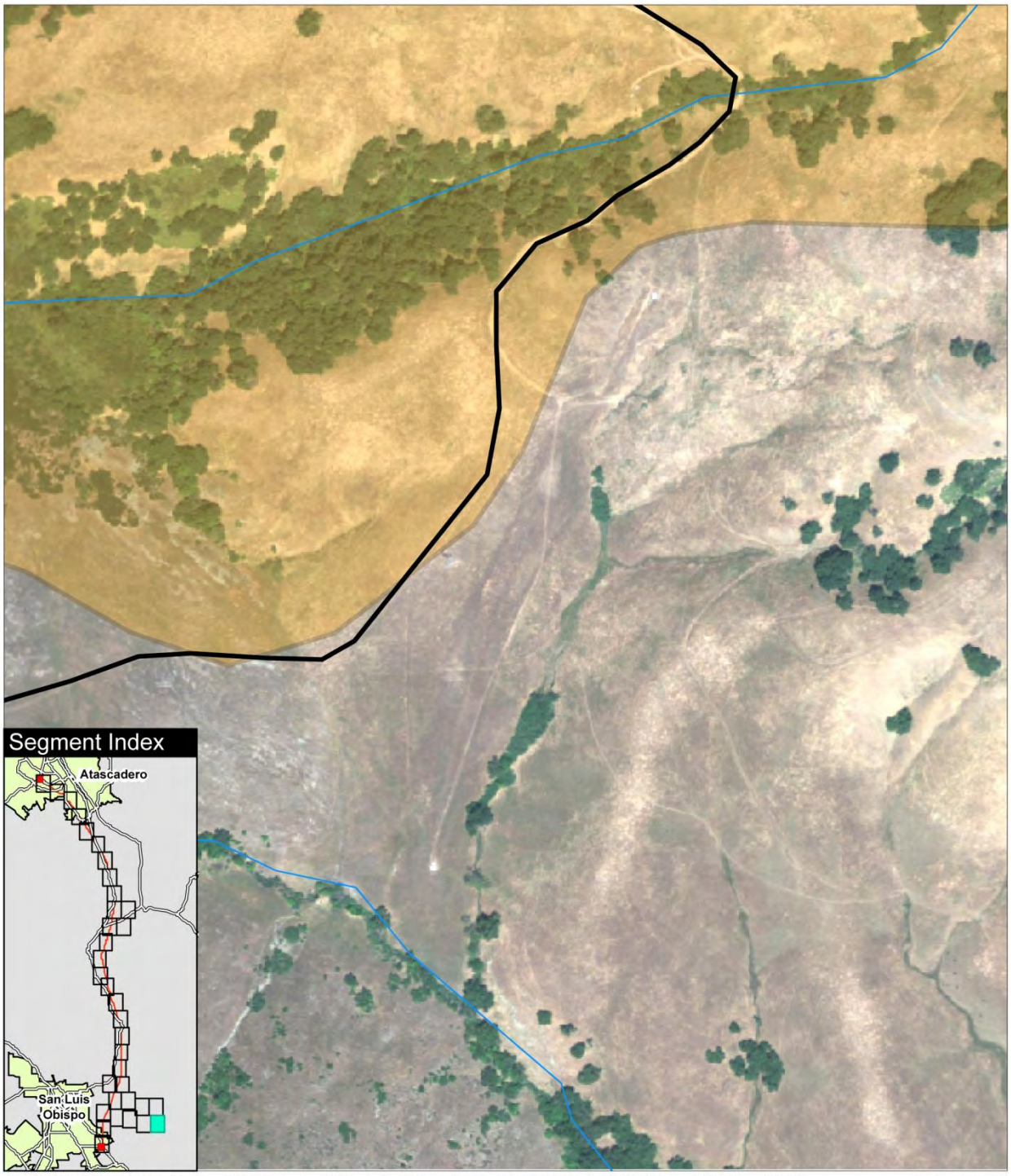
Figure 2.4-32: Power Line Segment (32 of 35)



SOURCE: PG&E 2010, Ventyx 2010, County of San Luis Obispo 2010, USGS 2010, ESRI 2006, and RMT Inc. 2010

Scale 1:5,000

LEGEND

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* Refer to Figure 2.4-0 for legend explanation

Feet
0 125 250 500 750 1,000

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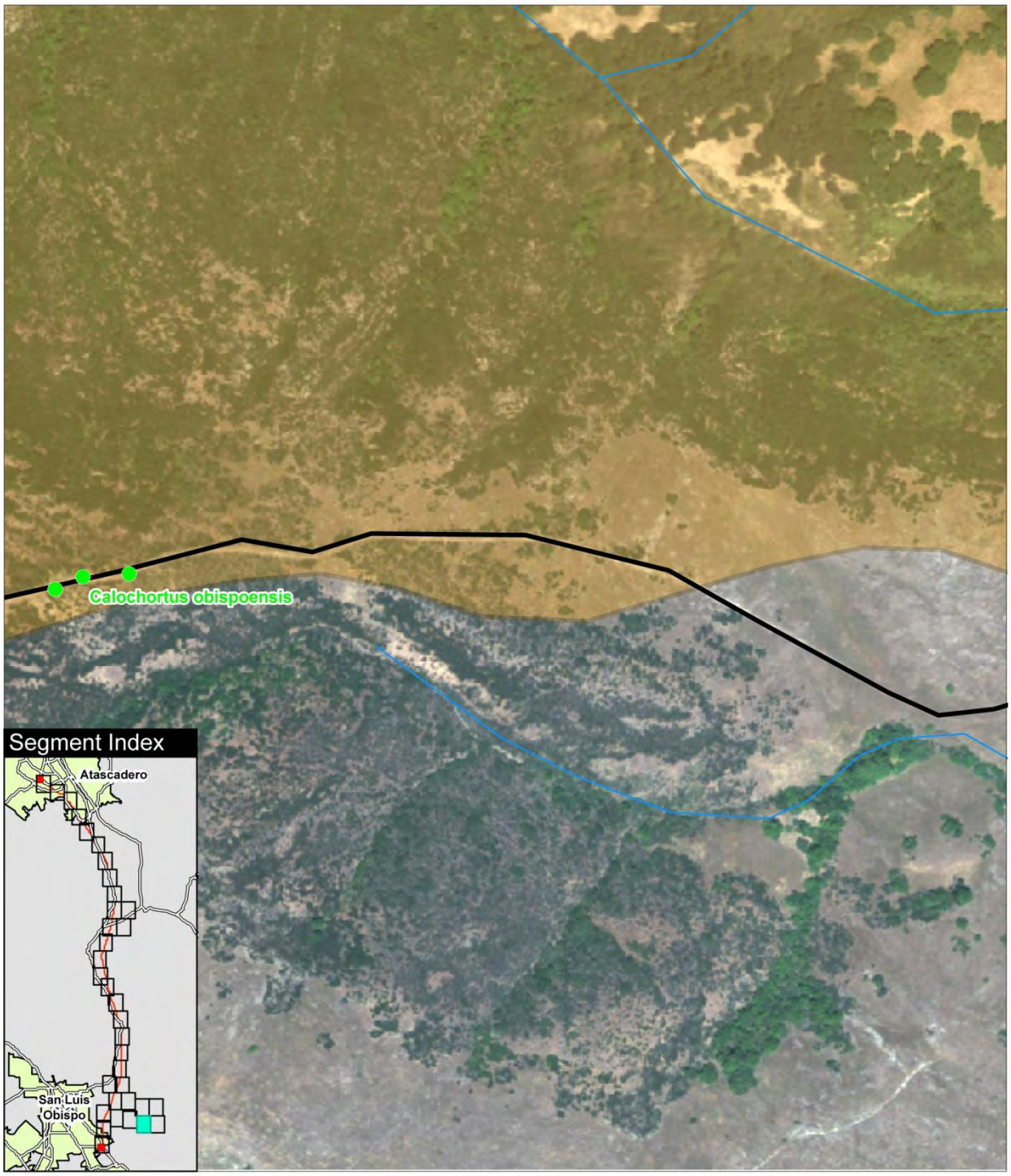
Figure 2.4-33: Power Line Segment (33 of 35)



SOURCE: PG&E 2010, Ventyx 2010, County of San Luis Obispo 2010, USGS 2010, ESRI 2006, and RMT Inc. 2010

Scale 1:5,000

LEGEND

* Refer to Figure 2.4-0 for legend explanation

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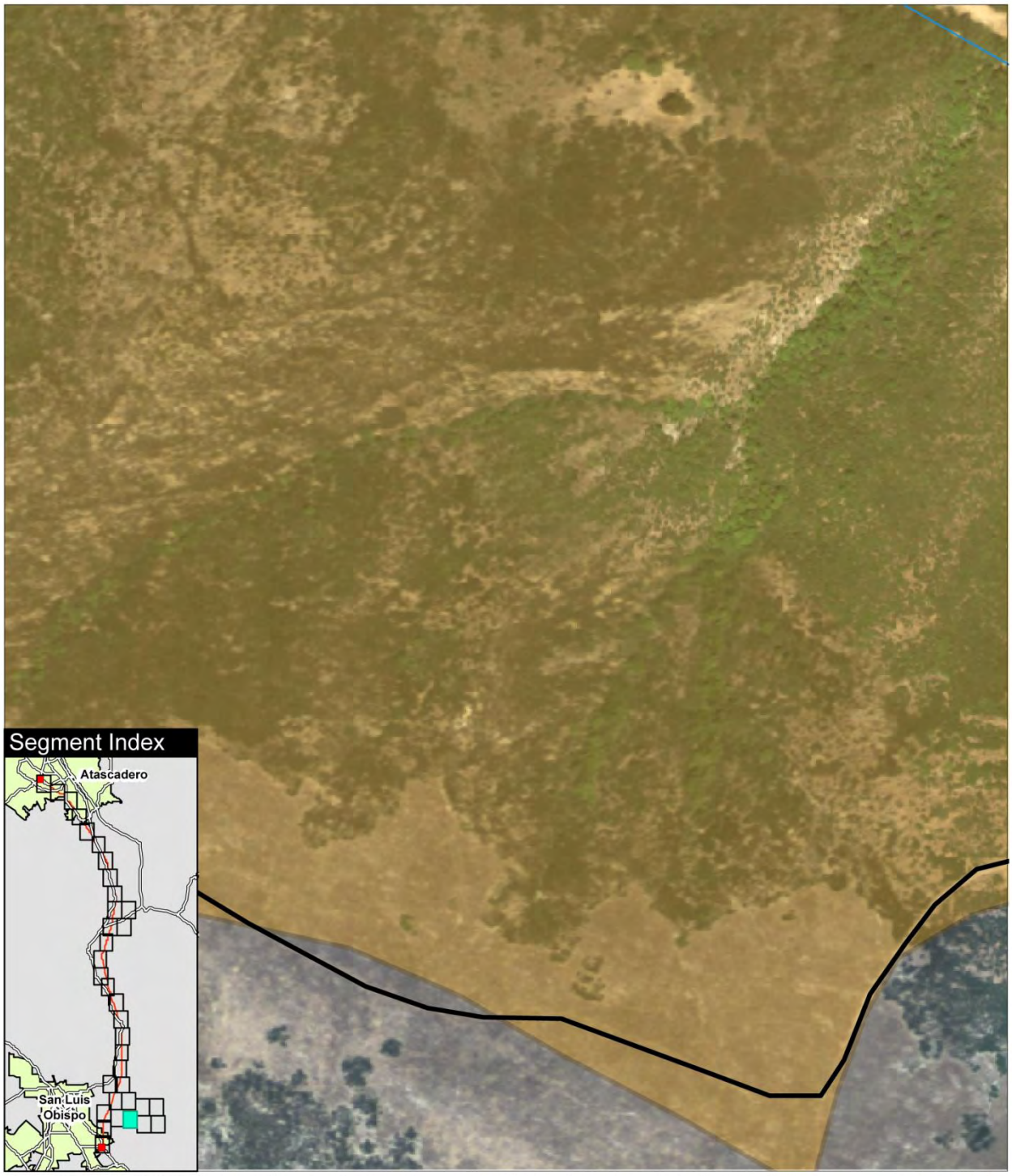
Figure 2.4-34: Power Line Segment (34 of 35)



SOURCE: PG&E 2010, Ventyx 2010, County of San Luis Obispo 2010, USGS 2010, ESRI 2006, and RMT Inc. 2010

Scale 1:5,000

LEGEND

N
W
E
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* Refer to Figure 2.4-0 for legend explanation

Feet
0 125 250 500 750 1,000

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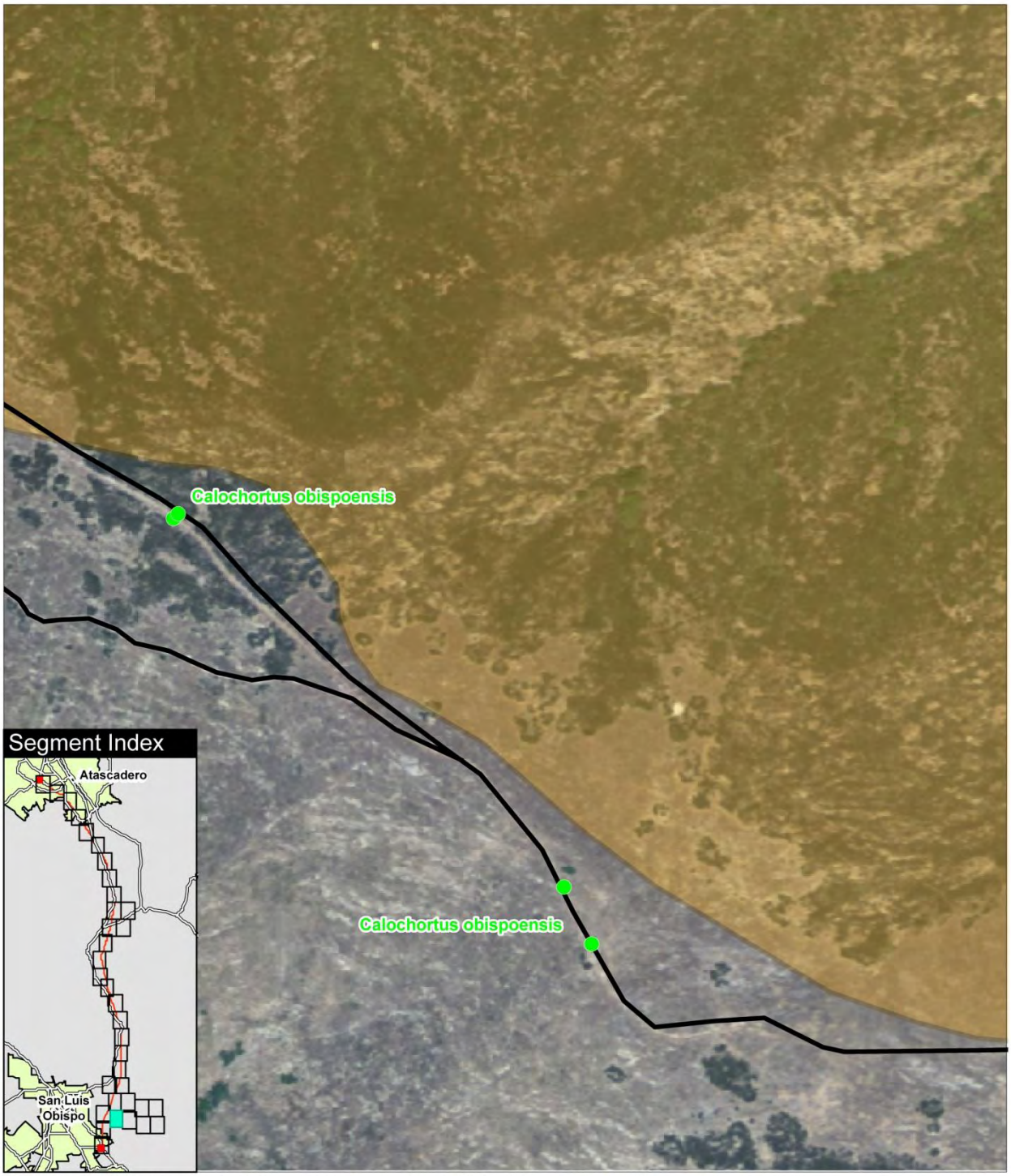
Figure 2.4-35: Power Line Segment (35 of 35)



SOURCE: PG&E 2010, Ventyx 2010, County of San Luis Obispo 2010, USGS 2010, ESRI 2006, and RMT Inc. 2010 Scale 1:5,000

LEGEND

* Refer to Figure 2.4-0 for legend explanation

N W E S

0 125 250 500 750 1,000 Feet

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alignment approximately 30 feet away from the existing poles. These five wood poles would remain in place and would be "topped[2]" to support an existing distribution line. In addition, new Pole 66/14A would be installed along the alignment 255 feet north of Pole 66/15. Two towers and one pole would be eliminated from the line because of existing design and environmental conditions. Two lattice steel towers would not be replaced; however, one would be modified from a suspension tower to a dead-end structure. Two LDS poles would not be replaced because they were recently replaced and upgraded consistent with current PG&E design standards.

Structures

Poles

The existing 15.5-mile 70 kV power line consists of 139 poles. The poles would be replaced one for one with LDS poles with a few exceptions. Table 2.4-1 details the proposed pole modifications.

LDS Pole Replacements. Once construction is complete, the power line would include 139 LDS poles and five topped wood poles. A photo of a typical LDS replacement pole is included on Figure 2.4-36. A photo of a typical "topped" wood pole with adjacent LDS pole is included on Figure 2.4-37.

The LDS poles consist of two sections (a bottom section and a matching top section) and would be delivered with new framed insulators and hardware. Pole sections would be delivered in matched pairs to each new pole site. The bottom sections are approximately 20 feet long. The top sections are approximately 40 to 55 feet long. Table 2.4-2 compares the existing and proposed structure specifications.

LDS poles typically would be constructed within an approximately 30-foot radius of, and in line with, existing wood poles (exceptions are noted in Table 2.4-1).

Poles 62/12 and 67/0 were recently replaced and upgraded consistent with current PG&E design standards and, therefore, would not be replaced.

LDS poles would be fitted with insulators to provide the following clearances at the pole proper:

- At least 60 inches of separation, phase to phase, between non-insulated energized components
- At least 30 inches of separation, phase to ground, between a non-insulated energized component and a grounded component

LDS poles would be equipped with new non-ceramic insulators made of polymer composite materials. These insulators are lightweight and have a hydrophobic capability that allows for less overall maintenance.

[2] "Topped" poles have the top portion of the pole removed, and the bottom portion of the pole is left in place to support existing distribution conductor.

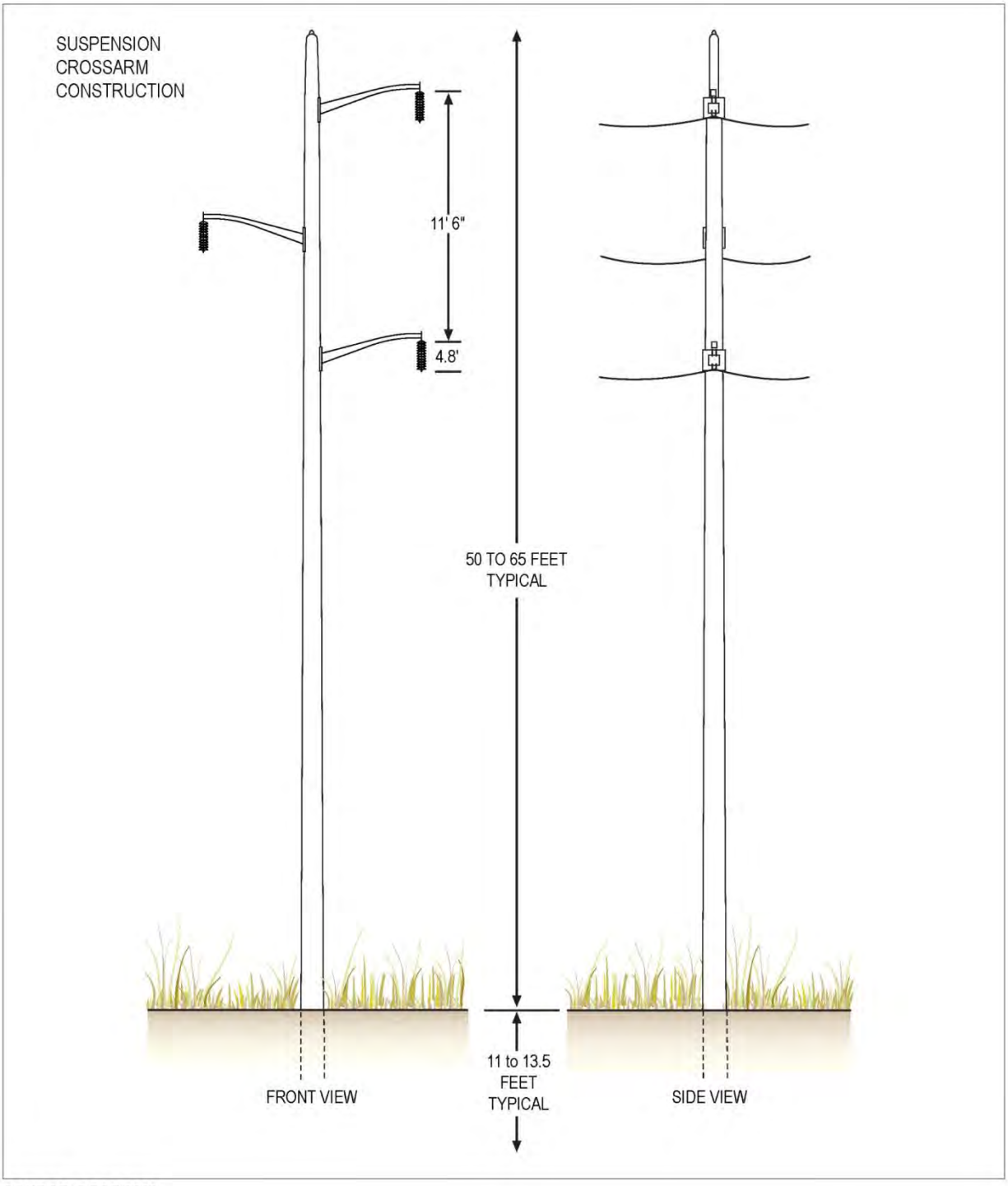
Table 2.4-1: Proposed Pole Modifications

Existing Pole Type	Number of Existing Poles	Proposed Modifications	Pole Number(s)
LDS	2	Existing LDS poles would remain in place and would not be modified other than being reconductored.	62/12, 67/0
Wood	131	Existing wood poles would be replaced one for one with LDS poles.	60/7A, 60/7, 60/8, 60/8A, 60/9, 60/10, 60/11, 60/12, 60/12A, 60/13, 60/13A, 60/14, 60/15, 60/16, 60/17, 60/18, 60/19, 61/0, 61/1, 61/2, 61/3, 61/4, 61/5, 61/6, 61/7, 61/8, 61/9, 61/10, 61/11, 61/12, 61/13, 61/14, 61/15, 61/16, 61/17, 61/18, 62/0, 62/1, 62/2, 62/3, 62/4, 62/5, 62/6, 62/7, 62/8, 62/9, 62/10, 62/11, 62/11A, 62/13, 62/14, 62/15, 62/16, 63/1, 63/2, 63/4, 63/5, 63/6, 63/7, 63/8, 63/9, 63/9A, 63/10, 63/11, 63/12, 63/15, 64/0, 64/1, 64/2, 64/3, 64/4, 64/5, 64/6, 64/7, 64/8, 64/9, 64/10, 64/11, 64/12, 64/13, 64/14, 64/15, 65/0, 65/1, 65/2, 65/3, 65/4, 65/5, 65/6, 65/7, 65/8, 65/9, 65/10, 65/11, 65/12, 65/13, 65/14, 65/15, 66/0, 66/2, 66/4, 66/5, 66/6, 66/7, 66/8, 66/9, 66/11, 66/12, 66/13, 66/14, 66/15, 67/1, 67/2, 67/3, 67/4, 67/5, 67/6, 67/7, 67/8, 67/9, 67/10, 67/11, 67/12, 68/0, 68/1, 68/2, 68/3, 68/4, 68/5, 68/6, 68/7
Wood	5	Existing wood poles would have the top section removed and a new replacement LDS pole would be installed within 30 feet of the existing poles at a one-for-one ratio. The "topped" poles would remain to support existing underbuild utilities.	63/13, 63/14, 66/1, 66/3, 66/10[1]
Wood	1	Existing wood pole would be removed with no LDS pole replacement.	63/3
N/A	0	One LDS pole would be added at a new location.	66/14A

Note:

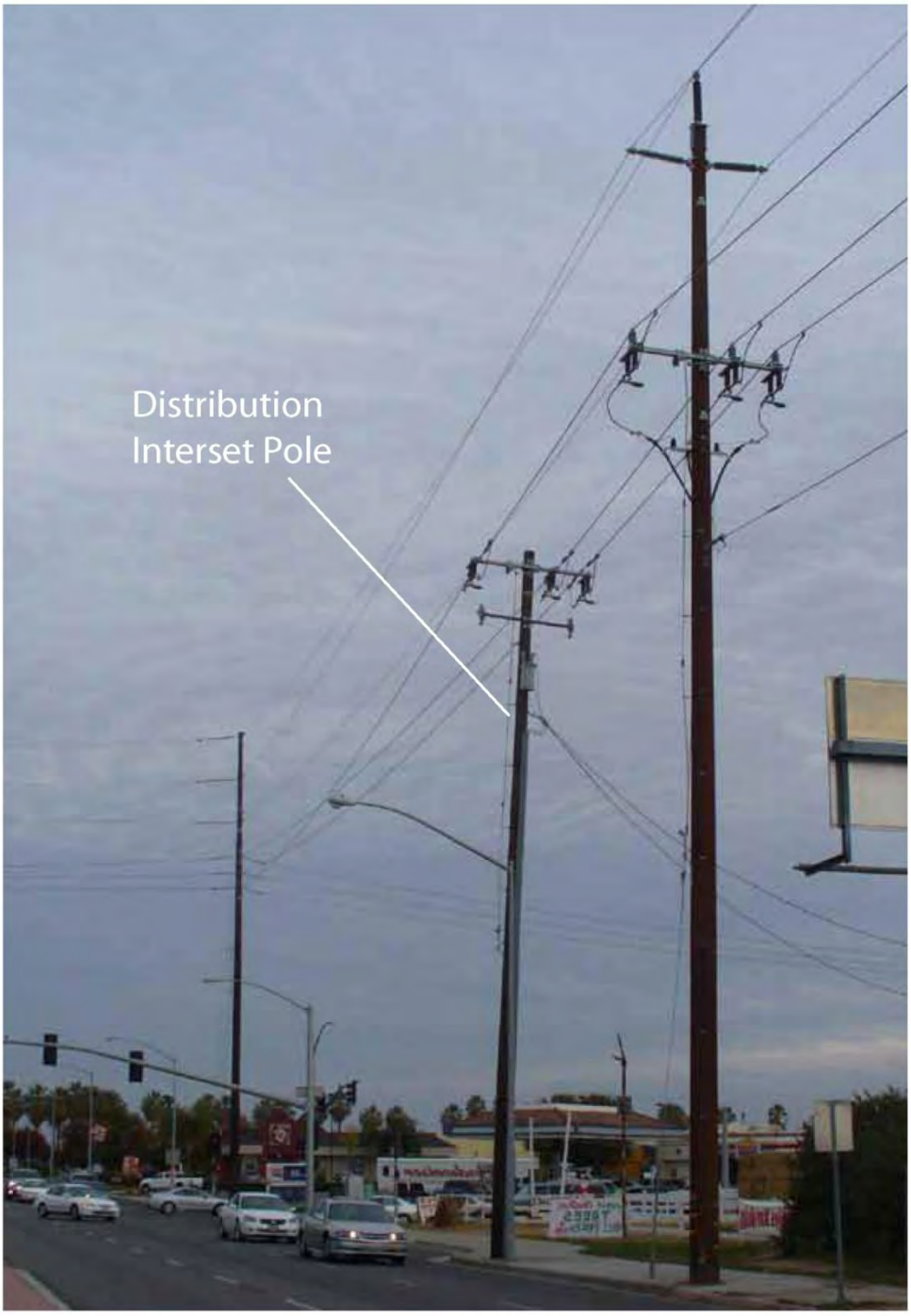
1. Pole 66/10 would be relocated approximately 180 feet to the north of the corresponding "topped" pole.

Figure 2.4-36: Typical Light Duty Steel (LDS) Pole



SOURCE: PG&E 2009

Figure 2.4-37: Typical "Topped" Wood Pole



SOURCE: PG&E 2009

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Table 2.4-2: Structure Specifications	
Component	**Approximate Metrics**
Pole Diameter	
Existing Wood Pole	15 to 20 inches
Replacement LDS Pole	15 to 25 inches
Replacement TSP	48 inches
Structure Height	
Existing Wood Pole	50 to 70 feet
Existing Lattice Steel Tower	80 to 110 feet
Replacement LDS Pole	50 to 80 feet
Replacement Lattice Steel Tower	90 to 130 feet
Replacement TSP	90 to 100 feet
Tower Base Dimension	
Existing Lattice Steel Tower	400 square feet
Replacement Lattice Steel Tower	400 square feet
Auger Hole Depth	
Replacement LDS Pole	7 to 13.5 feet
Replacement Lattice Steel Tower Legs (per leg)	10 to 15 feet (up to 25 feet in steep, landslide-prone areas)
Replacement TSP	Up to 25 feet
Permanent Footprint per Structure	
Replacement LDS Pole	4 square feet
Replacement Lattice Steel Tower	28 square feet
Replacement TSP	21 square feet

Lattice Steel Towers

The existing 15.5-mile 70 kV power line includes 45 lattice steel towers. The lattice steel towers would be replaced one for one with new lattice steel towers with a few exceptions. Table 2.4-3 details the proposed lattice steel tower modifications.

Thirty-eight lattice steel towers would be located within the project alignment after construction. A photo of a typical new lattice steel tower is included on Figure 2.4-38.

Table 2.4-3: Proposed Tower Modifications

Number of Existing Towers	Proposed Modifications	Tower Numbers
36	Existing lattice steel towers would be replaced one for one with new lattice steel towers.	68/8, 68/9[1], 68/10, 69/0, 69/1, 69/2, 69/3, 69/4, 69/5, 69/6, 70/0, 70/1, 70/2, 70/3, 70/4, 70/5, 70/6, 71/0, 71/3, 71/4, 71/5, 72/0, 72/1, 72/2, 72/3, 72/4, 73/0, 73/1, 73/2, 73/3, 73/4, 74/0, 74/2[2], 74/3, 74/4, 75/0
5	Existing lattice steel towers would be replaced one for one with TSPs.	75/2[3], 75/3, 75/4, 76/0, 76/1
2	Existing lattice steel towers would be removed with no replacements.	74/1, 75/1
2	Existing lattice steel towers would remain unchanged.	71/1[4], 71/2

Notes:

1. Tower 68/9 would be relocated approximately 100 feet south of its current location.
2. Tower 74/2 would be relocated approximately 150 feet north of its current location.
3. Tower 75/2 would be replaced with a TSP and would be moved approximately 80 feet north of its current location.
4. Tower 71/1 would be modified from a suspension tower to a dead-end tower.

Lattice Steel Tower Replacements. The existing direct-buried, lattice steel towers would be replaced by new lattice steel towers with concrete foundations. Table 2.4-2 compares the existing and proposed tower specifications.

Towers 71/1 and 71/2 were recently replaced and upgraded consistent with current PG&E design standards and, therefore, would not be replaced. However, Tower 71/1 would be modified from a suspension tower to a dead-end tower.

New towers typically would be constructed within an approximately 30-foot radius of, and in line with, existing towers (exceptions are noted in Table 2.4-3). Final tower location is dependent on existing terrain and PG&E engineering design. New towers would use an avian-safe design to protect raptors and other birds from being electrocuted, which may include installing anti-perch devices, as necessary.

Existing transposition towers[3] (Towers 73/3 and 70/5) would be replaced with new transposition towers approximately 10 to 20 feet taller. Transposition towers hold longer top and bottom crossarms than standard towers but have the same footprint.

[3] A transposition tower is a tower used to change the position of conductors and associated electrical phases along the line to maintain geometric balance.

Figure 2.4-38: Typical Lattice Steel Tower

SOURCE: PG&E 2009

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Lattice steel towers would be equipped with new ceramic insulators made of glass or porcelain. These insulators hold a high dielectric strength and have a lifespan of approximately 40 to 80 years, which is ideal for locations prone to high winds and voltage support issues.

TSP Replacements. Five TSPs would be located within the project alignment after construction. Figure 2.4-39 shows a drawing of a typical TSP.

Five lattice steel towers would be replaced by TSPs. Table 2.4-2 compares the specifications of proposed TSPs to those of existing towers. Four TSPs would be located within the City of San Luis Obispo and one TSP would be located just north of the City of San Luis Obispo boundary in unincorporated San Luis Obispo County. Property owners have expressed a preference for TSPs over the existing lattice steel towers. TSPs would have a smaller footprint within the property boundary. TSP for tower replacements would be located on the same parcel of land.

TSP typically would be constructed within an approximately 30-foot radius of, and in line with, existing towers (exceptions are noted in Table 2.4-3).

TSPs would be installed with new non-ceramic insulators made of polymer composite materials. Non-ceramic insulators would avoid possible "vibration chatter," unwanted sound experienced by sensitive receptors, which can sometimes result from ceramic insulator strings.

Conductors

The approximately 15.5-mile-long conductor replacement would include reconductoring of the existing 12.8-mile single-circuit portion extending from Atascadero Substation to Tower 73/0, and reconductoring of the existing 2.7-mile double-circuit portion extending from Tower 73/0 to San Luis Obispo Substation. The proposed project would increase the diameter of the conductor extending from Atascadero Substation to Tower 73/0 by less than 0.5 inch. The conductor extending from Tower 73/0 to San Luis Obispo Substation would not change in size.

The approximate distance from the ground to the lowest conductor would comply with GO 95 requirements. The applicable minimum GO 95 requirements are listed in Table 2.4-4.

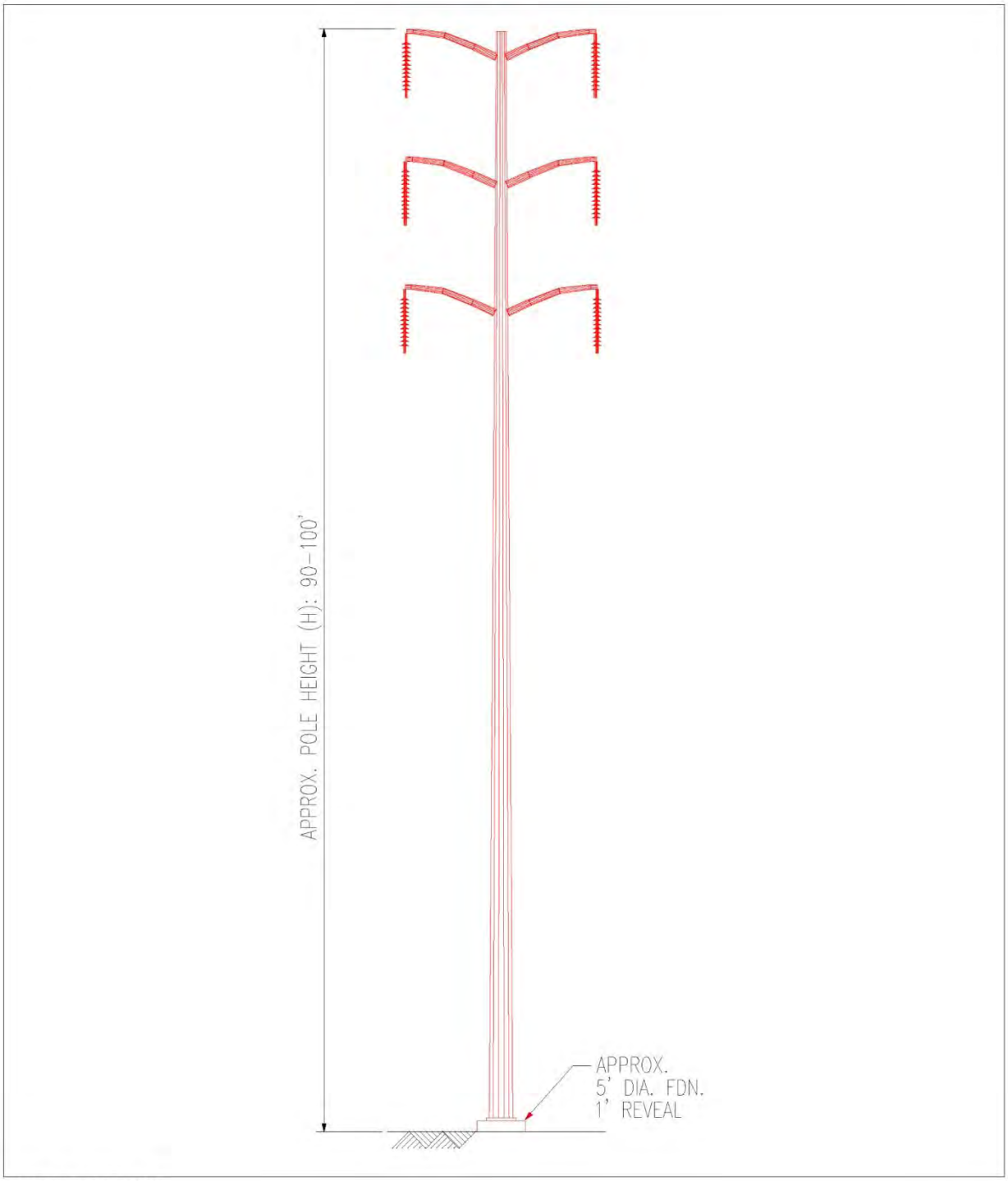
The minimum distance from the ground to the 12 kV distribution underbuild would be 25 feet, and the minimum distance from the distribution underbuild to the conductor would be 4 feet. The approximate distance between the conductors would be 10 feet vertically and 20 feet horizontally for lattice steel towers and 15 feet horizontally for TSPs.

The proposed spanning distances between structures are detailed in Table 2.4-5.

Multiple phone and cable utility lines are located along the wood pole segment of the project. Prior to removing and disposing of the existing wood poles, utility owners would be asked to relocate existing lines to new structures. A 12 kV distribution underbuild, extending from Pole 60/7A through Pole 68/6, would be transferred to the new replacement poles, except for locations where topped poles would be used. In addition, a tap circuit[4], known as the "San Luis Obispo – Cayucos 70 kV Power Line," ties into the Atascadero – San Luis Obispo 70 kV line from Tower 73/0. This

[4] A tap circuit is a line leading one way off the main line.

Figure 2.4-39: Typical Tubular Steel Pole (TSP)



SOURCE: PG&E 2009

Table 2.4-4: Applicable Minimum GO 95 Clearance Requirements for Conductors

Spanning Land Use	Minimum Clearance
Thoroughfares Traversed by Vehicles	30 feet
Surface Water (less than 20 acres)	27 feet
Highways	30 feet
Railroads	34 feet
Buildings with Non-walkable Roofs	8 feet

SOURCE: CPUC 2006

Table 2.4-5: Proposed Spanning Distances Between Structures

Segment	Approximate Spanning Distance
Atascadero Substation through Pole 60/18	225 feet
Pole 60/18 through Pole 66/16	300 feet
Pole 66/16 through Tower 68/9	400 feet
Tower 68/9 through San Luis Obispo Substation	600 to 800 feet

circuit would also be transferred to replacement Tower 73/0. Due to various span lengths, the topped poles would be used to compensate for distribution span requirements under GO 95.

Substations

Other than replacing existing structures and associated hardware within substation properties, no substation work would be performed as part of this project.

2.5 Construction Activities

2.5.1 PROJECT ACCESS

The existing transmission corridor would be accessed by helicopter, trucks, and all-terrain vehicles, as well as on foot. PG&E would access poles, towers, and conductor in sensitive areas using only the minimum equipment required.

Access Road

Structure sites would be accessed using existing public and private roads and existing access roads, where available (Figures 2.4-0 through 2.4-35). No new access roads would be constructed for the project. Project areas without available existing public and private roads or access roads would be accessed by helicopter or on foot.

Helicopter Access

Helicopters would be used to access structures in areas without existing access roads to reduce the overall footprint of the project. Workers would arrive on foot from the nearest access road or would be delivered by helicopter to structure sites to provide ground control for material deliveries, setting of structures, removal of old structures, and other activities as described in Section 2.5.3 Structure Installation and Removal. A list of structures that would be accessed by helicopter is provided in Table 2.5-1.

Helicopter types may include Bell 214, Sikorsky SU62 Sky Crane, Bell Long Ranger, and Hughes 500, depending on availability at the time of construction. Helicopters are expected to be used four days per week, between 6:30 am and 5:00 pm, to install or remove poles and/or towers. Helicopters would be refueled and stored during non-use hours at the San Luis Obispo County Airport (SBP). The perimeter of the helicopter landing zones in the project area would be barricaded for safety with K-rails or T-posts with rope.

Helicopters typically would follow a flight path through rural areas parallel to and along the east side of the power line. A Lift Plan would be prepared and approved by the Federal Aviation Administration (FAA) prior to all helicopter construction operations. PG&E crews would implement standard company helicopter safety procedures.

PG&E does not anticipate that residents would be required to temporarily vacate their homes during helicopter use. In the unlikely event that final construction plans and the Lift Plan require otherwise, PG&E would coordinate with potentially affected residents to minimize the duration of the necessary work and any resultant inconvenience.

Table 2.5-1: Structures to be Accessed by Helicopter

Lattice Steel Towers			
75/1	73/1	71/4	70/0
75/0	73/0	71/3	69/6
74/4	72/4	70/6	69/5
74/2	72/3	70/5	69/3
74/1	72/2	70/4	69/2
74/0	72/1	70/3	69/1
73/4	72/0	70/2	69/0
73/2	71/5	70/1	68/10
Wood Pole			
62/8			

Construction Traffic and Circulation

Construction would require temporary lane closures along various public and private roads within the project area. PG&E would coordinate with the California Highway Patrol (CHP) to control traffic across US 101 and SR 58 for brief durations during some construction activities.

Temporary lane closures would be coordinated with local and state agencies. PG&E would obtain ministerial encroachment permits to conduct work in public ROWs in accordance with applicable state, county, and city requirements.

Vegetation Trimming/Removal and Grading

Some existing access roads would require mowing, brushing, trimming, or vegetation removal to re-establish access and reduce the potential fire danger resulting from vehicle travel. Trimming and/or removal would be necessary if existing vegetation interferes with access structures. Tree removal and trimming would be performed to meet clearance requirements under GO 95. Tree trimming and/or removal would be avoided when feasible. PG&E would coordinate with appropriate property owner(s) where tree removal is necessary on private property. PG&E would also coordinate with local jurisdictions regarding mature and historical tree protection and would apply for any necessary Tree Removal Permits. A list of trees anticipated for removal is presented in Table 2.5-2.

Some existing access roads would require minimal grading to re-establish and maintain the road integrity and to allow for safe movement of construction equipment. Any access road modifications would be permanent. Access roads that require vegetation trimming, removal, or grading are shown on Figures 2.4-0 through 2.4-35.

Vegetation would be trimmed using a bucket truck and chainsaw or smaller manual clippers where appropriate. Vegetation would be removed from access roads or mowed and shredded using an ASV mower or similar equipment. PG&E would use Best Management Practices (BMPs) during vegetation trimming and removal and grading. Access road sections would be graded with a motor grader and/or dozer brought to the site on a trailer hauled by a semi-truck. Grading would be performed following any necessary vegetation trimming and clearing activities. One crew of three or four people would perform both vegetation clearing and grading activities. The crew would require one or two pickup trucks, in addition to the grader, to access the work locations and conduct any vegetation clearing work.

Drainage Crossings

Existing access roads leading to some of the structures may require installation of new culverts, repairing of existing culverts, or implementation of other crossing facilities that would sustain the weight of construction equipment and vehicles. PG&E plans on installing a new culvert at one location, repairing one existing culvert, and installing temporary culverts at one low water crossing. All crossings would be designed to maintain existing creek-flow velocities as closely as feasible. Locations where crossing structures or repairs may be required are shown on Figures 2.4-0 through 2.4-35 and listed in Table 2.5-3.

Table 2.5-2: Anticipated Tree Removal

Tree Species	Quantity	Diameter Breast Height (inches)	Nearest Structure	Local Jurisdiction
Valley oak	1	28	60/15	City of Atascadero
Valley oak	1	12	60/15	City of Atascadero
Pine	1	27	60/19	City of Atascadero
Pine	2	7	61/11	City of Atascadero
Pine	5	13	61/15	City of Atascadero
Eucalyptus	2	10	61/15	City of Atascadero
Pine	1	38	61/15	City of Atascadero
Pine	1	14	61/15	City of Atascadero
Pine	3	7	61/17	City of Atascadero
Pine	1	5	61/17	City of Atascadero
Oak	1	13	61/18	City of Atascadero
Oak	1	5	61/18	City of Atascadero
Valley oak	1	20	62/1	City of Atascadero
Oak	1	9	62/9	City of Atascadero
Liquid amber	1	6	62/9	City of Atascadero
Coast live oak	1	6	63/4	San Luis Obispo County
Coast live oak	1	29	69/0	San Luis Obispo County
Pine	2	2	75/2	San Luis Obispo County
Pine	1	35	75/3	City of San Luis Obispo
Pine	1	30	76/0	City of San Luis Obispo
Pine	1	20	76/0	City of San Luis Obispo

The permanent culvert was designed in accordance with Caltrans Standard Specifications and includes two 30-inch diameter corrugated steel pipes, with rock slope protection (RSP) both upstream and down steam. The twin pipes were designed with the capacity to carry the anticipated peak flow during a 100-year storm event. The design would maintain existing channel hydraulic conditions to minimize altering existing stream sedimentation, scour and erosion conditions. Boulder rip-rap would be incorporated into the design, where necessary, to maintain exiting stream conditions.

Table 2.5-3: Drainage Crossing Structures and Repairs

Type	Access Description	Culvert Size	Culvert Length	Location
Temporary bridge and polyvinyl chloride or metal pipe	Four crossings of two intermittent drainages; three crossings would be spanned with temporary bridges if necessary; a temporary culvert would be installed in the northernmost crossing.	24 inches	20 feet	Access to Eagle Ranch in Atascadero, Poles 62/16 to 63/10 (see Figure 2.4-5)
Temporary bridge	Three crossings of intermittent drainages would be spanned with temporary bridges.	N/A	N/A	Access from Powerline Road in Santa Margarita, Poles 64/12 to 64/14
Corrugated metal pipe	One intermittent drainage would have a culvert installed.	Two 30-inch diameter pipes	50 feet	Access road to Tower 69/0 from Santa Margarita Ranch (see Figure 2.4-16)
Existing culvert repair	The existing culvert is blocked. The culvert inlet would be cleaned out and the road re-established over the culvert. One intermittent drainage would have the existing crossing repaired.	N/A	N/A	Access road to Tower 69/0 from Santa Margarita Ranch (see Figure 2.4-16)
Gravel	Gravel would be placed on an existing road where it fords an ephemeral swale.	N/A	N/A	Access road to Tower 70/0 off Lowe Mountain Road
Temporary bridge	A temporary bridge would be installed over an intermittent drainage.	N/A	N/A	Access to Towers 72/2 and 72/1 from Wood Winery

Culvert design includes "armoring" the stream banks and bed with RSP, placed over a geotextile fabric. The geotextile fabric prevents RSP from sinking into the native soil material and exposing soil to erosion. Rock size will vary, ranging from less than 3-inch diameter up to approximately 2 feet in diameter. Larger rocks (one-quarter ton), also known as "rip-rap", would help anchor the smaller rocks and hold them in place. Approximately 5 cubic yards of smaller "facing" rocks will be "chinked-in" to fill the interstitial spaces between the larger rip-rap downstream of the culvert outlets.

In addition to erosion protection, rip-rap will also serve as energy-dissipater by slowing the velocity of water exiting the corrugated pipes. The design will slow water at the discharge point (based on a 100-year storm event), down to a velocity that a normally vegetated channel would withstand.

Coffer Dams

Temporary coffer dams would be installed to divert creek flow and allow construction to occur under dry conditions if water is present during culvert construction. Temporary coffer dams would not involve any ground excavation.

Temporary coffer dams would be constructed using sandbags filled with clean, non-erodible material, placed on the upstream and downstream sides of the proposed permanent culvert work area. If a flume is used, the flume will be placed on the bottom of the channel and the sandbags will be constructed to create a good seal with the banks and around the flume. If a pump is used, the coffer dams will extend from bank to bank and care will be taken to ensure the pump inlet hose does not rest on the bottom of the creek where it could dislodge sediment.

Temporary Bridges

Temporary bridges would use a full-length "hinge" design for the crossing of intermittent drainages. The bridges would be 35 to 45 feet long, 13 feet wide, and approximately 22,000 to 30,000 pounds. The bridges would be assembled off site and delivered to the project site on a transport truck (folded in half during transport to approximately 8 feet wide). An excavator would unload the bridge from the transport truck and install it over the drainage. Trench plates would be installed as bridge approaches, rather than using gravel or earth, to minimize potential sedimentation. A photo of a typical portable bridge is provided on Figure 2.5-1.

2.5.2 TEMPORARY WORK AREAS

Temporary work areas include temporary construction areas, helicopter landing areas, laydown areas, construction yards, and shoo-fly areas. Temporary work areas are shown on Figures 2.4-0 through 2.4-35 and listed in Table 2.5-4.

Helicopter Landing Zones

Helicopter landing zones would be located in relatively flat areas that allow enough space for helicopters to take off and land safely. These sites may also be used for equipment and materials storage and for assembling structures. The helicopter would transport structure materials to and from the structure sites along the ROW from the helicopter landing zones.

Temporary Laydown Areas and Construction Yards

Temporary laydown areas and construction yards would be used for equipment and materials storage and staging and worker and project vehicle parking. The laydown areas and construction yards would be located on flat ground that is easily accessible for picking up and dropping off construction materials. Minimal site preparation, including minor grading and/or vegetation clearing, would be required for laydown areas and temporary construction yards.

Figure 2.5-1: Typical Temporary Bridge

SOURCE: PG&E 2009

Table 2.5-4: Temporary Work Areas and Pull and Tension Sites

Description	Location	Approximate Acreage
Laydown Area, Construction Yard, Helicopter Landing Zone, and Concrete Transfer Area	Santa Margarita near Wilhelmina Avenue	2.8
Tower Pull and Tension Site #1	Tower 68/8	0.5
Helicopter Landing Zone and Laydown Area	Tower 69/6	0.2
Laydown Area	Tower 70/1	0.3
Tower Pull and Tension Site #2	Tower 71/1	0.5
Laydown and Concrete Transfer Area	Wood Winery near Tower 72/3	2.1
Laydown Area	Wood Winery near Tower 72/3	1.0
Cayucus Tap Support, Staging Area, and Shoo-fly Area	Tower 73/0	0.3
Tower Pull and Tension Site #3	Tower 73/3	0.5
Shoo-fly Area	Tower 75/0	0.3
Laydown Area, Construction Yard, Helicopter Landing Zone, and Concrete Transfer Area	Near Tower 73/3 in Reservoir Canyon	3.1

Poles and towers would be assembled with associated hardware at the temporary laydown areas and construction yards. The PG&E Templeton Service Center and the San Luis Obispo Substation may be used as construction yards to stage equipment and hardware. No power would be required at laydown areas or construction yards. A self-contained generator would be available from the local PG&E Service Center or a local rental company, if necessary.

No perimeter fencing would be required for the laydown areas and construction yards. Chain-linked screens erected with cement blocks would be used for security purposes, if necessary. No ground excavation would be required to construct the temporary fencing.

Shoo-Fly Areas

A "shoo-fly" area would be constructed to support the tap circuit while replacing the tower. The shoo-fly would consist of three or four temporary wood poles placed around the tower to support the conductors while the existing tower is removed and replaced at the same location. Each pole would be approximately 80 feet tall and set approximately 10 feet into the ground. The temporary structure would allow one of the double-circuit lines to remain in service during construction activities. "Shoo-fly" poles would be installed by a standard digger derrick line truck and conductor would be transferred to temporary structures with a bucket truck. Following tower construction, the conductors would be placed in rollers and the temporary poles removed.

A shoo-fly may also need to be installed at Tower 75/0 to enable the dead-end angle tower[5] to be removed and replaced at the same location. The shoo-fly would ensure the same circuit alignment is maintained during construction.

Temporary Construction Areas

Crews would use a temporary construction area within an approximately 40-foot radius of each pole and a 100-foot radius of each tower, depending on site conditions, to provide a safe and adequate workspace. This workspace would be confined to the previously disturbed areas around the base of the existing poles and towers to the extent possible. Each new pole or tower would be staged next to the existing structure that it would replace. Poles would be delivered and assembled using line trucks or helicopters and a ground crew.

At tower locations where no flat areas are available to stage concrete and associated equipment, a 10-foot-by-20-foot staging area would be trimmed and graded, as necessary, to store the compressor and concrete pumps (concrete staging area). It is anticipated that these staging areas would be approximately 80 feet uphill from the tower and perpendicular to the alignment. Most grading would be completed manually for the compressor/concrete staging areas.

Site Restoration Areas

Restoration activities would be performed where existing structures are removed.

Pull and Tension Sites

Line pulling for the wood pole segment of the project alignment would be conducted with standard line trucks parked along the road or under the line, with no new grading required. Pull and tension sites for the poles would be located directly adjacent to the poles and would be established along the project alignment approximately 1 mile apart.

For the tower segment of the project alignment, pull and tension sites would be reasonably flat and in line with the conductor. To the extent possible, these sites would be located in non-sensitive areas, such as annual grasslands or developed areas. However, Tower Pull and Tension Site #1 would be in oak woodland area near Tower 68/8, as shown on Figures 2.4-0 through 2.4-35. Minimal grading would be required adjacent to some of the tower pull sites to establish level pads for the pulling and tensioning equipment. If necessary for equipment stability, gravel would be spread over the pads and removed at the end of the project. Pull and tension sites would be approximately 8,000 square feet (40 feet wide by 200 feet long).

Several pieces of equipment would be used at the tower pull and tension sites, including rope trucks or tensioners, conductor reels to receive the old conductor as it is removed, and reels of new conductor supplying the line from another pull site along the corridor. Reels would be transported to the project on trailers pulled by a semi-truck, which would also be parked on site. Cranes would be on site to lift conductor reels onto and off of the trailers.

[5] An angle tower is a structure that is stronger than a regular tower, and is used to accommodate extra stress caused by small changes in line and conductor direction (i.e., greater than 2 degrees).

2.5.3 STRUCTURE INSTALLATION AND REMOVAL

LDS Pole Installation and Wood Pole Removal

LDS pole installation and wood pole removal would consist of eight steps:

1. Deliver new LDS pole to site.
2. Auger new hole using line truck attachment or hand-dig if the line truck cannot access the site.
3. Install bottom section with line truck or helicopter.
4. Install top section with line truck or helicopter.
5. Move old conductors to the new pole using the line truck or by hand with ropes.
6. Install new guy and anchors, as needed.
7. Remove old pole using line truck or helicopter and fill hole.
8. Install pulling rope, using old conductor, and pull new conductor.

LDS poles would be delivered using a standard line truck with trailer (a line truck with trailer can transport two or three poles at once) or the helicopter, depending on site-specific condition. The LDS poles would be staged next to each new pole site. A second truck (crew-cab truck and/or half-ton pickup) would potentially be used to access the majority of the pole sites for pole installation and removal.

A maximum of five truck trips (i.e., round-trip) are anticipated to each pole site. Each pole site would be accessed for one to two days during construction. When delivering and removing poles, the line truck would be expected to access two or three sites per trip, as schedule and conditions permit.

LDS poles consist of two sections (a bottom section and a matching top section) and would be delivered with new framed insulators and hardware. Pole sections would be delivered in matched pairs to each site.

New holes would be excavated using an auger attachment on a standard line truck (highway digger with 15- to 18-foot depth capacity) or hand-dug (with the aid of a hand jack powered by an air compressor or long-handled shovel). No separate foundations would be used. Replacement poles would be located as close as possible to existing poles, usually within 3 to 6 feet, in line with the existing pole holes. A water truck may be used during augering to keep the soil firm in areas with sandy soil. Water for the water trucks would be obtained from existing municipal sources or private wells. Plywood and plastic sheeting would be used to cover the excavated holes until pole installation activities begin.

Excavated soil would be stockpiled and covered with plastic sheeting until later used to backfill around the pole base and backfill holes generated by removal of existing poles. Any excess soil generated from project activities would be mounded around the new pole to allow for future soil compaction during rains and/or dispersed evenly over areas where drainage and vehicle accessibility would be maintained. In the unlikely event that the soil cannot be spread out and adequately contoured or compacted into the landscape, crews would remove the excess soil from

the pole site and it would be disposed of in accordance with regulatory requirements. The appropriate construction stormwater BMPs would be used before, during, and after all project-related construction, where necessary, to prevent off-site sedimentation.

To assemble LDS poles, a line truck with a boom attachment would be positioned at the pole site to place the top section on the bottom section. A truck with a worker-lift attachment would be positioned to allow a worker to guide the top section into place and to secure the two sections. Top sections would be installed when a line clearance can be scheduled. The installation schedule of the pole sections would accommodate line clearance schedules and any potential environmental seasonal work restrictions. If installed at separate times, the top section would remain at the pole site until assembled with the bottom section.

Existing wood poles do not have foundations. A boom, mounted on a line truck, would be used to loosen old poles as needed. Crews would pull the poles directly out of the ground using the line truck boom. In some instances, the existing wood poles would be cut at the base or 6 to 12 inches below the surface and left in place due to site conditions, if acceptable or preferable to local agencies.

Bucket trucks would be used to remove crossarms and wires. Poles are expected to be cut into two sections for removal on a line truck or by a helicopter. All old poles, associated hardware, and any other debris generated from project activities would be removed from the project area and disposed of properly. In addition, existing pole stumps from past pole replacements may be removed.

If the location of old pole stumps is suitable, the new LDS pole would be installed in the same hole after the stump is removed. Otherwise, stumps may be cut at or below ground level or left in place where necessary to avoid potential impacts to resources. Existing holes would be filled with soil excavated for the new replacement pole. In the unlikely event that additional fill is needed, fill would be imported.

Each LDS pole would have two grounding rods. Grounding rods are approximately 8 feet long and would be installed approximately 6 feet apart within the established temporary work area (i.e., 40-foot radius). Grounding rods would be installed a minimum of 12 inches from pole surfaces on the side of poles facing away from traffic. Where poles support communication circuits, grounding wires would be outside of communications climbing space. No permanent environmental impacts would be associated with installing grounding rods.

Any existing anchors and/or conduits would be replaced and installed next to the new LDS pole. New anchors would be power-installed screw anchors (PISAs), single 8-inch or twin 8-inch helix. PISAs would be installed at a minimum depth of five times the helix diameter. The rod would not extend more than 3 feet above ground surface. Determining the holding strength of a PISA is dependent on the amount of installing torque applied on the anchor. A larger-diameter single helix or twin helix would provide more holding strength. Determining if a single helix or twin helix is required depends on variations in soil characteristics at the site. Anchors would be installed with a Digger Dereck Line and directional drill. No auger holes would be required for installation.

Wood Pole Top Removal

At five existing wood pole locations, a line truck would be used to access and remove tops from the poles. Each pole would be secured by the line truck and a chainsaw would be used to remove the top portion of each pole. Pole tops would be transported, via line truck and trailer, to the PG&E Templeton Service Center for storage in 40-cubic-yard lined boxes until transport to an appropriate disposal facility.

Tower Installation and Removal

Tower installation and removal would consist of eight steps:

1. Prepare site for staging equipment and material.
2. Auger new tower leg holes (four holes per tower) for tower foundation using crawler-mounted auger or hand-dig and use compressed air tools if the auger cannot access the site.
3. Install tower concrete foundations or rock anchors and let concrete cure.
4. Deliver assembled or partially assembled steel lattice tower to site (using a line truck and trailer or helicopter).
5. Install bottom section with line truck or helicopter (partial assembly) or install entire tower if fully assembled.
6. Assemble extension steel for partially assembled tower.
7. Move old conductors to the new towers using the line truck or by hand with ropes.
8. Remove old towers using a line truck and/or bucket truck or helicopter.

Holes generally 10 to 15 feet deep and approximately 3 feet in diameter would be excavated for the tower legs and concrete foundations at each tower corner (some foundations may be deeper near high-landslide hazard areas). Four foundation bores (one bore for each tower leg) would be excavated for each tower replacement. Disposal of soils from excavation would be addressed as described in the *LDS Pole Installation and Wood Pole Removal* section.

Once foundation holes are excavated, an air compressor and a transfer platform to assist with concrete foundation pouring would be flown to the tower site by helicopter (for sites not accessible by the crawler). The platform would be constructed of lumber previously assembled at the designated assembly areas. Forms would be installed around each tower leg hole, allowing each foundation to extend above ground surface. A reinforcing bar cage would be placed in each hole and then the concrete would be poured. Once foundations are poured, the wooden platform would be flown out and a gin pole[6], a portable capsun[7], and extension steel[8] would be flown in for tower assembly. New lattice steel towers (fully or partially assembled) would be delivered to tower sites using a standard line truck with trailer or a helicopter, depending on site-specific conditions.

[6] A gin pole is a long pole used to lift objects (parts) during construction. It is hand-held and may have guys for lateral support and a pulley on top.

[7] A portable capstan is a stationary motor-driven or hand-powered machine used for hoisting or hauling.

[8] Extension steel is used to build the tower extensions.

Following new lattice tower assembly, crews would remove the old tower. Depending on the location, they would either:

- Disassemble the existing tower into pieces using a bucket truck or helicopter, removing and transferring crossarms and collocated wires; or
- Cut the direct-buried tower legs below ground level, transfer crossarms and collocated wires, and remove the entire structure using a helicopter.

Old towers would be partially disassembled into sections and lowered to the work pad for transport to a staging area or delivered whole via helicopter to a staging location for disassembly and transport. All old tower sections, associated hardware, and any other debris generated from project activities would be removed from the project area and disposed of properly.

TSP Installation

TSP installation and removal would consist of nine steps:

1. Prepare crane pad (if required).
2. Auger new hole using crawler-mounted auger.
3. Install foundation forms, rebar, and anchor bolts.
4. Pour concrete foundation.
5. Remove forms and place gravel around the base and groom area.
6. Transport new TSP to the site and install.
7. Move old conductors to the new TSP using a line truck or by hand with ropes.
8. Install pulling rope using old conductor and pull new conductor.
9. Disassemble existing lattice tower using a crane or manual rigging and remove lattice tower sections and components using a line truck.

New TSPs would typically be located no more than 30 feet from existing towers and in line with the existing power line alignment. Actual TSP locations are dependent on property owner preferences and final engineering design.

Each new TSP would be delivered by a line truck, staged next to the tower that it would be replacing, and assembled with a crane. A crawler-mounted auger would drill each TSP foundation hole to a depth of up to 25 feet. A water truck may be used during augering in areas with sandy soils to keep the soil firm. Open foundation holes would be covered until new foundations are poured.

Foundation forms would be installed around each hole, allowing each completed foundation to extend above the ground. A reinforcing bar cage would be placed in the hole and then the concrete would be poured into the formed hole. Excess soil would be feathered around the foundation base or removed from the site. Disposal of soils from excavation would be addressed as described in the *LDS Pole Installation and Wood Pole Removal* section.

A boom truck, consisting of a small crane mounted on a flatbed truck, would be used to haul foundation forms, anchor bolts, rebar, and pole structures to the TSP locations. The boom truck would also be used to place foundation forms, anchor bolts, and rebar in place prior to pouring concrete for the foundations and would remove the forms when foundation work is complete. A crane would be used to place TSPs on each foundation.

A concrete truck, consisting of a four-wheel-drive mixer capable of delivering 10 cubic yards of concrete, would be used to deliver and pour concrete for the TSP foundations. Concrete trucks would not be washed out at pole locations. Cleaning pits would be established at various locations throughout the project area to minimize time between the concrete pour and truck clean-out. These pits would include dike walls and tarping to provide proper containment and disposal of washed materials. If possible, PG&E would contract with concrete companies that conduct wash-out procedures at their yards.

2.5.4 RECONDUCTORING

The reconductoring process would require temporarily taking the existing power line out of service (also known as taking clearances). Any distribution lines that cross the power line or are collocated on the line would be temporarily taken out of service during reconductoring along the specific relevant line section. Temporary crossing structures would be installed at roadways to protect traffic during conductor installation, when required. Reconductoring also would include replacing insulators.

PG&E plans to use daily clearances, planned in advance with PG&E's System Operations group, to accomplish the pole and tower replacement and reconductoring work. Using daily clearances would ensure that the power line can be returned to service quickly should it be needed to support the local transmission system.

PG&E may temporarily reconfigure portions of the Atascadero – San Luis Obispo 70 kV and San Luis Obispo – Cayucos 70 kV circuits to provide sustained clearance windows for the project. De-energizing line sections for a sustained period of time would allow for the replacement of multiple towers during the clearance window. The ability to secure sustained clearance windows would be dependent on several variables, including weather and temperature, load on the circuits, time of year, and the ability to properly protect these circuits during a reconfigured arrangement.

Equipment would be grounded to capture induced voltage from nearby active circuits to protect workers during construction. Grounding rods (0.625-inch-diameter copper rods) would be driven into the ground near equipment, deep enough to reach firm ground, with approximately 1 foot of the rod protruding above ground surface. Grounding equipment would be connected to these grounding rods during construction and disconnected after the line is restored to service. Crews would meet or exceed GO 95 standards and work would be performed in accordance with PG&E's Code of Safe Practices.

Installing conductors entails several steps. New insulators with conductor rollers at the ends would be placed on new poles (non-ceramic insulators) and towers (ceramic insulators). Conductors on the existing poles and towers would be unclipped from the insulators. The hoist

would lift conductors off the existing poles or towers and lower them onto the rollers installed on the new poles or towers.

A cable from the puller truck would be attached to one end of the existing conductor pull section and a nylon pulling rope attached to the opposite end after rollers are installed in a predetermined section of the line. The pulling rope would be pulled into place on the rollers as the line truck puller removes the old conductor.

A new conductor would be attached to the opposite end once the pull rope is in place. Reel stands mounted on a line truck at the tension site would feed the new conductor along the rollers previously installed at each structure while also maintaining line tension so that it does not sag to the ground. The new conductor would be pulled through each structure under a controlled tension to keep it elevated and away from obstacles, thereby preventing damage to the line and protecting the public.

Conductors would be pulled in stages along the transmission corridor between the pull and tension sites. A line truck with a drum puller and empty conductor reel at the pull end would coil the old conductor onto the reel so it could be collected for salvage. Transport vehicles (crew-cab truck and/or half-ton pickup) would be used to transport personnel to pull and tension sites. Pull and tension sites have been strategically located to avoid biologically sensitive areas.

Once new conductors are in place and conductor tension between structures is adjusted to a pre-calculated level, conductors would be removed from the rollers and clipped into the end of each insulator. Rollers would then be removed and vibration dampers and other accessories would be installed.

At dead-end structures (conductor end points or tower angle points), PG&E would use a boom truck to support the down-strain load and enable roller removal. The crew would then access the structures to remove the rollers and attach the dead-end material to the structures.

Rollers, insulators, and the tools required to install them would be delivered to sites by helicopter or vehicle, depending on site-specific conditions. PG&E would use all-terrain vehicles or pickup trucks to access the base of the towers or poles. In some cases, PG&E would use helicopters to assist with installing insulators, rollers, and conductors.

Old conductor would be removed from the sites on a line truck and trailer, and then salvaged at a PG&E service yard or recycled. Distribution 12 kV underbuild would be reused and transferred directly to new poles, except at locations where topped poles would remain. Packing crates, spare bolts, and construction debris would be picked up during construction and hauled away for recycling or disposal. PG&E would conduct a final survey to ensure that cleanup activities were successfully completed, as required.

2.5.5 CONSTRUCTION NEAR PIPELINES

Conoco-Phillips owns and operates petroleum pipelines that run through the project region. One Conoco-Phillips pipeline runs in a general north-south direction through the project area. This pipeline crosses the project's alignment at three locations (see Figures 2.4-6, 2.4-8 and 2.4-9). During construction, PG&E will also use an existing access road that crosses this pipeline.

PG&E has standard practices concerning pipelines that parallel transmission and power line facilities. These standard PG&E practices, for excavating near or encroaching over pipelines, have been incorporated into the project's design. Standard practices for excavation in or around underground pipelines include:

1. Identify underground facility by existing markings (flags, paint, etc).
2. Survey pipeline(s) in proximity to existing PG&E facilities.
3. Preliminary design will use the survey results to design the new structure footing of a transmission facility with a > 25 foot clearance to the underground metal pipeline.
4. Preliminary design, in some instances, is sent to pipeline owners to evaluate and provide feedback for Final Design.
5. Prior to construction, contact Underground Service Alert (USA). For excavation, contacting USA no more than 14 calendar days prior to initiating work is required (California Government Code (CGC) 4216.2. a 1). USA will mark or stake the horizontal path of underground facilities, provide information about the location of the facility, and advise the excavator of clearance.
6. Construction will implement hand dig procedures when in proximity to marked pipelines.

Standard practices for encroachment over underground pipelines include:

1. Identify underground facility by existing marking (flag, paint, etc).
2. Prior to construction, contact USA within 30 calendar days prior to access with heavy load vehicles over identified pipelines. USA will mark or stake the horizontal path of underground facilities, provide information about the location of the facility, and advise the excavator of clearance.
3. If further protection of the underground facilities is appropriate, construction will implement protective measures, which may include the following:
   - Overlaying the pipeline with base rock
   - Applying a slurry seal
   - Placing steel plates over the encroachment area
4. Once construction is complete, and encroachment over buried underground pipelines is no longer necessary, protective material will be removed and the area will be returned to pre-existing conditions.

2.5.6 CLEANUP AND POST-CONSTRUCTION RESTORATION

All construction debris would be picked up and hauled away, as necessary, for recycling or proper disposal. Disturbed sites would be restored, as needed, to resemble surrounding natural vegetation communities. Temporary work areas would also be restored during post-construction activities.

PG&E would prepare a Post-Construction Restoration Plan outlining measures that would be completed to restore temporary construction areas, old structure sites, and other disturbed areas to pre-construction conditions. Restoration may include decompaction, seeding, planting site-appropriate native plant species, and applying weed-free straw or wood fiber mulch. Existing

access roads would be repaired and stabilized, as needed. Access roads would be used for future operation and maintenance; therefore, no re-vegetation would be required.

2.5.7 CONSTRUCTION WORKFORCE

The size and composition of the workforce would vary depending on the activities in progress and the particular phase of construction. Two to five local PG&E General Construction Tower and Line crews from San Luis Obispo County and other parts of PG&E territory would be working on the project during a typical construction period. Crews would consist of approximately five people per crew, depending on the activities being conducted. PG&E estimates a maximum of ten crews would be on site during a peak construction period, anticipated during day clearances while installing conductor (in efforts to minimize the duration and number of line clearances needed). Maximizing the number of crews working during line clearances would minimize the duration and number of line clearances needed to install the new conductor.

Construction would occur only during daylight hours. Crews would typically work four 10-hour days per week. During peak construction periods, crews would work a maximum of six 10-hour days per week. Table 2.5-5 lists the anticipated equipment and personnel needed for each construction activity.

Table 2.5-5: Construction Personnel and Equipment

Activity	People	Quantity of Equipment	
Surveying	2 to 3	1	pickup truck
Access Road Improvements and Re-establishment	2 to 3	1	ASV mower or similar equipment on rubber tracks
		1	motor grader
		1	pickup truck
		1	semi-truck with trailer to haul grader
		1	water truck
Drainage Crossing Installation (includes culverts and temporary bridges)	3	1	crawler backhoe
		1	concrete truck
		1	pickup truck
LDS Pole Hole Augering	3	1	water truck
		1	pickup truck
		1	line truck with auger attachment
Pole Delivery	3	1	pickup truck
		1	line truck with trailer

Table 2.5-5 *(Continued)*: Construction Personnel and Equipment

Activity	People	Quantity of Equipment	
Pole Installation – Aerial Access (includes old pole removal)	4	1	crew-cab truck (transport to walk-in access point)
		1	helicopter
Pole Installation - Ground Access (includes old pole removal)	4	1	crew-cab truck
		1	line truck with worker-lift attachment
		1	line truck with trailer
Tower Hole Excavation (includes all tower legs and foundations)	6	1	crawler-mounted auger or air compressor
		1	dump truck
Tower Installation – Aerial Access (includes old tower removal)	6	1	helicopter (Huey 500)
		1	helicopter (Bell Huey 214)
		1	water truck
		1	crew-cab truck
		1	pickup truck
Tower Installation – Ground Access (includes old tower removal)	6 to 7	1	crane
		1	boom truck
		1	rigging truck (2-ton)
TSP Hole Augering	4 to 5	1	crawler-mounted auger
		1	dump truck
TSP Installation (includes old tower removal)	6 to 7	1	crane
		1	boom truck
		1	rigging truck (2-ton)
		1	crew-cab truck
		1	pickup truck
Material, Equipment, and Supplies Hauling (to or from staging areas)	2 to 3	1	boom truck and cement truck
		1	flatbed truck
Conductor Installation (includes old conductor removal)	8	1	wire reel attached to line truck or trailer
		3	pickup truck
		2	worker-lift attached to line truck
		1	puller attached to line truck

Table 2.5-5 *(Continued)*: Construction Personnel and Equipment			
Activity	**People**	**Quantity of Equipment**	
		1	tensioner attached to line truck
ROW Restoration and Cleanup	2	1	motor grader
		1	D6 dozer
		1	Semi-truck with trailer
		1	pickup

2.5.8 CONSTRUCTION SCHEDULE

Construction is scheduled to start January 1, 2011, with an estimated completion date of December 31, 2012. Construction would occur only during daylight hours. Construction activities within proposed critical habitat for the California red-legged frog (CRLF) would be avoided before April 1 and after the first winter rains (typically around November 1). The U.S. Fish and Wildlife Service (USFWS) would be consulted for any work within CRLF critical habitat boundaries that is required between November 1 and April 1. Construction activities may also be restricted during the period from February 15 through August 15 to avoid nesting birds. The proposed PG&E construction schedule is presented below in Table 2.5-6.

Table 2.5-6: Construction Schedule	
Activity	**Schedule**
Final engineering completed.	January 15, 2010
Begin acquiring temporary construction easements.	February 1, 2010
Permit To Construct decision adopted and effective.	December 1, 2010
Acquisition of required permits completed.	December 15, 2010
Material arrival.	December 15, 2010 – February 15, 2011
Construction begins with access road re-establishment. LDS pole installation and wood pole removal begins in non-CRLF areas. Reconductoring occurs as sections of power line are completed.	January 1, 2011
TSP and tower foundation work begins in non-CRLF areas.	January 1, 2011
Tower/TSP installation and removal begins in non-CRLF areas. Reconductoring occurs as sections of power line are completed.	March 1, 2011
Pole and tower construction within CRLF critical habitat boundaries begins. Reconductoring occurs as sections of power line are completed.	April 1, 2011

Table 2.5-6 *(Continued)*: Construction Schedule

Activity	Schedule
Pole project segment operational.	September 3, 2011
Tower construction within CRLF areas stops.	October 31, 2011
Tower installation and associated reconductoring begins again within CRLF critical habitat boundaries. Reconductoring occurs as sections of power line are completed.	April 1, 2012
Tower project segment operational.	November 1, 2012
Restoration and cleanup.	October 1, 2012 – December 30, 2012

SOURCE: TRC 2010

2.6 Operation and Maintenance

No changes to existing operation and maintenance activities are anticipated. Reconductoring the line would improve reliability, thereby resulting in less wire breakage from corrosion and brittleness. Less breakage is anticipated to result in fewer events or incidents that require emergency response and maintenance.

As required by Standard S1001, the existing power line is inspected annually, or more frequently as needed when driven by an incident or emergency. A detailed ground inspection is required biannually, with a subsequent aerial patrol during the intervening years. The routine annual inspection, including detailed ground inspection and aerial patrol, would not change with the proposed project. Equipment and methods typically used are not anticipated to change. Existing access roads would be re-established during the project for inspection and maintenance purposes, which is an improvement from existing access capabilities. Structures without an existing access road would continue to be accessed on foot.

Access-road maintenance needs would be identified during inspections and PG&E would initiate the necessary corrective actions. Corrective actions may include culvert repairs, rip rap placement, vegetation removal, and improved erosion control measures. Maintenance activities would be conducted by the existing PG&E Transmission Line Maintenance group located at the Pismo Beach PG&E facility.

2.7 Required Approvals

PG&E would obtain permits for the project, as needed, from federal and state agencies. Table 2.7-1 lists discretionary permits and approvals that may be required for project construction.

Table 2.7-1: Permits and Approvals Necessary for the Proposed Project

Permit, Approval, or Exemption	Purpose	Regulation Agency
Federal		
Section 404 Nationwide Permit	Work in "Waters of the United States," including wetlands.	U.S. Army Corps of Engineers (USACE)
Section 7 consultation (through federal review process)	Potential impacts to federally listed species or critical habitat.	U.S. Fish and Wildlife Service (USFWS); National Oceanic and Atmospheric Administration (NOAA) Fisheries
Notice of Proposed Construction or Alteration under Federal Aviation Regulations Part 77	Regulations apply to poles and towers over 200 feet in height above ground level at its site or within certain proximities to local airports.	Federal Aviation Administration (FAA)
State		
Permit to Construct (General Order No. 131-D)	Construction, modification, or alteration of power line facilities.	California Public Utilities Commission (CPUC)
Section 401 Water Quality Certification	Consistency with state water quality standards.	Central Coast Regional Water Quality Control Board (RWQCB)
1600 Streambed Alteration Agreement	Work that affects the bed or bank of a stream or lake.	California Department of Fish and Game (CDFG)
Consistency Determination	Potential impacts to federal and state-listed species.	CDFG
Standard Encroachment Permit	For use of California state highways for other than normal transportation purposes, including construction activities completed within the ROW.	California Department of Transportation (Caltrans)
National Pollution Discharge Elimination System (NPDES) Storm Water Permit	Construction activities disturbing 1 acre or more of soil must submit a Notice of Intent to comply with the terms of the general permit.	State Water Resources Control Board
Local		
Air Pollution Control District Permit	For conducting activities which may result in air pollution.	San Luis Obispo County Air Pollution Control District (SLOCAPCD)

Table 2.7-1 *(Continued)*: Permits and Approvals Necessary for the Proposed Project

Permit, Approval, or Exemption	Purpose	Regulation Agency
Encroachment Permit	For the use of local roads for purposes other than normal transportation.	City of Atascadero; City of San Luis Obispo; County of San Luis Obispo
Tree Removal Permit	For the removal of trees.	City of San Luis Obispo; County of San Luis Obispo

2.8 Applicant Proposed Measures

PG&E's APMs are listed below and have been incorporated into the proposed project's design and construction plans to minimize the proposed project's potential impacts. These measures would be implemented regardless of any regulatory oversight by the CPUC. The assessment of potential project-specific impacts and associated levels of significance are discussed in the context of these APMs being included as part of the project. Where potentially significant impacts were identified, additional mitigation measures were added throughout this IS/MND, superseding or supplementing existing APMs to further reduce impacts to a less than significant level. APMs are presented below as found in the PEA (TRC 2010). Any numbering or referencing of information within the description of the APM refers to information found within the PEA, not this IS/MND.

Aesthetics

APM AE-1. Construction Activities. PG&E will make an effort to keep construction activities as clean and inconspicuous as practical by storing building materials and equipment away from public view and keeping most construction activity within the right-of-way.

APM AE-2. Tree Replacement. In the City of Atascadero where project implementation requires native tree removal, native mature trees removed that come under the jurisdiction of the city's tree ordinance will be replaced at a rate of 5:1 and, pursuant to discussion with city officials, replacement trees will be sited to help screen new poles. In the City of San Luis Obispo some trees will be removed in back or side yards to provide sufficient working space for construction equipment, and safe electrical clearances for the new TSPs and conductor. Property owners have been consulted and written permission will be obtained from these property owners prior to removal of any trees.

APM AE-3. New Source of Substantial Light or Glare Avoidance. PG&E will replace the existing conductor with a non-specular conductor for the specific purpose of minimizing the reflectivity of any new project facilities.

APM AE-4. Revegetation and Regrading. Since clearing and grading is limited to reestablishment of existing roads, no revegetation is needed for the project. Temporarily disturbed vegetation is expected to recover without the need for reseeding unless specified by CDFG for rare plant location.

APM AE-5. Replacement of Lattice Steel Towers with TSPs in SLO City Limits. In order to minimize the footprint and reduce potential visibility, TSPs will replace lattice steel towers within San Luis Obispo City limits. This allows for a small impact area within properties. Note: Previous discussions with property owners have resulted in the determination of low impact locations with respect to vegetation removal, future property use, TSP access, and visual impact.

Air Quality

APM AQ-1. Fugitive Dust Minimization. The following fugitive dust control measures will be implemented during construction:

- Reduce the amount of the disturbed area where possible
- Use of water trucks or sprinkler systems in sufficient quantity to prevent airborne dust from leaving the site. Increased water frequency will be required whenever wind speeds exceed 15 mph. Reclaimed (non-potable) water should be used whenever possible. Non-potable water will not be used in or around crops used for human consumption. [This measure is interpreted as applying to areas, such as graded areas. It is not interpreted here as applying to light-duty access road use by PG&E vehicles accessing structure sites for one or two days, or to pull sites where vegetation is not being cleared, or to where there is limited or no access from the ground.]
- Permanent dust control measures identified in the approved project revegetation and landscape plans should be implemented as soon as possible following completion of any soil disturbing activities. Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading should be sown with a fast germinating, non-invasive grass seed and watered until vegetation is established. All disturbed soil areas not subject to revegetation should be stabilized using approved chemical soil binders, jute netting, or other methods approved by the APCD. [The only clearing and grading anticipated is the reestablishment of existing unpaved access roads, pole placements, tower footings, and minor grading for small concrete staging areas located approximately 80 feet uphill from towers. After construction, those unpaved access roads will be returned to their normal operations and maintenance use; and therefore, no additional dust control measures are needed.]
- Vehicle speed for all construction vehicles will not exceed 15 miles per hour (mph) on any unpaved surface.
- Install mud bumper mats [or equivalent] at all access points, or if appropriate at designated landing zones and laydown areas, to prevent tracking of mud on to public roads. Other specific measures to prevent mud tracking will be provided in the Storm water Pollution Prevention Plan.
- Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water should be used where feasible.
- If county grading and building ministerial permits are required, all of these fugitive dust measures will be provided within application.

APM AQ-2. NOA Emissions Prevention. The following measures will be implemented during construction. These measures are those required by SLOCAPCD District Rule 412 – Airborne Toxic Control Measures, Section 93105: Asbestos Airborne Toxic Control Measure for Construction,

Grading, Quarrying, and Surface Mining Operations, part (e) for areas to be graded of one acre or less.

- Prior to any ground disturbance, sufficient water will be applied to the area to be disturbed to prevent visible emissions from crossing the property line.
- Areas to be graded or excavated will be kept adequately wetted to prevent visible emissions from crossing the property line.
- Construction vehicle speed at the work site will be limited to 15 mph or less.
- Equipment will be washed down before moving from the property onto a paved public road.
- Storage piles will be kept adequately wetted, treated with a chemical dust suppressant, or covered when material is not being added to or removed from the pile.
- Visible track-out on the paved public road will be cleaned using wet sweeping or a HEPA filter equipped vacuum device within 24 hours.

Greenhouse Gases

APM GHG-1. GHG Emissions Minimization. The following measures will be implemented during construction to minimize GHG emissions.

- Identify park-and-ride facilities in the project vicinity and encourage construction workers to carpool to the job staging area to the extent feasible. The ability to develop an effective carpool program for the proposed project will depend upon the proximity of carpool facilities to the staging area, the geographical commute departure points of construction workers, and the extent to which carpooling will not adversely affect worker arrival time and the project's construction schedule. Crew transportation to the project site is addressed in Section 3.11 Transportation and Traffic.
- Minimize unnecessary construction vehicle idling time. The ability to limit construction vehicle idling time is dependent upon the sequence of construction activities and when and where vehicles are needed or staged. Certain vehicles, such as large diesel powered vehicles, have extended warm-up times following start-up that limit their availability for use following start-up. Where such diesel powered vehicles are required for repetitive construction tasks, these vehicles may require more idling time. The project will apply a "common sense" approach to vehicle use, so that idling is reduced as far as possible below the maximum of 5 consecutive minutes required by California law; if a vehicle is not required for use immediately or continuously for construction activities, its engine will be shut off. Construction foremen will include briefings to crews on vehicle use as part of pre-construction conferences. Those briefings will include discussion of a "common sense" approach to vehicle use.
- Minimize construction equipment exhaust by using low-emission or electric construction equipment where feasible. Portable diesel fueled construction equipment with engines 50 hp or larger and manufactured in 2000 or later will be registered under the California Air Resources Board (CARB) Statewide Portable Equipment Registration Program, or will meet at a minimum US EPA/CARB Tier 1 engine standards.
- Minimize welding and cutting by using compression of mechanical applications where practical and within standards.

- Encourage use of natural gas powered vehicles for passenger cars and light duty trucks where feasible and available.
- Encourage the recycling of construction waste where feasible.

Biological Resources

APM BO-1. Avoidance of and Minimization of Potential Impacts to Birds. Pre-construction bird nesting surveys for the project area pull sites, structure replacement locations, and clearing and grading activities will be conducted before work is performed between February 1 and August 15. To the extent possible, working in the vicinity of active nests will be avoided; however, if avoidance is not practicable, a buffer zone, as determined by a qualified biologist, will be maintained around the active nest to prevent nest abandonment. In the event that work would take place within 50 feet (300 feet for raptors) of an active nest, a biological monitor will monitor the activity of the nesting birds during work to determine if construction activities are resulting in significant disturbance to the birds. If the qualified biologist determines that work is disrupting nesting, then work in that area will be halted until nesting is completed and the young have fledged. Monitoring guidelines will be provided in an Avian Protection Plan to be submitted to the USFWS and CDFG for review and approval prior to construction. Documentation of Plan approval will be submitted to the CPUC for recordkeeping. Installation of the replacement power lines will conform to PG&E's most current version of Bird and Wildlife Protection Standards, and will include the use of bird guards. Nest disturbance is dependent on a number of site-specific and activity-specific factors, including the sensitivity of the species, proximity to work activity, amount of noise or frequency of the work activity, and intervening topography, vegetation, or structures; and the buffer could be increased or reduced dependent on the site-specific conditions.

APM BO-2. General Avoidance of Biological Resources Impacts.

- Litter and trash management. All food scraps, wrappers, food containers, cans, bottles, and other trash from the project area will be deposited in closed trash containers. Trash containers will be removed from the project area at the end of each working day.
- Parking. Vehicles and equipment will be parked on pavement, existing roads, and previously disturbed or developed areas or work areas as identified in this document. Off-road parking will only be permitted in previously identified and designated work areas.
- Route and speed limitations. Vehicles will be confined to established roadways and pre-approved access roads, overland routes and access areas. Access routes and temporary work areas will be limited to the minimum necessary to achieve the project goals. Routes and boundaries of work areas, including access roads, will be clearly mapped prior to initiating project construction. Vehicular speeds will be kept to 15 mph on unpaved roads.
- Maintenance and refueling. All equipment will be maintained such that there will be no leaks of automotive fluids such as fuels, solvents, or oils. All refueling and maintenance of vehicles and other construction equipment will be restricted to designated staging areas located at least 100 feet from any down gradient aquatic habitat unless otherwise isolated from habitat. Proper spill prevention and cleanup equipment will be maintained in all refueling areas.

- Minimization of fire hazard. During fire season in designated State Responsibility Areas, all motorized equipment driving off paved or maintained gravel/dirt roads will have federal or state approved spark arrestors. All off-road vehicles will be equipped with a backpack pump filled with water and a shovel. All fuel trucks will carry a large fire extinguisher with a minimum rating of 40 B:C, and all equipment parking and storage areas will be cleared of all flammable materials.
- Pets and firearms. No pets or firearms will be permitted at the project site.

APM BO-3. Nesting Acorn Woodpeckers. PG&E currently holds a Special Use Permit with the USFWS for Removal and Relocation of Active Nests, dated July 15, 2008. All woodpecker cavities in wood poles will be visually inspected prior to pole removal, if safe to do so. All poles having cavities that contain elliptical, white eggs or those cavities that have live chicks in a nest will be managed as a pole having an active woodpecker nest. Cavities having nests containing slightly glossy, pale bluish- or greenish-white colored eggs will be considered starling nests and are not afforded protection and no further action will be required. Prior to disturbing the pole, the entrance to the nest cavity will be covered with duct tape or other suitable adhesive product to prevent the eggs or chicks from falling out of the nest cavity. The orientation of the cavity opening will be noted for future reference, and will then be cut out the section of pole containing the active nest, 3 feet above the cavity and 3 feet below the cavity. The pole section containing the active nest will remain in a vertical position to minimize further disturbance to eggs or chicks in the nest. Once the replacement pole is set, the pole section containing the nest will be strapped to the replacement pole, orienting the cavity hole as noted prior to relocation. The section of pole containing the nest will be placed no lower than one-third the height of the pole. The pole section will be securely positioned on the replacement pole with rope or metal strapping. The adhesive cover will be removed over the cavity entrance. As a last step, the pole number, circuit name, number of chicks or eggs, date of relocation, and crew supervisor name will be documented and this nest relocation information will be sent electronically to Mike Best, PG&E Bird Protection Program Manager (MBB8). This information will be included in PG&E's annual report to the U.S. Fish and Wildlife Service as required by our Special Purpose Permit MB057942-0.

APM BO-4. Pre-construction surveys and relocation of species. Pre-construction surveys for special-status amphibians and aquatic reptiles will be conducted no more than two weeks prior to the commencement of construction. Surveys will include work areas work areas within 300 feet of suitable CRLF aquatic habitat. Surveys will be conducted by a qualified, agency-approved biologist. Potential habitat for western spade foot toad and western pond turtle exists in similar locations to those for CRLF. The biologist will relocate any special-status species found within the project area to a location previously agreed upon by the USFWS and the CDFG. Before the start of work each morning, the biologist will check under any equipment and stored construction supplies left in the work area overnight within 300 feet of suitable habitat. All pole holes or holes from tower legs will be backfilled or covered at the end of the work day to prevent entrapment of special-status species.

APM BO-5. Development and Implementation of a Worker Environmental Awareness Program. A qualified biologist will conduct an environmental awareness program for all construction and on-site personnel prior to the beginning of construction activities. Training will include a

discussion of avoidance and minimization measures being implemented to protect biological resources as well as the terms and conditions of the Biological Opinion and other permits. Training will include information on the federal and state Endangered Species Acts and the consequences of noncompliance with these acts. Under this program, workers will be informed about the presence, life history, and habitat requirements of all special-status species, including CRLF, with a potential to be affected within the project area. Training will include information on state and federal laws protecting nesting birds, wetlands, and other water resources. An educational brochure will be produced for construction crews working on the project. The brochure will include color photos of sensitive species as well as a discussion of mitigation measures. No construction worker will be involved in field operations without having participated in this special-status species/sensitive habitat informational tailboard.

APM BO-6. Designated Equipment Staging. PG&E will restrict equipment to designated staging areas and roads to avoid disturbance to existing vegetation.

APM BO-7. Storm Water Permit. PG&E will obtain coverage under the Construction Storm Water Permit Program and implement established Best Management Practices (BMPs) as identified by the Central Coast Regional Water Quality Control Board for erosion and sediment control. These BMPs may include, but are not limited to, silt fencing, temporary berms, restrictions on cleaning, installation of vegetative strips, and temporary sediment disposal.

APM BO-8. Avoidance of Environmentally Sensitive Resource Areas. Sensitive resources identified during pre-construction surveys in the project vicinity will be mapped and clearly marked in the field. Such areas will be avoided during construction to the extent practicable and/or additional measures specific to sensitive species types as described herein and that may be required by the USACE, FWS, CDFG, and RWQCB permits, will be implemented to avoid or minimize impacts.

APM BO-9. Biological Monitor On-site During Construction Activities in Sensitive Areas and Reporting and Communication. A qualified biological monitor will be on-site during all ground-disturbing construction activities in or near sensitive habitats previously identified by a qualified biologist. The monitor will ensure implementation of and compliance with all avoidance and mitigation measures. The monitor will have the authority to stop work or determine alternative work practices in consultation with agencies and construction personnel as appropriate if construction activities are likely to impact sensitive biological resources. The biological monitor will document monitoring activities in daily logs to document construction activities and environmental compliance. The daily logs will be included in the project report submitted to the appropriate agencies following completion of construction. The biological monitor will be responsible for reporting any capture and relocation, harm, entrapment, or death of a listed species to the USFWS and/or the CDFG and for reporting any permit violations in a timely manner and as indicated in their respective permits. Weekly monitoring reports will be submitted to CPUC, and to any resource agencies (upon request), throughout construction. A final project summary report will be submitted to the CPUC 90 days after the completion of construction activities.

APM BO-10. Restricted Construction Hours. Construction activities within 300 feet of suitable aquatic habitat will not begin prior to 30 minutes after sunrise and will cease no later than 30 minutes before sunset

APM BO-11. Helicopter Avoidance of Known Nesting Birds. PG&E will avoid helicopter flights near known active nesting bird sites as determined in consultation with the USFWS and/or CDFG.

APM BO-12. Avoidance of and Minimization of Potential Impacts to Wetlands and Water Resources. A Stormwater Pollution Prevention Plan (SWPPP) will be developed that describes sediment and hazardous materials control, fueling and equipment management practices, and other factors deemed necessary for the project. Erosion control measures will be implemented where necessary to reduce erosion and sedimentation in wetlands, waters of the United States, and waters of the state, as well as aquatic habitat occupied by sensitive species. Erosion control measures will be monitored on a regularly scheduled basis, particularly during times of heavy rainfall. Corrective measures will be implemented in the event erosion control strategies are inadequate. Sediment/erosion control measures will be continued at the project site until such time that soil stabilization is deemed adequate. Brush or other similar debris material will not be placed within any stream channel or on its banks. No project work activity is planned within the limits of any stream channel.

APM BO-13. Avoidance of Impacts to Natural Habitats. Minimization of grading and vegetation along access roads and pole and tower work areas. Clearing and grading will be limited to previous access roads that have become overgrown with vegetation. Vegetation will be cut at ground level and leave existing root systems intact where possible.

APM BO-14. Avoidance of CRLF Habitat. PG&E will install exclusion fencing around aquatic habitat in areas where construction activities are within the nearby vicinity of aquatic habitat (the upland habitat buffer). Prior to the commencement of construction activities, flagging, signage, and/or high visibility fencing will be erected around the CRLF habitat to identify and protect it from the encroachment of personnel and equipment. These areas will be avoided by all construction personnel. The fencing will be inspected before the start of each workday and maintain until completion of the project. Only when the construction of the project is completed will the fencing be removed. Only tightly woven netting or similar material will be used for all geo-synthetic erosion control materials such as coir rolls and geo-textiles. No plastic monofilament matting will be used for erosion control measures.

APM BO-15. Fencing of Staging Areas within Proposed Critical Habitat Boundaries. PG&E will install exclusion fencing around staging areas that will be used during the typical CRLF avoidance window, from April 1 through November 1, within the proposed critical habitat boundaries. Prior to the commencement of construction activities, exclusion fencing will be erected around the staging areas to preclude entry by CRLF. Fencing will be keyed at least 6 inches into the ground. The fencing will be inspected and maintained during the avoidance window until completion of the project. Only when the construction of the project, in a specified area, is completed, will the fencing be removed.

APM BO-16. Specialized CRLF Training. Before any construction activities begin on a project, a USFWS-approved biologist will conduct a training session for all construction personnel. At a

minimum, the training will include a description of the CRLF and its habitat, the importance of the CRLF and its habitat, the general measures that are being implemented to conserve the CRLF as they relate to the project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions.

APM BO-17. Qualified Biologist CRLF Inspection. PG&E will obtain Section 7 of the Federal Endangered Species Act coverage under the Programmatic Biological Opinion for CRLF. The name(s) and credentials of biologists who will conduct activities specified in the following measures will be submitted at least 15 days prior to the onset of activities at specific locations. Project activities will not begin until PG&E has received written approval from the USFWS that the biologist(s) is qualified to conduct the work. A USFWS-approved biologist will survey the work site, locations that include the primary constituent elements of suitable habitat, a minimum of two weeks before the onset of activities. If CRLF, tadpoles, or eggs are found, the approved biologist will contact the USFWS to determine if moving any of these life-stages is appropriate. In making this determination, the USFWS will consider if an appropriate relocation site exists. If the USFWS approves moving animals, the approved biologist will be allowed sufficient time to move CRLF from the work site before work activities begin. Only USFWS-approved biologists will participate in activities associated with the capture, handling, and monitoring of CRLF. The USFWS-approved biologist will be present at the work site until such time as all removal of CRLF, instruction of workers, and habitat disturbance has been completed. For the purpose of this measure, habitat disturbance refers to clearing or grading in areas of dense vegetation within 100 feet of aquatic habitat, as well as culvert placement or fill activities in drainages within the proposed critical habitat boundaries. After this time, the contractor or permittee will designate a person to monitor on-site compliance with all minimization measures. The USFWS-approved biologist will ensure that this individual receives training outlined above and in the identification of the CRLF. The monitor and the USFWS-approved biologist will have the authority to halt any action that might result in impacts that exceed the levels anticipated by the USACE and USFWS during review of the proposed action. If work is stopped, the USACE and USFWS will be notified immediately by the USFWS-approved biologist or on-site biological monitor.

APM BO-18. Work Timing Window to Protect CRLF. PG&E will complete work activities within California red-legged frog proposed critical habitat areas between April 1 and November 1. If PG&E demonstrates a need to conduct activities outside this period, the USACE may authorize such activities after obtaining the USFWS's approval.

APM BO-19. Dewatering Method that Protects CRLF. If a work site is to be temporarily dewatered by pumping, intakes will be completely screened with wire mesh not larger than five millimeters (mm) to prevent CRLF from entering the pump system. Water will be released or pumped downstream at an appropriate rate to maintain downstream flows during construction. Upon completion of construction activities, any barriers to flow will be removed in a manner that will allow flow to resume with the least disturbance to the substrate.

APM BO-20. Removal of Exotic Species. A USFWS-approved biologist will permanently remove, from within the project area, any individuals of exotic species identified during regular surveys or

monitoring, such as bullfrogs, crayfish, and centrarchid fishes, to the maximum extent possible. The permittee will have the responsibility to ensure that their activities are in compliance with the CDFG.

APM BO-21. Refueling and Equipment Maintenance Methods that Protect CRLF. All fueling and maintenance of vehicles and other equipment and staging will occur at least 20 meters (60 feet) from any riparian habitat or water body. The USACE and permittee will ensure contamination of habitat does not occur during such operation. Prior to the onset of work, the USACE will ensure that the permittee has prepared a plan to allow a prompt and effective response to any accidental spills. All workers will be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

APM BO-22. Limitation of Vehicle Access, Potential Impact Areas, and Potential Disturbance. PG&E will limit the number of access routes, number and size of staging areas, and the total area of the proposed project activity to the minimum necessary. Routes and boundaries will be clearly demarcated. Movement of heavy equipment to and from the project site will be restricted to established roadways where possible to minimize habitat disturbance. If saturated soils are encountered, timber mats will be employed to prevent rutting and compaction. Staging areas will be located outside of an appropriate buffer established from aquatic habitat.

APM BO-23. Staging and Stockpiling Restrictions. During construction, PG&E will restrict stockpiling of construction materials, portable equipment, vehicles, and supplies to the designated construction staging areas. PG&E will ensure that contamination of habitat does not occur during such operations. All workers will be informed of the importance of preventing spills and the appropriate measures to take should a spill occur.

APM BO-24. Avoidance of and Minimization of Potential Impacts to Burrowing Owls. Pre-construction surveys will be conducted by a qualified biologist for burrowing owls for all project work areas that provide suitable nesting or wintering habitat (annual grasslands and pastures). Although burrowing owls are not likely to nest in the project area, the potential for nesting owls cannot be precluded. The work area surveys will take place within the ROW, covering the work area and surrounding areas visible from the ROW. The survey will include checking for the burrowing owl and owl signs (e.g., white wash at burrow entrances). If ground-disturbing activities in suitable habitat are delayed or suspended for more than 30 days after the pre-construction surveys, the site will be resurveyed. If no burrowing owls are detected, no further mitigation is necessary. If active burrows are found near a work area, work in the vicinity of the burrows will be limited as follows:

- No disturbance will occur within approximately 160 feet (50 meters) of occupied burrows during the non-breeding season of September 1 through January 31, or within approximately 250 feet (75 meters) during the breeding season of February 1 through August 31.
- The limits of the exclusion zone in the project work area will be clearly marked with signs, flagging and/or fencing. If work within these limits is unavoidable while burrows are active, work will only take place within the presence of a qualified monitor who will monitor to determine if the owls show signs of disturbance or, upon prior approval from CDFG a passive relocation effort (displacing the owls from the work area) may be

conducted as described below, and subject to the approval of the CDFG. Passive relocation of owls may occur during the non-breeding season (September 1 through January 31) with prior approval from CDFG. Passive relocation will include installing one-way doors on the entrances of burrows. The one-way doors will be left in place for 48 hours to ensure the owls have vacated the nest site. Owls will not be relocated during the breeding season. All structure holes will be backfilled or covered at the end of the work day to prevent entrapment of burrowing owls. The open ends of LDS poles will be covered during storage to prevent burrowing owls from inhabiting the pole openings.

APM BO-25. Biological Surveys Prior to Bat Breeding Season. Before the spring breeding season (and prior to start of construction), a qualified biologist will perform a survey for roosting bats or maternity colonies at the proposed project site. Surveys will evaluate the probability for trees to host roosting bats. For trees considered to have a high probability for bats, acoustic monitoring will be performed in early summer to detect if there are any roosting sites.

APM BO-26. Bat Avoidance Measures. If avoidance of an active roosting bat or maternity colony is not practicable, a sufficient buffer will be established in consultation with the CDFG. If acoustic monitoring detects that bats are using trees that need to be cut down, exclusionary one-way doors will be installed in late August, after completion of the maternity season. Roost trees will be removed after it has been confirmed that roosting bats have departed. If a roost is lost, PG&E will consult with the CDFG to see if the agency recommends bat boxes to be installed in the vicinity of the cut tree.

APM BO-27. Biological Monitoring of Existing Bats in Project Area. In the event that a roosting bat or maternity colony occurs within or near the project area, a qualified biological monitor will be provided and will remain on-site during construction activities to ensure there is no nest abandonment.

APM BO-28. Implementation of Revegetation and Monitoring Plan. PG&E will prepare a Revegetation and Monitoring Plan prior to construction. All old conductors will be removed from the project site. Disturbed areas, other than existing access roads, will be stabilize and revegetated with appropriate (conducive with PG&E line clearance requirements) native species. If applicable, the site will be monitored following construction to prevent establishment of weeds and to ensure the successful reestablishment of native species. Stream contours will be returned to their original condition at the end of the project activities, unless consultation with the USFWS has determined that it is not beneficial to the species or feasible.

APM BO-29. Avoidance of and Minimization of Potential Impacts to Special Status Plants. A pre-construction survey will be conducted by a qualified botanist or biologist prior to commencement of construction in each area. All rare plant populations will be appropriately marked or flagged for exclusion, or as appropriate, the limits of construction will be marked between the population and the work area. Surveys and marking or flagging must be completed no more than 30 days prior to construction. In the event that any previously unidentified listed plants, or CNPS List 1-3 plants cannot be avoided, PG&E will consult with the USFWS and/or the CDFG (depending on whether the species is on the federal or state list of sensitive species) to determine appropriate measures to minimize effects to the species and its habitat during

construction of the project, as well as during operation and maintenance. The CPUC will be informed of the results of any agency consultations.

APM BO-30. Weed Control. PG&E will clean equipment and vehicles prior to arriving on-site. Equipment will be inspected and cleaned as needed prior to use in areas with rare plants. All plant material (e.g., straw, mulch, seeds, etc.) used for erosion control and/or road maintenance will be weed-free. If weed-free straw or mulch is not available, rice straw and mulch will be used. A USFWS-approved biologist will ensure that the spread or introduction of invasive exotic plant species will be avoided to the maximum extent possible. When practicable, invasive exotic plant in the project areas will be removed. The weed control measures under the Special Status Plants heading below describe the steps that PG&E will be taking. Seed mixes will be approved by a biologist prior to application. Where possible, local or on site seed sources will be used. Gravel used for road maintenance will be from weed free-sources. Gravel sources will be inspected for the presence/absence of noxious weeds prior to utilization of gravel in the project area as appropriate.

APM BO-31. Implementation of Dust Control Plan. PG&E will prepare a Dust Control Plan prior to construction in coordination with the appropriate agencies to ensure impacts to special-status plants and associated vegetation communities are avoided or minimized.

APM BO-32. Hazardous Substance Control and Emergency Response Plan. PG&E has and will implement its system-wide program which includes established procedures for handling and managing hazardous substances and emergency response in the event of a hazardous substance spill.

APM BO-33. Project-specific Fire Prevention and Response Plan Development and Implementation. PG&E will incorporate established system-wide Fire Prevention and Response procedures that will include reducing the potential for igniting combustible materials. The procedures will cover electrical hazards, flammable materials, smoking, vehicle and equipment access, and fire watches during construction and maintenance procedures during subsequent operation. Project personnel will be directed to park away from dry vegetation; not to smoke; and to equip vehicles with appropriate firefighting equipment; such as water dispensers and shovels, in times of high fire hazard. The procedures will also describe methods to reduce the potential fire hazard from operation of the power line.

APM BO-34. Restricted Access to Pole 66/10. Pole 66/10, which is located in a seasonal wetland, will be accessed from the south side in order to prevent having to cross the drainage north of Pole 66/10 (shown as S17 in the Wetland Delineation Report). Trampling and compaction of the wetland at Pole 66/10 will be minimized. If necessary, timber mats will be installed to avoid surface disturbance to this wetland from equipment.

APM BO-35. Water-crossing Construction Timing. Water-crossing construction will be scheduled during dry months when the waterways have low or no flow in order to minimize potential impacts.

APM BO-36. Use of Coffer Dams. If any flow is present during installation of the permanent culvert, coffer dams will be installed and the entire flow will be diverted around the work area during construction.

APM BO-37. Sediment Barriers to Protect Wetland (W3). Sediment barriers between the wetland and the access road that leads to Tower 73/1 will be maintained while re-establishing this road.

APM BO-38. Reporting Requirement. PG&E will prepare a compliance certification to be filed with the USACE and the USFWS to certify, after completion of construction, that the action was completed in accordance with the permit conditions. The information contained in the compliance certification will include:

1. The type(s) of action(s) that occurred;
2. The number of acres affected and habitat type (e.g., upland, riparian.);
3. The linear feet of work;
4. How the site(s) was restored and a description of the area after the completion of the action;
5. Which measures were employed to protect CRLF;
6. How the site(s) was restored or, if no restoration occurred the justification for not conducting this work; and
7. A description of the area after the completion of the action.

Each compliance certification provided by PG&E will contain maps as appropriate indicating the location of all actions. Each report will have a table and photos keyed to the map as appropriate. The compliance certification will also document the number of CRLF that were known to be taken, and the form of take (e.g., harassment by moving, mortality) during the project's activities. The USFWS recognizes that accurately quantifying the number of individuals that may have been taken may not be possible; in these cases, the reporting of all observations and relative numbers will provide useful information. The report will also recommend modifications to future measures to enhance the protection of the CRLF.

Cultural Resources

APM CR-1. Archaeological and Paleontological Site Avoidance. PG&E will seek to avoid cultural resources. To ensure that historic sites P-40-41211, and P-40-40213 are not inadvertently damaged during implementation of the project, the limits of the cultural resources will be marked (or limits of the project area near these resources, as practical) with visible flagging tape and the construction crews will be instructed that there will be no vehicle access, travel, equipment staging, and storage or other construction-related work inside the flagged areas.

APM CR-2. Pre-construction Worker Education. PG&E will design and implement a Worker Education Program that will be provided to all project personnel who may encounter and/or alter historical resources or unique archaeological properties, including construction supervisors and field personnel. No construction worker will be involved in field operations without having participated in the Worker Education Program. The Worker Education Program will include, at a minimum:

- A review of archaeology, history, prehistory and Native American cultures associated with historical resources in the project vicinity.

- A review of applicable local, state and federal ordinances, laws and regulations pertaining to historic preservation.
- A discussion of site avoidance requirements and procedures to be followed in the event that unanticipated cultural resources are discovered during implementation of the project.
- A discussion of disciplinary and other actions that could be taken against persons violating historic preservation laws and PG&E policies.
- A statement by the construction company or applicable employer agreeing to abide by the Worker Education Program, PG&E policies and other applicable laws and regulations.

Environmental training will also be provided to workers regarding the protection of paleontological resources and procedures to be implemented in the event fossil remains are encountered by ground-disturbing activities.

The Worker Education Program may be conducted in concert with other environmental or safety awareness and education programs for the project, provided that the program elements pertaining to cultural resources are provided by a qualified instructor meeting applicable professional qualifications standards.

APM CR-3. Unanticipated Discoveries Management. In the unlikely event that previously unidentified cultural resources are uncovered during implementation of the project, all work within 165 feet (50 meters) of the discovery will be halted and redirected to another location. PG&E's cultural resource specialist or his/her designated representative will inspect the discovery and determine whether further investigation is required. If the discovery can be avoided and no further impacts will occur, the resource will be documented on California State Department of Parks and Recreation cultural resource record forms and no further effort will be required. If the resource cannot be avoided and may be subject to further impact, PG&E will evaluate the significance and CRHR eligibility of the resource and implement data recovery excavation or other appropriate treatment measures if warranted.

In the unlikely event that previously unidentified paleontological resources are uncovered during implementation of the project, all ground disturbing work will be temporarily halted or diverted away from the discovery to another location. PG&E's paleontological resources specialist or his/her designated representative will inspect the discovery and determine whether further investigation is required. If the discovery is significant, but can be avoided and no further impacts will occur, the resource will be documented in the appropriate paleontological resource records and no further effort will be required. If the resource is significant, but cannot be avoided and may be subject to further impact, PG&E will evaluate the significance of the resources, and implement data recovery excavation or other appropriate treatment measures as recommended by a qualified paleontologist.

Geology and Soils

APM GE-1. Appropriate Design Measures Implementation. A landslide survey of the planned project alignment was conducted, which included a reconnaissance to identify potential problems

at planned pole and tower locations. Appropriate design features have been developed where potential problems were found to exist. Appropriate design features may include excavation of potentially problematic soils during construction and replacement with engineered backfill, relocation of poles to avoid problematic soils or landslide areas, and pole depth specifications. Where significant potential for damage due to surface fault rupture is identified, towers/poles siting and design will be modified to the extent feasible to avoid or reduce damage.

APM GE-2. Conduct Geotechnical Surveys for Landslides and Protect Against Slope Instability. A geologic hazard and foundation evaluation was conducted by Kleinfelder (2008 & 2010) to explore the tower locations along the project route for the presence of geologic hazards that may affect the foundations of the new power line towers/poles and to provide remedial measures for the foundations. The geotechnical survey included slope stability analyses in areas of planned grading and excavation that cross and are immediately adjacent to areas with the potential for unstable slopes, landslides, earth flows, and debris flows along the approved project route. The existing access roads will be re-established eliminating the necessity for grading new access and spur roads and subsequent potential ground disturbance. The geotechnical survey included identification of potential landslide hazards, and provided information for development of excavation plans and procedures. In addition, the geotechnical survey indicated the presence of unstable slopes at or adjacent to the proposed project structures. Where appropriate, foundation support and protection measures will be designed and implemented; this will help to maintain the stability of slopes adjacent to newly graded or re-graded access roads, work areas, and project structures during and after construction, and to minimize potential for damage to project facilities.

APM GE-3. Slope Instability During Construction Minimization. During pole replacement activities along the hilly terrain, construction slopes and existing natural slopes impacted by construction operations will be evaluated for stability. In developing grading plans and construction procedures for re-establishing access roads and replacing power poles, slope stability will be analyzed. Construction slopes and grading plans will be designed to limit the potential for slope instability and minimize the potential for erosion and flooding during construction. The project will not result in any new cut or fill slopes, either permanent or temporary. Construction activities likely to result in slope instability will be suspended, as necessary, during and immediately following periods of heavy precipitation when unstable slopes are more susceptible to failure.

APM GE-4. Avoid Unstable Slope Elements. During construction, PG&E will avoid areas where boulders pose risks to structures, where feasible. If necessary, PG&E will stabilize boulders immediately uphill of structures that pose potential high risk or landslide damage to those structures and position structures to span over potential landslide areas to the extent feasible.

APM GE-5. Soft or Loose Soils During Construction Minimization. Where soft or loose soils are encountered during construction, appropriate measures will be implemented to avoid, accommodate, replace, or improve soft or loose soils encountered during construction. Such measures may include:

- Locating construction facilities and operations away from areas of soft and loose soil.

- Over-excavating soft or loose soils and replacing them with engineered backfill materials.
- Increasing the density and strength of soft or loose soils through mechanical vibration and/or compaction.
- Treating soft or loose soils in place with binding or cementing agents.

Construction activities in areas where soft or loose soils are encountered will be scheduled for the dry season to allow safe and reliable equipment access.

APM GE-6. Erosion Control and Sediment Transport Plan Implementation. An Erosion Control and Sediment Transport Plan will be prepared in association with the SWPPP. This plan will be prepared in accordance with the State Water Board guidelines and other applicable BMPs.

Implementation of the plan will help stabilize disturbed areas and waterways and will reduce erosion and sedimentation. The plan will designate BMPs that will be followed during construction activities. Erosion-minimizing efforts may include measures such as:

- Avoiding excessive disturbance of steep slopes,
- Using drainage control structures (straw wattles or silt fencing) to direct surface runoff away from disturbed areas,
- Strictly controlling vehicular traffic,
- Implementing a dust-control program during construction,
- Restricting access to sensitive areas,
- Using vehicle mats in wet areas, and
- Revegetating disturbed areas where applicable following construction.

In areas where soils are to be temporarily stockpiled, soils will be placed in a controlled area and will be managed with similar erosion control techniques. Where construction activities occur near a drainage channel and drainage from these areas flows towards a water body, stockpiles will be placed at least 100 feet from the water body or will be properly contained (such as covering with plastic sheeting to minimize risk of sediment transport to the drainage). Plywood and plastic covering will be used to cover the excavated holes until pole installation activities begin.

Erosion-control measures will be installed, as necessary, before any clearing during the wet season and before the onset of winter rains. Temporary measures such as silt fences or straw wattles intended to minimize erosion from temporarily disturbed areas will remain in place until disturbed areas have stabilized.

The SWPPP will be designed specifically for the hydrologic setting of the proposed project, which includes slopes, intermittent and seasonal streams, and the Salinas River. BMPs documented in the Erosion Control and Sediment Transport Plan will also be included in the SWPPP.

APM GE-7. Minimize Road Construction. PG&E is not planning on constructing new access roads, but instead utilizing existing access roads. Some roads will require minimal grading to re-establish the road integrity and allow safe movement for construction equipment and/or moving or trimming of vegetation to allow vehicle passage. In these cases, PG&E will implement BMPs for

road re-establishment; and these modifications will be permanent for continued use of the roads for power line maintenance, eliminating long-term impacts from temporary roads.

APM GE-8. Minimize Soil and Bedrock Impact to Foundation Design. Appropriate design measures for protection of reinforcement, concrete, and metal-structural components against corrosion will be utilized, such as the use of corrosion-resistant materials and coatings, increased thickness of project components exposed to potentially corrosive conditions, and use of passive and/or active cathodic protection systems.

Hazards and Hazardous Materials

APM HM-1. Hazardous Substance Control and Emergency Response Plan Development and Implementation. PG&E will submit a Hazardous Substance Control and Emergency Response Plan to the CPUC for recordkeeping at least 30 days prior to project construction. The plan will identify methods and techniques to minimize the exposure of the public to potentially hazardous materials during all phases of project construction through operation. The plan will require implementing appropriate control methods and approved containment and spill-control practices (i.e., spill control plan) for construction and materials stored on-site. All hazardous materials and hazardous wastes will be handled, stored, and disposed of, in accordance with all applicable regulations, by personnel qualified to handle hazardous materials. With the exception of the poles, all hazardous materials will be collected in project-specific containers at the site, and transported to a PG&E service center designated as a PG&E consolidation site. Poles will be scheduled for transportation to the appropriate licensed Class 1 or a composite-lined portion of a solid waste landfill. The plan will include, but not be limited to, the following:

- Proper disposal of potentially contaminated soils
- Vehicles and equipment parking near sensitive resource areas during construction
- Emergency response and reporting procedures to address hazardous material spills

Emergency-spill supplies and equipment will be available to respond in a timely manner if an incident should occur. Response materials such as oil-absorbent material, tarps, and storage drums will be used as needed to contain and control any minor releases.

A search of government databases indicates that there are no hazardous waste sites located within the project area. If hazardous materials are encountered in excavated soils or groundwater as noted through sheen, odor, or other non-typical appearance, work will be stopped until the material is properly characterized and appropriate measures are taken to protect human health and the environment. If excavation of hazardous materials is required, they will be managed, transported, and disposed of in accordance with federal, state, and local regulations.

Removed wood poles will be collected in project-specific containers at a PG&E service center designated as a PG&E consolidation site. Poles will be scheduled for transport to an appropriate licensed Class 1 or composite lined portion of a solid waste landfill as containers are filled. Chemical Waste Management's Kettlemen Hills Facility is typically used. There is no disposal capacity issue at this facility associated with the treated wood poles generated by this project.

APM HM-2. Environmental Training and Monitoring Program (ETMP) Development and Implementation. An environmental training program will be established to communicate to all field personnel any environmental concerns and appropriate work practices, including spill prevention and response measures and Best Management Practices (BMPs). The training program will emphasize site specific physical conditions to improve hazard prevention (e.g., identification of flow paths to nearest waterbodies) and will include a review of all site-specific plans, including but not limited to the project's SWPPP, Erosion Control and Sediment Transport Plan, Health and Safety Plan, and Hazardous Substances Control and Emergency Response Plan.

A PG&E designated representative will also be identified to ensure that the plans are followed throughout the construction period. BMPs, as identified in the project SWPPP and Erosion Control and Sediment Transport Plan, will also be implemented during the project to minimize the risk of an accidental release and to provide the necessary information for emergency response.

APM HM-3. Project-specific Fire Prevention and Response Plan Development and Implementation. PG&E will prepare and submit a Fire Prevention and Response Plan to the CPUC and to local fire protection authorities for notification at least 30 days prior to construction. The plan will include fire protection and prevention methods for all components of the project during construction. The plan will include procedures to reduce the potential for igniting combustible materials by preventing electrical hazards, use of flammable materials, and smoking onsite during construction and maintenance procedures. Project personnel will be directed to park away from dry vegetation; to equip vehicles with fire extinguishers; not to smoke; and to carry water, shovels, and fire extinguishers in times of high fire hazard.

APM HM-4. Health and Safety Plan Development and Implementation. PG&E will prepare a site-specific Health and Safety Plan (HSP) to ensure that potential safety hazards will be kept at a minimum. The HSP will include elements that establish worker training and emergency response procedures relevant to project activities. The plan will be submitted to the CPUC at least 30 days prior to construction for CPUC recordkeeping.

APM HM-5. Safe Practices and Record Keeping for Storage of Chemicals On-site. If it is necessary to store any chemicals on-site, they will be managed in accordance with all applicable regulations. Material Safety Data Sheets will be maintained and kept available on-site, as applicable.

APM HM-6. Safety Precautions Used for Removal of Contaminated Soils. In the event that soils suspected of being contaminated (based on evidence from visual, olfactory, or other means) are removed during excavation activities along the power line corridor, the excavated soil will be tested and, if contaminated above hazardous levels, will be contained and disposed of at a licensed waste facility. The presence of known or suspected contaminated soil will require testing and investigation procedures to be supervised by a qualified person, as appropriate, to meet state and federal regulations.

Hydrology and Water Quality

APM WQ-1. Development and Implementation of a Stormwater Pollution Prevention Plan. Following project approval, PG&E will prepare and implement a SWPPP to minimize construction

impacts on surface and groundwater quality. Implementation of the SWPPP will help stabilize graded areas and waterways and reduce erosion and sedimentation. The plan will designate BMPs that will be adhered to during construction activities. Erosion and sediment control measures, such as straw wattles, water bars, covers, silt fences, and sensitive area access restrictions (e.g., flagging) will be installed before the onset of winter rains or any anticipated storm events. Mulching, seeding, or other suitable stabilization measures will be used to protect exposed areas during construction activities, as necessary. During construction, measures will be in place to ensure that contaminants are not discharged from the construction sites.

APM WQ-2. Environmental Training and Monitoring Program (ETMP) Development and Implementation. Worker environmental awareness will communicate environmental issues and appropriate work practices specific to this project. This awareness will include spill prevention and response measures and proper BMP implementation. The SWPPP training will emphasize site-specific physical conditions to improve hazard prevention (e.g., identification of flow paths to nearest waterbodies) and will include a review of all site-specific water quality requirements, including applicable portions of , the Erosion Control and Sediment Transport Plan, Health and Safety Plan, and PG&E's Hazardous Substances Control and Emergency Response program. Details about the program will be described in the SWPPP.

APM WQ-3. Preparation of an Erosion Control and Sediment Transport Plan (ECSTP). PG&E will prepare an Erosion Control and Sediment Transport Plan (ECSTP) as an element of the SWPPP describing BMPs, to be used during construction. PG&E will ensure all BMPs are inspected before and after each storm event, maintained on a regular basis, and replaced as necessary through the course of construction. The plan will address construction in or near sensitive areas described in Section 3.4 Biological Resources. BMPs, where applicable will be designed based on specific criteria from recognized BMP design guidance manuals. Erosion-minimizing efforts may include measures such as:

- Avoiding excessive disturbance of steep slopes
- Defining ingress and egress within the project area
- Implementing a dust control program during construction
- Restricting access to sensitive areas (e.g. usage of silt fencing for the protection of wetland features)
- Using vehicle mats in wet areas
- Revegetating disturbed areas where applicable following construction
- Proper containment of stockpiled soils (including construction of berms in areas near water bodies, wetlands, or drainage channels)

Erosion control measures identified in the ECSTP will be installed in an area before clearing begins during the wet season in that area and before the onset of winter rains or any anticipated storm events. Temporary measures such as silt fences or wattles, intended to minimize sediment transport from temporarily disturbed areas, will remain in place until disturbed areas have stabilized. Such temporary measures will be placed and monitored by a qualified inspector to ensure effectiveness and these measures are repaired as needed.

PG&E will keep water equipment such as water trucks and water truck filling areas well-maintained and make repairs as soon as possible; will use water minimally for dust control and to clean construction areas and sweep and vacuum to the maximum extent possible; and will direct runoff to areas where it can be reused or absorbed into the ground. Water for dust control will be applied at a rate that will not lead to significant water runoff or potentially cause a nuisance.

The ECSTP will be submitted to the CPUC for review at least 30 days prior to the commencement of construction. The plan will be revised and updated as needed, and resubmitted to the CPUC if construction activities evolve to the point that the existing approved ECSTP does not adequately address the project.

APM WQ-4. Limited On-site Vehicle and Equipment Fueling. PG&E will use offsite fueling stations to the extent possible, including refueling of helicopters. On-site fueling is not likely, however, if necessary, conditions specified in SWPPP will be implemented. No refueling or fuel storage will occur within 100 feet of sensitive areas, including intermittent streams, wetlands, biological and cultural areas, or within 150 feet of wells, unless otherwise approved by the environmental inspector.

APM WQ-5. Proper Concrete Curing Techniques. PG&E will use proper storage and handling techniques for concrete curing compounds and will protect drain inlets prior to the application of curing compounds. If necessary, concrete washout will be performed in a designated area to be determined in the field and in the SWPPP, or concrete trucks will provide self-contained cleanout units. Temporary concrete washout facilities will be located a minimum of 50 feet from storm drain inlets, open drainage facilities, and watercourses. Concrete will be washed only from mixer chutes into approved concrete washout facilities. Concrete washout from concrete pumper bins can be washed into concrete pumper trucks and discharged into designated washout areas or properly disposed of offsite.

APM WQ-6. Proper Sanitary/Septic Waste Management. PG&E will locate sanitary facilities away from drainage facilities and watercourses and at least 100 feet from sensitive areas in a location convenient for pump-out; ensure that no untreated raw wastewater will be discharged or buried; treat temporary septic systems wastes to appropriate levels before discharging; and arrange for regular waste collection by a licensed hauler before facilities overflow.

APM WQ-7. Restricted Access to Pole 66/10. PG&E will access the existing Pole 66/10, which is located in a seasonal wetland, from the south side in order to prevent having to cross the drainage north of Pole 66/10. Trampling and compaction of the wetland at Pole 66/10 will be minimized. If necessary, timber mats will be installed to avoid surface disturbance to this wetland from equipment.

APM WQ-8. Hazardous Substance Control and Emergency Response Plan. PG&E has and will implement its system-wide program which includes established procedures for handling and managing hazardous substances and emergency response in the event of a hazardous substance spill. These procedures will add to the requirements in the project SWPPP. PG&E crew members will arrange to have emergency-spill supplies and equipment immediately available at all work areas. Oil-absorbent materials, tarps, and storage drums will be used to contain and control any minor releases. Detailed information for responding to accidental spills, and for handling any

resulting hazardous materials, will be provided in the project's Hazardous Substances Control and Emergency Response Plan.

APM WQ-9. Water-crossing Construction Timing. Water-crossing construction will be scheduled during dry months when the waterways have low or no flow in order to minimize potential impacts.

APM WQ-10. Use of Coffer Dams. If any flow is present during installation of the permanent culvert, coffer dams will be installed and the entire flow will be diverted around the work area during construction.

APM WQ-11. Sediment Barriers to Protect Wetland (W3). Sediment barriers between the wetland and the access road that leads to Tower 73/1 will be maintained while re-establishing this road.

Land Use and Planning

APM AG-1. Public Education Program. A governmental relations representative will provide local governmental agencies with a briefing of the project scope and schedule in advance of construction activities. A PG&E contact name and phone number will be provided for project related inquiries.

APM AG-2. Coordination with Nearby Residences. PG&E will coordinate with property owners within 300 feet of the project area at least 30 days prior to construction to alert them of project activities.

APM AG-3. Review of Project by San Luis Obispo County Airport and the Federal Aviation Administration. PG&E will submit the project for review to San Luis Obispo County Airport and the Federal Aviation Administration to determine what, if any, hazards are posed by the project. PG&E will address any potential hazards identified during this review.

Noise

APM NS-1. Noise Minimization with "Quiet" Equipment. "Quiet" equipment (i.e., equipment that incorporates noise control elements into the design—compressors have "quiet" models) will be used during construction whenever possible.

APM NS-2. PG&E Construction Hours. PG&E will limit construction to the hours between 7 a.m. and 7 p.m., Monday through Saturday, to the extent feasible. If nighttime work is needed because of clearance restrictions on the power line, PG&E will take appropriate measures to minimize disturbance to local residents, including contacting nearby residences to inform them of the work schedule and probable inconveniences.

APM NS-3. Limit of Unnecessary Engine Idling. PG&E will encourage construction crews to limit unnecessary engine idling. (See Air Quality measures.)

APM NS-4. Equipment Noise Emissions. PG&E construction crews will use equipment that is specifically designed for low noise emissions.

APM NS-5. Noise Minimization with Portable Barriers. Compressors and other small stationary equipment will be shielded with enclosures or portable barriers when used in proximity to residential areas.

APM NS-6. Noise Minimization through Direction of Exhaust. Equipment exhaust stacks and vents will be directed away from buildings, to the extent feasible for crews to comply with safe work procedures.

APM NS-7. Noise Minimization through Truck Traffic Routing. Truck traffic will be routed away from noise-sensitive areas where feasible.

APM NS-8. Noise Disruption Minimization through Residential Notification. PG&E will coordinate with San Luis Obispo County, the City of Atascadero, and the City of San Luis Obispo to notify residents that are located near the alignment of the timeframe for construction activities.

Transportation and Traffic

APM TT-1. Impacts to Existing Traffic Flows. PG&E will develop a project-specific Transportation Management Plan (TMP), which will be submitted to the CPUC for review at least 30 days prior to construction. The TMP will conform to the California Joint Utility Traffic Control Committee's Work Area Protection and Traffic Control Manual. The TMP will include the following:

- Standard safety practices, including installation of appropriate barriers between work zones and transportation facilities, placement of appropriate signage, and use of traffic control devices.
- Flaggers and/or signage will be used to guide vehicles through or around construction zones using proper construction techniques.
- Provision that all equipment and materials will be stored in designated staging areas on or adjacent to the work sites in a manner that minimizes traffic obstructions and maximizes sign visibility.
- Acceptable vehicle speeds on project roadways. Vehicle speeds will be limited to safe levels as appropriate for all roads, including access roads and overland routes without existing, posted speed limits.
- PG&E will avoid equipment/material transportation via helicopter, to the extent practical, during high traffic hours along the Highway 101 corridor.
- PG&E will obtain Cal Trans encroachment permits and comply with permit conditions as necessary.

APM TT-2. Lift Plan Development and Implementation. A Lift Plan will be prepared and approved by the FAA prior to all construction helicopter operations and will not result in a change in air traffic patterns either temporarily or permanently. PG&E does not anticipate that residents will be required to temporarily vacate their homes. In the unlikely event that final construction plans and the Lift Plan require otherwise, PG&E will coordinate with potentially affected residents (providing a minimum of 30 days notice) to minimize the duration of the necessary work and any resultant inconvenience.

APM TT-3. Emergency Route Access. PG&E will coordinate with local emergency personnel in the event that project activities may impact an access point or route during an emergency. All construction activities will be coordinated with local law enforcement and fire protection services and the project will not result in inadequate emergency access.

APM TT-4. Notification of Road Closure. PG&E will coordinate with users of Forest Service Road 30S11 to ensure that closure of the road will minimize any inconveniences, and will work with any affected parties to make alternative arrangements for access. PG&E will post signs on the road informing bikers and hikers of the anticipated schedule for closure of this road.

2.9 Electric and Magnetic Fields

Electric and magnetic fields (EMF) are not normally considered under CEQA due to a lack of agreement among scientists that EMF creates a potential health risk. There are no defined or adopted CEQA standards for defining health risk from EMF

Potential health effects from exposure to electric fields[9] produced by power lines (are typically not of concern since electric fields are effectively shielded by materials such as trees, walls, etc. Research on potential health risks from exposure to magnetic fields (invisible fields created by moving charges) from power lines remains inconclusive. Several national and international panels have stated that sufficient evidence does not exist to conclude that EMF causes cancer. The International Agency for Research on Cancer and the California Department of Health Services both classified EMF as a possible carcinogen (Aspen Environmental Group 2009).

There are currently no applicable regulations related to EMF levels from power lines or substations; however, following a decision from 1993 (D.93-11-013) that was reaffirmed on January 27, 2006 (D.06-01-042), the CPUC requires utilities to incorporate "low-cost" or "no-cost" measures to mitigate EMF at least 15 percent from new or upgraded electrical utility facilities up to approximately 4 percent of total project cost. The Transmission Magnetic Field Management Plan for the proposed project states "there are no feasible no-cost EMF reduction measures that would be implementable for the proposed project" (PG&E 2010). However, the lines are optimally phased and the existing phasing will be maintained to reduce magnetic field levels.

2.10 Alternatives

CEQA does not require a review of alternatives where, as here, the proposed project would result in no significant environmental impacts after mitigation (see Atlantic-Del Mar Reinforcement Project, A.01-07-004, Assigned Commissioner's Ruling dated October 16, 2002), as required by GO 131-D, Section IX.B.1(c). Because the project would replace existing conductor and structures within an existing alignment, a discussion of alternative alignments is not relevant in this application. Engineering alternatives are discussed briefly in the Permit to Construct Application.

[9] An electric field is produced by the existence of an electric charge, such as an electron, ion, or proton, in the volume of space or medium that surrounds it

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3: Environmental Setting and Environmental Impacts

3.1 Aesthetics

3.1.1 ENVIRONMENTAL SETTING

Regional Visual Character

The project is situated within California's central coastal region. The project alignment straddles Cuesta Ridge in the Santa Lucia Mountains, a northwest-trending mountain range of the Pacific Coast Ranges. The topographic change along the project alignment is dramatic, with elevations ranging from approximately 280 feet above mean sea level (amsl) in southern San Luis Obispo to approximately 1,500 feet amsl at Cuesta Pass.

Development varies along the alignment from suburban residential in the cities of San Luis Obispo and Atascadero, to grazing land in the Santa Margarita Valley, to the largely undeveloped open space of the Los Padres National Forest. The project alignment parallels US 101 for approximately 6 miles of the 15.5-mile route.

Local Visual Character

Landscape Units Overview

The project area is categorized geographically into four general areas or "landscape units" shown on Figures 3.1-1A through 3.1-1E and listed below:

1. Atascadero
2. Santa Margarita Valley
3. US 101/Cuesta Pass
4. San Luis Obispo

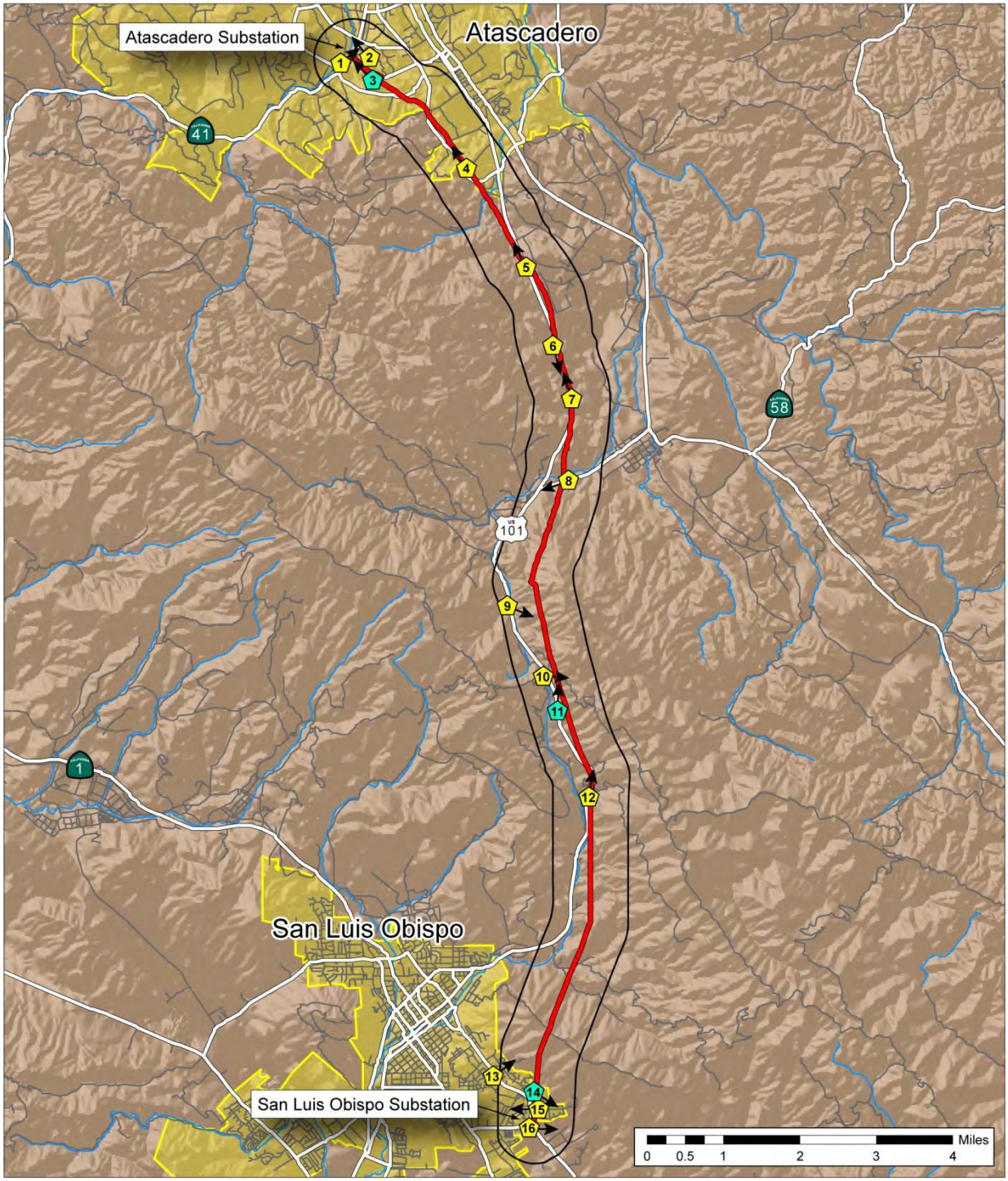
Existing views, viewer sensitivity, and overall visual quality are discussed in Table 3.1-1. Each landscape unit is described below.

Landscape Unit 1: Atascadero

This landscape unit is characterized by gently rolling topography and residential neighborhoods. Atascadero Substation is located in a single-family residential neighborhood near Lake Atascadero Park, which includes a perimeter lake path used by joggers and pedestrians. The substation is visible from a portion of State Route (SR) 41.

The project route continues through residential neighborhoods in the rolling hills south of Atascadero and enters a more sparsely inhabited rural residential area. The alignment crosses San Gabriel Road and Atascadero Road, then runs roughly parallel and east of Atascadero Road for approximately 1.5 miles. In this area, single-family homes are interspersed with fenced pastures

Figure 3.1-1A: Project Landscape Units and Photo Viewpoint Locations



SOURCE: Environmental Vision 2009, PG&E 2010, and RMT Inc. 2010

LEGEND

- U.S. Highway
- State Route
- City Boundary
- Atascadero - San Luis Obispo 70kV Power Line
- Half Mile Project Buffer
- Highway
- Road
- Stream / River
- Photo Viewpoint
- Visual Simulation Viewpoint

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Figure 3.1-1B: Project Landscape Units and Photo Viewpoint Locations

1. State Route 41 northbound looking north toward Atascadero Substation

2. Santa Rosa Road looking northwest

3. Santa Rosa Road at Marchant Way looking northwest *Simulated View

4. Atascadero Avenue at La Paz Road looking north

SOURCE: Environmental Vision and PG&E 2009

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Figure 3.1-1C: Project Landscape Units and Photo Viewpoint Locations

SOURCE: Environmental Vision and PG&E 2009

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Figure 3.1-1D: Project Landscape Units and Photo Viewpoint Locations

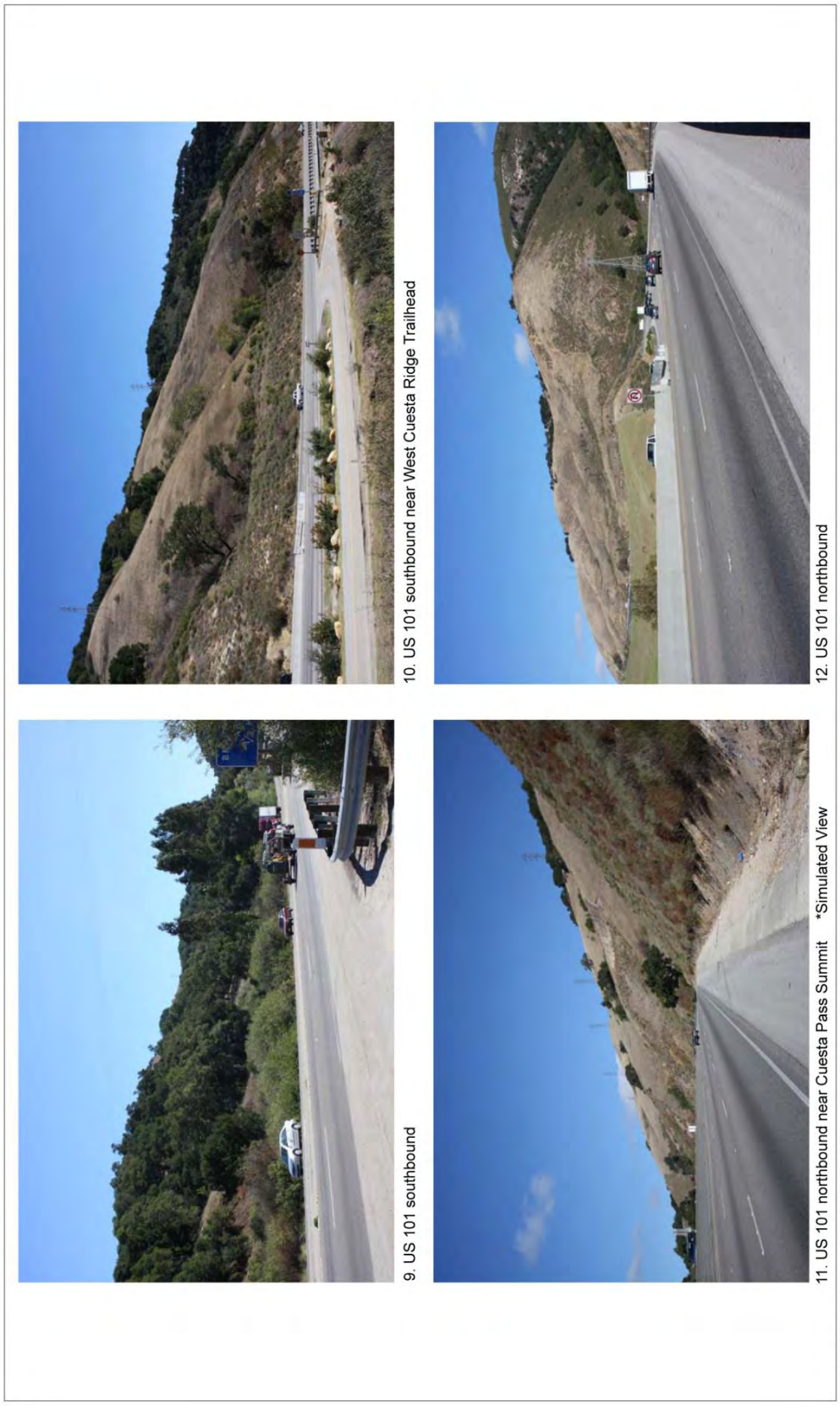
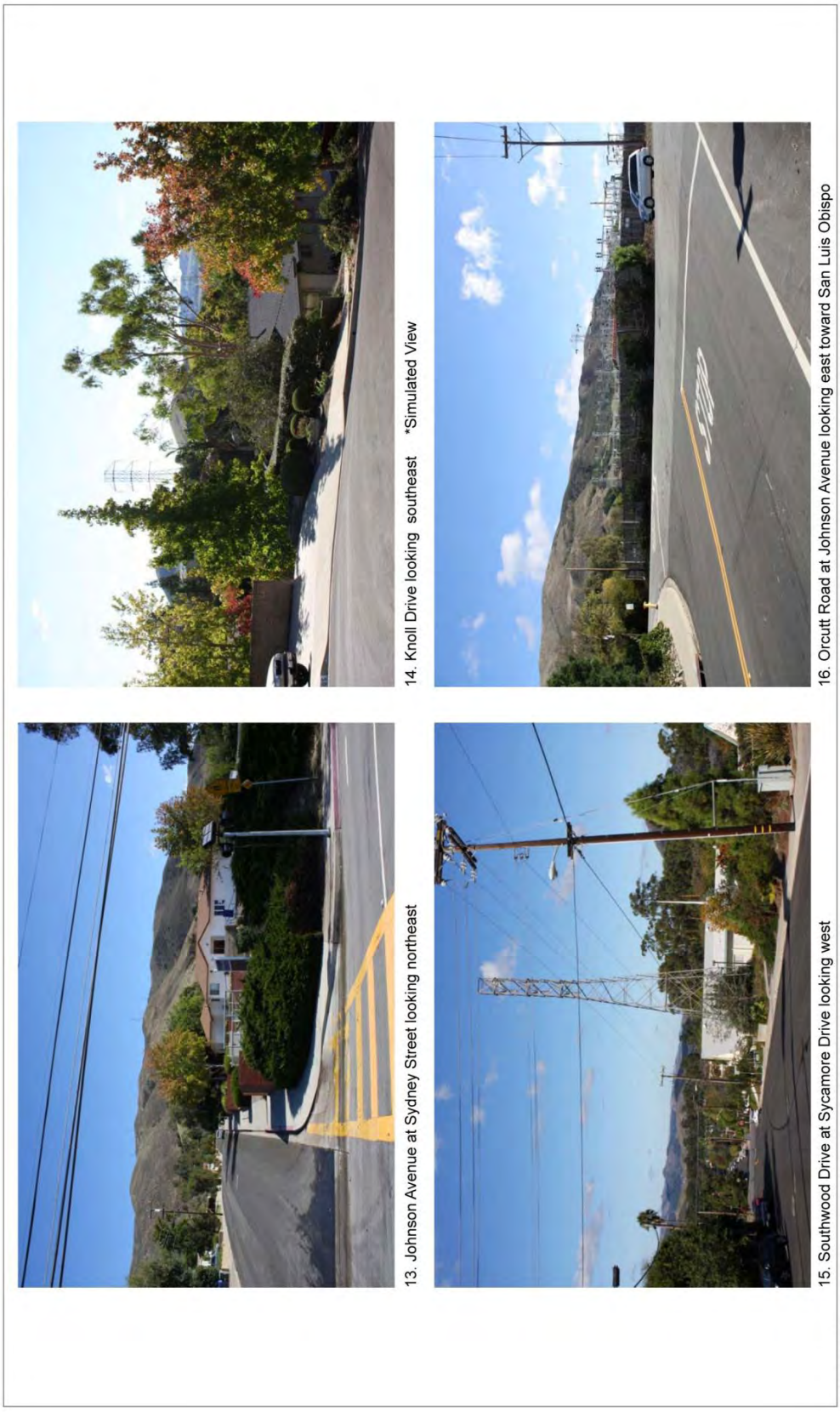


Figure 3.1-1E: Project Landscape Units and Photo Viewpoint Locations



SOURCE: Environmental Vision and PG&E 2009

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Table 3.1-1: Summary of Landscape Units and Visual Characteristics

Landscape Unit	Approximate Length of Power Line (miles)	Approximate Structure Location Numbers	Visual Quality	Viewer Exposure	Viewer Sensitivity
Atascadero	2.4	Atascadero Substation through 62/11	Moderately low. The visibility of the existing power line and other developments in the area detract from the natural background.	Typical viewers in this area include residents and recreationalists at Lake Atascadero Park. Motorists from SR 41 would have a short view of the project.	Moderate to high
Santa Margarita Valley	4.7	62/12 through 67/6	Moderate. Mature trees and other vegetation provide vivid views of natural features; however, the visibility of existing power poles above the natural skyline slightly detracts from the overall intactness of the view.	US 101 roadway travelers are the largest viewer group. The route parallels US 101 for approximately 10 miles. With a posted speed limit of 65 miles per hour (mph), view duration for motorists is estimated at 10 minutes or less.	Moderate to low
US 101/Cuesta Pass	7.4	67/7 through 75/0	Moderately high. Rolling hills and mature trees hide the existing power line. The parking lot for the U.S. Forest Service (USFS) West Cuesta Ridge Trailhead is located within this landscape unit.	As above, US 101 roadway travelers are the largest viewer group. The route parallels US 101 with a posted speed limit of 65 mph.	Moderate to low
San Luis Obispo	1.0	75/1 through San Luis Obispo Substation	Moderately low. The visibility of the existing power line and other developments in the area detract from the natural background.	A limited number of residents would have permanent views of the project.	Moderate to high

and rolling hills. Views of the project route from public locations are partially screened by a combination of topography, mature vegetation, and structures.

Landscape Unit 2: Santa Margarita Valley

This landscape unit covers an area south of Atascadero city limits, crossing through sparsely settled, grass-covered hills in the Santa Margarita Valley to the foot of the Santa Lucia Range. The existing power line parallels US 101 approximately 100 to 500 feet from the roadway corridor. The power line is visible from both travel directions from locations along the highway, although in some places it is screened by mature roadside vegetation. The unincorporated communities of Cushing and Garden Farms lie to the east of US 101 in this area. A few residences in this area are located adjacent to the route. Approximately 1.5 miles from the city limits, the landscape opens up and is characterized by rural, grass-covered fields. In this area the existing wood poles are man-made elements visible in the landscape.

Landscape Unit 3: US 101/Cuesta Pass

The third landscape unit crosses Cuesta Pass, traversing rugged topography of the Santa Lucia Range that separates the Santa Margarita and Los Osos Valleys. North of Cuesta Pass, mountain vegetation is characterized by relatively dense forest. Upon entering the Santa Lucia Mountains, the existing power line continues to parallel US 101. Where the project route extends into the mountains, wood poles transition to lattice steel towers. In some places, towers are partially or completely screened by topography and trees.

Most of the existing project towers located within this landscape unit are considerably higher than the roadway level and many are outside of motorists' normal field of vision. In addition, because the north side of the Santa Lucia Range is more heavily wooded than the south side, towers on this side of Cuesta Pass are partially screened with a backdrop of trees. South of the summit, grass-covered hillsides with sporadic shrub and tree clusters are more typical. In places along US 101, unobstructed views are available from both travel directions. The alignment turns southwest and leaves the US 101 viewshed. The alignment traverses Reservoir Canyon and continues through the sparsely settled hills down into the residential area of San Luis Obispo.

To the extent that the towers are visible in this landscape unit, these structures are established visual elements in the existing scene.

Landscape Unit 4: San Luis Obispo

This landscape unit extends from the Santa Lucia Mountains into southeastern San Luis Obispo through part of a single-family residential neighborhood. Along the portion of the route that traverses this neighborhood to San Luis Obispo Substation, existing lattice towers are sited behind homes and along public roadways. Structures and mature residential landscaping partially screen many views of the towers. However, relatively unobstructed close-range views of existing towers are available from some public locations. In this residential landscape setting, wood utility poles and lattice towers of the existing line are established visual elements.

Sensitive Viewers

Accepted visual assessment methods, including those adopted by the Federal Highway Administration, establish sensitivity levels as a measure of public concern for changes to scenic quality. Viewer sensitivity, one of the criteria for evaluating visual impact significance, is divided into high, moderate, and low categories. Factors considered in assigning a sensitivity level include viewer activity, view duration, viewing distance, adjacent land use, and special management or planning designation. Viewer exposure and viewer sensitivity are listed for each landscape unit in Table 3.1-1.

Scenic Highways

California's Scenic Highway Program was created by the State Legislature in 1963. Its purpose is to preserve and protect scenic highway corridors from change that would diminish the aesthetic value of lands adjacent to these highways. The State Scenic Highway System includes highways that are either eligible for designation as scenic highways or have been designated as such. The status of a state scenic highway changes from "eligible" to "officially designated" when the local jurisdiction adopts a scenic corridor protection program, applies to Caltrans for scenic highway approval, and receives the designation from Caltrans (Caltrans 2010).

No state-designated scenic highways are located along the project alignment. The nearest state-designated scenic highway is SR 1. The designated scenic portion of SR 1 is located approximately 2 miles west of the project alignment. The project alignment is not visible from SR 1 due to intervening topography and distance.

The SR 41 segment west of US 101 and all of US 101 in the project area are listed as eligible as state-designated scenic highways. Approximately 6 miles of the project alignment runs parallel to US 101 and a segment of the alignment also crosses US 101; therefore, a majority of the project would be visible from US 101. At its nearest point, SR 41 is within 200 feet of the project alignment. The northernmost portion of the project is visible from SR 41 (Figure 2.4-1).

Scenic Vistas

A scenic vista is defined as a distant public view along or through an opening or corridor that is recognized and valued for its scenic quality. A parking lot for USFS's West Cuesta Ridge trailhead is located next to US 101 on Cuesta Pass. Scenic vistas from the parking lot include hillside landscape. No other scenic vistas are located within the project area.

Light and Glare

Lighting sources in the project area include street and residential lighting through portions of Atascadero and San Luis Obispo. Lighting along US 101 is limited to intersections, interchanges, and sign illumination in rural San Luis Obispo County and through Cuesta Pass. Lights from vehicles traveling along the US 101 corridor and local streets also are a source of nighttime light in the project area.

3.1.2 ENVIRONMENTAL IMPACTS AND ASSESSMENT

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
A) Have a substantial adverse effect on a scenic vista?	☐	☐	☑	☐
B) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☑	☐
C) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☑	☐	☐
D) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	☐	☐	☑	☐

A) Would the project have a substantial adverse effect on a scenic vista?

Construction. One area along the construction route is considered a scenic vista. Construction impacts would be associated with ground disturbance and the presence of construction equipment and materials for the replacement of three towers in the area. Construction would interrupt views and would result in some visual impacts within the background of the scenic vista. Impacts to the scenic vista from construction would be short-term and less than significant.

Operation and Maintenance. Impacts from replacement of existing towers within the scenic vista would be minimal. Photo 10 on Figure 3.1-1d shows a portion of the scenic vista. The new lattice towers would be approximately 10 to 20 feet taller than the existing towers and would be located within 30 feet of the existing towers; however, because the overall view currently includes three towers, the change in height within the overall vista and the relatively small changes in location would be considered a less than significant impact on the overall view.

B) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No officially designated scenic highways are present along the project alignment. The nearest officially designated scenic highway, SR 1, is located approximately 2 miles west of the project alignment. The alignment is not visible from SR 1 due to intervening topography and distance. The alignment is within 200 feet of an eligible state scenic highway and crosses another eligible state scenic highway. As many of four poles would be replaced with LDS poles within the area visible from SR 41. The LDS poles would be similar in appearance to the existing wood poles. No

vegetative maintenance or tree removal would occur in the area visible from SR 41. Many of the pole and tower replacements would be visible from eligible state scenic highway US 101. Minimal vegetative maintenance and one possible tree removal location would be visible from US 101, but would not damage any scenic resources within the sections of highway eligible for listing. The project would have a less than significant impact on scenic resources.

C) Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

Construction. Impacts from construction would be associated with ground disturbance and the presence of construction equipment and materials. Construction would result in some short-term impacts to the visual character in the project area; however, impacts to the visual character from construction would be short-term, limited in extent, and less than significant. Implementation of APM AE-1 would further reduce potential impacts to the visual character of the area during construction.

> **APM AE-1. Construction Activities.** PG&E will make an effort to keep construction activities as clean and inconspicuous as practical by storing building materials and equipment away from public view and keeping most construction activity within the right-of-way.

Operation and Maintenance. Operation of the proposed project would not substantially degrade the existing visual character or quality of the area and its surroundings. Operation and maintenance of the existing power line alignment would remain the same following completion of construction. Replacement poles and towers would be located immediately adjacent to existing structures, with the exceptions noted in Table 2.4-2. Replacement structures would be slightly taller than existing structures (Table 2.4-3). New LDS poles would have a similar dark brown color to the existing wood poles. TSPs would replace some existing lattice towers and would significantly reduce the permanent footprint of the towers. New towers would be visually similar to the existing towers.

Key observation points (KOPs) were selected and used in the analysis of potential visual impacts. Simulations from the KOPs were prepared to depict the visual difference between the current power line and the proposed project. Visual simulations are based on project engineering data provided by PG&E and were chosen as representative views along the project alignment. KOPs are located at:

- Santa Rosa Road at Marchant Way, Atascadero (Figure 3.1-2A and Figure 3.1-2B)
- Northbound US 101 near Cuesta Pass (Figure 3.1-3A and Figure 3.1-3B)
- Knoll Drive, San Luis Obispo (Figure 3.1-4A and Figure 3.1-3B)

Figure 3.1-2A shows the view from a residential street near Lake Atascadero Park in Atascadero. It portrays residential views in Landscape Unit 1 and illustrates the appearance after existing wood poles are replaced with LDS poles. Figure 3.1-2B shows the new poles and a slightly different design and height than the existing poles as seen from this KOP. Poles would continue to be visible in the foreground, but the slight increase in height would not further degrade the existing

views. Sensitive viewers in the area, which are mostly residents from the immediate area, would not notice any substantial change to the visual character as a result of the proposed project.

Figure 3.1-3A illustrates the project-related visual change viewed from US 101 near Cuesta Pass, and is representative of locations where the project is most visible along US 101 in Landscape Units 2 and 3. Figure 3.1-3B shows simulated lattice towers along the pass replaced by slightly taller lattice towers. The project would not substantially affect the visual character or quality of the landscape visible in this KOP. The simulation demonstrates that project-related visual change would be minor and incremental. The towers would remain subordinate components of the view in relation to the hills and roadway. Viewers in the area, including motorists along US 101, would not experience any substantial change in visual quality, nor a substantial alteration to the area's visual character as a result of the proposed project.

Figure 3.1-4A and Figure 3.1-4B depicts the project elements through a residential neighborhood in the City of San Luis Obispo in Landscape Unit 4 where TSPs will replace lattice towers. The project would reduce the existing impact to the visual character or quality of the area seen in this KOP. Residents with existing towers on their properties have requested that the structures be replaced with TSPs to reduce the invasive size and appearance of the structures. New project structures would continue to be visible in the foreground of the area, but implementation of APM AE-5 would require using a more simplified and streamlined replacement pole, which could be considered a positive visual change.

> **APM AE-5. Replacement of Lattice Steel Towers with TSPs in SLO City Limits.** In order to minimize the footprint and reduce potential visibility, TSPs will replace lattice steel towers. This allows for a small impact area within properties. Note: Previous discussions with property owners have resulted in the determination of low impact locations with respect to vegetation removal, future property use, TSP access, and visual impact.

New structures that would be placed in areas not immediately adjacent to existing structures have the potential to degrade the existing visual character of the area. Tower 68/9 would be located approximately 100 feet south of an existing tower. This tower would be located within woodland vegetation and would be over 0.5 mile from US 101. The minor change would not be considered a significant visual change for motorists or hikers in the West Cuesta Ridge Trail area. Tower 74/2 would be relocated approximately 150 feet north of the existing tower to support the power line after Tower 74/1 is removed. The minor change would not be considered a significant visual change for the public. With the removal of Tower 74/1, the project would reduce the number of visible towers in the area and would create a minor improvement to the background views for the public.

Tower 75/2 would be replaced with a TSP and would be moved approximately 80 feet north. The replacement TSP would be closer to the local residential street, but the visual impact would be reduced from the intrusive visual impact from the existing tower by reducing the footprint of the structure.

At five locations, existing wood poles would be topped and conductors relocated onto new LDS poles. The topped poles would be located along the US 101 corridor and would be seen only

briefly by highway motorists. Impacts to the existing visual character from relocated structures would be less than significant.

The project would require some vegetation removal, including approximately 30 mature trees. Implementation of APM AE-2 would reduce visual impacts associated with tree removal. APM AE-4 required the reseeding of rare plants at the direction of CDFG; however, this APM has been supersede by mitigation measure BO-28 for the purpose of creating a project specific post-construction Revegetation and Monitoring Plan. Implementation of mitigation measure BO-28 would further reduce potential impacts to the area's visual quality to less than significant.

> **APM AE-2. Tree Replacement.** In the City of Atascadero where project implementation requires native tree removal, native mature trees that are removed that come under the jurisdiction of the city's tree ordinance will be replaced at a rate of 5:1. Additionally, pursuant to discussion with city officials, replacement trees will be sited to help screen new poles. In the City of San Luis Obispo some trees will be removed in backyards or side yards to provide sufficient working space for construction equipment and safe electrical clearances for the new TSPs and conductor. Property owners have been consulted and written permission will be obtained from these property owners prior to removal of any trees.

The project does not cross USFS land, although it passes near portions of the Los Padres National Forest. Available views from the forest currently include lattice towers and conductors located along the project alignment. The project would not significantly impact existing views from the forest land because of the relatively minor modifications that would occur to the existing power line.

The project would not substantially degrade the existing visual character or quality of the project area and its surroundings with mitigation implemented and would have a less than significant impact.

D) Would the project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

The LDS poles would be self-weathering, non-reflective, and would have a similar appearance to the existing wood poles. The steel lattice towers and TSPs would be made of non-reflective galvanized steel. Implementation of APM AE-3 would reduce minor glare by replacing the existing conductors with non-specular conductors. The project would not create a new source of substantial glare in the project area.

> **APM AE-3. New Source of Substantial Light or Glare Avoidance.** PG&E will replace the existing conductor with a non-specular conductor for the specific purpose of minimizing the reflectivity of any new project facilities.

No permanent lighting facilities are proposed as part of the project. Lighting would not be required during construction because regular construction activities would be scheduled to occur only during daylight hours. Implementation of APMs AE-3 and NS-2 would reduce impacts to the area from project-related light and glare to a less than significant level.

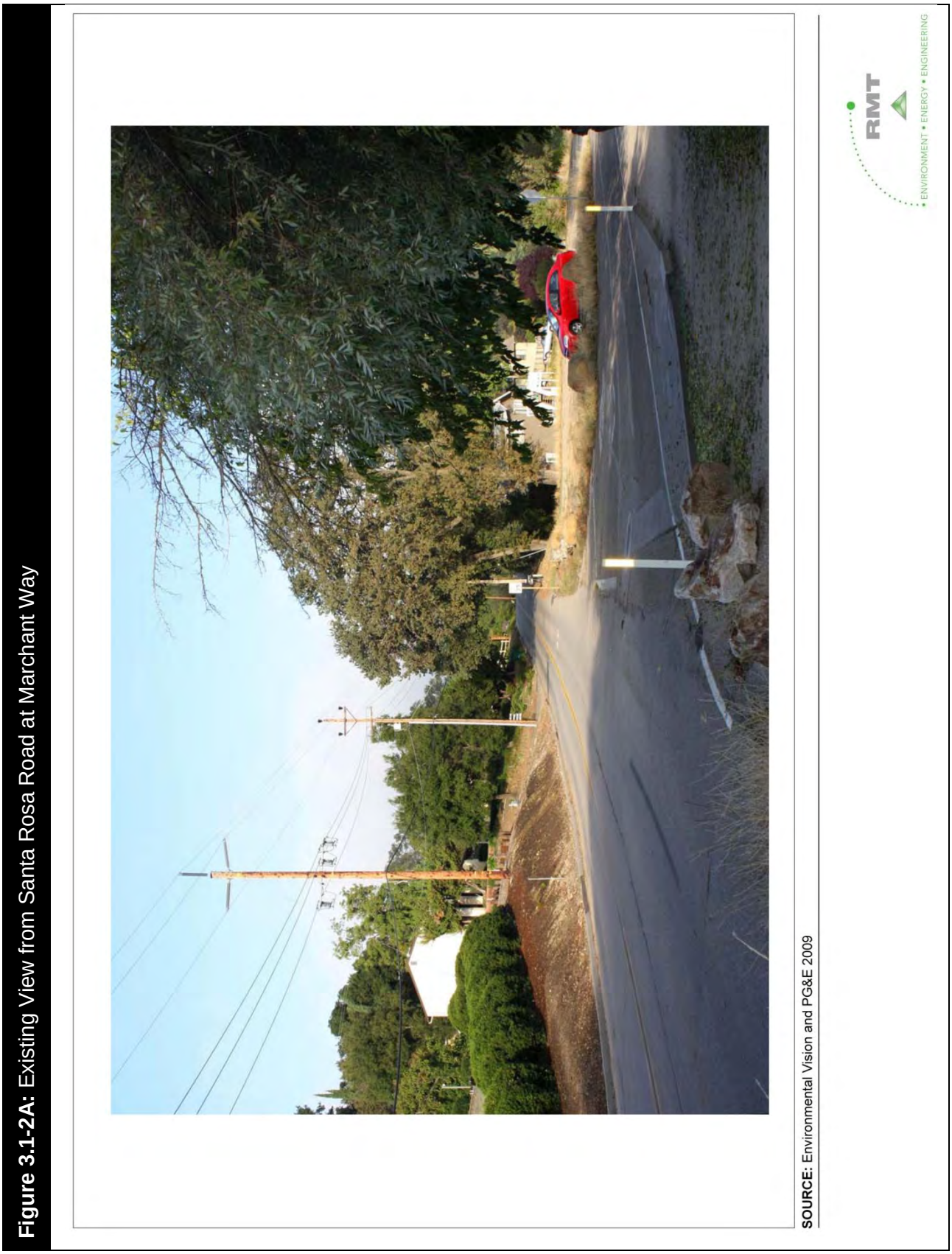

Figure 3.1-2A: Existing View from Santa Rosa Road at Marchant Way

SOURCE: Environmental Vision and PG&E 2009

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Figure 3.1-2B: Simulated View from Santa Rosa and Marchant Way

SOURCE: Environmental Vision and PG&E 2009

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SOURCE: Environmental Vision and PG&E 2009

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Figure 3.1-3A: Existing View from Northbound US 101 near Cuesta Pass

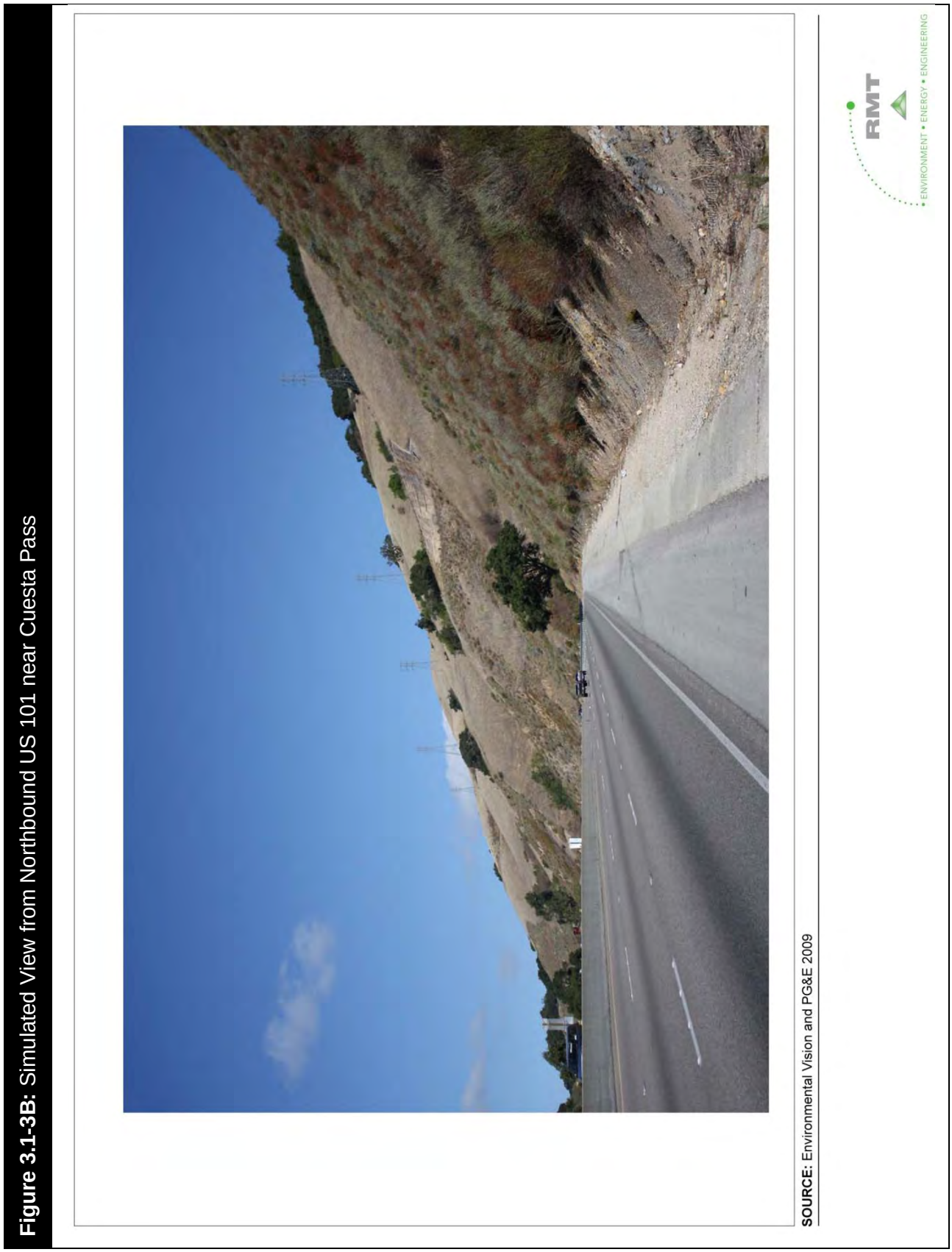

Figure 3.1-3B: Simulated View from Northbound US 101 near Cuesta Pass

SOURCE: Environmental Vision and PG&E 2009

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Figure 3.1-4A: Existing View from Knoll Drive

SOURCE: Environmental Vision and PG&E 2009

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SOURCE: Environmental Vision and PG&E 2009

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Figure 3.1-4B: Simulated View from Knoll Drive

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3.2 Agricultural Resources

3.2.1 ENVIRONMENTAL SETTING

Regional

The San Luis Obispo County's agricultural industry produced over $600 million in profits in 2009. Wine grapes, representing 27 percent of the proceeds, are the county's most valuable crop (SLO County 2009).

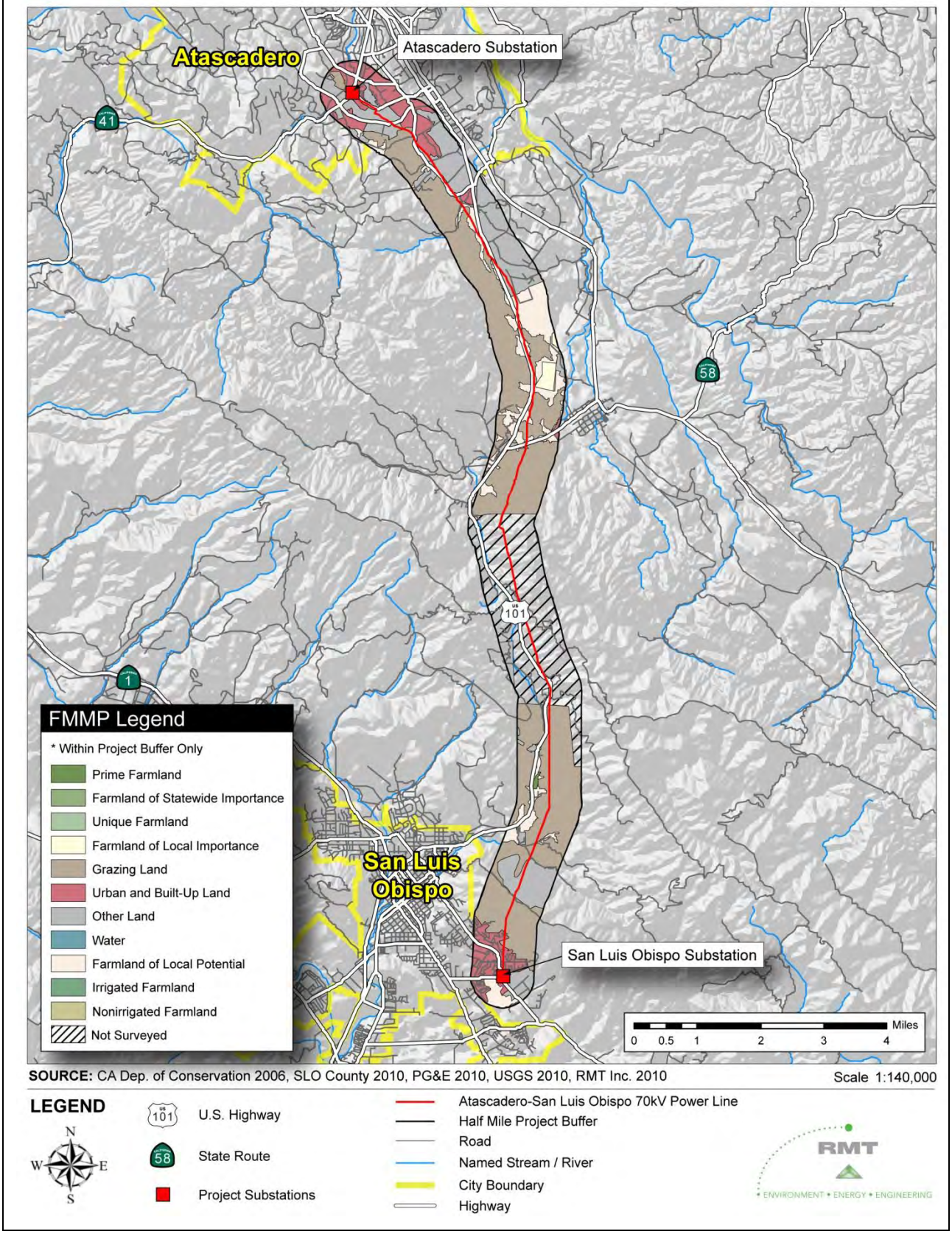
Local

The project alignment would not traverse any actively farmed agricultural lands (e.g., orchards or vineyards). Two temporary construction areas would be located directly adjacent to a vineyard. Approximately half of the alignment is located on grazing lands, as classified by the California Department of Conservation's (CDC's) Farmland Mapping and Monitoring Program (FMMP) (CDC 2007). A small portion of the alignment is on lands classified under the Williamson Act as prime agricultural land and non-prime agricultural land. Farmland designations and Williamson Act contract lands are shown on Figure 3.2-1.

3.2.1 ENVIRONMENTAL IMPACTS AND ASSESSMENT

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
A) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use?	☐	☐	☑	☐
B) Conflict with existing zoning for agricultural use or a Williamson Act contract?	☐	☐	☑	☐
C) Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to nonagricultural use?	☐	☐	☐	☑

Figure 3.2-1: Farmland Designations and Williams Act Contract Lands



A) Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to nonagricultural use?

Construction. The majority of the power line alignment is located on grazing lands (Figure 3.2-1); however, portions of the line cross areas designated by the FMMP as Prime Farmland or Farmland of Local Importance (CDC 2007).

Ground disturbance and staging would be limited to areas within the existing power line alignment or off-site service yards. Table 3.2-1 identifies the designated farmland that would be disturbed by construction activities. Approximately 5.66 acres of grazing land, 0.03 acre of Prime Farmland, and 1.88 acres of Farmland of Local Importance would be temporarily disturbed. Impacts would be temporary and work areas would be restored to original conditions and returned to farming use after completion of construction. Construction would have a less than significant impact on the conversion of designated farmland to nonagricultural use.

Operation and Maintenance. Five new interset poles and Pole 66/14A would be located on FMMP grazing land or Farmland of Local Importance. The installation of these additional poles would permanently remove a negligible amount of land. However, Pole 63/3 and Tower 75/1, currently located on FMMP grazing land, would be removed and the land would be restored to farmland. The net change in conversion of FMMP lands to nonagricultural use would involve the permanent removal of a negligible amount of land (less than 0.01 acre). Existing agricultural activities in the area would not be affected. Operation and maintenance would have a less than significant impact to the conversion of FMMP lands to nonagricultural use.

Table 3.2-1: Construction Disturbance to FMMP and Williamson Act Lands

Description	FMMP Land	Williamson Act Land
Staging/Laydown Area in Santa Margarita near Wilhelmina Avenue	0.89 acre Grazing Land 1.86 acres Farmland of Local Potential	N/A
Staging/Laydown Area at Wood Winery near Tower 72/3	0.92 acre Grazing Land	0.92 acre Non-Prime Agricultural Land
Staging/Laydown Area at Wood Winery near Tower 72/3	0.31 acre Grazing Land 0.03 acre Prime Farmland	N/A
Shoo-fly Area near Tower 73/0	0.23 acre Grazing Land	0.23 acre Non-Prime Agricultural Land
Staging/Laydown Area near Tower 73/3 in Reservoir Canyon	3.01 acres Grazing Land 0.02 acre Farmland of Local Potential	3.03 acres Prime Farmland
Shoo-fly Area near Tower 75/0	0.3 acre Grazing Land	N/A
Total	5.66 acres Grazing Land 0.03 acre Prime Farmland 1.88 acres Farmland of Local Importance	4.18 acres

B) Would the project conflict with existing zoning for agricultural use or a Williamson Act contract?

Portions of the project area are under Williamson Act contracts (Figure 3.2-1). The project would not conflict with existing zoning districts or a Williamson Act contract because the project area would be located completely within the existing PG&E ROW and would involve replacement of existing infrastructure. Approximately 4.18 acres of Williamson Act lands would be disturbed by construction activities (Table 3.2-1). Impacts would be temporary and no rezoning would be necessary. The project would have a less than significant impact on existing zoning for agricultural use and Williamson Act contracts.

C) Would the project involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to nonagricultural use?

Work areas and pull and tension sites would experience the most disturbance from pole and tower installation and reconductoring activities. Access and delivery of materials and equipment to these sites along the power line could temporarily disturb existing agricultural or grazing lands through minor grading and vegetation clearing along existing access roads. Farmland would continue to be farmed or used for grazing around and between new power poles and towers, as currently occurs with the existing power line. The project would have no impact to the environment that would result in the conversion of farmland to nonagricultural use.

3.3 Air Quality

3.3.1 ENVIRONMENTAL SETTING

Air Basin

The project area is located within the South Central Coast Air Basin, which is adjacent to the Pacific Ocean and includes Ventura, San Luis Obispo, and Santa Barbara Counties. Air quality in San Luis Obispo County is regulated by the U.S. Environmental Protection Agency (EPA), the California Air Resources Board (CARB), and the San Luis Obispo County Air Pollution Control District (SLOCAPCD). These agencies develop rules, regulations, policies, and/or goals to comply with applicable legislation. Although EPA regulations may not be superseded, both state and local regulations may be more stringent.

Climate and Meteorology

The climate and air quality of San Luis Obispo County are directly related to its coastal location. The coastal lowlands and plains are bounded on the east by the Santa Lucia Mountains and experience a maritime climate. The climate is modified locally by elevation, distance from the ocean, and the presence of the mountains. Area weather is normally under the influence of a high-pressure system located to the west. As a result, a common weather pattern includes afternoon and evening onshore (westerly) winds.

The climate in the County is best described as Mediterranean, with average high temperatures ranging from the low 80s (degrees Fahrenheit) in summer to the low 60s (degrees Fahrenheit) in winter. Precipitation occurs primarily from November through April and typically averages approximately 23 inches annually.

Ambient Air Quality

Three air quality designations can be given to an area for a particular pollutant:

- **Non-attainment**: This designation applies when air quality standards have not been consistently achieved.
- **Attainment**: This designation applies when air quality standards have been achieved.
- **Unclassified**: This designation applies when there are not enough monitoring data to determine if the area should be designated non-attainment or attainment.

The state and federal ambient air standards are presented in Table 3.3-1.

The primary pollutants of concern in San Luis Obispo County are ozone and particulate matter less than 10 microns in size (PM_{10}). The County is designated as non-attainment by CARB for ozone and PM_{10} state standards. Ozone is not directly emitted, but is formed in the atmosphere by complex chemical reactions of various precursors, reactive organic gases (ROGs), and nitrogen oxides (NO_x) in the presence of sunlight. The major sources of ozone precursor emissions in San Luis Obispo County are motor vehicles, household products, open burning, and industrial/commercial facilities (SLOCAPCD 2010). PM_{10} sources include vehicle exhaust, road dust, mineral quarries, grading, demolition, agricultural tilling, and burning (SLOCAPCD 2010).

Table 3.3-1: Summary of Ambient Air Monitoring Results in Proximity to the Project Area (Cities of Atascadero and San Luis Obispo)

Location	Pollutant	Averaging Time	State Ambient Air Quality Standard	Federal Ambient Air Quality Standard	Measurements in		
					2006	2007	2008
City of Atascadero	Ozone (ppm)	1-Hour 8-Hour	0.09 0.07	(-) 0.075	0.093 0.077	0.079 0.072	0.087 0.080
	PM_{10} ($\mu g/m^3$)	24-Hour Annual Arithmetic Mean	50 20	150 (-)	59.0 18.0	49.0 *	43.6 20.4
City of San Luis Obispo	Ozone (ppm)	1-Hour 8-Hour	0.09 0.07	(-) 0.075	0.070 0.060	0.071 0.064	0.109 0.076
	PM_{10} ($\mu g/m^3$)	24-Hour Annual Arithmetic Mean	50 20	150 (-)	72.0 15.0	32.0 14.9	42.2 17.4

Notes:
(-) indicates that no standard is established
* indicates insufficient (or no) data to determine the value
ppm = parts per million
$\mu g/m^3$ = micrograms per cubic meter

SOURCE: CARB 2009

SLOCAPCD operates a network of ambient air quality monitoring stations that measure concentrations of many of the regulated criteria pollutants. Data from the monitoring stations nearest the project area, located in the City of Atascadero on Lewis Avenue and in the City of San Luis Obispo on South Higuera Street, were used to determine the existing ambient air quality for the project area. Table 3.3-1 presents concentrations of the non-attainment pollutants – ozone and PM_{10} – measured at these stations. Concentrations of carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), PM_{10}, and particulate matter less than 2.5 microns in size ($PM_{2.5}$) have not exceeded a federal or state standard in the past three years.

Measured 1-hour and 8-hour ozone concentrations at both monitoring stations have exceeded the state standard in one or more of the past three years. The 24-hour PM_{10} concentration was exceeded at both stations in one of the past three years, and the annual mean concentration of PM_{10} was exceeded at the Atascadero location in one of past three years.

SLOCAPCD has established construction emissions criteria for short-term emission of ROG, NO_x, and PM_{10}. The combined quantitative threshold of significance for ROG and NO_x is 2.9 tons per quarter (tpq). The significance thresholds of diesel exhaust particulate and fugitive PM_{10} are 0.13 tpq and 2.5 tpq, respectively. Quantitative thresholds have not been established for CO, SO_2, or $PM_{2.5}$ emissions (SLOCAPCD 2009).

Toxic Air Contaminants

Toxic air contaminants are air pollutants that may cause adverse health effects, particularly cancer or reproductive harm. The Air Toxics "Hot Spots" Information and Assessment Act (Assembly Bill [AB] 2588) was enacted in September 1987. The project would not be considered a stationary source subject to AB 2588 requirements.

Sensitive Receptors

Sensitive receptors include children, seniors, sick persons, or persons subject to continuous exposure based on the averaging period for the pollutant. Sensitive receptor locations are facilities such as hospitals, schools, convalescent facilities, or residential areas. Several sensitive receptors, including residences, parks, schools, and churches are located within 1,000 feet of the project area.

Naturally Occurring Asbestos

Naturally occurring asbestos (NOA) is associated with serpentinite rock formations in many areas of California, including portions of the project footprint. A Geological Evaluation of the project area was conducted, as required by SLOCAPCD District Rule 412 – *Airborne Toxic Control Measures, Section 93105: Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations*. The Geological Evaluation identified serpentinite rock in areas to be disturbed during project construction (CARB 2002).

3.3.2 ENVIRONMENTAL IMPACTS AND ASSESSMENT

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
A) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☑	☐
B) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☑	☐	☐
C) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	☐	☑	☐	☐
D) Expose sensitive receptors to substantial pollutant concentrations?	☐	☑	☐	☐

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
E) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☑

A) Would the project conflict with or obstruct implementation of the applicable air quality plan?

Construction. Activities conducted within San Luis Obispo County are required to comply with provisions of the 2001 Clean Air Plan (CAP) (SLOCAPCD 2001). The 2001 CAP describes the District's strategies to achieve and maintain the State Ozone Standard by reducing ozone precursor emissions from a wide variety of stationary and mobile sources. SLOCAPCD is responsible for implementing and regulating air emissions from stationary and area sources. The CAP identifies emission control techniques for stationary and mobile sources. It incorporates an estimation of emissions from motor vehicle use to determine the appropriate control measures to reduce ozone emissions.

The project would be consistent with the goal of the CAP because it would not permanently increase emissions from vehicles through the generation of a significant number of new vehicle trips. Additional traffic would be generated from construction activities; however, these increases would not be permanent and would last approximately 24 months. The CAP incorporates construction projects into its analysis. Impacts would be less than significant.

Operation and Maintenance. Operation and maintenance activities for the power line would be similar or reduced in scope to existing operation and maintenance activities. No change in emissions associated with ongoing maintenance activities would occur, and would be consistent with the goals of the 2001 CAP; therefore, there would be no impact.

B) Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Construction. Construction equipment exhaust results in short-term emissions of ROG, NO_x, CO, SO_2, PM_{10}, and $PM_{2.5}$. Combined ROG and NO_x emissions during construction are estimated to be 1.98 tpq or less and are less than the quantitative thresholds of significance established by SLOCAPCD for construction projects (2.5 tpq) (SLOCAPCD 2009). Construction-phase emissions of both diesel exhaust particulate and fugitive PM_{10} will be less than the significance thresholds established by SLOCAPCD. A Construction Activity Management Plan would not be required because emissions are less than significance thresholds. Quantitative thresholds have not been established for CO, SO_2, or $PM_{2.5}$ emissions; however, emissions of CO, SO_2, PM_{10}, and $PM_{2.5}$ would be minimal. Table 3.3-2 presents the project air emissions and the SLOCAPCD thresholds.

Table 3.3-2: Construction Emissions Estimates

Emissions Source and Threshold	Emissions (tpq)					
	ROG + NOx	*Exhaust PM_{10}*	*Fugitive PM_{10}*	*CO*	*SO_2*	*Exhaust $PM_{2.5}$*
Construction Q1 2011	1.98	0.07	2.43	0.74	0.02	0.06
Construction Q2 2011	0.67	0.02	2.11	0.18	0.00	0.02
Construction Q3 2011	0.46	0.02	1.30	0.12	0.00	0.01
Construction Q4 2011	0.54	0.02	0.76	0.14	0.00	0.02
Construction Q1 2012	0.18	0.01	0.73	0.05	0.00	0.01
Construction Q2 2012	0.18	0.01	0.75	0.05	0.00	0.01
Construction Q3 2012	0.18	0.01	0.75	0.05	0.00	0.01
Construction Q4 2012	0.59	0.02	0.52	0.22	0.00	0.02
SLOCAPCD Threshold	2.5	0.13	2.5	NA	NA	NA
Threshold Exceeded?	No	No	No	---	---	---

SOURCE: SLOCAPCD 2009

Fugitive particulate matter emissions during construction would occur as a result of soil disturbance and travel on paved and unpaved roads. Table 3.3-2 presents the estimated fugitive PM_{10} emissions resulting from project construction. Calculations of the estimated emissions to be generated during construction are included in Appendix A.

APMs AQ-1 and AQ-2 require implementing fugitive dust control measures, which would reduce impacts to air quality. APM AQ-1 has been superseded by mitigation measure AQ-1, which requires the creation of a project-specific Fugitive Dust Control Plan that addresses all topical elements required to fully reduce potential impacts to a less than significant level, and incorporates project-specific details for the reduction of fugitive dust. Fugitive dust emissions would not result in a violation of any air quality standards and the potential impact would be reduced to a less than significant level with the implementation of mitigation measure AQ-1.

> **Mitigation Measure AQ-1 (Proposed to supersede APM AQ-1 "Fugitive Dust Minimization").** A Fugitive Dust Control Plan shall be developed at least 30 days prior to project construction. The plan shall be submitted to SLOCAPCD for approval. Copies of the finalized dust control measures shall be submitted to CPUC with documentation of approval from SLOCAPCD. Elements of the Fugitive Dust Control Plan shall include, but not be limited to, measures such as the following:
>
> 1. The amount of disturbed area shall be reduced wherever possible.
> 2. Water trucks or sprinkler systems shall be used to prevent airborne dust from leaving the site. Increased watering frequency shall be required whenever wind speeds exceed 15 miles per hour (mph). Reclaimed (non-potable) water shall be

used whenever possible. Non-potable water shall not be used in or around crops used for human consumption.

3. Permanent dust control measures identified in the approved project revegetation and landscape plans shall be implemented as soon as possible following completion of any soil-disturbing activities. Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading shall be sown with a fast germinating, non-invasive grass seed and watered until vegetation is established. All disturbed soil areas not subject to revegetation shall be stabilized using approved chemical soil binders, jute netting, or other methods approved by SLOCAPCD.
4. Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface.
5. Wheel washers (or equivalent) shall be installed at all access points, or if appropriate, at designated landing zones and laydown areas, to prevent tracking of mud onto public roads. Other specific measures to prevent mud tracking shall be provided in the SWPPP.
6. Streets shall be swept at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water shall be used where feasible.
7. If county grading and building ministerial permits are required, all of these fugitive dust measures shall be shown on grading and building plans.
8. A person or persons shall be designated to monitor fugitive dust emissions and enhance implementation of the measures, as necessary, to minimize dust complaints, reduce visible emissions below 20 percent opacity, and prevent transport of dust off site. The name and telephone number of such person(s) shall be provided to the SLOCAPCD Compliance Division prior to the start of any grading, earthwork, or demolition.

APM AQ-2. NOA Emissions Prevention. The following measures will be implemented during construction. These measures are those required by SLOCAPCD District Rule 412 – Airborne Toxic Control Measures, Section 93105: Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations, part (e) for areas to be graded of one acre or less.

- Prior to any ground disturbance, sufficient water will be applied to the area to be disturbed to prevent visible emissions from crossing the property line.
- Areas to be graded or excavated will be kept adequately wetted to prevent visible emissions from crossing the property line.
- Construction vehicle speed at the work site will be limited to 15 mph or less.
- Equipment will be washed down before moving from the property onto a paved public road.
- Storage piles will be kept adequately wetted, treated with a chemical dust suppressant, or covered when material is not being added to or removed from the pile.

- Visible track-out on the paved public road will be cleaned using wet sweeping or a HEPA filter equipped vacuum device within 24 hours.

Operation and Maintenance. Operation and maintenance activities for the power line would be similar or reduced in scope to existing operation and maintenance activities. No change in emissions associated with ongoing maintenance activities would occur, nor would emissions violate any applicable air quality standards; therefore, there would be no impact.

C) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?

Construction. Fuel combustion from construction equipment would emit non-attainment pollutants NO_x and ROG (ozone precursors) during project construction. Project construction is not expected to result in a cumulatively significant increase in the non-attainment pollutants NO_x and ROG because emissions would remain below significance thresholds (Table 3.3-2).

The proposed project includes APMs AQ-2 and GHG-1, which would reduce air quality impacts from fugitive PM_{10} emissions. Impacts to air quality would be less than significant with the implementation of mitigation measure AQ-1.

Operation and Maintenance. Operation and maintenance activities for the power line would be similar or reduced in scope to existing operation and maintenance activities. No change in emissions associated with ongoing maintenance activities would occur; therefore, there would be no impact.

D) Would the project expose sensitive receptors to substantial pollutant concentrations?

Construction. Construction would generate particulate matter from earthmoving activities and equipment exhaust. The areas to be disturbed include 19 tower sites, which are less than 4,000 square feet in total area. Limited grading (totaling less than 1 acre) would be performed in serpentinite rock areas, and road maintenance would consist of surface rock removal only. The project area is in non-attainment for particulate matter. In accordance with the CEQA Handbook, the proximity of sensitive individuals (receptors) to a construction site constitutes a special condition and mitigation to minimize toxic diesel PM impacts needs to be defined.

APM AQ-2 would reduce air quality impacts from particulate matter and diesel exhaust. Implementation of mitigation measures AQ-1 and AQ-3 would reduce potential impacts to air quality to less than significant levels and would prevent sensitive receptors from being exposed to substantial pollutant levels.

Mitigation Measure AQ-3. The following measures shall be implemented, as feasible, during construction to reduce toxic diesel PM emissions:

1. On- and off-road equipment shall be subject to the following restrictions:
    a. Staging and queuing areas shall not be located within 1,000 feet of sensitive receptors;

b. Diesel idling within 1,000 feet of sensitive receptors shall not be permitted;

c. Alternative-fueled equipment shall be used whenever possible; and

d. Signs that specify the no idling requirements shall be posted and enforced at the project area.

2. Off-road diesel equipment shall comply with the 5-minute idling restriction identified in Section 2449(d)(3) of CARB's In-Use off-Road Diesel regulation:www.arb.ca.gov/regact/2007/ordiesl07/frooal.pdf.
3. Signs shall be posted in the designated queuing areas and job sites to remind off-road equipment operators of the 5-minute idling limit.

Operation and Maintenance. Operation and maintenance activities for the power line would be similar to or reduced in scope from existing operation and maintenance activities. The project would not increase the number of vehicles required for maintenance activities from that currently required and would not cause a net increase in pollutants; therefore, there would be no impact.

E) Would the project create objectionable odors affecting a substantial number of people?

No objectionable odors would be generated from project construction or operation activities. No odor impacts are anticipated.

3.4 Greenhouse Gases

3.4.1 ENVIRONMENTAL SETTING

Greenhouse gases (GHGs) are global concerns, unlike criteria air pollutants or toxic air contaminants that are of regional and/or local concern. Scientific research indicates that observed climate change is most likely a result of increased GHG emissions associated with human activity (IPCC 2007). Global climate change describes a collection of phenomena, such as increasing temperatures and rising sea levels, occurring across the globe due to increasing anthropogenic emissions of GHGs (EPA 2009). GHGs contribute to climate change by allowing ultraviolet radiation to enter the atmosphere and warm the Earth's surface, and also by preventing some infrared radiation emitted by the Earth from escaping back into space. The largest anthropogenic source of GHGs is fossil fuel combustion, which results primarily in carbon dioxide (CO_2) emissions.

As defined in Assembly Bill (AB) 32, a "greenhouse gas" or "greenhouse gases" include, but are not limited to, CO_2, methane (CH_4), NO_x, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride (SF_6).

California is a substantial contributor to global GHG emissions. It is the second largest contributor in the United States and the sixteenth largest in the world (CEC 2006). The main sources of GHG emissions in California are the transportation and energy sectors. Some of the potential effects of future climate change on California resources include the following (CCCP 2009):

- Warming would raise the elevation of the snow line, reduce spring snowmelt, and increase winter runoff. Additional winter runoff generally is not storable because of flood control needs. Reduced spring snowmelt runoff would result in decreased early summer storage at major foothill reservoirs and decreased hydroelectric production.
- Higher temperatures and reduced snowmelt would compound the problem of providing suitable cold water habitat for salmon species.
- Sea level rise would affect the Sacramento-San Joaquin River Delta, worsening existing levee problems; cause more saltwater intrusion; and adversely affect many coastal marshes and wildlife reserves.

Increasing temperatures would increase agricultural demands for water and increase stress on native vegetation, potentially allowing for an increase in pest and insect epidemics and a higher frequency of large, damaging wildfires.

The SLOCAPCD has not established significance criteria for GHG emissions; therefore, the significance of project-related GHG impacts was evaluated using the October 24, 2008, CARB Preliminary Draft Staff Proposal for Setting Significance Thresholds for GHGs (CARB 2008). CARB has proposed significance thresholds for industrial and residential/commercial projects; however, no significance thresholds for construction have been established. CARB's preliminary draft proposal suggests a quantitative threshold of 7,000 metric tons of CO_2 equivalents per year for operational emissions (excluding transportation) for industrial projects. The South Coast Air Quality Management District (SCAQMD) has established an interim GHG significance threshold of 10,000 metric tons of CO_2 equivalents per year. This threshold includes construction emissions amortized over 30 years and added to operational GHG emissions (SCAQMD 2008).

3.4.2 ENVIRONMENTAL IMPACTS AND ASSESSMENT

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
A) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☑	☐
B) Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emission of greenhouse gases?	☐	☐	☑	☐

A) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Construction. Project construction would result in emission of GHGs from on-site construction equipment and off-site worker trips. Anticipated GHG emissions were calculated for all construction-related activities. The most common GHGs associated with fuel combustion are CO_2, CH_4, and nitrous oxide (N_2O). Methane and N_2O emissions represent less than 1 percent of the combustion emissions for this project. Therefore, although these compounds have global warming potential, they were not included in the GHG calculations. Other GHGs such as SF_6, hydrofluorocarbons, and perfluorocarbons were not included in the analysis because the proposed project would not emit these constituents.

The results of detailed construction GHG emission calculations are presented in Appendix A. Construction emissions were estimated using construction equipment emission factors from URBEMIS2007 and truck emission factors from EMFAC2007. Approximately 466 metric tons of CO_2 would be emitted over the entire construction phase of the project, which would not be considered significant. GHG construction emissions from the proposed project amortized over 30 years and added to negligible operation emissions would fall well below the interim numerical thresholds of significance developed by SCAQMD of 10,000 metric tons of CO_2 equivalents per year.

The CARB preliminary draft proposal presumes that there would be a less than significant impact related to climate change if interim CARB performance standards are implemented for construction- and transportation-related activities. The applicant has proposed a measure to further reduce GHG emissions from construction activities and project operation. APM GHG-1 requires carpooling to the project area, minimizing construction vehicle idling time, and maintaining construction equipment. Implementation of this measure would reduce short-term GHG emissions by approximately 15 percent to 396 metric tons of CO_2.

APM GHG-1. GHG Emission Minimization. The following measures will be implemented during construction to minimize GHG emissions:

- Identify park-and-ride facilities in the project vicinity and encourage construction workers to carpool to the job staging area to the extent feasible. The ability to develop an effective carpool program for the proposed project will depend on the proximity of carpool facilities to the staging area, the geographical commute departure points of construction workers, and the extent to which carpooling will not adversely affect worker arrival time and the project's construction schedule. Crew transportation to the project site is addressed in Section 3.11, Transportation and Traffic.
- Minimize unnecessary construction vehicle idling time. The ability to limit construction vehicle idling time is dependent on the sequence of construction activities and when and where vehicles are needed or staged. Certain vehicles, such as large diesel-powered vehicles, have extended warm-up times following start-up that limit their availability for use following start-up. Where such diesel-powered vehicles are required for repetitive construction tasks, these vehicles may require more idling time. The project will apply a "common sense" approach to vehicle use so that idling is reduced as far as possible below the maximum of 5 consecutive minutes required by California law. If a vehicle is not required for use immediately or continuously for construction activities, its engine will be shut off. Construction foremen will include briefings to crews on vehicle use as part of pre-construction conferences. The briefings will include discussion of a "common sense" approach to vehicle use.
- Minimize construction equipment exhaust by using low-emission or electric construction equipment where feasible. Portable diesel-fueled construction equipment with engines 50 horsepower or larger and manufactured in 2000 or later will be registered under the CARB Statewide Portable Equipment Registration Program, or will meet, at a minimum, EPA/CARB Tier 1 engine standards.
- Minimize welding and cutting by using compression of mechanical applications where practical and within standards.
- Encourage use of natural gas-powered vehicles for passenger cars and light-duty trucks where feasible and available.
- Encourage the recycling of construction waste where feasible.

Operation and Maintenance. Operation and maintenance activities for the power line would be similar in scope to existing operation and maintenance activities. The current maintenance activities and associated GHG emissions would be maintained at a similar level. Impacts associated with the GHG emissions would be less than significant.

B) Would the project conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emission of greenhouse gases?

The Climate Change Scoping Plan, approved by CARB on December 12, 2008 (CARB 2008), provides an outline of actions to reduce California's GHG emissions. The scoping plan requires CARB and other state agencies to adopt regulations and other initiatives to reduce GHGs. However, at this time, there are no applicable plans, mandatory GHG regulations, or finalized

agency guidelines that would apply to this project. The project would be in compliance with the AB 32 goal of reducing GHG emissions to 1990 levels by 2020, and construction activities would result in a less than significant impact.

3.5 Biological Resources

3.5.1 ENVIRONMENTAL SETTING

Introduction

Reconnaissance-level plant and wildlife habitat surveys, rare plant surveys, and a wetland delineation were conducted in June and July 2009. The purpose of the surveys was to identify and map potential habitat for sensitive biological resources including special-status plant and wildlife species and sensitive natural communities. Plant communities and habitats were mapped within a 500-foot buffer centered on the power line and including the habitat adjacent to the alignment as shown in Appendix B-1. Unless otherwise noted, information presented in this section is summarized from the *Biological Assessment for the Pacific Gas and Electric Company Atascadero – San Luis Obispo 70 kV Power Line Reconductoring Project (*TRC 2010a*)* included in Appendix B-1.

Vegetation and Habitat Types

Habitat types in the project region were mapped during the reconnaissance-level field surveys that were conducted by vehicle and on foot in June and July 2009. Vegetation community designations as defined by Holland (1986) are used in this section.

Vegetative Communities

Thirteen vegetative communities were identified in the project area and are listed in Table 3.5.1 along with the approximate acreage of each type. A description of each of the vegetation types is provided in Appendix B-1.

Wetland and Aquatic Habitats

A wetland delineation field survey was conducted in June 2009. The purpose of the field survey was to identify and map the limits of wetlands and other waters in the study area. The study area consisted of a 100-foot buffer around each proposed tower location, a 40-foot buffer around each proposed pole location, and a 10-foot buffer around all identified access roads, potential pull and tension sites, staging areas, and helicopter landing zones. Wetland survey methodology was consistent with the standards established by the U.S. Army Corps of Engineers (USACE) in its *Wetlands Delineation Manual* (Environmental Laboratory 1987).

A total of 0.85 acre of potentially jurisdictional Waters of the United States was identified in the wetland delineation study area. Approximately 0.76 acre of the identified Waters of the United States are season wetlands (versus open water and streams). Seasonal wetlands and other aquatic habitat features were identified at various locations in the project area. Paloma Creek and South Fork Paloma Creek flow through the northernmost portion of the project area (Figures 2.4-0 through 2.4-35). Several tributaries of Santa Margarita Creek flow through the project area north of Cuesta Pass. Two tributaries of San Luis Obispo Creek flow through the project area south of Cuesta Pass. The majority of these drainages are ephemeral (TRC 2010b). The wetland delineation is included in Appendix B-2 and has been submitted to the USACE for verification.

Table 3.5-1: Vegetative Communities in the Project Area

Vegetation Type	Area (Acres)
Annual Grassland[1]	27.20
Valley Wildrye Grassland[1]	0.83
Serpentine Grassland[1]	3.70
Serpentine Grassland/Central Coastal Scrub	3.71
Central Coastal Scrub	0.67
Northern Mixed Chaparral	3.18
Mixed Oak Woodland	17.22
Mixed Oak Savannah	12.41
Open Foothill Pine Woodland	0.71
Central Coast Sycamore Riparian Forest[2]	0.09
Central Coast Live Oak Riparian Forest[2]	0.09
Ruderal	4.23
Developed Areas	12.29

Note:
[1.] Includes delineated wetlands.
[2.] Sensitive natural community.

SOURCE: Holland 1986

Special-Status Species

A preliminary literature search was conducted to prepare a list of special-status plant and wildlife species with the potential to occur in the project area. The following references were used in the literature search:

- California Natural Diversity Database occurrence records within a 5-mile buffer around the project area
- U.S. Geological Survey (USGS) Atascadero, Santa Margarita, San Luis Obispo, and Lopez Mountain 7.5-minute quadrangles
- California Native Plant Society's (CNPS's) Electronic Inventory of Rare, Threatened, and Endangered Plant Species
- Aerial photographs to identify potential habitats for special-status species

Reconnaissance-level field surveys were conducted in June and July 2009 and determined that habitat elements for several special-status species were present in the project area. Special-status species with a potential to occur in the project area are summarized below.

Special-Status Plants

The project area was surveyed for special-status plants in June 2009. An additional survey of access roads and staging areas near Wood Winery and Reservoir Canyon was conducted in July 2009. The survey timing coincided with the blooming periods of several (but not all) of the potential rare plant species that could occur in the project area. Table 3.5-2 lists the special-status plant species (CNPS Lists 1, 2, and 3) that were recorded during the surveys.

Habitat type and site conditions were used to determine the potential for plant species with blooming periods that did not overlap with the survey timing to occur in the project area. Table 3.5-3 lists special-status plant species that could potentially occur in the project area but were not identifiable during the surveys.

Special-Status Wildlife

The Endangered Species Act (ESA) directs all federal agencies to work to conserve endangered and threatened species and to use their authorities to further the purposes of the Act. Section 7 of the Act is the mechanism by which federal agencies ensure the actions they take, including those they fund or authorize, do not jeopardize the existence of any listed species. The issuance of a federal wetlands (USACE) permit would require consultation with USFWS to ensure that the project would not jeopardize the existence of any listed species.

The Migratory Bird Treaty Act (MBTA) of 1918 implemented the 1916 convention between the United States and Great Britain for the protection of birds migrating between the United States and Canada. Similar conventions between the United States and Mexico and between Japan and

Table 3.5-2: Special-Status Plants Known to Occur in the Project Area

Name	Listing Status
Santa Lucia manzanita (*Arctostaphylos luciana)*	CNPS: 1B.2
San Luis mariposa lily (*Calochortus obispoensis)*	CNPS: 1B.2
Brewer's spineflower (*Chorizanthe breweri)*	CNPS: 1B.3
Straight-awned spineflower (*Chorizanthe rectispina)*	CNPS: 1B.3
San Luis Obispo dudleya (*Dudleya abramsii ssp. murina)*	CNPS: 1B.3
Mesa horkelia (*Horkelia cuneata* ssp. *puberula)*	CNPS: 1B.1

Notes:
CNPS 1B = Rare, threatened, or endangered in California
0.1 = Seriously endangered in California
0.2 = Fairly endangered in California
0.3 = Not very endangered in California

SOURCE: TRC 2010a

Table 3.5-3: Special-Status Plants with Potential to Occur in the Project Area

Name	Listing Status	Blooming Month and Peak Survey Period
La Panza mariposa lily (*Calochortus simulans*)	CNPS: 1B.3	May
Round-leaved filaree (*California macrophylla*)	CNPS 1B.1	April
Hardham's evening primrose (*Camissonia hardhamiae*)	CNPS: 1B.2	May
San Luis Obispo owl's-clover (*Castilleja densiflora* ssp. *obispoensis*)	CNPS: 1B.2	April
Dwarf soaproot (*Chlorogalum pomeridianum var. minus*)	CNPS: 1B.2	May
Yellow-flowered eriastrum (*Eriastrum luteum*)	CNPS: 1B.2	May
Ojai fritillary (*Fritillaria ojaiensis*)	CNPS: 1B.2	April
San Benito fritillary (*Fritillaria viridea*)	CNPS: 1B.2	April or May
Jones' layia (*Layia jonesii*)	CNPS: 1B.2	April
Chaparral ragwort (*Senecio aphanactis*)	CNPS: 2.2	March
Most beautiful jewel-flower (*Streptanthus albidus* ssp. *peramoenus*)	CNPS: 1B.2	May
Caper-fruited tropidocarpum (*Tropidocarpum capparideum*)	CNPS: 1B.1	March

Notes:
CNPS 1B = Rare, threatened, or endangered in California

CNPS 2 = Rare, threatened, or endangered in California, but more common elsewhere

0.1 = Seriously endangered in California

0.2 = Fairly endangered in California

0.3 = Not very endangered in California

SOURCE: TRC 2010a

the Union of Soviet Socialists Republics further expanded the scope of international protection of migratory birds. The MBTA made it illegal for people to "take" migratory birds, their eggs, feathers, or nests. The statute does not discriminate between live or dead birds and also grants full protection to any bird parts including feathers, eggs, and nests. Over 800 species are currently on the list, and the list includes all of the bird species listed in Table 3.5-4. The Bald and Golden Eagle Protection Act offers additional protection to all bald and golden eagles.

Thirty-three special-status wildlife species were identified as potentially occurring in the project area based on the results of the background literature review and the reconnaissance field survey, as presented in Table 3.5-4.

Table 3.5-4: Special-Status Wildlife with Potential to Occur in the Project Area

Name	Listing Status	Habitat Affinity	Potential to Occur in Project Area
Fish			
Steelhead, south-central California coast ESU (*Oncorhynchus mykiss Irideus*)	Federal: FT State: None	Known to occur in San Luis Obispo Creek and Santa Margarita Creek, which are designated as critical habitat.	High
Amphibians			
California red-legged frog (*Rana draytonii*)	Federal: FT State: CSC	Breeds in ponds and pools in slow-moving streams with emergent vegetation; adjacent upland habitats are often used for refuge. The project area is within designated critical habitat for this species.	High
Western spadefoot toad (*Spea hammondii*)	Federal: None State: CSC	Occurs primarily in grassland with shallow temporary pools and less often in valley-foothill woodlands.	High
Coast range newt (*Taricha torosa torosa*)	Federal: None State: CSC	Found in coastal drainages from Mendocino County to San Diego County. Lives in terrestrial habitats but breeds in ponds and slow moving streams. One individual was observed near a drainage approximately, 0.33 mile southwest of Tower 68/9.	Present
Reptiles			
Western pond turtle (*Actinemys marmorata pallida*)	Federal: None State: CSC	Found in permanent or nearly permanent freshwater bodies, such as Atascadero Lake. Requires exposed basking sites.	Moderate
Silvery legless lizard (*Anniella pulchra pulchra*)	Federal: None State: CSC	Found in moist, warm, sandy or loose loamy soils often in areas with leaf litter.	Moderate to High
Coast horned lizard (*Phrynosoma blainvillii*)	Federal: None State: CSC	Inhabits sandy washes with lowlands or open areas with low bushes for cover.	Moderate
Two-striped garter snake (*Thamnophis hammondii*)	Federal: None State: CSC	Found in permanent or nearly permanent freshwater bodies, such as Atascadero Lake. Project area contains suitable habitat for both summer and winter activity.	Moderate

Table 3.5-4 *(Continued)*: Special-Status Wildlife in the Project Area

Name	Listing Status	Habitat Affinity	Potential to Occur in Project Area
Birds			
Grasshopper sparrow (*Ammodramus savannarum*)	Federal: None State: CSC	Found in dense grasslands on rolling hills and lowland plains. Favors native grasslands.	High
Golden eagle (*Aquila chrysaetos*)	Federal: None State: SFP	Found in rolling foothills, mountain areas, and desert. Cliff-wall canyons used for nesting.	Present
Burrowing owl (*Athene cunicularia*)	Federal: None State: CSC	Occurs in dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation with sparse shrubs and taller vegetation.	Moderate
Yellow warbler (*Dendroica petechia brewsteri*)	Federal: None State: CSC	Found in riparian vegetation in close proximity to water along streams and in wet meadows. Nests in woodlands or thickets near lakes, swamps, and marshes.	High
White-tailed kite (*Elanus leucurus*)	Federal: None State: CFP	Nests in oak, willow, or other trees and forages over open grasslands.	High
California condor (*Gymnogyps californianus*)	Federal: FE State: SE	Occurs in coastal ranges in California. Nesting occurs in chaparral, conifer forest, or oak woodland communities.	Low
Loggerhead shrike (*Lanius ludovicianus*)	Federal: None State: CSC	Prefers open habitat for hunting and fairly dense shrubs and brush for nesting.	Moderate
Bald eagle (*Haliaeetus leucocephalus*)	Federal: None State: SFP, SE	Found throughout most of California lakes, rivers, and rangelands. Breeding occurs in mountain and foothill forest.	Low
Yellow-breasted chat (*Icteria virens auricollis*)	Federal: None State: CSC	Breeds in dense riparian thickets and brushy tangles in the vicinity of watercourses, primarily in the coastal lowlands.	Low
Purple martin (*Progne subis*)	Federal: None State: CSC	Inhabits woodland and low-elevation coniferous forest. Nests in old woodpecker cavities and in human-made structures. Forages near large wetlands.	High

Table 3.5-4 *(Continued)*: Special-Status Wildlife in the Project Area

Name	Listing Status	Habitat Affinity	Potential to Occur in Project Area
Mammals			
Pallid bat (*Antrozous pallidus*)	Federal: None State: CSC	Prefers open, dry habitats such as grasslands, shrub lands, and woodlands with rocky substrate.	Moderate to High
Western mastiff bat (*Eumops perotis californicus*)	Federal: None State: CSC	Found in open, semiarid habitats, including conifer and deciduous woodlands, coastal scrub, and chaparral.	Moderate
Western red bat (*Lasiurus blossevilli*)	Federal: None State: CSC	Roosting habitat includes forests and woodlands. Forages over grasslands, forests, and croplands.	Moderate
San Diego desert woodrat (*Neotoma lepida intermedia*)	Federal: None State: CSC	Occupies area with large rocks and boulders. Avoids open areas that do not provide adequate refuge.	Moderate
American badger (*Taxidea taxus*)	Federal: None State: CSC	Prefers dry, open areas within shrub, forest, and herbaceous habitats.	Moderate

Notes:
Federal Designations:
FE: Listed as Endangered under the ESA
FT: Listed as Threatened under the ESA
None: No Listed Status
State of California Designations:
SFP: State Fully Protected
SE: State Endangered Species
ST: State Threatened Species
CSC: California Department of Fish and Game Species of Special Concern
None: No Listed Status

SOURCE: TRC 2010a

Several species are unlikely to occur in the project area based on the lack of suitable habitat, local range restrictions, regional extirpations, lack of connectivity between areas of suitable or occupied habitat, and/or incompatible land use and habitat degradation/alteration of on-site or adjacent lands. The following species are not further addressed in the section:

- Vernal pool fairy shrimp
- Longhorn fairy shrimp
- Kern primrose sphinx moth
- Tricolored blackbird
- Bald eagle
- Yellow-breasted chat
- California spotted owl
- Least Bell's vireo

- Long-eared owl
- Yellow-billed cuckoo
- Willow flycatcher
- Townsend's big-eared bat
- San Joaquin kit fox

Designated Critical Habitat

Critical habitat is a term defined and used in the ESA. It is a specific geographic area(s) that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection. Critical habitat may include an area that is not currently occupied by the species but that would be needed for its recovery. An area can be designated as "critical habitat" by the USFWS or National Marine Fisheries Service (NMFS). NMFS-designated critical habitat for the California coast steelhead and the USFWS-designated critical habitat for the California red-legged frog (CRLF) occurs in the project area. As with Section 7, the issuance of a federal wetlands (USACE) permit would require consultation with USFWS to ensure that the project would not destroy or adversely modify critical habitat.

Critical habitat for the California coast steelhead is located in Santa Margarita Creek north of SR 58, which is spanned by the power line between Poles 66/14 and 66/15. San Luis Obispo Creek, which is also designated critical habitat for steelhead trout, is adjacent to the power line between Towers 71/5 and 72/9. All project activities would occur outside of designated critical habitat for steelhead trout and aquatic habitat. Critical habitat for the CRLF is located within the project area, as shown on Figures 2.4-0 through 2.4-35.

3.5.2 ENVIRONMENTAL IMPACTS AND ASSESSMENT

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
A) Cause a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?	☐	☑	☐	☐
B) Cause a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?	☐	☑	☐	☐
C) Cause a substantial adverse effect on federally protected wetlands as defined by	☐	☑	☐	☐

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				
D) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☑	☐
E) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☑	☐
F) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☑

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

Construction

Special-Status Plants. Vegetation clearing, tree trimming, and construction activities could impact special-status plant species through removal and death of an individual plant or plants. Six special-status plant species (listed in Table 3.5-2) were identified during the June and July 2009 botanical surveys as occurring along access roads, temporary work areas, or within the ROW. Construction activities surrounding structures 61/7, 62/11A, 63/15, 72/0, 72/4, 73/0, 73/1, 73/2, 73/4, 74/0, 74/1, 74/3, and 74/4 could impact these species-status plant species. There are several additional special-status plant species that could occur within the project area, even though they were not identified during field surveys. These plants could be impacted during vegetation removal and construction activities. The project applicant identified several APMs to protect special-status plant species (APMs BO-6, BO-8, BO-9, BO-13, BO-30, BO-31, and BO-33). These measures include restricting work areas to staging areas and roads, identifying and avoiding

sensitive resource areas during construction, obtaining necessary permits, and including a biological monitor on site during construction near sensitive habitats.

Two additional APMs have been superseded by mitigation measures to reduce potentially significant impacts from the project to less than significant levels. APM BO-5 "Development and Implementation of a Worker Environmental Awareness Program" has been superseded by mitigation measure BO-5 to incorporate CPUC documentation and record-keeping requirements. APM BO-29 "Avoidance of and Minimization of Potential Impacts to Special-Status Plants" has been superseded by mitigation measure BO-29 to mitigate for several plant species that were not detected during the botanical surveys due to the surveys occurring outside of the plants' blooming periods, but that could occur on site. Mitigation measure BO-29 requires surveys to be conducted during the appropriate blooming periods for the sensitive plant species identified in Table 3.5-4. Implementation of mitigation measures BO-5 and BO-29 would reduce the potential for impacts to special-status plant species to a less than significant level.

APM BO-6. Designated Equipment Staging. PG&E will restrict equipment to designated staging areas and roads to avoid disturbance to existing vegetation.

APM BO-8. Avoidance of Environmentally Sensitive Resource Areas. Sensitive resources identified during pre-construction surveys in the project vicinity will be mapped and clearly marked in the field. Such areas will be avoided during construction to the extent practicable and/or additional measures specific to sensitive species types as described herein and that may be required by the USACE, FWS, CDFG, and RWQCB permits, will be implemented to avoid or minimize impacts.

APM BO-9. Biological Monitor On-site During Construction Activities in Sensitive Areas and Reporting and Communication. A qualified biological monitor will be on site during all ground-disturbing construction activities in or near sensitive habitats previously identified by a qualified biologist. The monitor will ensure implementation of and compliance with all avoidance and mitigation measures. The monitor will have the authority to stop work or determine alternative work practices in consultation with agencies and construction personnel as appropriate if construction activities are likely to impact sensitive biological resources. The biological monitor will document monitoring activities in daily logs to document construction activities and environmental compliance. The daily logs will be included in the project report submitted to the appropriate agencies following completion of construction. The biological monitor will be responsible for reporting any capture and relocation, harm, entrapment, or death of a listed species to the USFWS and/or the CDFG and for reporting any permit violations in a timely manner and as indicated in their respective permits. Weekly monitoring reports will be submitted to CPUC, and to any resource agencies (upon request), throughout construction. A final project summary report will be submitted to the CPUC 90 days after the completion of construction activities.

APM BO-13. Avoidance of Impacts to Natural Habitats. Minimization of grading and vegetation along access roads and pole and tower work areas. Clearing and grading will be limited to previous access roads that have become overgrown with vegetation. Vegetation will be cut at ground level and leave existing root systems intact where possible.

APM BO-30. Weed Control. PG&E will clean equipment and vehicles prior to arriving on site. Equipment will be inspected and cleaned as needed prior to use in areas with rare plants. All plant material (e.g., straw, mulch, seeds, etc.) used for erosion control and/or

road maintenance will be weed-free. If weed-free straw or mulch is not available, rice straw and mulch will be used. A USFWS-approved biologist will ensure that the spread or introduction of invasive exotic plant species will be avoided to the maximum extent possible. When practicable, invasive exotic plant in the project areas will be removed. The weed control measures under the special-status Plants heading below describe the steps that PG&E will be taking. Seed mixes will be approved by a biologist prior to application. Where possible, local or on site seed sources will be used. Gravel used for road maintenance will be from weed free-sources. Gravel sources will be inspected for the presence/absence of noxious weeds prior to utilization of gravel in the project area as appropriate.

APM BO-31. Implementation of Dust Control Plan. PG&E will prepare a Dust Control Plan prior to construction in coordination with the appropriate agencies to ensure impacts to special-status plants and associated vegetation communities are avoided or minimized.

APM BO-33. Project-specific Fire Prevention and Response Plan Development and Implementation. PG&E will incorporate established system-wide Fire Prevention and Response procedures that will include reducing the potential for igniting combustible materials. The procedures will cover electrical hazards, flammable materials, smoking, vehicle and equipment access, and fire watches during construction and maintenance procedures during subsequent operation. Project personnel will be directed to park away from dry vegetation; not to smoke; and to equip vehicles with appropriate firefighting equipment; such as water dispensers and shovels, in times of high fire hazard. The procedures will also describe methods to reduce the potential fire hazard from operation of the power line.

Mitigation Measure BO-5 (proposed to supersede APM BO-5 "Development and Implementation of a Worker Environmental Awareness Program" and APM BO-16 "Specialized CRLF Training"). A USFWS-approved biologist shall design and lead a n Environmental Training and Monitoring Program (ETMP) for all construction and on-site personnel prior to beginning construction activities. Training shall include a discussion of avoidance and minimization measures to be implemented to protect biological resources, as well as the terms and conditions of the Biological Opinion and other permits. Training shall include information on the federal and state ESAs, the MBTA, and the Bald and Golden Eagle Protection Act, and the consequences of noncompliance with these acts. Workers shall be informed of the presence, life history, and habitat requirements of all special-status species, including the CRLF, with a potential to be affected within the project area. The training shall include a description of the CRLF and its habitat and the importance of the CRLF and its habitat, along with the general measures that are being implemented to conserve the CRLF, as they relate to the project. Training shall include information on state and federal laws protecting nesting birds, wetlands, and other water resources. An educational brochure shall be produced for construction crews working on the project. The brochure shall include color photos of sensitive species as well as a discussion of mitigation measures. No construction worker shall be involved in field operations without having participated in this special-status species/sensitive habitat informational training. A copy of the ETMP shall be submitted to the CPUC at least 30 days prior to construction. Training attendance sheet(s) shall be submitted to the CPUC after each training session.

Mitigation Measure BO-29 (proposed to supersede APM BO-29 "Avoidance of and Minimization of Potential Impacts to Special-Status Plants"). The following measures shall be implemented:

a. Focused botanical surveys within suitable habitat shall be conducted prior to construction during the appropriate blooming period for the following species to determine if additional special-status plant species that have the potential to occur are present within the work areas:
   - La Panza mariposa lily (*Calochortus simulans*)
   - Round-leaved filaree (*California macrophylla*)
   - Hardham's evening primrose (*Camissonia hardhamiae*)
   - San Luis Obispo owl's-clover (*Castilleja densiflora* ssp. *obispoensis*)
   - Dwarf soaproot (*Chlorogalum pomeridianum var. minus*)
   - Yellow-flowered eriastrum (*Eriastrum luteum*)
   - Ojai fritillary (*Fritillaria ojaiensis*)
   - San Benito fritillary (*Fritillaria viridea*)
   - Jones' layia (*Layia jonesii*)
   - Chaparral ragwort (*Senecio aphanactis*)
   - Most beautiful jewel-flower (*Streptanthus albidus ssp. peramoenus*)
   - Caper-fruited tropidocarpum (*Tropidocarpum capparideum*)

b. Prior to construction, any special-status plant species that are known to occur on the project site shall be enumerated, photographed, and conspicuously flagged for avoidance. If timing of field surveys and flagging must occur outside of the appropriate blooming period, the data map and global positioning system (GPS) locations collected during the pre-construction focused botanical surveys can be used to meet this condition.

c. Work within areas occupied by special-status plant species shall be limited to existing access roads and to the smallest area that is safely practical. Where possible, staging areas, spoils storage, and equipment/vehicle parking shall be restricted to areas outside of where special-status plant species are located.

d. If possible, for annual plant species, timing of work activities within areas occupied by special-status plant species shall occur after seeds have set in the spring but prior to fall rains to minimize project effects on the seed bank.

e. Mature seeds shall be collected from sensitive plant species that are likely to be impacted by project construction activities. The seeds shall be properly stored for post-construction propagation and re-establishment. Sensitive plants that are likely to be impacted shall be translocated, if possible, under the supervision of the project biologist by digging up the plant and replanting it in suitable habitat.

f. If ground disturbance is required in an area, the first 6 inches of topsoil, if available within occupied habitat shall be stored separately on site and protected from exotic weeds seed dispersal. The stored soil shall be used as topsoil when soils are redistributed to the project sites during post-construction in an attempt to salvage any viable seeds in the seed bank.

g. In the event that any special-status plants cannot be avoided, PG&E shall consult with the USFWS and/or the California Department of Fish and Game (CDFG) (depending on whether the species is on the federal or state list of sensitive species)

to determine the appropriate measures to minimize effects to the species and its habitat during construction and operation of the project. The CPUC shall be informed of the results of any agency consultations. A mitigation and monitoring plan may be required that identifies the impacts to special-status plant species and remedial actions to mitigate impacts. Monitoring may be required for subsequent years to ensure compliance with mitigation activities and evaluate plant recovery.

In addition to the aforementioned avoidance measures, the following plant-specific mitigation measures shall be implemented:

h. San Luis Obispo Dudleya: Any damaged plants shall be salvaged by moving them into in a botanical garden for cultivation. Salvaged individuals may be replanted in suitable areas as identified by the biologist during post-construction.

i. San Luis Mariposa Lily and Mesa Horkelia: Any damaged plants shall be salvaged by digging up bulbs (San Luis Mariposa Lily) or plants (Mesa Horkelia) to be replanted in suitable areas as identified by the biologist during post-construction. Seeds for replanting shall also be collected from plants that are likely to be impacted.

j. Brewer's Spineflower and Straight-awned Spineflower: Work shall occur after plants have dispersed their seeds for the year and during the dry season (May 1 to October 15). If construction is to occur during the active growth and flowering period, individual species shall be flagged and avoided. Individuals collected shall be counted and reported.

   Plants located in impacted areas shall be monitored during subsequent growing seasons post-construction. Supplemental seeding from garden-grown seeds shall occur if necessary.

k. Santa Lucia Manzanita: Damage to shrub branches shall be avoided. All damaged branches shall be removed and discarded.

Special-Status Wildlife. Suitable habitat for special-status wildlife species is present along the project alignment. Construction activities and structure installation could potentially remove habitat occupied by special-status wildlife; directly or indirectly kill or harm eggs, juveniles, or adult special-status species; or disturb or harm species through the generation of noise. The power line alignment passes through USFWS-designated critical habitat for the federally listed CRLF and NMFS-designated critical habitat for the California coast steelhead (Figure 3.5-1). Specific impacts to special-status species are described below by species.

Fish. The project would not impact critical habitat for steelhead trout. APMs BO-7, BO-10, BO-12, and BO-32 would minimize potential impacts from erosion or sedimentation.

Two additional APMs have been superseded by mitigation measures to reduce potentially significant impacts from the project to less than significant levels. APM BO-35 "Water-crossing Construction Timing" has been superseded by mitigation measure BO-35, which specifies that construction can only occur during the dry period (May to October). APM BO-36 "Use of Coffer Dams" has been superseded by mitigation measure BO-36, which requires the implementation of appropriate methods to fully reduce the potential impacts from temporarily

redirecting water flows for culvert installation. Implementation of mitigation measures reduces impacts to less than significant levels.

APM BO-7. Storm Water Permit. PG&E will obtain coverage under the Construction Storm Water Permit Program and implement BMPs for erosion and sediment control. These BMPs may include, but are not limited to, silt fencing, temporary berms, restrictions on cleaning, installation of vegetative strips, and temporary sediment disposal.

APM BO-10. Restricted Construction Hours. Construction activities within 300 feet of suitable aquatic habitat will not begin prior to 30 minutes after sunrise and will cease no later than 30 minutes before sunset.

APM BO-12. Avoidance of and Minimization of Potential Impacts to Wetlands and Water Resources. A Stormwater Pollution Prevention Plan (SWPPP) will be developed that describes sediment and hazardous materials control, fueling and equipment management practices, and other factors deemed necessary for the project. Erosion control measures will be implemented where necessary to reduce erosion and sedimentation in wetlands, waters of the United States, and waters of the state, as well as aquatic habitat occupied by sensitive species. Erosion control measures will be monitored on a regularly scheduled basis, particularly during times of heavy rainfall. Corrective measures will be implemented in the event erosion control strategies are inadequate. Sediment/erosion control measures will be continued at the project site until such time that soil stabilization is deemed adequate. Brush or other similar debris material will not be placed within any stream channel or on its banks. No project work activity is planned within the limits of any stream channel. Any work that is conducted in seasonal wetlands will be conducted when the wetlands are dry.

APM BO-32. Hazardous Substance Control and Emergency Response Plan. PG&E has and will implement its system-wide program which includes established procedures for handling and managing hazardous substances and emergency response in the event of a hazardous substance spill.

Mitigation Measure BO-35 (proposed to supersede APM BO-35 "Water-crossing Construction Timing" and APM WQ-9 "Water-crossing Construction Timing"). Water-crossing construction shall be scheduled during dry months, typically between May 1 and October 15, when the waterways have low or no flow, to minimize potential impacts.

Mitigation Measure BO-36 (proposed to supersede APM BO-36 "Use of Coffer Dams" and APM WQ-10 "Use of Coffer Dams"). If any creek flow is present during installation of a permanent culvert along the access road to Tower 69/0 a coffer dam shall be installed and the entire flow of the creek shall be diverted around the work area during construction. The water diversion system shall comply with Section 404 of the Clean Water Act and/or Section 1602 of the Fish and Game Code. Measures such as the following shall be implemented prior to installation of, during the use of, and during the removal of, as appropriate, the coffer dam:

a. Water shall be diverted by use of appropriate-sized flumes or pumps capable of handling 150 percent of the anticipated flows.
b. Water discharge rates shall be controlled by use of energy dissipaters to avoid downstream erosion and water quality degradation, as necessary.

c. Water quality (turbidity) shall be monitored during construction downstream of the flume or pump discharge point to ensure no significant impacts to water quality occur.

d. Restoration of impacted areas outside of the road prism shall occur immediately after the culvert is installed and the coffer dam is removed.

e. Documentation of studies, construction activities, monitoring, and restoration shall be submitted to the CPUC upon completion of each task.

Amphibians. Critical habitat supporting primary constituent elements (non-breeding aquatic habitat and riparian, upland, and dispersal habitat) for the CRLF is located within the project area. Construction of the project could potentially impact or remove critical habitat for the CRLF. The species could also be directly harmed by ground-disturbing activities. APM BO-4 "Pre-construction Surveys and Relocation of Species" has been superseded by mitigation measure BO-4 to require the implementation of USFWS-approved survey and relocation protocols. APM BO-14 "Avoidance of CRLF Habitat" has been superseded by mitigation measure BO-14, which removes the language that describes required erosion control materials and is not implementable with the other language included in the APM. APMs BO-16 "Specialized CRLF Training" and BO-38 "Reporting Requirements" have been superseded by mitigation measures BO-5 and BO-38, respectively, which incorporate CPUC document and record-keeping requirements. APM BO-21 "Refueling and Equipment Maintenance Methods that Protect CRLF" has been superseded by mitigation measure BO-21 to enforce a refueling exclusion buffer around riparian or water habitats to match other APM requirements. Mitigation measure BO-39 has been added to ensure that appropriate erosion control devices are use that would not cause harm to the CRLF or other amphibians and reptiles. The proposed project includes APMs BO-2, BO-7 through BO-9, BO-12, BO-13, BO-15, BO-17 through BO-20, BO-22, BO-23, BO-30, and BO-32, which would reduce potential impacts to CRLF. Implementation of mitigation measures BO-4, BO-5, BO-14, BO-21, BO-35, BO-36, BO-38, and BO-39 would ensure that potential impacts would be less than significant.

APM BO-2. General Avoidance of Biological Resources Impacts.

- **Litter and trash management.** All food scraps, wrappers, food containers, cans, bottles, and other trash from the project area will be deposited in closed trash containers. Trash containers will be removed from the project area at the end of each working day.
- **Parking.** Vehicles and equipment will be parked on pavement, existing roads, and previously disturbed or developed areas or work areas as identified in this document. Off-road parking will only be permitted in previously identified and designated work areas.
- **Route and speed limitations.** Vehicles will be confined to established roadways and pre-approved access roads, overland routes and access areas. Access routes and temporary work areas will be limited to the minimum necessary to achieve the project goals. Routes and boundaries of work areas, including access roads, will be clearly mapped prior to initiating project construction. Vehicular speeds will be kept to 15 mph on unpaved roads.

- **Maintenance and refueling.** All equipment will be maintained such that there will be no leaks of automotive fluids such as fuels, solvents, or oils. All refueling and maintenance of vehicles and other construction equipment will be restricted to designated staging areas located at least 100 feet from any down gradient aquatic habitat unless otherwise isolated from habitat. Proper spill prevention and cleanup equipment will be maintained in all refueling areas.
- **Minimization of fire hazard.** During fire season in designated State Responsibility Areas, all motorized equipment driving off paved or maintained gravel/dirt roads will have federal or state approved spark arrestors. All off-road vehicles will be equipped with a backpack pump filled with water and a shovel. All fuel trucks will carry a large fire extinguisher with a minimum rating of 40 B:C, and all equipment parking and storage areas will be cleared of all flammable materials.
- **Pets and firearms.** No pets or firearms will be permitted at the project site.

APM BO-15. Fencing of Staging Areas within Proposed Critical Habitat Boundaries. PG&E will install exclusion fencing around staging areas that will be used during the typical CRLF avoidance window, from April 1 through November 1, within the proposed critical habitat boundaries. Prior to the commencement of construction activities, exclusion fencing will be erected around the staging areas to preclude entry by CRLF. Fencing will be keyed at least 6 inches into the ground. The fencing will be inspected and maintained during the avoidance window until completion of the project. Only when the construction of the project is completed will the fencing be removed.

APM BO-17. Qualified Biologist CRLF Inspection. PG&E will obtain Section 7 of the Federal Endangered Species Act coverage under the Programmatic Biological Opinion for CRLF. The name(s) and credentials of biologists who will conduct activities specified in the following measures will be submitted at least 15 days prior to the onset of activities at specific locations. Project activities will not begin until PG&E has received written approval from the USFWS that the biologist(s) is qualified to conduct the work. A USFWS-approved biologist will survey the work site, locations that include the primary constituent elements of suitable habitat, a minimum of two weeks before the onset of activities. If CRLF, tadpoles, or eggs are found, the approved biologist will contact the USFWS to determine if moving any of these life-stages is appropriate. In making this determination, the USFWS will consider if an appropriate relocation site exists. If the USFWS approves moving animals, the approved biologist will be allowed sufficient time to move CRLF from the work site before work activities begin. Only USFWS-approved biologists will participate in activities associated with the capture, handling, and monitoring of CRLF. The USFWS-approved biologist will be present at the work site until such time as all removal of CRLF, instruction of workers, and habitat disturbance has been completed. For the purpose of this measure, habitat disturbance refers to clearing or grading in areas of dense vegetation within 100 feet of aquatic habitat, as well as culvert placement or fill activities in drainages within the proposed critical habitat boundaries. After this time, the contractor or permittee will designate a person to monitor on-site compliance with all minimization measures. The USFWS-approved biologist will ensure that this individual receives training outlined above and in the identification of the CRLF. The monitor and the USFWS-approved biologist will have the authority to halt any action that might result in impacts that exceed the levels anticipated by the USACE and USFWS during review of the proposed action. If work is

stopped, the USACE and USFWS will be notified immediately by the USFWS-approved biologist or on-site biological monitor.

APM BO-18. Work Timing Window to Protect CRLF. PG&E will complete work activities within California red-legged frog proposed critical habitat areas between April 1 and November 1. If PG&E demonstrates a need to conduct activities outside this period, the USACE may authorize such activities after obtaining the USFWS's approval.

APM BO-19. Dewatering Method that Protects CRLF. If a work site is to be temporarily dewatered by pumping, intakes will be completely screened with wire mesh not larger than five millimeters (mm) to prevent CRLF from entering the pump system. Water will be released or pumped downstream at an appropriate rate to maintain downstream flows during construction. Upon completion of construction activities, any barriers to flow will be removed in a manner that will allow flow to resume with the least disturbance to the substrate.

APM BO-20. Removal of Exotic Species. A USFWS-approved biologist will permanently remove, from within the project area, any individuals of exotic species identified during regular surveys or monitoring, such as bullfrogs, crayfish, and centrarchid fishes, to the maximum extent possible. The permittee will have the responsibility to ensure that their activities are in compliance with the CDFG.

APM BO-22. Limitation of Vehicle Access, Potential Impact Areas, and Potential Disturbance. PG&E will limit the number of access routes, number and size of staging areas, and the total area of the proposed project activity to the minimum necessary. Routes and boundaries will be clearly demarcated. Movement of heavy equipment to and from the project site will be restricted to established roadways where possible to minimize habitat disturbance. If saturated soils are encountered, timber mats will be employed to prevent rutting and compaction. Staging areas will be located outside of an appropriate buffer established from aquatic habitat.

APM BO-23. Staging and Stockpiling Restrictions. During construction, PG&E will restrict stockpiling of construction materials, portable equipment, vehicles, and supplies to the designated construction staging areas. PG&E will ensure that contamination of habitat does not occur during such operations. All workers will be informed of the importance of preventing spills and the appropriate measures to take should a spill occur.

Mitigation Measure BO-4 (proposed to supersede APM BO-4 "Pre-construction Surveys and Relocation of Species"). Pre-construction surveys shall be conducted by a USFWS-approved biologist no more than two weeks prior to initiating any ground-disturbing activities to occur within 300 feet of suitable CRLF habitat. All suitable aquatic and upland habitat, including refugia habitat such as under shrubs, downed logs, small woody debris, and burrows, shall be thoroughly inspected. Before the start of work each morning, the biologist shall check under any equipment and stored construction supplies left in the work area overnight within 300 feet of suitable habitat. All pole holes or tower leg holes in suitable habitat shall be backfilled or covered at the end of each work day to prevent entrapment of special-status species. If CRLFs are encountered in the project area, work within 50 feet of the animal shall cease immediately and the USFWS-approved biologist shall be notified. Based on the professional judgment of the USFWS-approved biologist and in coordination with the USFWS, if project activities can be conducted without harming or injuring the animal(s), the frog shall be left at the location of discovery and monitored by the USFWS-approved biologist. All project personnel shall be notified of the finding and at no

time shall work occur within 50 feet of the animal without a biological monitor present. If it is determined by the USFWS-approved biologist that relocating the CRLF(s) is necessary, the following steps shall be followed:

1. Prior to handling and relocation, the USFWS-approved biologist shall take precautions to prevent introduction of amphibian diseases in accordance with the Revised Guidance on Site Assessments and Field Surveys for the California Red-legged Frog (USFWS 2005). Equipment and clothing of biologists shall be disinfected prior to mobilizing to the action area to handle amphibians after working in other aquatic habitats.
2. If relocation of CRLF is necessary, CRLFs shall be captured by hand, dipnet, or other USFWS-approved methods; transported by hand, dipnet, or temporary holding container; and released as soon as practicable the same day of capture. Handling of CRLFs shall be avoided to the maximum extent practicable. Holding/transporting containers and dipnets shall be thoroughly cleaned and disinfected prior to transporting to the action area and shall be rinsed with freshwater on site immediately prior to usage unless doing so would result in the injury or death of the animal(s) due to the time delay.
3. CRLFs shall be relocated to the nearest suitable habitat outside of an area where actions could result in mortality, harm, or harassment. The individual(s) shall be released within suitable habitat at a location agreed upon by the USFWS. If suitable habitat cannot be identified, the USFWS shall be contacted to determine an acceptable alternative. Transporting CRLFs to a location other than the location described herein shall require authorization by the USFWS.

Mitigation Measure BO-14 (proposed to supersede APM BO-14 "Avoidance of CRLF Habitat"). PG&E shall install exclusion fencing around aquatic habitat in areas where construction activities are within the vicinity of aquatic habitat (the upland habitat buffer). Prior to commencing construction activities, flagging, signage, and/or high visibility fencing shall be erected around the CRLF habitat to identify and protect it from the encroachment of personnel and equipment. These areas shall be avoided by all construction personnel. The fencing shall be inspected before the start of each workday and maintained until completion of the project. Only when the construction of the project is completed in that area shall the fencing be removed.

Mitigation Measure BO-21 (proposed to supersede APM BO-21 "Refueling and Equipment Maintenance Methods that Protect CRLF"). All fueling and maintenance of vehicles and other equipment and staging shall only occur at distances greater than 100 feet from any riparian habitat or water body. The USACE and the permittee shall ensure contamination of habitat does not occur during such activities. Prior to the onset of work, the USACE shall ensure that the permittee has prepared a plan to allow a prompt and effective response to any accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

Mitigation Measure BO-38 (proposed to supersede APM BO-38 "Reporting Requirement"). PG&E shall prepare a compliance certification to be filed with the USACE and the USFWS to certify, after completion of construction, that the project was completed in accordance with the permit conditions. The information contained in the compliance certification shall include:

1. The type(s) of action(s) that occurred;
2. The number of acres affected and habitat type (e.g., upland or riparian.);
3. The linear feet of work;
4. How the site(s) was restored and a description of the area after the completion of the action;
5. What measures were employed to protect CRLF;
6. How the site(s) was restored or, if no restoration occurred, the justification for not conducting this work; and
7. A description of the area after completion of the action.

Each compliance certification provided by PG&E shall contain maps, as appropriate, that indicate the location of all actions. Each report shall have a table and photos cross-referenced to locations on the map as appropriate. The compliance certification shall also document the number of CRLFs that were known to be taken, and the form of take (e.g., harassment by moving or mortality) during project activities. The USFWS recognizes that accurately quantifying the number of individuals that may have been taken may not be possible; in these cases, the reporting of all observations and relative numbers shall provide useful information. The report shall also recommend modifications to future measures to enhance the protection of the CRLF. A copy of the certified compliance certificate shall be submitted to CPUC once provided by USACE and USFWS.

Mitigation Measure BO-39. To prevent CRLFs and other amphibians and reptiles from becoming entangled or trapped in erosion control materials, plastic mono-filament netting (i.e., erosion control matting) or similar material shall not be used within the project area. Acceptable substitutes include coconut coir matting or tackified hydroseeding compounds.

Suitable habitat for the western spadefoot and coast range newt exists in both aquatic and terrestrial habitats within the project area. Construction of the proposed project could impact these species' habitats. One coast range newt was observed in the project area and the western spadefoot has a high potential to occur in the project area; therefore, construction may also directly harm or kill these species. APMs BO-2, BO-7 through BO-9, BO-12, BO-22, BO-23, BO-30, and BO-32 would reduce the impact to the western spadefoot and coast range newt. Implementation of mitigation measures BO-4, BO-5, BO-35, BO-36, and BO-39 would ensure that potential impacts would be less than significant.

Reptiles. The western pond turtle and the two-striped garter snake would most likely be found near aquatic habitat. Most construction areas, including pull and tension sites, staging areas, and other work areas, are outside of aquatic habitat, with the exception of those associated with Pole 66/10 and Tower 74/1. Construction activities have the potential to impact eggs, hatchlings, juveniles, and adults. Impacts to the silvery legless lizard and coast horned lizard from construction activities could potentially result in mortality or loss of habitat. APM BO-28 "Implementation of Revegetation and Monitoring Plan" has been superseded by mitigation measure BO-28, which incorporates the requirement identified in mitigation measure AQ-1, as well as CPUC document and record-keeping requirements. APMs BO-2, BO-7, BO-8, BO-22, BO-23, and BO-32 would reduce potential impacts to the western pond turtle and the two-

striped garter snake. Implementation of mitigation measures BO-4, BO-5, BO-28, BO-35, BO-36, and BO-39 would ensure that the potential impacts would be less than significant.

Mitigation Measure BO-28 (proposed to supersede APM BO-28 "Implementation of Revegetation and Monitoring Plan" and APM AE-4 "Revegetation and Regrading"). PG&E shall prepare a Revegetation and Monitoring Plan prior to construction. A copy of the plan shall be submitted to the CPUC prior to construction. The plan shall include, but not be limited to, the following provisions:

a. All old conductors shall be removed from the project site.

b. Disturbed areas (ground disturbance for pole placements, tower footings, and minor grading for small concrete staging areas located approximately 80 feet uphill from towers), other than existing access roads, shall be stabilized and revegetated with appropriate (i.e., conducive with PG&E line clearance requirements) native species.

c. If applicable, the site shall be monitored following construction for an appropriate period of time to ensure the successful re-establishment of native species, to prevent establishment of weeds, and to ensure the successful reestablishment of native species.

d. Stream contours shall be returned to their original condition once coffer dams are removed, unless consultation with the USFWS has determined that it is not beneficial to the species or is not feasible.

e. Permanent dust control measures shall be implemented through revegetation and landscaping as soon as any ground-disturbing activities are completed. Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading shall be sown with a fast-germinating, non-invasive grass seed, or otherwise covered with mulch or plastic.

f. All disturbed soil areas not subject to revegetation shall be stabilized using best management practices.

g. Disturbed serpentine grassland areas shall be restored, as determined by the project biologist, and may be reseeded with local genotypes of native serpentine grassland species.

Birds. Potential impacts to golden eagles, white-tailed kites, and other bird species during construction could include disruption of nesting and foraging activities and habitat. Nearby habitat may be directly impacted by human disturbance or incidental intrusion by construction personnel or equipment, including helicopters, and associated noise. Sensitive species could abandon nesting activities if disturbed during the breeding season. The applicant has proposed APMs BO-2, BO-3, and BO-11, which would reduce impacts to nesting birds. These measures would implement avoidance methods directed toward nesting birds and general biological resources.

One additional APM has been superseded by a mitigation measure to reduce potentially significant impacts from the project to a less than significant level. APM BO-1 "Avoidance of and Minimization of Potential Impacts to Birds" has been superseded by mitigation measure BO-1 to define appropriate agency consultation and establish a buffer if an active nest is found.

Implementation of mitigation measures BO-1 and BO-5, which requires WEAP training, would reduce the potential impacts from disturbance to be less than significant.

APM BO-3. Nesting Acorn Woodpeckers. PG&E currently holds a Special Use Permit with the USFWS for Removal and Relocation of Active Nests, dated July 15, 2008. All woodpecker cavities in wood poles will be visually inspected prior to pole removal, if safe to do so. All poles having cavities that contain elliptical, white eggs or those cavities that have live chicks in a nest will be managed as a pole having an active woodpecker nest. Cavities having nests containing slightly glossy, pale bluish- or greenish-white- colored eggs will be considered starling nests and are not afforded protection and no further action will be required. Prior to disturbing the pole, the entrance to the nest cavity will be covered with duct tape or other suitable adhesive product to prevent the eggs or chicks from falling out of the nest cavity. The orientation of the cavity opening will be noted for future reference, and will then be cut out the section of pole containing the active nest, 3 feet above the cavity and 3 feet below the cavity. The pole section containing the active nest will remain in a vertical position to minimize further disturbance to eggs or chicks in the nest. Once the replacement pole is set, the pole section containing the nest will be strapped to the replacement pole, orienting the cavity hole as noted prior to relocation. The section of pole containing the nest will be placed no lower than one-third the height of the pole. The pole section will be securely positioned on the replacement pole with rope or metal strapping. The adhesive cover will be removed over the cavity entrance. As a last step, the pole number, circuit name, number of chicks or eggs, date of relocation, and crew supervisor name will be documented and this nest relocation information will be sent electronically to Mike Best, PG&E Bird Protection Program Manager (MBB8). This information will be included in PG&E's annual report to the U.S. Fish and Wildlife Service as required by our Special Purpose Permit MB057942-0.

APM BO-11. Helicopter Avoidance of Known Nesting Birds. PG&E will avoid helicopter flights near known active nesting bird sites as determined in consultation with the USFWS and/or CDFG.

Mitigation Measure BO-1 (proposed to supersede APM BO-1 "Avoidance of and Minimization of Potential Impacts to Birds"). Removal of vegetation or any other ground disturbance activities shall not occur from February 1 to September 15 to avoid impacts to native breeding/nesting birds. If work during the breeding/nesting season cannot be avoided, a qualified biologist shall survey within the project footprint and encompassing adjacent habitats up to 500 feet from the project boundary for owls or raptors and up to 250 feet for all other bird species, unless state or federal protocols for listed or fully protected species dictate otherwise. Surveys shall occur within five working days of the start of construction or ground disturbing activities. If no active nests are found within the survey area, no further mitigation shall be necessary. If breeding activities and/or an active nest(s) are found within the survey area, a non-disturbance buffer shall be established at a minimum of 250 feet from breeding habitat/nest sites of listed species, species of special concern, species protected under the Migratory Bird Treaty Act (raptors shall have a minimum of a 500 foot buffer established), or a qualified on-site biologist may determine a non-disturbance buffer distance sufficient to minimize disturbance based on the nest location, topography, cover, species' tolerance to disturbance, and type/duration of potential disturbance, as determined by the qualified on-site biologist. The appropriate agency(ies) shall be contacted regarding identified nests of listed and/or species of special concern.

If it is determined, based on the professional judgment of the biologist that work is unlikely to adversely impact the active nest(s) or disrupt breeding behavior, then work may proceed within the non-disturbance buffer as long as a qualified biologist is on site to monitor nest(s) for signs of disturbance. Alternatively, if it is determined that project activities are resulting in nest disturbance, no further work shall occur within the non-disturbance buffer(s) until the nest becomes inactive or the young have fledged, as determined by the biologist or by the appropriate agency.

Monitoring guidelines shall be provided in an Avian Protection Plan to be submitted to USFWS and CDFG for review and approval prior to construction. Documentation of plan approval shall be submitted to the CPUC for record-keeping.

Reconductoring the power lines shall conform to PG&E's most current version of Bird and Wildlife Protection Standards, and shall include the use of bird guards.

Construction activities have the potential to disturb or harm wintering burrowing owls in or near the project area, if present. APM BO-24 "Avoidance of and Minimization of Potential Impacts to Burrowing Owls" has been superseded by mitigation measure BO-24, which would require the ends of TSPs and LDS poles to be covered to prevent nesting inside the poles. Implementation of mitigation measure BO-24 would reduce the potential impacts from disturbance to less than significant levels.

Mitigation Measure BO-24 (proposed to supersede APM BO-24 "Avoidance of and Minimization of Potential Impacts to Burrowing Owls"). Pre-construction surveys shall be conducted by a qualified biologist for burrowing owls for all project work areas that provide suitable nesting or wintering habitat (annual grasslands and pastures). Although burrowing owls are not likely to nest in the project area, the potential for nesting owls cannot be precluded. The work area surveys shall be conducted within the ROW, covering the work area and surrounding areas visible from the ROW. The survey shall include checking for the burrowing owl and owl signs (e.g., white wash at burrow entrances). If ground-disturbing activities in suitable habitat are delayed or suspended for more than 30 days after the pre-construction surveys, the site shall be resurveyed. If no burrowing owls are detected, no further mitigation shall be necessary. If active burrows are found near a work area, work in the vicinity of the burrows shall be limited as follows:

a. No disturbance shall occur within approximately 160 feet (50 meters) of occupied burrows during the non-breeding season of September 1 through January 31, or within approximately 250 feet (75 meters) during the breeding season of February 1 through August 31.
b. Limits of the exclusion zone in the project work area shall be clearly marked with signs, flagging, and/or fencing.

If work within these limits is unavoidable while burrows are active, work shall only be conducted in the presence of a qualified monitor who shall determine if the owls show signs of disturbance. Alternatively, upon prior approval from the CDFG, a passive relocation effort (displacing the owls from the work area) may be conducted as described below, and subject to approval from the CDFG. Passive relocation of owls may occur during the non-breeding season (September 1 through January 31) with prior approval from the CDFG. Passive relocation shall include installing one-way doors on the entrances of burrows. The one-way doors shall be left in place for 48 hours to ensure the owls have vacated the nest

site. Owls shall not be relocated during the breeding season. All pole and tower leg holes shall be backfilled or covered at the end of the work day to prevent entrapment of burrowing owls. The open ends of LDS poles, in suitable habitat, shall be covered during storage to prevent burrowing owls from inhabiting the pole openings.

There is a slight potential for a California condor that has been involved in a captive breeding program to be present in the project area and be attracted to human activity. Construction activities could negatively affect the species if it was to be injured by equipment or attracted to humans by their food or trash. APMs BO-2 and BO-8 would reduce potential impacts to the California condor. Implementation of mitigation measure BO-5 would ensure that the potential impacts would be less than significant.

Mammals. Bat species could be affected by loss of roosting or foraging opportunities resulting from vegetation management, construction-related noise, or displacement. APM BO-27 would reduce impacts to nesting bats. APMs BO-25 "Biological Surveys Prior to Bat Breeding Season" and BO-26 "Bat Avoidance Measures" have been superseded by mitigation measure BO-25/26, which includes additional mitigation if bats are found during surveys. Implementation of mitigation measure BO-25/26 would ensure that the potential impacts would be less than significant.

APM BO-27. Biological Monitoring of Existing Bats in Project Area. In the event that a roosting bat or maternity colony occurs within or near the project area, a qualified biological monitor will be provided and will remain on-site during construction activities to ensure there is no nest abandonment.

Mitigation Measure BO-25/26 (proposed to supersede APMs BO-25 "Biological Surveys Prior to Bat Breeding Season" and BO-26 "Bat Avoidance Measures"). Before the spring breeding season (and prior to start of construction), a qualified biologist shall perform a survey for roosting bats or maternity colonies at the proposed project site. Surveys shall evaluate the probability for trees to host roosting bats. For trees considered to have a high probability for bats, acoustic monitoring shall be performed in early summer to detect if there are any roosting sites in the trees. If avoidance of an active roosting bat or maternity colony is not practicable, a sufficient buffer shall be established in consultation with the CDFG. If acoustic monitoring detects that bats are using trees that need to be cut down, exclusionary one-way doors shall be installed in late August, after completion of the maternity season. Roost trees shall be removed after it has been confirmed that roosting bats have departed. If a roost is lost, PG&E shall consult with the CDFG to see if the agency recommends bat boxes be installed in the vicinity of the cut tree.

Habitats for other mammals may be impacted during ground-disturbing or vegetation removal activities. Implementation of APM BO-8 would reduce the potential for disturbance to mammals to a less than significant level.

Operation and Maintenance. Operation and maintenance activities for the proposed project would not change from those currently conducted; therefore, impacts to special-status species would be less than significant.

B) Would the project cause a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFG or the USFWS?

Construction. Sensitive natural communities found within the project area are listed in Table 3.5-1. Temporary impacts that could occur in riparian habitat types are summarized by habitat type in Table 3.5-5. Construction would result in the disturbance of approximately 0.18 acre of riparian habitat. Riparian habitats are found within the project area and are known to support several special-status species such as the CRLF, the coast-horned lizard, the two-striped garter snake, several bird species, and the western red bat. Disturbance to riparian habitats could cause significant impacts to special status species that they support.

USFWS-designated CRLF critical habitat also occurs within the project area. Impacts could occur from the establishment or use of temporary work areas and other associated construction areas summarized in Table 3.5-6.

Approximately 0.18 acre of riparian habitat and 71 acres of USFWS-designated CRLF critical habitat could be disturbed, resulting in temporary impacts (Tables 3.5-5 and 3.5-6). APMs BO-2, BO-7 through BO-9, BO-12, BO-13, BO-15, BO-17 through BO-20, BO-22, BO-23, BO-30, and BO-32 would reduce potential impacts to riparian habitats and USFWS-designated CRLF critical habitat. Implementation of mitigation measures BO-4, BO-5, BO-14, BO-28, BO-35, and BO-36 would ensure that the potential impacts would be less than significant .

Table 3.5-5: Temporary Project Impacts to Riparian Habitats

Natural Community Type	Impact (Acreage)	Construction Activity
Central Coast Sycamore Riparian Forest	0.09	Trees would likely require pruning for access roads. Tree removal likely would not be necessary.
Central Coast Live Oak Riparian Forest	0.09	Trees would likely require pruning for access roads. Tree removal may be necessary.
Total	**0.18**	

Table 3.5-6: Work Areas in CRLF Critical Habitat

Work Area Type in Critical Habitat	Approximate Acreage of Impact	Individual Work Area Dimensions
Existing Access Roads	21.50	Approximate width of 12 feet
Existing Access Roads (re-established through grading and/or vegetation removal)	3.50	Approximate width of 12 feet
Overland Routes	2.50	Approximate width of 10 feet

Table 3.5-6 *(Continued)*: Work Areas in CRLF Critical Habitat

Work Area Type in Critical Habitat	Approximate Acreage of Impact	Individual Work Area Dimensions
Pole Work Areas	4.75	Approximate 40-foot radius circles
Tower Work Areas	27.50	Approximate 100-foot radius circles
Pull and Tension Sites	1.50	Approximate 40-foot-by-200-foot rectangles
Staging and Laydown Areas, Construction Yards, Concrete Transfer Areas, Helicopter Landing Zones, Shoo-Fly Areas	9.75	Various
Total	**71.00**	

Operation and Maintenance. Operation and maintenance activities for the proposed project would not change from those currently conducted; therefore, impacts to riparian habitats and other sensitive natural communities would not occur.

C) Would the project cause a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Construction. Construction could impact several identified jurisdictional wetlands in the project area. The Wetland Delineation Report (Appendix B-2) identifies the aquatic habitats in the project area. Construction activities surrounding structures 62/13, 63/4 through 63/10, 63/14, 63/15, 64/12, 65/2, 66/2, 68/10, 69/0, 72/2, 72/3, 73/0, and 74/1 could cause an impact to nearby wetlands if hazardous materials or sediment-laden runoff is accidently released into the wetlands.

Pole 66/10 is located in wetland feature W2 (Figure 3.5-1). Construction crews would need to cross through and work within the wetland to top Pole 66/10. A line truck and chainsaw would be used to remove the top section of the pole. Wetland feature W2 would be temporarily disturbed during this work. No other work would be conducted in any of the wetlands. The access road to Tower 73/1 is located within approximately 20 feet of wetland feature W3. APMs BO-8, BO-12, BO 34 and BO-37 would reduce potential impacts to wetlands. Implementation of mitigation measures BO-35 and BO-36 would reduce potential impacts to a less than significant level.

> **APM BO-34. Restricted Access to Pole 66/10.** Pole 66/10, which is located in a seasonal wetland, shall be accessed from the south side to eliminate the need to cross the drainage north of Pole 66/10 (shown as S17 in the Wetland Delineation Report). Work shall only be conducted when the seasonal wetland is dry. Trampling and compaction of the wetland at Pole 66/10 shall be minimized. If necessary, timber mats shall be installed to avoid surface disturbance to the wetland from equipment.
>
> **APM BO-37. Sediment Barriers to Protect Wetland (W3).** Sediment barriers between the wetland and the access road that leads to Tower 73/1 will be maintained while re-establishing this road.

Operation and Maintenance. Operation and maintenance activities for the proposed project would not change from those currently conducted; therefore, there would be no impacts.

D) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Construction. Construction of the project would not impact the movement of established or migratory wildlife species. The project would only replace existing components of an existing 70 kV power line. Some project activities including vegetation clearing, road grading, and pole and tower installation could generate noise, which could disturb nearby wildlife. The short-term nature of the disturbance and the abundant suitable habitat surrounding the project area for daily movement, migration, or dispersal would result in less than significant impacts with implementation of APM BO-10.

Operation and Maintenance. Operation and maintenance for the proposed project would not change from those currently conducted. Impacts to migration corridors resulting from operation and maintenance of the project would be less than significant.

E) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Construction. The cities of Atascadero and San Luis Obispo have General Plan elements that identify the need to preserve the natural flora of the area. Construction of the proposed project would require the removal of several trees along the project alignment (see Table 2.5-2). The project would not be subject to local discretionary regulations regarding biological resources; however, tree removal would be coordinated with the appropriate landowner and local jurisdiction. PG&E would also apply for any necessary permits. The City of Atascadero provided a letter stating that the project would not need to apply for any permits for removal of trees. The letter is provided in Appendix D-1. PG&E would contact the City of San Luis Obispo and the County of San Luis Obispo to determine if permits are required to trim or remove trees. Implementation of APM AE-2 would require consultation for tree removal and would reduce the impact to local policies and ordinances to a less than significant level.

Operation and Maintenance. Operation and maintenance of the proposed project could require occasional tree trimming if surrounding vegetation interferes with power line operation or creates a safety hazard. Tree trimming in the ROW would have no impact on local policies and ordinances.

F) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

There is no Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan for the project area. Construction and operation of the project would have no impact.

3.6 Cultural Resources

3.6.1 ENVIRONMENTAL SETTING

Information presented in this section was compiled from the *Cultural Resources Survey for the Atascadero – San Luis Obispo 70 kV Power Line Maintenance and Upgrade Project, San Luis Obispo County, California* and *Addendum to 2008 Cultural Resource Survey Report* (Applied EarthWorks 2009 and 2010).

Archaeology

Prehistory

Late Pleistocene/Early Holocene Period (prior to 6500 B.C.). The prehistory of California's central coast region spans the entire Holocene (from 11,000 years ago to present) and possibly extends to the late Pleistocene (prior to 11,000 years ago). Fluted projectile points (arrowheads) have been found at several inland sites in San Luis Obispo County. Early inhabitants likely used simple technology to acquire plants, shellfish, and some larger animals for subsistence. Sites from this time period are marked by the absence of ground stone. Very few sites have been identified from this period, possibly due to the small population or site destruction through erosion and other natural forces.

Millingstone Period (6500 to 3500 B.C.). The Millingstone Period is characterized by large numbers of well-made manos and metates (early milling tools) and large, side-notched projectile points. Millingstone sites have been recognized in a range of settings, including open rocky coasts. Few Millingstone sites have been found more than 25 kilometers inland. Most sites have produced marine shell, and faunal remains indicate that broad spectrum hunting and gathering took place during this period.

Early Period (3500 to 600 B.C.). Cultural changes that occurred during the Early Period possibly can be attributed to a rising sea level and other environmental change. Assemblages from this period largely resemble those of the Millingstone Period, but include mortars and pestles and a greater number of large, side-notched projectile points, as well as square-stemmed and contracting-stemmed projectile points. An increase in site specialization and trade with other areas during this period is evident in the archaeological record of exotic shell beads and obsidian materials.

Middle-Late Period (A.D. 1150 to 1300). The Middle-Late Period appears to be a transition period. Many archaeologists believe that craft specialization, political complexity, and social ranking developed during this time. Towards the end of the Middle Period, small, leaf-shaped projectile points appear, which seems to mark the arrival of the bow and arrow.

Late Period (A.D. 1300 to 1769). The cultural resources from this period include an abundance of desert side-notched and cottonwood arrow points, small biface bead drills, bedrock mortars, hopper mortars, steatite disk beads, and circular shell fishhooks. It is thought that the Chumash culture from the Late Period was probably similar to what the Spanish observed upon their arrival.

Ethnography – Salinan and Chumash

The project is in an area with two ethnographically known groups of Native Americans: the Salinans and the Obispeño Chumash. It is probable that both groups used the project area at various times in the past. The relationship between the Chumash and Salinans has been described as hostile but some trade did occur between the groups. The Chumash supplied shell ornaments and steatite materials to the Salinans.

The traditional lifestyle of both groups was dramatically altered by the European mission system, which, along with the introduction of new diseases and assimilation, had a devastating effect on both groups.

History

The historic period has been divided chronologically into three periods:

- The Spanish Mission Period (1769 to 1821)
- The Mexican Period (1821 to 1848)
- The American Period (1848 to present)

The Spanish Mission Period began with the Portola Expedition of 1769, when missions began to be established along the coast between San Diego and Sonoma in California. The project is located between two of these missions: San Miguel Arcángel, founded in 1797, and San Luis Obispo de Tolosa, founded in 1772.

In 1821, Mexico gained independence from Spain, and in 1822, California became a Mexican territory. In 1833, the Mexican government's Secularization Act began to change missions into civil parishes. Those natives who had inhabited regions adjacent to a mission were to obtain half of all mission possessions, including land.

The American Period began with the Mexican War with the United States. On February 2, 1848, the United States formally obtained California as a province in the Treaty of Guadalupe Hidalgo. In 1850, California was accepted into the Union primarily due to the population increase created by the gold rush. In this same year, William Hutton was authorized to design the town of San Luis Obispo. In 1876, the City of San Luis Obispo was incorporated.

The San Luis Obispo County economy became dominated by dairies by the 1870s, and roadways were established to help support the industry. Around this time, the Southern Pacific Railroad began work on completing a rail line along the coast through California, and by 1886, the railroad had reached Paso Robles, connecting it with San Francisco.

Defining Archaeological and Historical Resources

Cultural resources in the State of California are recognized as non-renewable resources that require management to assure their benefit to present and future Californians. In the protection and management of the cultural environment, CEQA guidelines provide definitions and standards for cultural resources management. The term "historical resource" is defined as follows:

1. A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (CRHR).
2. A resource included in a local register of historical resources or identified as significant in a historical resources survey shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
3. Any object, building, structure, site area, record, or manuscript that a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a cultural resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the CRHR, including the following:
   - Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
   - Is associated with the lives of persons important in our past;
   - Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
   - Has yielded, or may be likely to yield, information important in prehistory or history.

The term "unique archaeological resource" has the following meaning under CEQA:

> An archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:
>
> 1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information,
> 2. Has a special and particular quality such as being the oldest of its type or the best available example of its type, or
> 3. Is directly associated with a scientifically recognized important prehistoric or historical event or person [Public Resources Code Section 21083.2(g)].

Survey Methodology

Archaeology and Historic Resources

Record Search Results. A record and information search of the project area was conducted on September 5, 2008, at the Central Coast Information Center of the California Historical Resources Information System, University of California, Santa Barbara (CHRIS UCSB). The record search found 42 prior cultural resources investigations within 0.25 mile of the project. The cultural resource investigations from the record search encompasses 20 percent of the project area. Ten of the previously documented investigations identified a total of 16 cultural resources within 0.25 mile of the project area. None of these sites extend into the project area. Previously documented cultural resources are summarized in Table 3.6-1.

Table 3.6-1: Previously Identified Cultural Resources within 0.25 Mile of the Proposed Project

Report Number	Year	Author	Report Title
E-623/1517	1985	Sawyer, W.	Archaeological Subsurface Test Report, Atascadero Christian Home, Inc., 8455 Santa Rosa Rd., Atascadero, CA
E-2238	1992	Gibson, R.	Results of Phase One Archaeological Surface Survey for the Unocal Renewal of 2 8″ Main Lines, Santa Margarita
E-2919	1995	Farris, G., Rivers, B.	Coastal Branch, Phase II, State Water Project Cultural Resources Survey Reach 5A
E-2993	1995	Gibson, R.	Results of Archaeological Monitoring for the Renewal of 2 8″ Main Pipelines near Santa Margarita
E-3701	1995	Ruggerone, G.	Historic Properties Survey Rpt for the Rte 101 Cuesta Grade Improvement Project
E-3687	1998	Johnson, R., Blount, C.	Coastal Branch, Phase II, State Water Project, Cultural Resources, Compliance Monitoring Review Report for Reach 4 and Ancillary Areas
E-4172	1996	Gibson, R.	Results of Archaeological Monitoring for the Unocal Soil Testing Program Along Pipelines near Santa Margarita
E-4261	2000	Flint, S., Nettles, W., Baloian, M., Price, B.	Archaeological Survey of Selected Portions of the Santa Margarita Ranch Vol. 1
E-4346	2001	Singer, C.	Supplemental Archaeological Survey of a Portion of the Dudley Brown Ranch in Santa Margarita
E-5175	2004	Angeloff, B., Weber, B., Roscoe, J.	Cultural Resources Investigation of the Andrews Property Riparian Habitat Improvement Project

SOURCE: CHRIS UCSB 2010

Results of Field Inventory. An initial pedestrian survey and inspection of the power line corridor was conducted by two archaeologists between November and December 2008 to identify any archaeological or historical resources that may be impacted by the project. The survey boundaries were the following:

- A 100-foot-wide corridor along the existing power line
- 300-foot buffer zones around the two substations
- 100-foot buffer zones around 13 potential guard structure locations
- 100-foot buffer zones around three pull and tension sites

Subsequent modifications to the project description resulted in the identification of five additional areas requiring archaeological surveying. The additional areas were surveyed in January and February 2010 and included:

- Area 1: An approximately 1.7-acre staging area in Reservoir Canyon, within the Lowe/Truccio Ranch just north of San Luis Obispo.
- Area 2: An approximately 3.2-acre area located 1.3 miles north of Reservoir Canyon and south of Cuesta Pass, encompassing a staging area/landing zone, near a concrete transfer area and a temporary bridge traversing an unnamed creek.
- Area 3: An approximately 850-linear-foot-long segment of an access road adjacent to and within the railroad right-of-way, just north of Cuesta Pass.
- Area 4: An approximately 0.7-acre staging area on the west side of Santa Margarita Ranch.
- Area 5: An access road measuring 900 linear feet on Santa Margarita Ranch, just north of SR 58, near where the transmission line crosses the road.

Seven previously undocumented archaeological resources were identified during the field inventory: five historical sites, and two archaeological prehistoric isolates, which are described below:

1. P-40-040213 is a paved concrete road of unknown historic age. The road segment is abandoned and in some areas covered with sediment. It measures 16 feet wide and 2,929 feet long. Presumably at one time it was a two-lane road. The road segment would not be used or otherwise affected by the project.
2. P-40-002599/CA-SLO-2599 consists of remnants of a large historical trash dump that served as the Atascadero town dump. The deposit contains several thousand items. An excavation was performed in June 2009 in the area of the site to be affected by pole replacement. The goal of the investigation was to determine whether intact buried deposits are present, and if the project would significantly impact historical remains. The excavations revealed that the site is diffuse and highly disturbed in the area to be affected by pole replacement, and is at the edge of the site in an area that has few artifacts. The historical artifacts are mixed with modern debris in this area, there is no discernable stratigraphy, and individual artifacts are highly fragmented. It was concluded that the proposed pole replacement work would not adversely impact the site or its significant data potential.
3. P-40-041211 is a rock retaining wall constructed of river cobbles and rough aggregate concrete/mortar. The exact date of construction is unknown, but probably dates to the early twentieth century. It is 12 feet, 2 inches high, approximately 25 feet long, and averages 3 feet thick. No towers or pull and tension sites are located in the vicinity. If the proposed guard structure across Reservoir Canyon Road avoids the feature, no project-related impacts would be anticipated.
4. P-40-002598/CA-SLO-2598 consists of 19 historical features associated with chromium mining. Detailed archival research determined that the site failed to meet any of the CRHR significance criteria because it was not a good representative of its historical theme, was not associated with any important individuals, lacked distinctive or unique

design characteristics, and had no potential to provide important new historical information that could not be gained from the archival record.

5. P-40-041212 is a linear feature consisting of two historical power poles. No project activities would be located in the vicinity of this feature.
6. P-40-038242 is an isolated artifact. The artifact is a biface midsection of black Monterey chert. Isolated artifacts are not eligible for the CRHR.
7. An isolated find of a single chert flake was found in Area 2 during the most recent survey (January 2009). Isolated artifacts are not eligible for the CRHR. The site number is pending but the temporary number is AE-1951-1l.

In addition to the seven resources, the Atascadero – San Luis Obispo 70 kV power line was also recorded (P-40-041214). Archival research was performed on both the wood pole segment and the steel tower segment. Based on the results, it was concluded that the power line and the system of which it is a part are not strongly associated with significant historical themes at the national, regional, or local levels. Furthermore, the power line and system do not hold distinctive technological or design characteristics and do not offer important scientific information that cannot be gained from other sources. Therefore, the power line is not a significant historical resource.

Paleontological Resources

Paleontological resources (fossils) are the remains or traces of prehistoric animals and plants. A Paleontological Identification Report (Brady and Associates 2010) was prepared for the project in August 2010. The report includes the results of an examination of literature and maps of the area to determine the surface and subsurface geological units that occur within the power line corridor.

Paleontologic "sensitivity" is defined as the potential for a geologic unit to produce scientifically significant fossils. This is determined by rock type, past history of the rock unit in producing significant fossils, and fossil localities that are recorded from that unit. Paleontologic sensitivity is assigned based on fossil data collected from the entire geologic unit, not just at a specific site. Paleontologic sensitivity ratings are described below (Brady and Associates 2010):

- High Sensitivity: Indicates fossils are currently observed onsite, localities are recorded within the study area, and/or the unit has a history of producing numerous significant fossil remains.
- Moderate Sensitivity: Fossils within the unit are generally not unique or are so poorly preserved as to have only moderate scientific significance.
- Low Sensitivity: Indicates significant fossils are not likely to be found because of a random fossil distribution pattern, extreme youth of the rock unit and/or the method of rock formation, such as alteration by heat and pressure.
- No Sensitivity: Origin of the geologic unit renders it not conducive to the existence of organisms and/or preservation of fossils, such as high-grade metamorphic rocks, intrusive igneous rocks, and most volcanic rocks.
- Indeterminate Sensitivity: Unknown or undetermined sensitivity indicates that the rock unit has not been sufficiently studied or lacks good exposures to warrant a definitive rating. After reconnaissance surveys including observations of road cuts, stream banks,

> and possible subsurface testing such as augering or trenching, an experienced, professional paleontologist can often determine whether the stratigraphic unit should be categorized as having high or low sensitivity.

The project alignment is underlain with the Monterey Shale (24 percent of the alignment), Santa Margarita Sandstone (13 percent), and the Vaqueros Sandstone (1 percent). All of these units have a high paleontologic sensitivity rating because the units have produced significant fossils.

The project alignment also contains the Franciscan assemblage (9 percent), which has a moderate rating because the unit has produced significant fossils on a rare occasions (Brady and Associates 2010). The paleontological sensitivity ratings along the project alignment are summarized in Table 3.6-2. Section 3.7 Geology and Soils includes further information on the geologic units within the project alignment.

The Paleontological Identification Report also includes the results of a records search at the University of California, Museum of Paleontology at Berkeley and at the Natural History Museum of Los Angeles County. No significant fossils have been reported within five miles of the project alignment (Brady and Associates 2010).

Native American Consultation

The Native American Heritage Commission (NAHC) in Sacramento was contacted on October 20, 2008, to determine if any sites recorded in NAHC's Sacred Lands File are located in or near the project area. The NAHC indicated in its October 27, 2008, response that there were several sites located within the project area. The NAHC supplied a list of 23 local Native American tribal representatives with interests in and possible knowledge of the area and sites. The listed individuals were contacted by letter and/or telephone on October 30, 2008 (with follow-up on November 11, 2008), to inform them of the project and to request comments or information about the project area. Records of consultations are available in the PEA (TRC 2010). None of the Native American representatives consulted for the project expressed concern over potential impacts to significant cultural resources.

Table 3.6-2: Paleontological Sensitivity Ratings Along the Project Alignment

Paleontologic Sensitivity Rating	Approximate Length of the Project Alignment (miles)	Approximate Percentage of the Project Alignment
High	6.0	39
Moderate	1.5	10
Low	2.5	16
None	5.0	32
Indeterminate	0.5	3

SOURCE: Brady and Associates 2010

3.6.2 ENVIRONMENTAL IMPACTS AND ASSESSMENT

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
A) Cause a substantial adverse change in the significance of a historical resource as defined by CEQA Guidelines section 15064.5?	☐	☑	☐	☐
B) Cause a substantial adverse change in the significance of a unique archaeological resource as defined by CEQA Guidelines section 15064.5?	☐	☐	☑	☐
C) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☑	☐	☐
D) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☑	☐

A) Would the project cause a substantial adverse change in the significance of a historical resource as defined by CEQA Guidelines §15064.5?

Construction activities have the potential to affect two of the five discovered historical resources through ground-disturbing activities. APM CR-1 "Archaeological and Paleontological Site Avoidance" has been superseded by mitigation measure CR-1, which requires known cultural resources to be marked prior to construction and project components to be relocated if there is a potential to impact a cultural resource. Implementation of mitigation measure CR-1 would reduce the potential for impacts to known historical resources to a less than significant level.

> **Mitigation Measure CR-1 (proposed to supersede APM CR-1 "Archaeological and Paleontological Site Avoidance").** At historical sites P-40-041211 and P-40-040213 and any other known cultural resources within 50 meters of the project area, the limits of the project area near the resource shall be marked with visible flagging tape prior to construction. The construction crews shall be instructed that no vehicle access, travel, equipment staging, storage, or other construction-related work shall occur outside the flagged areas to ensure known cultural resources are not inadvertently damaged during implementation of the project. PG&E shall avoid known cultural resources. Poles, towers, or other facilities shall be relocated, if necessary, to avoid these resources.

Previously undiscovered historical resources could be encountered during project implementation. If a previously undiscovered historical resource is encountered and is eligible for listing in the National Register of Historic Places, then any impacts to that resource would be

potentially significant. Implementation of APMs CR-2 and CR-3 would reduce potential impacts to previously undiscovered historical resources to a less than significant level.

APM CR-2. Pre-construction Worker Education. PG&E will design and implement a Worker Education Program that will be provided to all project personnel who may encounter and/or alter historical resources or unique archaeological properties, including construction supervisors and field personnel. No construction worker will be involved in field operations without having participated in the Worker Education Program. The Worker Education Program will include, at a minimum:

- A review of archaeology, history, prehistory and Native American cultures associated with historical resources in the project vicinity.
- A review of applicable local, state and federal ordinances, laws and regulations pertaining to historic preservation.
- A discussion of site avoidance requirements and procedures to be followed in the event that unanticipated cultural resources are discovered during implementation of the project.
- A discussion of disciplinary and other actions that could be taken against persons violating historic preservation laws and PG&E policies.
- A statement by the construction company or applicable employer agreeing to abide by the Worker Education Program, PG&E policies and other applicable laws and regulations.

Environmental training will also be provided to workers regarding the protection of paleontological resources and procedures to be implemented in the event fossil remains are encountered by ground-disturbing activities.

The Worker Education Program may be conducted in concert with other environmental or safety awareness and education programs for the project, provided that the program elements pertaining to cultural resources are provided by a qualified instructor meeting applicable professional qualifications standards.

APM CR-3. Unanticipated Discoveries Management. In the unlikely event that previously unidentified cultural resources are uncovered during implementation of the project, all work within 165 feet (50 meters) of the discovery will be halted and redirected to another location. PG&E's cultural resource specialist or his/her designated representative will inspect the discovery and determine whether further investigation is required. If the discovery can be avoided and no further impacts will occur, the resource will be documented on California State Department of Parks and Recreation cultural resource record forms and no further effort will be required. If the resource cannot be avoided and may be subject to further impact, PG&E will evaluate the significance and CRHR eligibility of the resource and implement data recovery excavation or other appropriate treatment measures if warranted.

In the unlikely event that previously unidentified paleontological resources are uncovered during implementation of the project, all ground disturbing work will be temporarily halted or diverted away from the discovery to another location. PG&E's paleontological resources specialist or his/her designated representative will inspect the discovery and determine whether further investigation is required. If the discovery is significant, but can be avoided and no further impacts will occur, the resource will be documented in the appropriate

paleontological resource records and no further effort will be required. If the resource is significant, but cannot be avoided and may be subject to further impact, PG&E will evaluate the significance of the resources, and implement data recovery excavation or other appropriate treatment measures as recommended by a qualified paleontologist.

B) Would the project cause a substantial adverse change in the significance of a unique archaeological resource as defined by CEQA Guidelines §15064.5?

No significant archaeological resources are known within the project area. Implementation of APMs CR-2 and CR-3 would reduce potential impacts to previously undiscovered archaeological resources to a less than significant level by requiring cultural resources awareness training for construction workers and the development of a protocol in the event of unanticipated discoveries.

C) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

There are no known "unique" paleontological resources within the project area. Approximately 47 percent of the project alignment is underlain by geologic units which have high or moderate paleontologic sensitivity. The power line is located in an existing corridor so ground-disturbing activities, such as road re-grading and vegetation management, would be limited to previously-disturbed areas. It is unlikely that paleontological resources would be encountered during construction. In the event that paleontological resources are encountered, mitigation measures CR-4, CR-5, and CR-6 would reduce impacts to a less than significant level.

Mitigation Measure CR-4. Prior to construction, all project personnel shall attend environmental training regarding the protection of paleontological resources and procedures to be implemented in the event fossil remains are encountered by ground-disturbing activities. The training shall include, but shall not be limited to:

1. A review of applicable local, state and federal ordinances, laws and regulations pertaining to paleontologic preservation.
2. A discussion of disciplinary and other actions that could be taken against persons violating historic preservation laws and PG&E policies.

This training may be combined with other environmental training for the project, provided that the program elements pertaining to paleontological resources are provided by a qualified instructor meeting applicable professional qualification standards (including SVP [1991, 1995, 2005]). Attendance sheets shall be submitted to the CPUC within one week of training events.

Mitigation Measure CR-5. Prior to construction, a qualified Principal Paleontologist (qualified according to SVP standards) or his/her designee shall conduct on-site inspection of high sensitivity units in areas where ground-disturbing project activities shall occur. Designation of areas of avoidance, special interest, and concern may be appropriate. During construction, deeper excavations or grading (more than 2' deep, excluding augering or hand-digging for pole or tower fitting holes) in high-sensitivity units shall be monitored closely by a qualified Principal Paleontologist or his/her designated assistant. Paleontological monitors shall have the authority to temporarily halt or redirect work at specific locations in order to assess and/or recover paleontological remains, and to establish

buffer zones around potentially significant specimens using flagging on lath until the find is assessed by the Principal Paleontologist.

The paleontological monitor will maintain a daily log of monitoring activities to document the location of monitoring, observations of sediment type and distribution, observations regarding fossils, collection of fossils and other information. Daily logs and photographs will be supplied to the Principal Paleontologist. Upon completion of construction, if no paleontological resources are identified during the project, the Principal Paleontologist will compile a simple summary letter report of monitoring. A copy of the summary report shall be submitted to the CPUC for recordkeeping.

If paleontological resources are identified, upon completion of construction, the Principal Paleontologist shall compile a final monitoring report. This report shall include, but shall not be limited to:

1. Inclusive dates of monitoring
2. Present personnel qualifications
3. Summary of the monitoring effort and coverage using text and maps
4. Documentation of paleontological localities discovered and resources identified
5. Interpretation of fossil discoveries
6. Evaluation of the adequacy of the monitoring effort
7. Suggestions for improving paleontological resource monitoring procedures
8. A copy of the final monitoring report shall be submitted to the CPUC for recordkeeping.

Mitigation Measure CR-6. If previously unidentified paleontological resources are uncovered during implementation of the project, all ground disturbing work shall be temporarily halted or diverted away from the discovery to another location. PG&E's paleontological resources specialist (i.e., a Principal Paleontologist qualified according to SVP standards) or his/her designated representative shall inspect the discovery and determine whether further investigation is required. If the discovery is determined to be "unique" under CEQA, but can be avoided and no further impacts shall occur, the resource and locality shall be documented in the appropriate paleontological resource records and no further effort shall be required. Locality documentation shall include:

1. One or more UTM readings using a global positioning system unit
2. Accurate elevation measurement
3. Depth below surface
4. Lithologic analysis
5. Detailed field map of the locality

Additional information may include:

a. One or more stratigraphic columns
b. Sedimentary structure analysi
c. Taphonomic analysis and photographs of the fossil in situ, if recommended by the Principal Paleontologist

If the resource is determined to be "unique" under CEQA and cannot be avoided and may be subject to further impact, PG&E shall ensure that the fossils are recovered, prepared, identified, catalogued, and analyzed according to current professional standards under the direction of a qualified Principal Paleontologist. All recovered fossils shall be curated at an accredited and permanent scientific institution according to SVP standards; typically the Natural History Museum of Los Angeles County and UC Berkeley accept paleontological collections at no cost to the donor.

D) Would the project disturb any human remains, including those interred outside of formal cemeteries?

The potential for encountering human remains in the project area is low. If human remains are identified during project construction, the project would comply with all applicable federal, state, and local laws that govern the procedures involved in the notification, recovery, and handling of human remains and unmarked graves. Implementation of APMs CR-2 and CR-3 would further reduce impacts associated with disturbance of human remains to a less than significant level.

3.7 Geology and Soils

3.7.1 ENVIRONMENTAL SETTING

Geology and Physiography

The project alignment extends southward from the southern end of the City of Atascadero, across tree-covered hilly topography through Santa Margarita to the top of Cuesta Pass. The alignment continues along the eastern side of US 101 down the steep, mountainous slopes and ridges of Cuesta Pass, through open pastureland and hilly topography to Reservoir Canyon, and south through steep, mountainous terrain, terminating at the eastern side of the City of San Luis Obispo.

San Luis Obispo County is in the southern portion of the Coast Ranges Province, which consists of structurally complex, subparallel, northwest-trending faults, folds, and mountain ranges. The Coast Ranges Province is bounded by the Great Valley Province to the east, the Pacific Ocean to the west, and the Transverse Ranges Province to the south. The project alignment is located in a corridor bounded to the west by the Santa Lucia Mountains and to the east by the La Panza Range. Ground surface elevations for the project alignment vary from approximately 910 feet above mean sea level (amsl) at Atascadero Substation, to 1,850 feet amsl near the crest of Cuesta Pass, to approximately 320 feet amsl at San Luis Obispo Substation (USGS 1965a, 1965b, and 1965c).

Geologic Setting and Units

The project is located in a geologically complex, seismically active region underlain by Franciscan mélange, ultramafic and volcanic rocks, shale, sandstone, and alluvial deposits. The general geology along the project alignment consists of Jurassic-Cretaceous Franciscan basement rocks overlain by Cretaceous and Tertiary marine and continental sedimentary rocks and occasional Tertiary volcanic rocks. Surficial deposits along the project alignment include alluvial gravel and sand stream channel deposits, alluvial valley deposits, landslide debris, older alluvium, and soil. The geologic units in the project area are described in detail in Appendix C, and are illustrated on Figure 3.7-1.

Soil Types and Hazards

Soil Types

The U.S. Department of Agriculture (USDA) Natural Resources Conservation Service has mapped soils in the project area. A summary of the major soil units along the project alignment is presented in Appendix C and illustrated on Figure 3.7-2. Major soil types identified along the alignment range from fine sandy loam to silty loam to clay loam, with channery clay loam present in the northern portion of the alignment (USDA 2010). Soils along the slopes of the project alignment tend to be thin as a result of slow formation, creep, and erosion (Kleinfelder 2010). The soil profiles along much of the project alignment generally are less than 6 feet deep and, in many cases, have developed over bedrock less than 3 feet deep (USDA 2010). Throughout most of the project area, including the steep ridges and ridge tops, the project alignment is located on bedrock with a thin layer of soil (Kleinfelder 2010). Landslide deposits mapped during a geological evaluation indicate that many small slope failures appear to be concentrated on slopes underlain by Franciscan mélange or Monterey shale (Kleinfelder 2009 and 2010).

Figure 3.7-1A: Geologic Units in the Project Area (North Map)

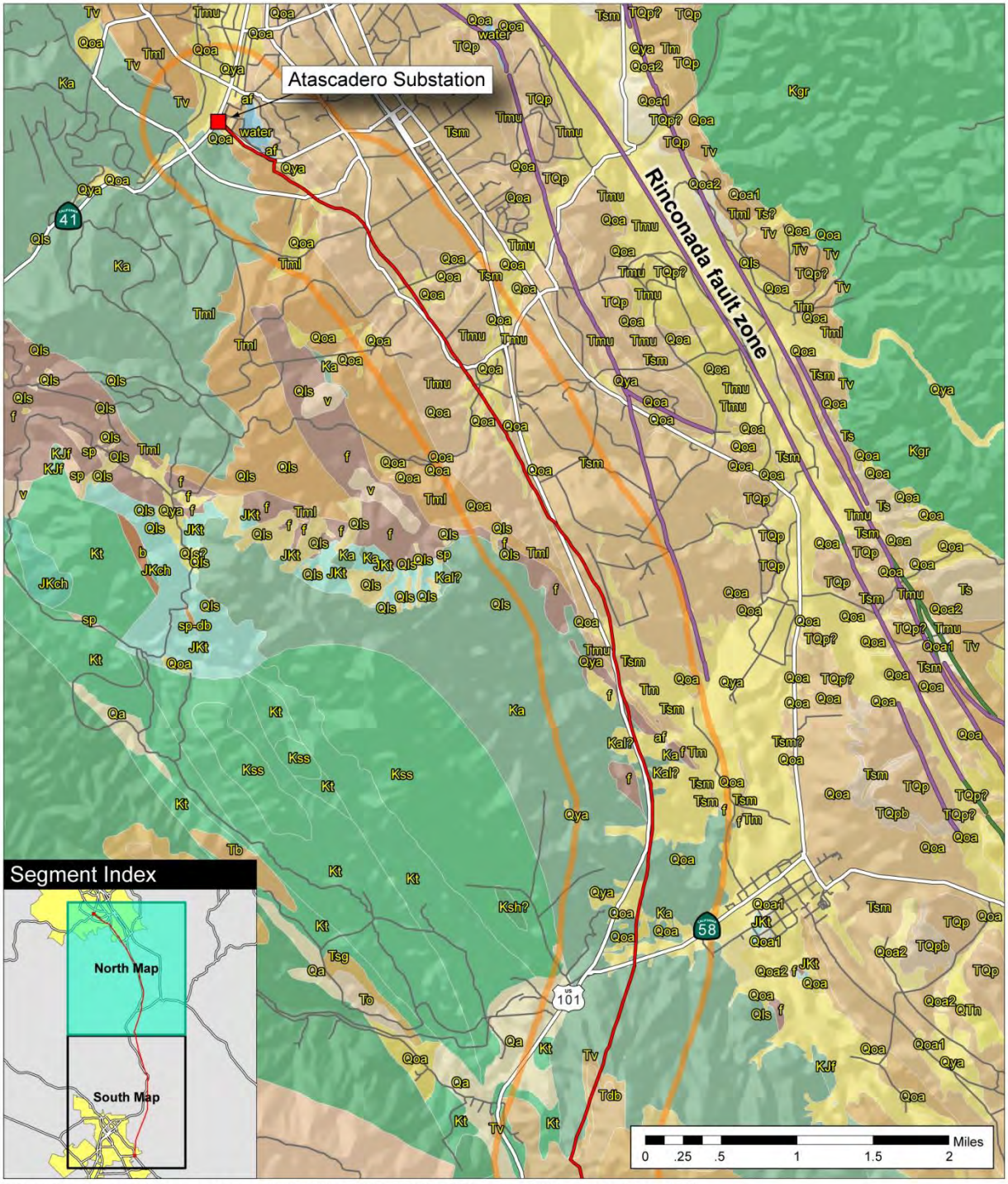
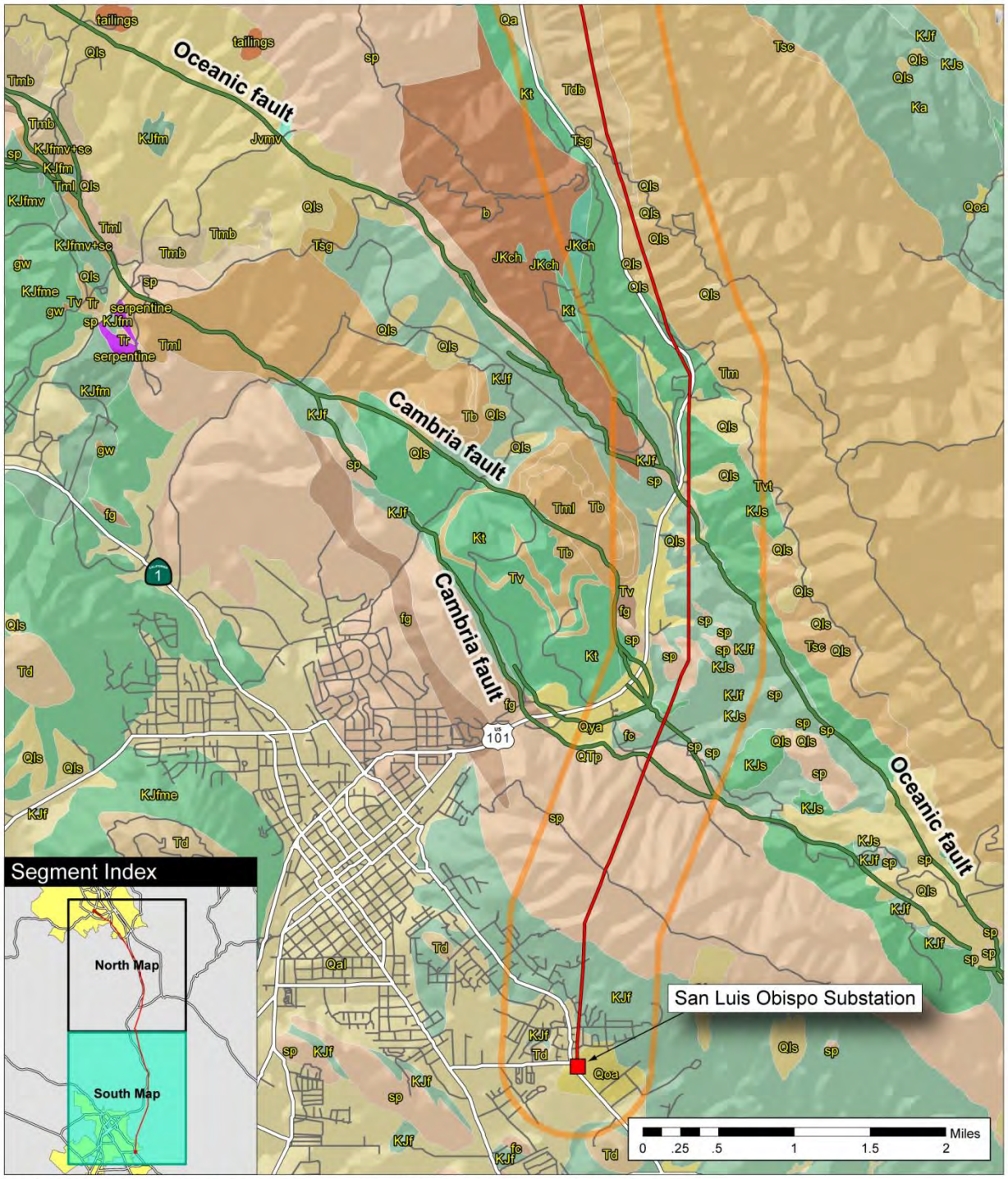


Figure 3.7-1B: Geologic Units in the Project Area (South Map)



SOURCE: County of San Luis Obispo 2007, PG&E 2010, USGS 2010, ESRI 2006, and RMT Inc. 2010

LEGEND

- U.S. Highway
- State Route
- Project Substation
- Atascadero - San Luis Obispo 70kV Power Line
- Highway
- Road
- Fault with Late Quaternary Displacement (<130,000 years)
- Fault with Quaternary Displacement (<1,600,000 years)
- Half Mile Project Buffer

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Figure 3.7-2A: Soils in the Project Area (North Map)

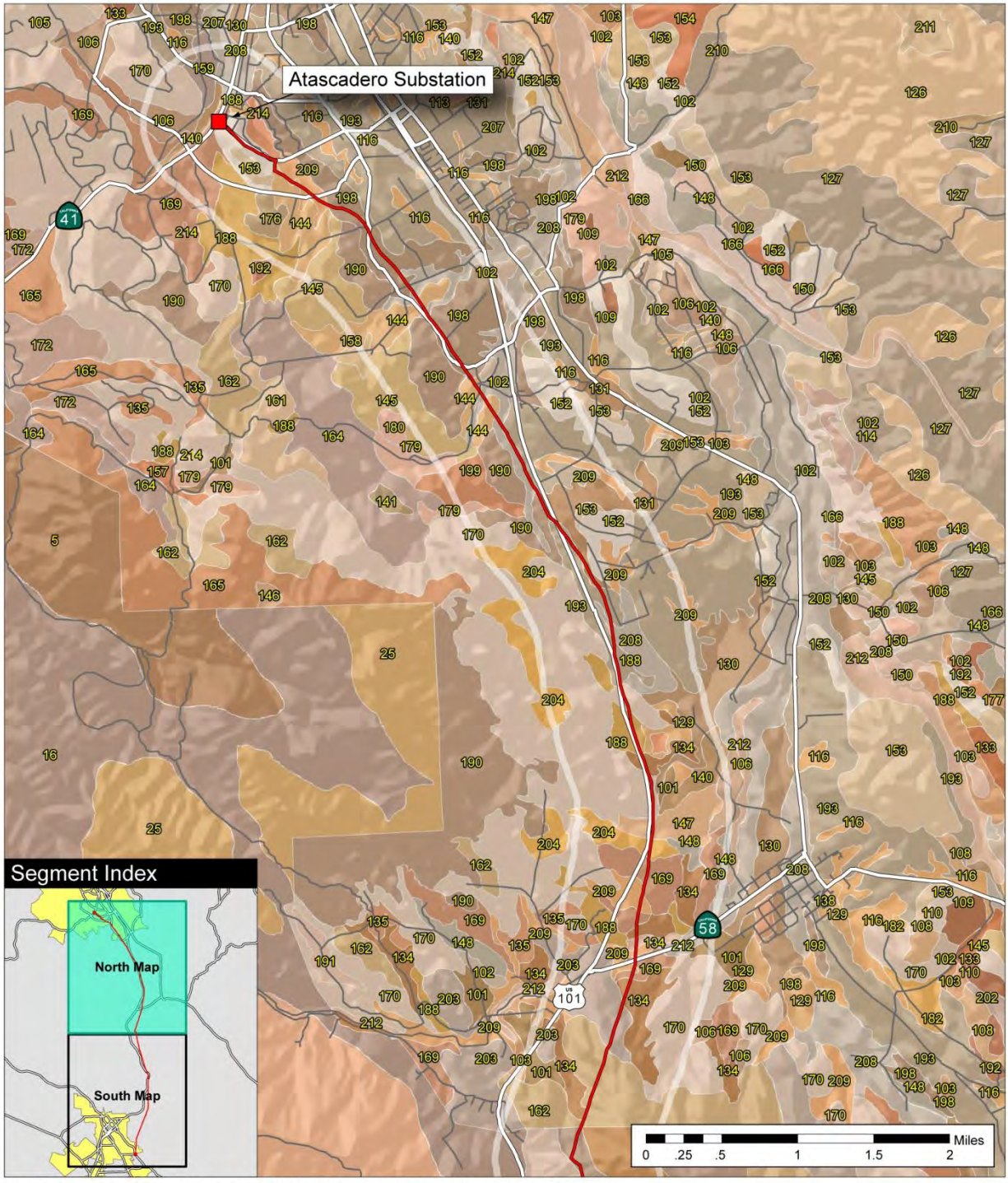
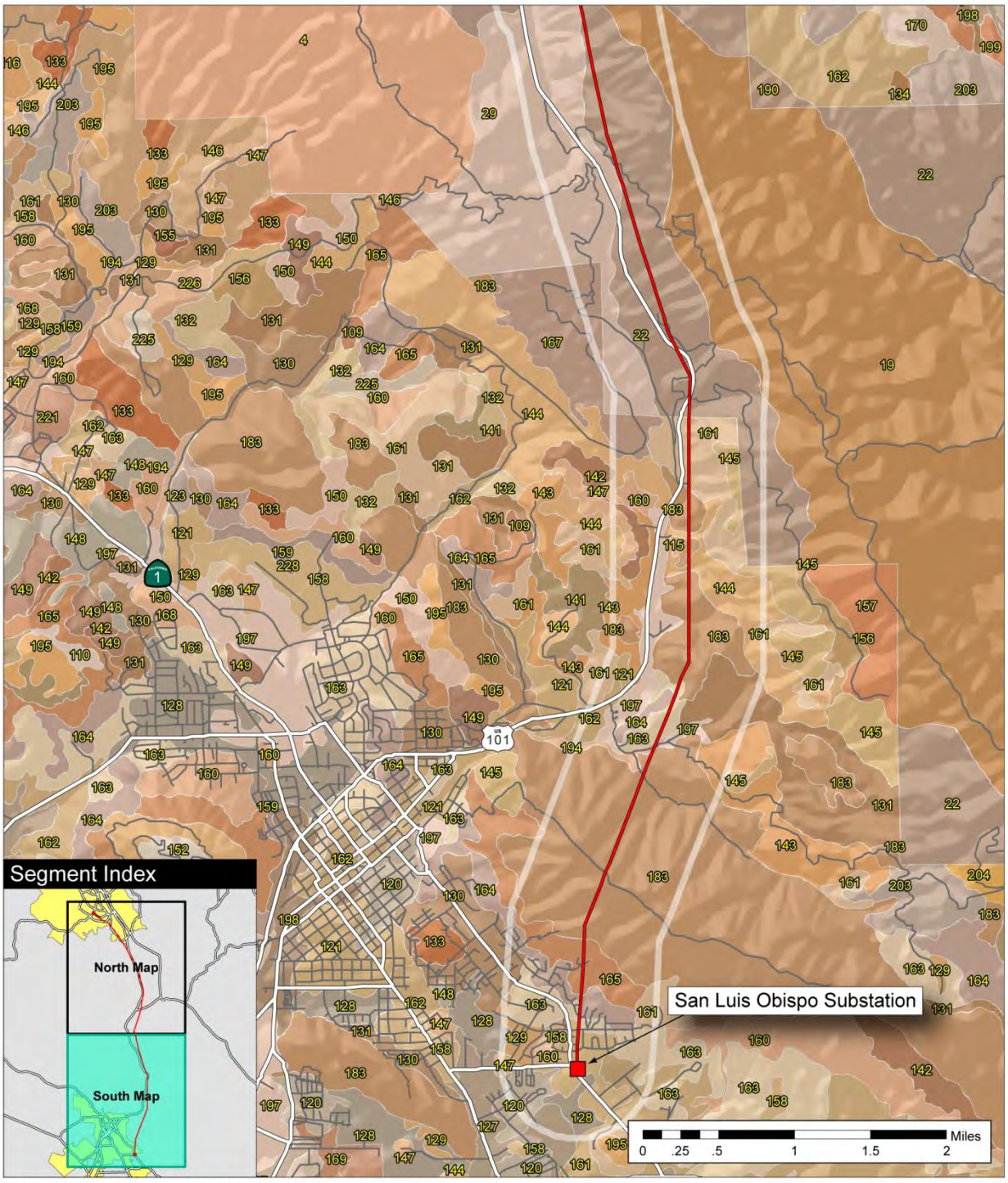


Figure 3.7-2B: Soils in the Project Area (South Map)



Expansive and Collapsible Soils

Expansive soils contain significant amounts of clays that expand when wetted. Expansive soils can cause damage to foundations if moisture collects beneath structures. Soils along the alignment primarily consist of clay and silt, with lesser amounts of sand. The potential for encountering expansive soils throughout most of the project alignment generally is moderate, based on the shrink-swell potential of the various soil units (Appendix C). The middle portion of the alignment just south of Santa Margarita and less extensive areas in the northern portion of the alignment are underlain by several soil units with high shrink-swell potential (Figure 3.7-2).

Soil collapse occurs when increased moisture causes chemical or physical bonds between the soil particles to weaken, which allows the structure of the soil to collapse and the ground surface to subside. Collapsible soils are generally low-density, fine-grained combinations of clay and sand left by mudflows that have dried, leaving tiny air pockets. When the soil is dry, the clay is strong enough to bond the sand particles together. When the clay becomes wet, moisture alters the cementation structure and the soil's strength is compromised, causing collapse or subsidence. Collapsible soil deposits may be present in the project area based on the topography and climatology of the region, which may be conducive to mudflow formation during periods of heavy precipitation. Mudflow potential is further discussed in Section 3.9 Hydrology and Water Quality.

Erosion

Erosion is the process by which rocks, soil, and other land materials are abraded or worn away from the earth's surface over time. The erosion rate depends on many factors, including soil type, geologic parent material, slope, soil placement, vegetation, and human activity.

Major soil types along the power line corridor, according to the USDA (2010) maps, are classified as clay loam, silty loam, and sandy loam. The erosion potential for soils present along most of the project alignment generally is low to moderate. The area just south of Santa Margarita is underlain by units with higher erosion potential (Figure 3.7-2). Steep slopes along several segments of the alignment may make other areas also susceptible to erosion.

Subsidence

Subsidence is deep-seated settlement due to the withdrawal of fluid (oil, natural gas, or water). Subsidence can sometimes be measured in tens of feet and typically occurs in broad valleys underlain by thick sequences of alluvial sediments. Limited areas have been identified in San Luis Obispo County where subsidence has been a problem; however, none of these areas are within the project area (SLO County 1999).

Landslides

A landslide is defined as the slipping down or flowing of a mass of land (rock, soil, and debris) from a mountain or hill. Landslide potential is high in steeply sloped areas underlain by alluvial soils, thinly bedded shale, or bedrock where the bedding planes are oriented in an out-of-slope direction (bedding plane angles that are greater than horizontal, but less than the slope face).

Much of the project alignment is within a high potential landslide hazard area (SLO County 1999) and is underlain by geologic units commonly associated with slope stability problems including Franciscan mélange and the Monterey Formation (Kleinfelder 2009 and 2010).

Several tower locations along the project alignment were identified in areas of landslides, slumps, or other areas interpreted to be unstable due to the presence of one or more factors, including seeps or springs, excessive erosion, and cut slopes (Kleinfelder 2010). These towers are listed below:

- 69/1
- 69/3
- 69/6
- 70/1
- 70/5
- 70/6
- 71/1
- 71/3
- 71/5
- 72/0
- 73/0
- 75/0

The foundations of most towers are installed into bedrock; therefore, most of the nearby mapped landslides or slumps on adjacent slopes would not adversely or directly affect the stability of the towers. Recommendations to monitor these locations following heavy rainstorms or seismic activity were provided in the geotechnical report (Kleinfelder 2010). Additional information regarding landslides in the project area, including detailed maps of mapped landslides along the power line corridor, is included in the Kleinfelder reports (2009 and 2010). There were no landslides mapped along the project area extending from Atascadero to SR 58 (Kleinfelder 2010). Steep slopes along several segments of the alignment may make other areas also susceptible to landsliding. Figure 3.7-3 illustrates the landslide potential along the project alignment.

Seismicity and Faults

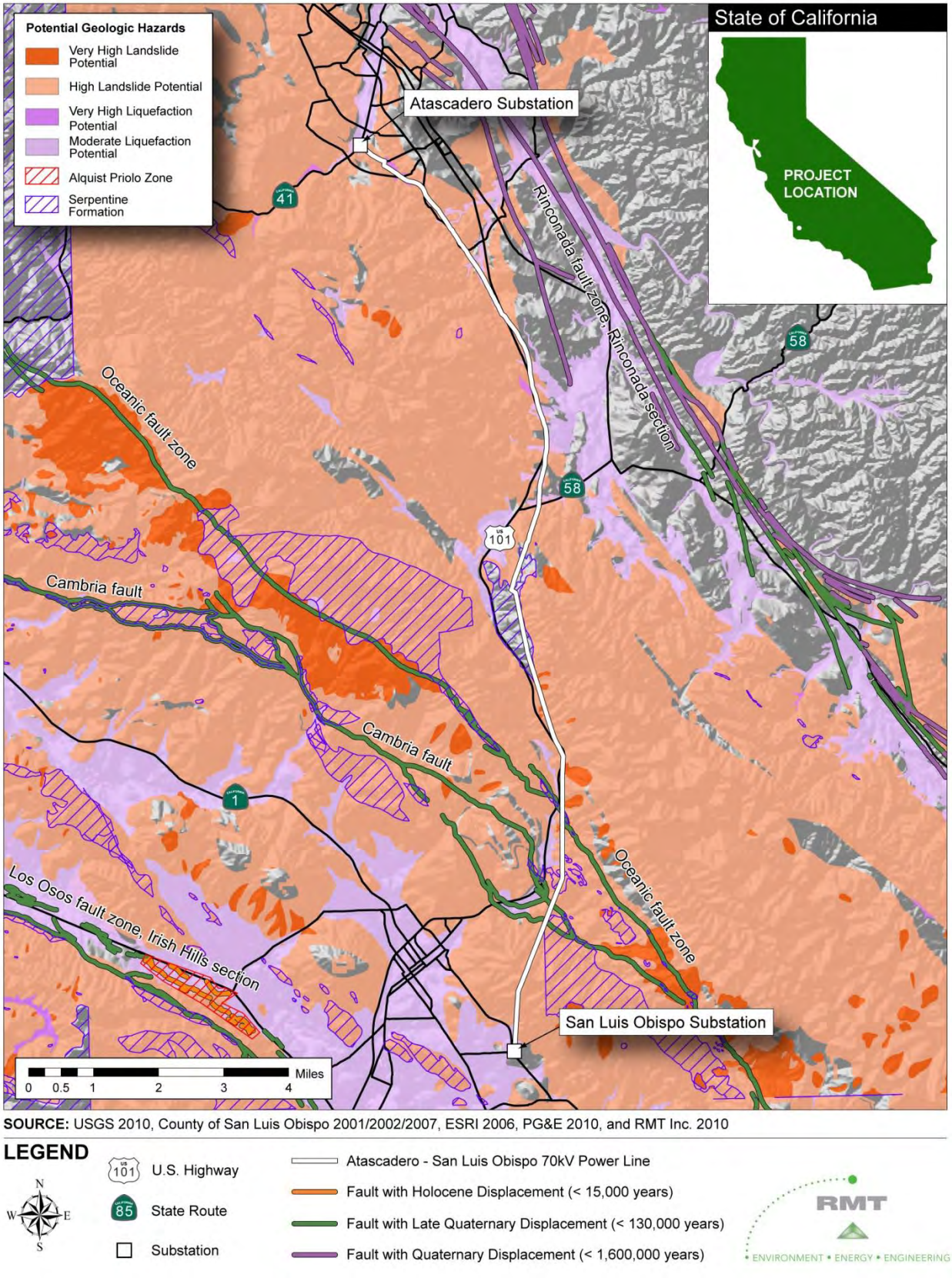
The project area is located in a seismically active region with several active and potentially active faults. The predominant northwest-trending structures of the Coast Ranges Province, in which the project area is located, are related to the San Andreas Fault transform boundary, which separates two major tectonic plates. The main feature of the boundary is the San Andreas Fault Zone, a right-lateral strike-slip fault zone located approximately 30 miles northeast of the City of San Luis Obispo.

There is a 59 percent chance of a magnitude 6.7 or greater earthquake occurring along the southern branch of the San Andreas Fault within the 30-year period from 2009 to 2039 (2007 WFCEP 2008). The Cholame segment of the San Andreas Fault is the closest segment to the project area, and has a 37 percent probability of rupturing within this 30-year period (2007 WFCEP2008).

The Alquist-Priolo Earthquake Fault Zoning Act designates earthquake fault zones based on the presence of a sufficiently active and well-defined fault. The California Geological Survey (CGS) developed criteria to classify fault activity for the Alquist-Priolo Earthquake Fault Zoning Act. By definition, an active fault is one that is "sufficiently active and well-defined," with evidence of surface displacement within Holocene time (about the last 11,000 years) (Hart and Bryant 2007). Currently, there are no designated Alquist-Priolo faults in the immediate project area.

A potentially active fault displaces Quaternary deposits (last 1.6 million years). Potentially active faults also represent possible surface rupture hazards, although to a lesser degree. In contrast to

Figure 3.7-3: Potential Geologic Hazards



active or potentially active faults, faults considered inactive have not moved in the last 1.6 million years.

Active and potentially active faults located within approximately 30 miles of the project area and surrounding region are listed in Appendix C and are shown on Figure 3.7-4. Approximate distances of the nearest point along the power line alignment to the faults and Maximum Credible Earthquake magnitude for each fault are also listed in Appendix C. The power line corridor crosses two potentially active fault zones: the Oceanic fault zone and the Cambria fault zone (Figure 3.7-4). Fault rupture potential in the project area is considered low to moderate.

Ground Motion

An earthquake along any of the fault zones listed in Appendix C is capable of generating very strong ground motion or shaking along the proposed project alignment. The project alignment is located in a region that is expected to undergo moderate earthquake shaking (State of California 2003).

Approximate ground motion parameters were estimated for the project alignment. The parameters presented in Table 3.7-2 represent a 10 percent probability of being exceeded during a 50-year period. They are expressed as a fraction of the acceleration due to gravity (g). Three ground motion values are shown: peak ground acceleration (PGA), short-period (0.2-second) spectral acceleration (Sa), and moderately long-period (1.0-second) spectral acceleration. Each ground motion value is shown for three site conditions: firm rock, soft rock, and alluvium. The proposed project is underlain primarily by alluvium and firm rock.

Liquefaction

Liquefaction is a phenomenon in which water-saturated, cohesionless sediments, such as sand and silt, temporarily lose their strength and liquefy. Liquefaction occurs when saturated sediments are subjected to dynamic forces, such as intense and prolonged ground shaking during an earthquake. Liquefaction typically occurs when groundwater is shallow (i.e., less than 50 feet below ground surface) and soils are predominantly granular and unconsolidated. Effects of liquefaction on level ground can include sand boils, settlement, and bearing capacity failures below structural foundations.

The potential for liquefaction in the project area generally is low with some areas of high potential. High potential for liquefaction occurs:

- Adjacent to Atascadero Creek and along the south side of Atascadero Lake in the northern portion of the alignment, close to Atascadero Substation
- Adjacent to Paloma Creek at the southern end of the City of Atascadero
- At isolated locations along the alignment from just south of Atascadero to SR 58, as the power line crosses Santa Margarita Creek west of Santa Margarita

All other segments of the alignment are located in areas of low liquefaction potential (SLO County 1999). Figure 3.7-3 illustrates the liquefaction potential along the project alignment.

Figure 3.7-4: Regional Faults

Table 3.7-2: Estimated Ground Motion Parameters in the Project Area

Ground Motion	Firm Rock (g)	Soft Rock (g)	Alluvium (g)
Atascadero Substation			
PGA	0.246	0.268	0.307
S_a (0.2-second)	0.586	0.641	0.740
S_a (1.0-second)	0.261	0.328	0.409
San Luis Obispo Substation			
PGA	0.249	0.271	0.310
S_a (0.2-second)	0.587	0.642	0.741
S_a (1.0-second)	0.248	0.312	0.393

SOURCE: CGS 2008

Lateral Spreading

Lateral spreading is a phenomenon that involves lateral displacement of large, intact blocks of soil down gentle slopes or toward a steep free face such as a stream bank. Lateral spreading occurs as a result of liquefaction of a shallow underlying deposit during an earthquake. It typically occurs on slopes of 0.3 to 5 percent underlain by loose sands and a shallow water table. Conditions conducive to lateral spreading include gentle surface slope, a shallow water table, and liquefiable cohesionless soil. These conditions commonly are found along streams banks, canals, or cut slopes in recent alluvial or deltaic deposits. Structures located at the head of the slide may be pulled apart and those at the toe of the slide may buckle or compress.

The potential for lateral spreading in the project area is similar to that for liquefaction (i.e., generally low with some areas of high potential). The highest potential for lateral spreading occurs in the areas described above, under the heading *Liquefaction*.

3.7.2 ENVIRONMENTAL IMPACTS AND ASSESSMENT

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
A) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☑	☐
ii) Strong seismic ground shaking?	☐	☐	☑	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☑	☐
iv) Landslides?	☐	☑	☐	☐
B) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☑	☐
C) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☑	☐	☐
D) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☑	☐
E) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☑

A) Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

(i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map?

Construction. The power line corridor crosses two potentially active fault zones: the Oceanic fault zone and the Cambria fault zone. No recognized active faults underlie the project alignment and there currently are no designated Alquist-Priolo faults in the immediate project area. The nearest designated Alquist-Priolo Fault Hazard Zone is the Cholame segment of the San Andreas Fault, located approximately 30 miles from the power line. The nearest active fault is a portion of the Los Osos fault zone, located approximately 2 miles west of San Luis Obispo Substation.

The risk of fault rupture is greatest in the immediate vicinity of active faults. Because the project alignment crosses only potentially active fault zones, fault rupture potential in the project area is low to moderate. Due to the short duration of construction (24 months), and the low probability of a seismic event occurring during this time, the potential for construction crews to experience rupture of one of the potentially active faults is minimal. Impacts from fault rupture would be less than significant.

Operation and Maintenance. Operation and maintenance activities for the power line would be similar in scope to existing operation and maintenance activities. Impacts to poles and towers as a result of fault rupture would not change from existing conditions; therefore, there would be no impact.

(ii) Strong seismic ground shaking?

Construction. The proposed project is located in a region with several active and potentially active fault zones with a history of strong earthquakes. Peak ground acceleration would vary along the length of the corridor. Severe ground shaking has the potential to cause human injury; however, due to the short duration of construction (24 months) and the low probability of a seismic event occurring during this time, the potential for construction crews to experience strong seismic ground shaking is minimal. Impacts from ground shaking would be less than significant.

Operation and Maintenance. Operation and maintenance activities for the power line would be similar in scope to existing operation and maintenance activities. Impacts to poles and towers as a result of strong seismic ground shaking would not change from existing conditions; therefore, there would be no impact.

(iii) Seismic-related ground failure, including liquefaction?

Construction. The areas around Atascadero Creek, Atascadero Lake, and Paloma Creek within and south of the City of Atascadero, as well as isolated areas along drainages from just south of Atascadero to SR 58, have high potential for liquefaction. Due to the short duration of construction (24 months) and the low probability of a seismic event occurring during this time, the potential for construction crews to be exposed to seismic-induced liquefaction is minimal.

Areas with liquefaction potential would be stabilized during pole installation using appropriate engineering methods and monitoring to reduce potential impacts that could result from structures placed on unstable soils. Impacts would be reduced to a less than significant level with the implementation of APMs GE-1, GE-3, and GE-5.

APM GE-1. Appropriate Design Measures Implementation. A landslide survey of the planned project alignment was conducted, which included a reconnaissance to identify potential problems at planned pole and tower locations. Appropriate design features have been developed where potential problems were found to exist. Appropriate design features may include excavation of potentially problematic soils during construction and replacement with engineered backfill, relocation of poles to avoid problematic soils or landslide areas, and pole depth specifications. Where significant potential for damage due to surface fault rupture is identified, towers/poles siting and design will be modified to the extent feasible to avoid or reduce damage.

APM GE-3. Slope Instability During Construction Minimization. During pole replacement activities along the hilly terrain, construction slopes and existing natural slopes impacted by construction operations will be evaluated for stability. In developing grading plans and construction procedures for re-establishing access roads and replacing power poles, slope stability will be analyzed. Construction slopes and grading plans will be designed to limit the potential for slope instability and minimize the potential for erosion and flooding during construction. The project will not result in any new cut or fill slopes, either permanent or temporary. Construction activities likely to result in slope instability will be suspended, as necessary, during and immediately following periods of heavy precipitation when unstable slopes are more susceptible to failure.

APM GE-5. Soft or Loose Soils during Construction Minimization. Where soft or loose soils are encountered during construction, appropriate measures will be implemented to avoid, accommodate, replace, or improve soft or loose soils encountered during construction. Such measures may include:

- Locating construction facilities and operations away from areas of soft and loose soil.
- Over-excavating soft or loose soils and replacing them with engineered backfill materials.
- Increasing the density and strength of soft or loose soils through mechanical vibration and/or compaction.
- Treating soft or loose soils in place with binding or cementing agents.
- Construction activities in areas where soft or loose soils are encountered will be scheduled for the dry season to allow safe and reliable equipment access.

Operation and Maintenance. Operation and maintenance activities for the power line would be similar in scope to existing operation and maintenance activities. Impacts to poles and towers as a result of ground failure, including liquefaction, would be similar or reduced from existing conditions; therefore, there would be no impact.

(iv) Landslides?

Construction. Much of the project alignment is located in areas with a high landslide potential. Several towers are located in areas with adjacent or nearby landslides, slumps, or geologic units otherwise classified as unstable. Steep slopes along several segments of the alignment may make other areas also susceptible to landsliding. The foundations of most existing towers, however, are installed into bedrock and, therefore, would not be directly affected by nearby mapped landslides or slumps on adjacent slopes.

Destabilization of natural or constructed slopes could result from project construction activities, which could contribute to landslide hazards during or immediately following an earthquake. Minor grading for tower access could alter existing slope profiles, making them unstable. Construction design would include the identification of landslide hazard areas and application of appropriate engineering standards to ensure the integrity of the poles, towers, and power line in the event of a landslide. Implementation of APMs GE-1 through GE-3 and GE-5 would minimize effects; however, impacts could still occur from the presence of unstable slope elements (e.g., boulders) located upslope of structures. APM GE-4 "Avoid Unstable Slope Elements" has been superseded by mitigation measure GE-4, which provides increased specificity of mitigation to avoid or reduce damage from unstable slope elements and would reduce impacts from landslides to be less than significant.

APM GE-2. Conduct Geotechnical Surveys for Landslides and Protect against Slope Instability. A geologic hazard and foundation evaluation was conducted by Kleinfelder (2008 & 2010) to explore the tower and pole locations along the project alignment for the presence of geologic hazards that may affect the foundations of the new power line towers/poles and to provide remedial measures for the foundations. The geotechnical survey included slope stability analyses in areas of planned grading and excavation that cross and are immediately adjacent to areas with the potential for unstable slopes, landslides, earth flows, and debris flows along the approved project alignment. The existing access roads will be re-established eliminating the necessity for grading new access and spur roads and subsequent potential ground disturbance. The geotechnical survey included identification of potential landslide hazards, and provided information for development of excavation plans and procedures. In addition, the geotechnical survey indicated the presence of unstable slopes at or adjacent to the proposed project structures. Where appropriate, foundation support and protection measures will be designed and implemented; this will help to maintain the stability of slopes adjacent to newly graded or re-graded access roads, work areas, and project structures during and after construction, and to minimize potential for damage to project facilities.

Mitigation Measure GE-4 (Proposed to supersede APM GE-4 "Avoid Unstable Slope Elements"). During construction, PG&E shall avoid areas where boulders on slopes could pose risks to structures, where feasible. If avoidance of areas just downslope of boulders is not possible, PG&E shall either remove or stabilize boulders located immediately uphill of structures that pose potential high risk of damage to those structures. In addition, PG&E shall position structures to span over potential landslide areas or relocate structures to avoid landslide hazards. Boulder removal shall involve either removal of intact boulders or removal of boulders that have been fractured into multiple pieces.

A qualified geotechnical engineer shall evaluate boulders to determine the best methods to stabilize boulders located upslope of project structures that are removed. Recommendations shall be developed and implemented to mitigate hazards posed by the boulders. Boulder stabilization could involve any of the following practices, but is not limited to:

1. Installing and securing wire mesh on the downslope side of the boulder, as approved by a qualified biologist;
2. Installing rock anchors and shotcrete;
3. Depending on the slope on which the boulder rests, constructing an earthen berm in front of the boulder on the downslope side; or
4. Other methods recommended by a geotechnical expert.

Operation and Maintenance. Operation and maintenance activities for the power line would be similar in scope to existing operation and maintenance activities. Impacts to poles and towers as a result of landslides would be similar or reduced from existing conditions; therefore, there would be no impact.

B) Would the project result in substantial soil erosion or the loss of topsoil?

Construction. Ground disturbance would result from preparing new pole and tower sites, augering holes for new pole and tower foundations, reestablishing select access roads, and, to a limited extent, use of existing access roads that are not paved. LDS pole installation and associated hole augering would create a minimum amount of disturbance because installation would be performed without constructing pads, footings, or foundations. TSP and lattice steel tower installation and associated hole augering would create a nominal amount of disturbance due to the construction of concrete or rock anchor foundations. Pole and tower assembly and installation would be expected to occur in approximately 0.1-acre to 0.7-acre work areas within the existing ROW.

Construction vehicles would access work areas on existing access roads, except at one wood pole site and 32 steel tower sites, which would be accessed by helicopter due to steep terrain. Construction workers would walk to these project sites from the nearest access road or along the easement or be transported by the helicopter. Using existing access roads would not change drainage patterns or increase erosion potential. Additionally, minimal grading or slope stabilization activities at the pole and tower locations is anticipated, which would limit soil disturbance and loss of vegetation that could promote short-term increases in erosion. Leveling of compressor staging areas located uphill from tower locations not accessible by vehicles could possibly result in additional erosion in isolated areas. BMPs would be implemented to minimize erosion and direct runoff that could flow from pole and tower construction areas to natural drainages. Where needed, water crossings would be designed to maintain existing creek-flow velocities as closely as feasible to reduce sedimentation, scour, and bank erosion. Boulder riprap would be used, where necessary, to protect structures and prevent erosion.

Erosion and loss of topsoil during project construction would be less than significant because of the short duration of construction (24 months), the limited areas that would be graded and/or disturbed, and the use of standard BMPs to minimize runoff. Impacts would be less than

significant with the implementation of APMs GE-3, GE-5, GE-6 through GE-8, as well as APM WQ-1, which requires development and implementation of a SWPPP.

APM GE-6. Erosion Control and Sediment Transport Plan Implementation. An Erosion Control and Sediment Transport Plan will be prepared in association with the SWPPP. This plan will be prepared in accordance with the State Water Board guidelines and other applicable BMPs.

Implementation of the plan will help stabilize disturbed areas and waterways and will reduce erosion and sedimentation. The plan will designate BMPs that will be followed during construction activities. Erosion-minimizing efforts may include measures such as:

- avoiding excessive disturbance of steep slopes,
- using drainage control structures (straw wattles or silt fencing) to direct surface runoff away from disturbed areas,
- strictly controlling vehicular traffic,
- implementing a dust-control program during construction,
- restricting access to sensitive areas,
- using vehicle mats in wet areas, and
- revegetating disturbed areas, where applicable, following construction.

In areas where soils are to be temporarily stockpiled, soils will be placed in a controlled area and will be managed with similar erosion control techniques. Where construction activities occur near a drainage channel and drainage from these areas flows towards a water body, stockpiles will be placed at least 100 feet from the water body or will be properly contained (such as covering with plastic sheeting to minimize risk of sediment transport to the drainage). Plywood and plastic covering will be used to cover the excavated holes until pole installation activities begin.

Erosion control measures will be installed, as necessary, before any clearing during the wet season and before the onset of winter rains. Temporary measures such as silt fences or straw wattles intended to minimize erosion from temporarily disturbed areas will remain in place until disturbed areas have stabilized.

The SWPPP will be designed specifically for the hydrologic setting of the proposed project, which includes slopes, intermittent and seasonal streams, and the Salinas River. BMPs documented in the Erosion Control and Sediment Transport Plan will also be included in the SWPPP.

APM GE-7. Minimize Road Construction. PG&E is not planning on constructing new access roads, but instead utilizing existing access roads. Some roads will require minimal grading to re-establish the road integrity and allow safe movement for construction equipment and/or moving or trimming of vegetation to allow vehicle passage. In these cases, PG&E will implement BMPs for road re-establishment; and these modifications will be permanent for continued use of the roads for power line maintenance, eliminating long-term impacts from temporary roads.

APM GE-8. Minimize Soil and Bedrock Impact to Foundation Design. Appropriate design measures for protection of reinforcement, concrete, and metal-structural components against corrosion will be utilized, such as the use of corrosion-resistant materials and

coatings, increased thickness of project components exposed to potentially corrosive conditions, and use of passive and/or active cathodic protection systems.

Operation and Maintenance. Operation and maintenance activities for the power line would be similar in scope to existing operation and maintenance activities. Impacts to poles and towers as a result of soil erosion would not change from existing conditions; therefore, there would be no impact.

C) Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Construction. Destabilization of natural or constructed slopes could occur as a result of construction activities. Grading operations associated with providing access to select pole and tower locations could alter existing slope profiles, making them unstable as a result of over-excavating slope material, steepening slopes, or increased loading. Construction design would include identification of landslide hazard areas and the appropriate engineering standards would be applied to ensure the integrity of the poles, towers, and power line. APMs GE-1 through GE-3 and GE-5 would reduce impacts from the presence of unstable geologic units or soils. Impacts from landslides and collapse would be less than significant with the implementation of mitigation measure GE-4.

Areas around Atascadero Creek, Atascadero Lake, and Paloma Creek, as well as isolated locations along the alignment from just south of Atascadero to SR 58, have high potential for liquefaction and associated lateral spreading. These areas have saturated loose sands and soft clays that may make pole and tower installation difficult. Where potential problems exist, appropriate measures would be implemented to avoid, accommodate, replace, or improve soft or loose soils encountered during construction. With implementation of APMs GE-2, GE-3, and GE-5, impacts from liquefaction and lateral spreading would be less than significant.

Limited areas of subsidence have been identified in San Luis Obispo County; however, none of these areas are within the project area. Therefore, impacts to the power line from potential subsidence would be less than significant.

Operation and Maintenance. Operation and maintenance activities for the power line would be similar in scope to existing operation and maintenance activities. Site conditions and potential hazards relative to landslides, lateral spreading, subsidence, liquefaction, and collapse would be similar or reduced from existing conditions; therefore, there would be no impact.

D) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), or collapsible soil, creating substantial risks to life or property?

Soil units along the alignment primarily consist of clay and silt, with lesser amounts of sand. The potential for encountering expansive soils along most of the project alignment generally is moderate; however, some portions of the alignment are located on soils with higher expansive potential. The area just south of Santa Margarita and isolated areas in the northern portion of the alignment are underlain by several soil units with high shrink-swell potential.

Expansive or collapsible soils are not expected to have a significant adverse impact because poles and towers would be installed to depths of 7 to 25 feet, which would prevent shifting as a result of soil expansion or collapse. Standard construction practices would be used to mitigate hazardous soil conditions, if encountered (e.g., compact soil at pole and tower sites or wet sandy soils during hole augering). Impacts would be reduced to less than significant with the implementation of APMs GE-1 and GE-5.

E) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No septic tanks or alternative wastewater disposal systems (e.g., leach fields) would be constructed as part of the project. No impact would occur.

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3.8 Hazards and Hazardous Materials

3.8.1 ENVIRONMENTAL SETTING

Land Uses in the Project Area

The proposed project is located in San Luis Obispo County, California, between the cities of Atascadero and San Luis Obispo. Primary land uses along the ROW are agricultural, rural, and residential. Portions of the project alignment would be located along active roads and highways. US 101 is the main roadway in the project area. The power line crosses US 101 and SR 58 within Caltrans easements. There are four schools located within 0.25 mile of the project alignment:

1. San Gabriel Elementary: 8500 San Gabriel Road, Atascadero
2. Escuela Del Rio: 9465 Morro Road, Atascadero
3. Kidz Korner Preschool: 3396 Johnson Avenue, San Luis Obispo
4. Montessori School at Unity Christ Church of San Luis Obispo: 1490 Southwood Drive, San Luis Obispo

San Luis Obispo Substation and the southernmost portion of the power line alignment are within an area designated by the San Luis Obispo County Regional Airport Land Use Plan (ALUP) as Safety Area S-2. Safety Area S-2 is an area within the vicinity of which aircrafts operate frequently or in conditions of reduced visibility at altitudes between 501 and 1,000 feet above ground level (ALUC 2005). A portion of the project area is located in the vicinity of a private airstrip located on Santa Margarita Ranch property.

There are two pipelines that convey hazardous materials located in the vicinity of the project alignment. PG&E owns and operates a natural gas pipeline that generally follows US 101. ConocoPhillips owns and operates an active petroleum pipeline that connects to the Santa Margarita Pump Station located in Santa Margarita.

Hazardous Material Sites

A review of the State Water Resources Control Board (SWRCB) Geotracker database indicates that there is one hazardous waste cleanup site located within 0.5 mile of the project area. The Tassajara Creek-Spanish Oaks cleanup site is located approximately 0.4 mile from the project area on the east bank of Santa Margarita Creek near US 101 in Santa Margarita. A segment of ConocoPhillips' (formerly operated by Unocal) Santa Margarita pipeline was found to be leaking petroleum products into soil and Santa Margarita Creek in the early 1990s. Groundwater and surface water monitoring and remediation activities are currently ongoing along the segment of the pipeline that runs between Tassajara Creek Road and the Santa Margarita Pump Station (SWRCB 2010).

Fire Hazards

The power line alignment traverses areas designated with a moderate to high fire hazard potential by the California Department of Forestry and Fire Protection. The existing power line is properly maintained to ensure fire safety, including clearing objects (e.g., trees) along the power line. The project area is served by the City of Atascadero Fire Department, the City of San Luis Obispo Fire Department, and the San Luis Obispo County Fire Department.

Emergency Plans

The San Luis Obispo County Office of Emergency Services has developed Tsunami and Earthquake Emergency Response Plans and a Hazardous Materials Emergency Response Plan. These plans outline procedures to follow in the event of an emergency within the county (SLO County 2010). The cities of San Luis Obispo and Atascadero have not adopted individual emergency evacuation and response plans.

3.8.2 ENVIRONMENTAL IMPACTS AND ASSESSMENT

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
A) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☑	☐	☐
B) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐		☑	☐
C) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?	☐	☑	☐	☐
D) Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment?	☐	☐	☐	☑
E) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area?	☐	☐	☑	☐
F) For a project located within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area?	☐	☐	☑	☐

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
G) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☑	☐
H) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☑	☐

A) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Construction. The use of hazardous materials during project construction would be minimal. Hazardous materials may include gasoline, diesel fuel, hydraulic oils, equipment coolants, and any generated wastes that may include these materials. These materials are considered hazardous because they are flammable and/or contain toxic compounds, such as volatile organic compounds and heavy metals. Wastes considered hazardous by the State of California would be transported and disposed of according to applicable federal, state, and local regulations. Fueling and routine maintenance of equipment and vehicles would be performed off site to the greatest extent feasible.

Wooden poles would be removed from the project area during construction and disposed of as hazardous waste. The wooden poles have been treated with a wood preservative that contains hazardous compounds such as polycyclic aromatic hydrocarbons. Poles would be immediately transported off site by a qualified hazardous waste hauler once removed from the ground. Wooden poles would be collected in project-specific containers at a PG&E service center designated as a PG&E consolidation site. As containers are filled, poles would be transported to an appropriate licensed Class I landfill or the composite-lined portion of a solid waste landfill. A total of 137 wooden poles would be disposed of at a licensed facility. The transport and disposal of the poles would not pose a significant hazard to the environment or the public.

APM HM-2 "Environmental Training and Monitoring Program (ETMP) Development and Implementation" has been superseded with mitigation measure HM-2, which incorporates CPUC document and record-keeping requirements. APMs HM-1 and HM-4 through HM-6 would reduce potential impacts associated with hazardous material transport, use, and disposal during construction. Implementation of mitigation measure HM-2 would reduced impacts to less than significant.

> **APM HM-1. Hazardous Substance Control and Emergency Response Plan Development and Implementation.** PG&E will submit a Hazardous Substance Control and Emergency

Response Plan to the CPUC for recordkeeping at least 30 days prior to project construction. The plan will identify methods and techniques to minimize the exposure of the public to potentially hazardous materials during all phases of project construction through operation. The plan will require implementing appropriate control methods and approved containment and spill-control practices (i.e., spill control plan) for construction and materials stored on-site. All hazardous materials and hazardous wastes will be handled, stored, and disposed of, in accordance with all applicable regulations, by personnel qualified to handle hazardous materials. With the exception of the poles, all hazardous materials will be collected in project-specific containers at the site, and transported to a PG&E service center designated as a PG&E consolidation site. Poles will be scheduled for transportation to the appropriate licensed Class 1 or a composite-lined portion of a solid waste landfill. The plan will include, but not be limited to, the following:

- Proper disposal of potentially contaminated soils
- Vehicles and equipment parking near sensitive resource areas during construction
- Emergency response and reporting procedures to address hazardous material spills

Emergency-spill supplies and equipment will be available to respond in a timely manner if an incident should occur. Response materials such as oil-absorbent material, tarps, and storage drums will be used as needed to contain and control any minor releases.

A search of government databases indicates that there are no hazardous waste sites located within the project area. If hazardous materials are encountered in excavated soils or groundwater as noted through sheen, odor, or other non-typical appearance, work will be stopped until the material is properly characterized and appropriate measures are taken to protect human health and the environment. If excavation of hazardous materials is required, they will be managed, transported, and disposed of in accordance with federal, state, and local regulations.

Removed wood poles will be collected in project-specific containers at a PG&E service center designated as a PG&E consolidation site. Poles will be scheduled for transport to an appropriate licensed Class 1 or composite lined portion of a solid waste landfill as containers are filled. Chemical Waste Management's Kettlemen Hills Facility is typically used. There is no disposal capacity issue at this facility associated with the treated wood poles generated by this project.

APM HM-4. Health and Safety Plan Development and Implementation. PG&E will prepare a site-specific Health and Safety Plan (HSP) to ensure that potential safety hazards will be kept at a minimum. The HSP will include elements that establish worker training and emergency response procedures relevant to project activities. The plan will be submitted to the CPUC at least 30 days prior to construction for CPUC recordkeeping.

APM HM-5. Safe Practices and Record Keeping for Storage of Chemicals On-site. If it is necessary to store any chemicals on-site, they will be managed in accordance with all applicable regulations. Material Safety Data Sheets will be maintained and kept available on-site, as applicable.

APM HM-6. Safety Precautions Used for Removal of Contaminated Soils. In the event that soils suspected of being contaminated (based on evidence from visual, olfactory, or other means) are removed during excavation activities along the power line corridor, the

excavated soil will be tested and, if contaminated above hazardous levels, will be contained and disposed of at a licensed waste facility. The presence of known or suspected contaminated soil will require testing and investigation procedures to be supervised by a qualified person, as appropriate, to meet state and federal regulations.

Mitigation Measure HM-2 (Proposed to supersede APM HM-2 "Environmental Training and Monitoring Program (ETMP) Development and Implementation"). An ETMP shall be established to communicate to all field personnel any environmental concerns and appropriate work practices, including spill prevention and response measures and BMPs. The training program shall emphasize site-specific physical conditions to improve hazard prevention (e.g., identification of flow paths to nearest water bodies) and shall include a review of all site-specific plans, including, but not limited to, the project's SWPPP, Erosion Control and Sediment Transport Plan, Health and Safety Plan, and Hazardous Substances Control and Emergency Response Plan.

A PG&E-designated representative shall be identified to ensure that the plans are followed throughout the construction period. BMPs, as identified in the project SWPPP and Erosion Control and Sediment Transport Plan, shall be implemented during project construction to minimize the risk of an accidental release and to provide the necessary information for emergency response. A copy of the ETMP shall be submitted to the CPUC at least 30 days prior to construction. Training attendance sheet(s) shall be submitted to the CPUC after each training session.

Operation and Maintenance. Operation and maintenance activities for the power line would be similar in scope to existing operation and maintenance activities. The current protocols for use, transport, and disposal of hazardous materials during project operation and maintenance would continue to be implemented. Impacts associated with the transport, use, and disposal of hazardous materials would be less than significant.

B) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Construction. Construction vehicles and equipment contain substances such as gasoline, diesel, antifreeze, and lubricants that, if accidentally released to the environment, could be hazardous. APMs HM-1 and HM-4 through HM-6, would reduce potential impacts by requiring the development and implementation of hazardous substance control and health and safety measures.

Underground pipeline facilities exist beneath the project alignment. Pipeline damage or rupture could be caused by heavy equipment or vehicles traveling over the pipeline or by ground-disturbing activities (e.g., grading or augering holes), which could result in the uncontrolled release of hazardous materials and/or cause a fire or explosion. PG&E implements standard measures to avoid damaging pipelines during construction. Impacts would be less than significant.

Operation and Maintenance. Operation and maintenance activities for the power line would be similar in scope to existing operation and maintenance activities. The current protocols for addressing the release of hazardous materials during project operation and maintenance would

continue to be implemented. Impacts associated with the release of hazardous materials would be less than significant.

C) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?

Construction. Four schools are located within 0.25 mile of the project area. Project construction would require the use of motorized heavy equipment, including vehicles that use gasoline, diesel, antifreeze, and lubricants.

Any spills would be cleaned up immediately in accordance with hazardous substance control and health and safety measures. The proposed project includes APMs HM-1 and HM-3 through APM HM-6, which would reduce potential impacts to schools from hazardous materials. Impacts would be less than significant with implementation of mitigation measure HM-2.

> **APM HM-3. Project-specific Fire Prevention and Response Plan Development and Implementation.** PG&E will prepare and submit a Fire Prevention and Response Plan to the CPUC and to local fire protection authorities for notification at least 30 days prior to construction. The plan will include fire protection and prevention methods for all components of the project during construction. The plan will include procedures to reduce the potential for igniting combustible materials by preventing electrical hazards, use of flammable materials, and smoking onsite during construction and maintenance procedures. Project personnel will be directed to park away from dry vegetation; to equip vehicles with fire extinguishers; not to smoke; and to carry water, shovels, and fire extinguishers in times of high fire hazard.

Operation and Maintenance. Operation and maintenance activities for the power line would be similar in scope to existing operation and maintenance activities. The current protocols for addressing hazardous emissions and handling hazardous materials during project operation and maintenance would continue to be implemented. Impacts associated with hazardous materials within the vicinity of nearby schools would be less than significant.

D) Would the project be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment?

A review of information obtained from the SWRCB (Geotracker) and the Department of Toxic Substances Control (DTSC) (Envirostor) databases (SWRCB 2010; DTSC 2010) indicates the project area is not located on a known hazardous material site pursuant to Government Code Section 65962.5. One site, the Tassajara Creek-Spanish Oaks cleanup site, located within 0.5 mile of the project area, is known to have impacted the local soil and groundwater with petroleum product from crude oil pipelines abandoned in place. This site is located west of the project area, near the portion of the project area that crosses Santa Margarita Creek. The cleanup status for this site is classified as "active" by the SWRCB. Local groundwater is being treated using an on-site treatment system.

Soil and groundwater impacts from the active Tassajara Creek-Spanish Oaks cleanup site are contained within the pipeline segment easement (SWRCB 2010). Groundwater treatment activities

for the Tassajara Creek-Spanish Oaks site are conducted near Santa Margarita Creek along US 101, west of the project area. The abandoned pipelines do not cross under the proposed project alignment. The project's construction, operation, and maintenance would not create an additional hazard to the public or the environment associated with the Tassajara Creek-Spanish Oaks hazardous materials site. No impacts would occur.

E) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

Only three towers, located in the southernmost portion of the project alignment, would be located in the ALUP area, designated as Safety Area S-2. Aviation safety hazards to be considered in this area include mechanical failures, fuel exhaustion, loss of control during turns from downwind to base legs or from last to final legs of the traffic pattern, stall/spin incidents during engine-out maneuvers in twin-engine aircrafts, and midair collisions. Aircrafts in Safety Area S-2 are at a greater altitude and are less densely concentrated than in other portions of the ALUP area. As such, the overall level of aviation safety risk is considered to be lower than that in Safety Area S-1.

Although the new structures would be taller than the existing structures, they would not be considered an obstruction of airspace as defined by the ALUP. PG&E submitted required Notice of Proposed Construction and Alteration Applications for 13 towers along the power line, including the towers located in the ALUP area, under the Notice Criteria specified in Federal Aviation Administration (FAA) Regulations, Title 14 CFR Section 77.13, on May 25, 2010. PG&E has received a Determination of No Hazard to Air Navigation Letter for all 13 structures (Appendix D-2). The FAA determinations exceed the requirements of the ALUP (Robeson pers. comm. 2010). APM AG-3 from Section 3.10 Land Use and Planning would require an FAA and San Luis Obispo County Regional Airport review of the project for potential air hazards. The potential for conflicts with the ALUP or applicable FAA policies would be less than significant

F) For a project located within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

The project is located in the vicinity of a private airstrip, located on Santa Margarita Ranch property approximately 1,700 feet west of Pole 66/2. The project activities would occur within the existing ROW. Because of the distance of the alignment from the airstrip, the existing significant clearances above the existing structures, and the minor height increases in the proposed structures, structures of approximately 10 to 20 feet higher would have no effect on airplane flight paths. The potential for safety hazards for people residing or working in the project area would be less than significant with the implementation of APM AG-3.

G) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Road closures may be necessary for project construction but are not expected to exceed five minutes in duration. APMs included in Section 3.16 Transportation and Traffic would require the development of a Traffic Control Plan and coordination with local emergency personnel who

organize the traffic response in case of an emergency. Implementation of APMs TT-1 and TT-3 would reduce impacts to emergency access in the project area to a less than significant level.

The project would not impair implementation of or physically interfere with an adopted emergency response or evacuation plan. Impacts would be less than significant.

H) Would the project expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Construction. Equipment used during construction could create sparks and ignite a fire. Other potential fire hazards include worker behavior such as smoking and disposing of cigarettes or parking vehicles on dry vegetation. Implementation of APM HM-3 would reduce potential impacts from wildland fires to less than significant levels.

Operation and Maintenance. Operation and maintenance activities for the power line would be similar in scope to existing operation and maintenance activities. The current protocols for fire prevention during project operation and maintenance would continue to be implemented. Impacts associated with wildland fires would be less than significant.

3.9 Hydrology and Water Quality

3.9.1 ENVIRONMENTAL SETTING

Regional Setting

The project area is located within the watersheds of Atascadero Creek, Upper Salinas River, Santa Margarita Creek, and San Luis Obispo Creek (USGS 1965a, 1965b). The northern section of the project is within the 3,250-square-mile Salinas Hydrologic Unit and the southern part of the project is within the 1,070-square-mile Estero Bay Hydrologic Unit (SLO County 2005).

The northern end of the alignment from Atascadero through Santa Margarita is located in an area with low to moderate rolling hills. Surface water in this area generally flows in a northerly direction towards the Pacific Ocean. The southern portion of the alignment crosses much steeper topography, with several peaks, valleys, and canyons between Cuesta Pass and the City of San Luis Obispo. Surface water in this area generally flows in a southerly direction towards the Pacific Ocean.

Precipitation

San Luis Obispo County has a Mediterranean climate, averaging 315 days of sunshine per year. Most of the County's rivers, creeks, and streams are dry during the summer months. The average annual precipitation of 17 to 18 inches in Atascadero represents the seasonal rainfall pattern for an 87-year period (1915 to 2002) (Atascadero 2010). The average annual precipitation of 23 to 24 inches in City of San Luis Obispo represents the seasonal rainfall pattern for a 57-year period (1948 to 2005) (WRCC 2009).

Surface Water Bodies

Drainages, Creeks, and Streams

Natural depressions accumulate runoff and hill slope seepage during wet periods, forming intermittent streams and seasonal wetlands. Most of these drainages currently are spanned by the power line. Power line structures are generally located outside of the drainages. A wetland delineation map (Appendix B-2) shows all drainages and wetlands for this project.

The power line crosses the North and South Forks of Paloma Creek, a tributary to Atascadero Creek, Santa Margarita Creek and several of its tributaries, and several tributaries of San Luis Obispo Creek. All drainages, except one tributary to San Luis Obispo Creek, were dry during the June 2009 field visits. Pole 63/8 is within 12 feet of the South Fork of Paloma Creek. An access road crosses the South Fork of Paloma Creek and Paloma Creek. Tributaries of Santa Margarita Creek and San Luis Obispo Creek are also crossed by access roads. Creeks and other hydrologic features in and near the project area are shown on Figure 3.9-1A and Figure 3.9-1B.

Access roads improvements would be required drainage crossings. Improvements would include:

- Installation of temporary culverts at a low water crossing along Paloma Creek
- Installation of new permanent culverts at one location on a tributary to Santa Margarita Creek
- Cleaning and repair of one existing culvert on a tributary to Santa Margarita Creek

Figure 3.9-1A: Hydrologic Features of the Project Area (North)

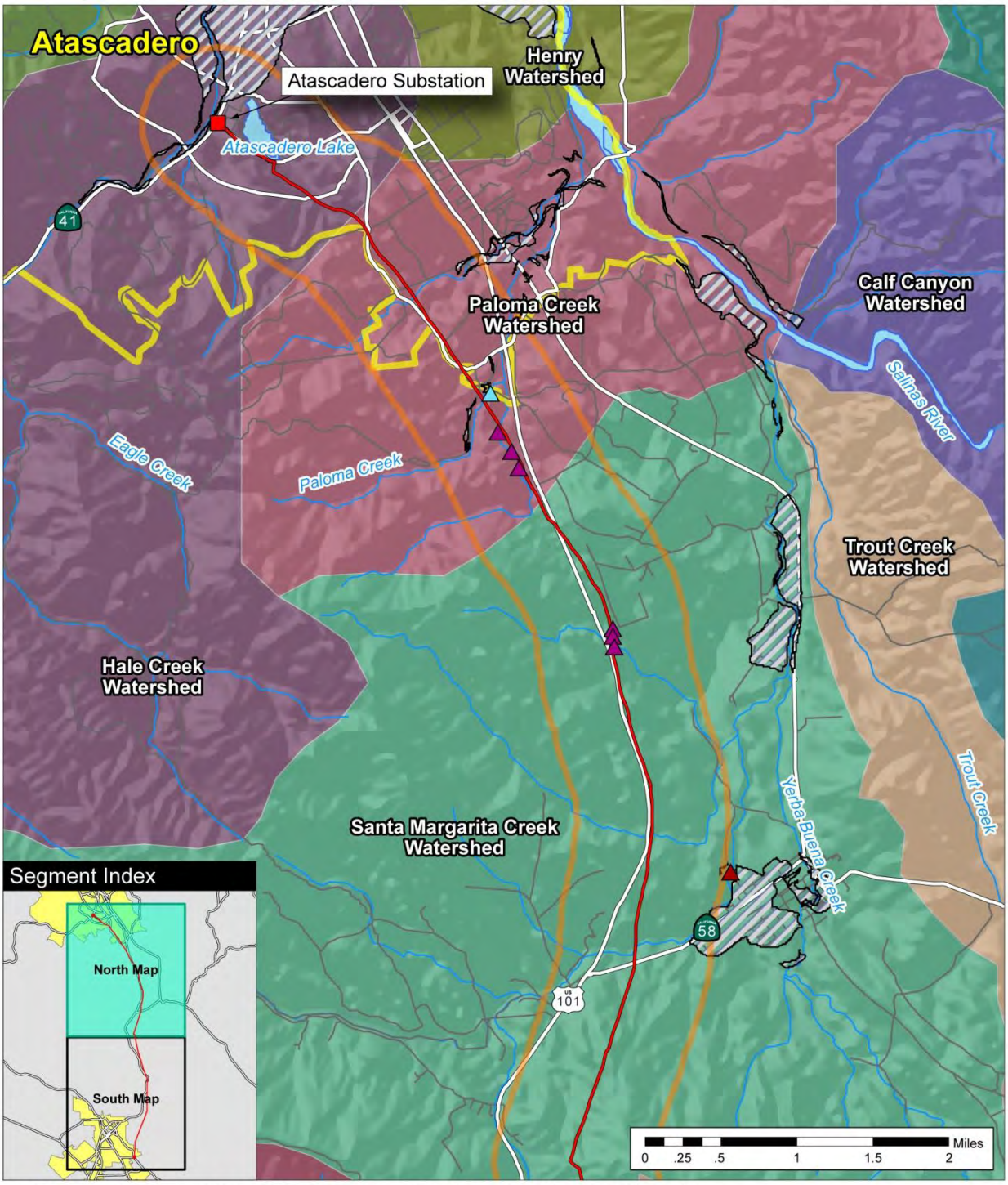
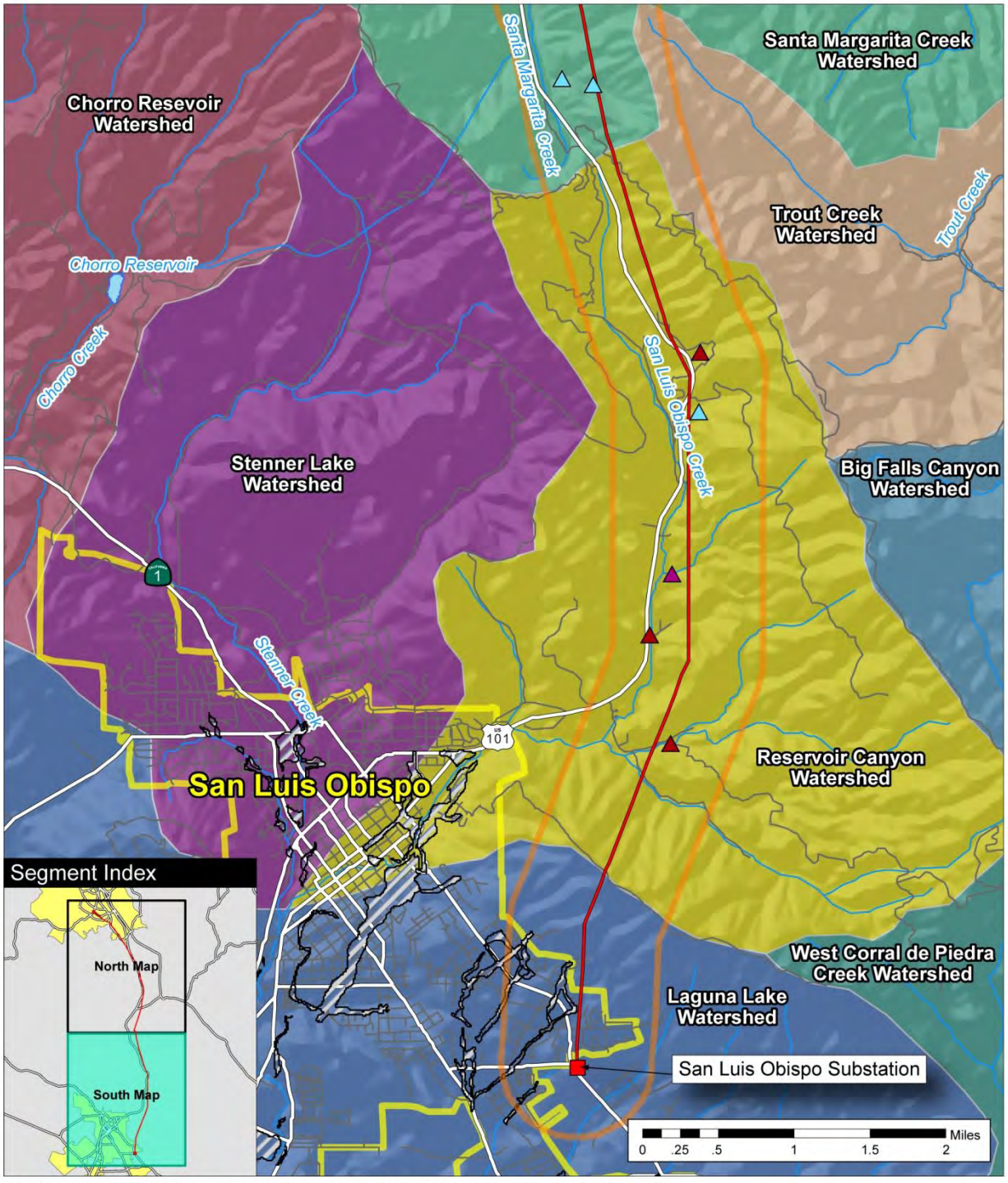


Figure 3.9-1B: Hydrologic Features of the Project Area (South)



The locations of these three crossing are show on Figure 2.4-5, 2.4-17, and 2.4-20, respectively. The permanent culvert design is based on a hydraulic analysis that was conducted by TRC (2010).

Wetlands

Three seasonal wetlands are present along the power line alignment at proposed work areas or adjacent to access roads. These wetland areas are described in detail in the Wetland Delineation Report (Appendix B-2). The three wetlands are designated W1 through W3 in this report, and are described below:

- W1 is a 0.109-acre wetland located approximately 65 feet northeast of Pole 66/2 in a topographic depression. It is in a valley bottom, approximately 0.8 mile north of SR 58, on Santa Margarita Ranch property. This wetland is adjacent to a tributary to Santa Margarita Creek, which is located approximately 168 feet south of W1.
- W2 is a 0.552-acre wetland located in a drainage near Pole 66/10. It is in a topographic depression in a valley bottom, approximately 0.3 mile north of SR 58, on Santa Margarita Ranch property.
- W3 is a 0.107-acre wetland located approximately 30 feet west of the access road between Towers 73/0 and 73/1. It is located 0.32 mile north of Reservoir Canyon Road in a topographic depression on a hillside.

Atascadero Lake

Atascadero Lake is a small, shallow, manmade lake east of SR 41 in the City of Atascadero. It is approximately 2,400 feet long and 900 feet wide. The lake is approximately 900 feet due east of Atascadero Substation.

Flooding Potential and Dam Failure Inundation Areas

A Special Flood Hazard Area (SFHA), as defined by the Federal Emergency Management Agency (FEMA), is an area of land that has a 1 percent chance of being inundated by a flood during any year, also referred to as a 100-year flood. In the project area, flood plains occur along the North Fork of Paloma Creek, Paloma Creek, Santa Margarita Creek, and San Luis Obispo Creek. Only a few structures fall within FEMA-designated SFHAs. Pole 62/1 is within the 100-year flood zone along Paloma Creek. The proposed staging area and landing zone west of Wilhelmina Avenue in Santa Margarita is within a 500-year flood zone (an area with a 0.2 percent chance of being inundated in any one year). Table 3.9-1 lists the access roads that are partially located within flood zones.

In San Luis Obispo County, stream runoff is typically small, with appreciable flows occurring only during and immediately after precipitation events; however, during large storms, stream flow increases rapidly and flood waters can contain large amounts of debris, causing major flood damage.

The dams located closest to the project area are Salinas Dam, located on the Salinas River approximately 6.5 miles east of the alignment near Santa Margarita, and Righetti Dam, located approximately 4 miles southeast of San Luis Obispo Substation. The project area is not located in a dam failure inundation hazard area, as delineated by the County (SLO County 1999).

Table 3.9-1: Access Roads in Flood Zones

Access Road Leading to Structure	Flood Zone	Crossing Length (Miles)
Pole 62/16	A	0.141 (0.096 AE)
Pole 62/16	500-Year	0.045
Pole 66/11	100-Year	0.009
Pole 66/14A	A	0.128
Poles 67/1 through 68/3	500-Year	0.034
Pole 67/0	500-Year	0.041
Tower 74/3	100-Year	0.043

NOTES:

A = area with a 1 percent annual chance of flooding and a 26 percent chance of flooding over a 30-year period

AE = floodway within the A flood zone (access road to Pole 62/16 crosses 0.141 mile of the 100-year flood zone, 0.096 mile of which has been delineated as a floodway)

SOURCE: FEMA 2009

Groundwater

Groundwater supplies approximately 83 percent of San Luis Obispo County's urban and agricultural water (DWR 2003). The southern portion of the project crosses the 12,700-acre San Luis Obispo Valley Groundwater Basin, which underlies the San Luis and Edna valleys. The basin is bounded by the Santa Lucia Range on the northeast, the San Luis Range on the southwest, and by contact with impermeable Miocene and Franciscan Group rocks on all other sides (DWR 2003).

Water Quality

Groundwater wells in the San Luis Obispo Valley Groundwater Basin characteristically yield water of magnesium bicarbonate character (DWR 2003). Based on analysis of water from seven public supply wells, total dissolved solids content ranges from 450 to 800 milligrams per liter (mg/L), with an average of 583 mg/L. Water from six wells in the basin had excessive concentrations of nitrate and chloride (DWR 2003).

On the California list of impaired waterways pursuant to Section 303(d) of the Clean Water Act, San Luis Obispo Creek is listed for nitrate from unknown sources for a 1.6-mile-stretch. Atascadero Creek is listed for a 5.4-mile stretch for the presence of *Escherichia coli* (*E. coli*), fecal coliform, and low dissolved oxygen from unknown sources. The Upper Salinas River is listed for chloride and sodium from agriculture, pasture grazing in riparian and/or upland, and urban runoff/storm sewer sources. The portion of Santa Margarita Creek crossed by the project alignment is a tributary to the Upper Salinas River.

3.9.2 ENVIRONMENTAL IMPACTS AND ASSESSMENT

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
A) Violate any water quality standards or waste discharge requirements?	☐	☑	☐	☐
B) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☑	☐
C) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on or off site?	☐	☑	☐	☐
D) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site?	☐	☑	☐	☐
E) Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☑	☐
F) Otherwise substantially degrade water quality?	☐	☑	☐	☐

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
G) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☑
H) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	☐	☐	☐	☑
I) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☑	☐
J) Cause inundation by seiche, tsunami, or mudflow?	☐	☐	☑	☐

A) Would the project violate any water quality standards or waste discharge requirements?

Construction. Construction activities would include the use of heavy equipment that uses petroleum products, hydraulic oil, and other chemicals. Any potential impacts to stormwater runoff from the use of these materials would be minimized through containment of any releases before they can impact stormwater, as specified in the SWPPP.

The potential for contaminated stormwater runoff to impact water quality in the various creeks and tributaries in the region is less than significant, and would be further minimized through implementation of BMPs and APMs WQ-1 through WQ-6, and WQ-8. The proposed project includes APMs HM-1 and HM-2, which require the development and implementation of a Hazardous Substance Control and Emergency Response Plan and an Environmental Training and Monitoring Program, respectively, to address stormwater runoff. With APMs HM-1 and HM-2, impacts are less than significant.

> **APM WQ-1. Development and Implementation of a Stormwater Pollution Prevention Plan (SWPPP).** Following project approval, PG&E would prepare and implement a SWPPP to minimize construction impacts on surface water and groundwater quality. Implementation of the SWPPP would help stabilize graded areas and waterways and reduce erosion and sedimentation. The plan would designate BMPs that would be adhered to during construction activities. Erosion and sediment control measures, such as straw wattles, water bars, covers, silt fences, and sensitive area access restrictions (e.g., flagging) would be installed before the onset of winter rains or any anticipated storm events. Mulching, seeding, or other suitable stabilization measures would be used to protect

exposed areas during construction activities, as necessary. During construction, measures would be in place to ensure that contaminants are not discharged from the construction sites.

APM WQ-2. Environmental Training and Monitoring Program (ETMP) Development and Implementation. Worker environmental awareness would communicate environmental issues and appropriate work practices specific to this project. This awareness would include spill prevention and response measures and proper BMP implementation. The SWPPP training would emphasize site-specific physical conditions to improve hazard prevention (e.g., identification of flow paths to nearest water bodies) and would include a review of all site-specific water quality requirements, including applicable portions of the Erosion Control and Sediment Transport Plan (ECSTP), Health and Safety Plan, and PG&E's Hazardous Substances Control and Emergency Response program. Details of the program would be described in the SWPPP.

APM WQ-3. Preparation of an Erosion Control and Sediment Transport Plan (ECSTP). PG&E would prepare an ECSTP as an element of the SWPPP describing BMPs to be used during construction. PG&E would ensure all BMPs are inspected before and after each storm event, maintained on a regular basis, and replaced as necessary through the course of construction. The plan would address construction in or near sensitive areas described in Section 3.5, Biological Resources. BMPs, where applicable, would be designed based on specific criteria from recognized BMP design guidance manuals. Erosion-minimizing efforts may include measures such as:

- Avoiding excessive disturbance of steep slopes
- Defining ingress and egress within the project area
- Implementing a dust control program during construction
- Restricting access to sensitive areas (e.g., using silt fencing for the protection of wetland features)
- Using vehicle mats in wet areas
- Revegetating disturbed areas, where applicable, following construction
- Proper containment of stockpiled soils (including construction of berms in areas near water bodies, wetlands, or drainage channels)

Erosion control measures identified in the ECSTP would be installed before clearing begins during the wet season and before the onset of winter rains or any anticipated storm events. Temporary measures such as silt fences or wattles, intended to minimize sediment transport from temporarily disturbed areas, would remain in place until disturbed areas have stabilized. Such temporary measures would be placed and monitored by a qualified inspector to ensure effectiveness and timely repair as needed.

PG&E would keep water equipment such as water trucks and water truck filling areas well maintained and would make repairs as soon as possible; use water minimally for dust control and to clean construction areas; sweep and vacuum to the maximum extent possible; and direct runoff to areas where it can be reused or absorbed into the ground. Water for dust control would be applied at a rate that would not lead to significant water runoff or potentially cause a nuisance.

The ECSTP would be submitted to the CPUC for review at least 30 days prior to the start of construction. The plan would be revised and updated as needed, and resubmitted to the

CPUC if construction activities change to the point that the existing approved ECSTP does not adequately address the project.

APM WQ-4. Limited On-site Vehicle and Equipment Fueling. PG&E would use off-site fueling stations to the extent possible, including for helicopters. On-site fueling is not likely; however, if on-site fueling is necessary, measures specified in the SWPPP would be implemented. No refueling or fuel storage would occur within 100 feet of sensitive areas, including intermittent streams, wetlands, and biological and cultural areas, or within 150 feet of wells, unless otherwise approved by the environmental inspector.

APM WQ-5. Proper Concrete Curing Techniques. PG&E would use proper storage and handling techniques for concrete curing compounds and would protect drain inlets prior to the application of curing compounds. If necessary, concrete washout would be performed in a designated area to be determined in the field and in the SWPPP, or concrete trucks would provide self-contained cleanout units. Temporary concrete washout facilities would be located a minimum of 50 feet from storm drain inlets, open drainage facilities, and watercourses. Concrete would be washed only from mixer chutes into approved concrete washout facilities. Concrete washout from concrete pumper bins would be washed into concrete pumper trucks and discharged into designated washout areas or properly disposed of off-site.

APM WQ-6. Proper Sanitary/Septic Waste Management. PG&E would locate sanitary facilities away from drainage facilities and watercourses and at least 100 feet from sensitive areas in a location convenient for pump-out; ensure that no untreated raw wastewater would be discharged or buried; treat temporary septic system wastes to appropriate levels before discharging; and arrange for regular waste collection by a licensed hauler before facilities overflow.

APM WQ-8. Hazardous Substance Control and Emergency Response Plan. PG&E would implement its system-wide program, which includes established procedures for handling and managing hazardous substances and emergency response in the event of a hazardous substance spill. These procedures would add to the requirements in the project SWPPP. PG&E crew members would arrange to have emergency spill supplies and equipment available at all work areas. Oil-absorbent materials, tarps, and storage drums would be used to contain and control any minor releases. Detailed information for responding to accidental spills and handling any resulting hazardous materials would be provided in the project's Hazardous Substances Control and Emergency Response Plan.

Replacing existing poles and towers and reestablishing certain access roads would require ground-disturbing activities that could cause sedimentation of waterways and wetlands. Some tower and pole removal and replacement activities would require work within wetlands, which could result in sedimentation of the wetland areas, and access road work could impact water quality in wetlands, as summarized below:

- Tower 74/1 would be removed to avoid impacts to nearby jurisdictional waters.
- Pole 66/10 is located in seasonal wetland W2. The upper portion of this pole would be cut off, but the lower portion would remain in place because it also serves as a distribution pole. A new pole would be installed 180 feet to the north of the current location, outside of W2. Pole 66/10 would be accessed from the south to avoid crossing the drainage north of the pole.

- Seasonal wetlands W1 and W3 are close to existing access roads. Existing access roads leading to some of the structures along the alignment would require installing or repairing culverts, or constructing temporary bridges, as summarized in Table 2.5-3. Additionally, chemical soil binders may potentially be added to water used for dust suppression on these access roads.

APM WQ-9, "Water-crossing Construction Timing," has been superseded by mitigation measure BO-35 to identify a time period for the dry months. APM WQ-10, "Use of Coffer Dams," has been superseded by mitigation measure BO-36 to address potential impacts that could result from implementing the APM. The proposed project includes APM WQ-7 and WQ-11, which would reduce impact to seasonal wetlands and reduce water quality impacts from soil erosion or sedimentation. Implementation of mitigation measures BO-35 and BO-36 would reduce impacts to water quality from potential soil erosion or sedimentation as a result of culvert and temporary bridge construction to a less than significant level.

APM WQ-7. Restricted Access to Pole 66/10. Pole 66/10, which is located in a seasonal wetland, shall be accessed from the south side to eliminate the need to cross the drainage north of Pole 66/10 (shown as S17 in the Wetland Delineation Report). Work shall only be conducted when the seasonal wetland is dry. Trampling and compaction of the wetland at Pole 66/10 shall be minimized. If necessary, timber mats shall be installed to avoid surface disturbance to the wetland from equipment

APM WQ-11. Sediment Barriers to Protect Wetland W3. Sediment barriers between the wetland and the access road that leads to Tower 73/1 would be maintained while re-establishing this road.

Operation and Maintenance. Operation and maintenance activities would use existing access routes and would not involve any new ground disturbance that could cause erosion and sedimentation. The potential risk of contamination from the release of chemicals from equipment into existing water drainages during operation or maintenance activities would be negligible. Impacts to water quality standards or waste discharge requirements would be less than significant.

B) Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?

The project would require water for dust control and excavation, which would be obtained from municipal sources in the cities of Atascadero, Santa Margarita, and San Luis Obispo, as well as from private wells in unincorporated areas of the County. The project would only require a minimal amount of water and would not substantially deplete groundwater supplies.

No impervious surfaces, except for steel tower and TSP foundations, would be constructed that could interfere with groundwater recharge. Foundations would have negligible surface areas (a total of 1,113 square feet). There would be no substantial net deficit in aquifer volume or a

lowering of the local groundwater table level. The project does not include constructing any facilities that use groundwater and would not deplete or interfere with groundwater supply or recharge. Impacts would be less than significant.

C) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on or off site?

Construction. Project construction would involve activities that could potentially affect existing drainage patterns in the project area. Minimal grading and/or scraping and vegetation clearing would be required for pole and tower replacement and access road work, which could result in a reduction in the infiltration and absorption capacity of the affected area. Construction activities would be temporary and drainage patterns would not be significantly altered by construction so as to induce substantial erosion or siltation. Two permanent culverts would be installed in an intermittent drainage crossed by the access road to Tower 69/0 from Santa Margarita Ranch. If any creek flow is present during installation of the culverts, a coffer dam would be installed and the entire flow of the creek diverted around the work area, as prescribed in mitigation measure BO-36. Mitigation measure BO-36 includes mitigation to be implemented to reduce potential environmental impacts associated with the coffer dam to a less than significant level. APMs WQ-1, WQ-3, and WQ-11 would reduce water quality impacts from soil erosion or sedimentation. Implementation of mitigation measures BO-35 and BO-36 would reduce impacts to a less than significant level.

Operation and Maintenance. Project operation and maintenance would not involve activities that would result in substantial disturbance of soil that would result in substantial erosion or siltation on or off site. Impacts would be less than significant.

D) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site?

Construction. Construction activities would be short in duration, but could affect drainage patterns due to ground disturbance from road grading, vegetation removal, and excavating holes for pole and tower installation. Drainage crossings would be constructed to maintain creek-flows. APMs WQ-1, WQ-3, and WQ-11 would reduce water quality impacts from surface runoff. Though little runoff is anticipated from the proposed project, implementation of mitigation measures BO-35 and BO-36 would minimize effects to waterways and reduce impacts to less than significant levels.

Operation and Maintenance. Project operation and maintenance activities generally would not alter existing drainage patterns or change the rate or amount of surface runoff. The permanent culverts installed in the intermittent drainage crossed by the access road to Tower 69/0 could affect stream flow during project operation, causing increased runoff that could result in flooding both upstream and downstream of the culverts. During periods of abundant precipitation and runoff, blockage of the culverts by natural or manmade debris could result in flooding upstream of the culverts. This flooding could then result in one or both of the culverts being washed away.

Flooding could then proceed downstream. Implementation of mitigation measure WQ-12 would reduce impacts to a less than significant level.

E) Would the project create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Construction. The proposed project would not generate substantial runoff water during construction. Small amounts of water would be used for dust control and sandy soil stabilization during pole and tower excavation. The proposed project would not contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or produce additional sources of polluted runoff with the implementation of APMs WQ-1, WQ-3, HM-1, and HM-2. Impacts would be less than significant.

Operation and Maintenance. Project operation and maintenance activities would require negligible amounts of water and would not produce substantial surface runoff. No impacts would occur.

F) Would the project otherwise substantially degrade water quality?

Construction. Construction activities have a minimal potential to transport sediments from ground-disturbing and excavation activities. A hazardous material spill could potentially impact nearby waterways or drainages. The proposed project includes APMs WQ-1 through WQ-6, WQ-8, HM-1, and HM-2 to prevent contamination of nearby waterways. With implementation of mitigation measure BO-34, impacts to water quality would be less than significant.

Operation and Maintenance. Project operation and maintenance activities would not be expected to result in any actions that would degrade water quality. No impacts would occur.

G) Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

The project does not involve building or placement of any new housing. There would be no impact.

H) Would the project place within a 100-year flood hazard area structures that would impede or redirect flood flows?

One pole location and a few existing access road segments and temporary work areas are located within flood zones. The project does not generate any new impacts that do not currently exist because new poles and towers generally would only replace existing poles and towers, with the exception of one pole that would be moved out of a wetland. Installation of the new poles and towers and use of temporary work areas would not impede or redirect flood flows; therefore, no impacts would occur.

I) Would the project expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?

One pole location and a few existing access road segments and temporary work areas are located within flood zones. Poles and towers would be installed at depths ranging from 7 to 25 feet below

ground surface and would likely be able to withstand a flooding event. The project area is not located in a dam failure inundation hazard area. The proposed project would not expose people or structures to a significant risk of loss, injury, or death from flooding. Impacts would be less than significant.

J) Would the project cause inundation by seiche, tsunami, or mudflow?

The risk of inundation from a tsunami is greatest along an exposed coast and greatly decreases with distance from the coast. The westernmost segment of the proposed project is located approximately 12 miles from the Pacific Ocean; therefore, impacts from tsunamis in the project area would not occur.

Poles and towers would be installed at depths of 7 to 25 feet below ground surface and, therefore, would be able to withstand an unlikely event such as a seiche on Atascadero Lake, or mudflows that could occur where the power line is downslope of a canyon. Impacts would be less than significant.

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3.10 Land Use and Planning

3.10.1 ENVIRONMENTAL SETTING

Regional

The project area is located entirely in the County of San Luis Obispo, within the City of Atascadero, the City of San Luis Obispo, and unincorporated areas of the County. Zoning designations for the project area are shown on Figure 3.10-1.

City of Atascadero

The northernmost section of the project alignment begins at Atascadero Substation, which is designated and zoned as "Public" by the City of Atascadero. As the alignment continues south it is adjacent to an area zoned as "Recreation." The alignment passes through two residential zones: "Residential Suburban" and "Residential Single Family" (Atascadero 2004). The City of Atascadero allows utility transmission facilities in all of the above zoning designations (Atascadero 2010).

County of San Luis Obispo

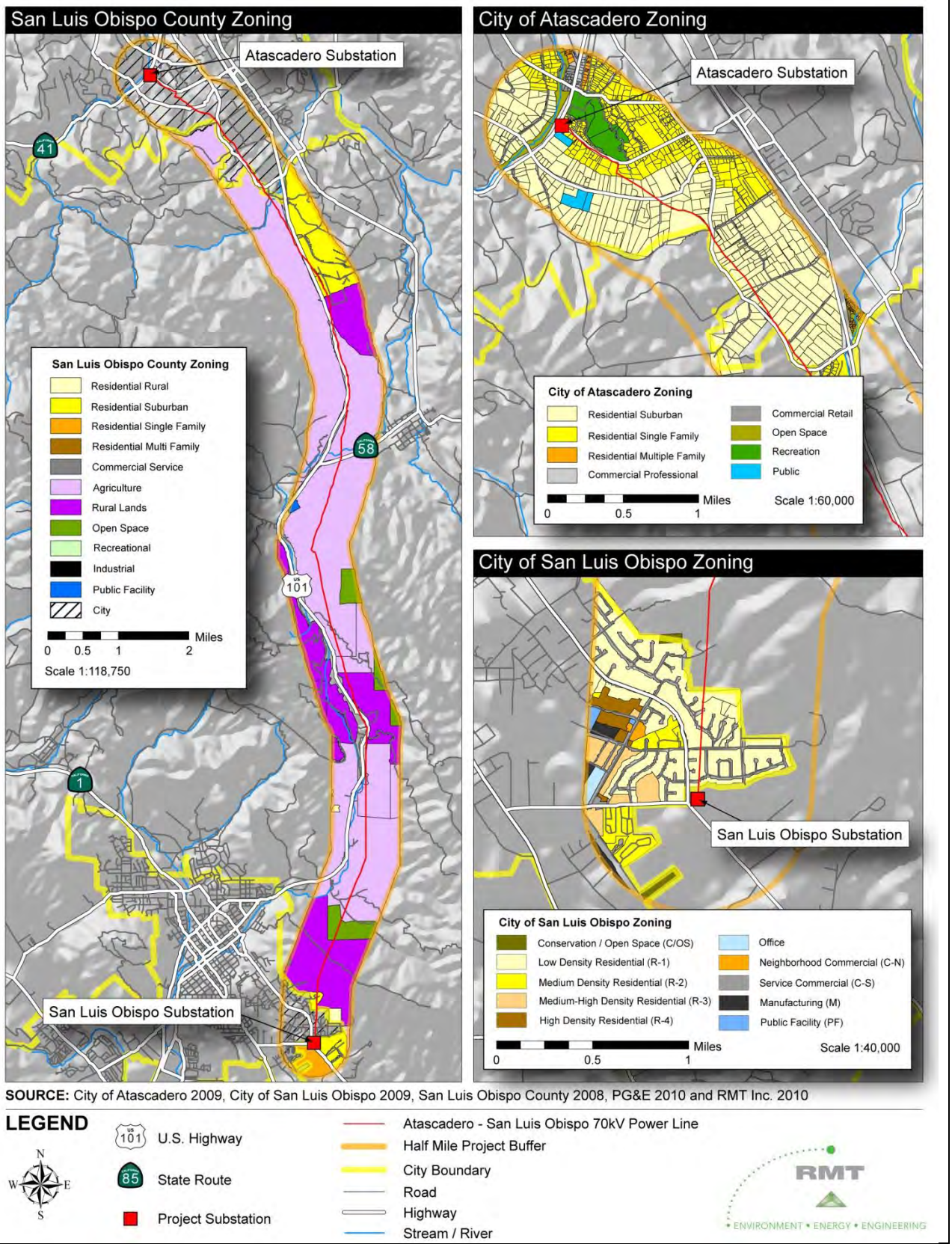
As the alignment leaves the City of Atascadero, it generally follows US 101. In the unincorporated areas of San Luis Obispo County, the project alignment passes through areas designated and zoned as "Residential Rural," "Rural Lands," "Agriculture," and "Open Space" by the County. San Luis Obispo County allows utility transmission facilities in all zoning designations (SLO County 2003, 2007, and 2009).

San Luis Obispo Substation and Towers 75/4, 76/0, and 76/1 are within an area designated by the San Luis Obispo County Regional Airport ALUP as Safety Area S-2. Safety Area S-2 is an area within the vicinity of which aircrafts operate frequently or in conditions of reduced visibility at altitudes between 501 and 1,000 feet above ground level (ALUC 2005).

City of San Luis Obispo

The southernmost section of the project alignment is located in an area zoned as "Low Density Residential" by the City of San Luis Obispo (City SLO 2008). The City of San Luis Obispo allows utility transmission facilities in all zoning designations (City SLO 2009).

Figure 3.10-1: Project Area Zoning Designations



3.10.2 ENVIRONMENTAL IMPACTS AND ASSESSMENT

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
A) Physically divide an established community?	☐	☐	☐	☑
B) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☑	☐
C) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☑

A) Would the project physically divide an established community?

The alignment of the reconductored power line would not change significantly from that of the existing line. The line does not currently divide an established community and the proposed project would not change this situation; therefore, the project would have no impact.

B) Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect?

The project would be consistent with applicable plans and policies because the project would be consistent with all local zoning ordinances. Additional easements would be required for project activities, including highway encroachment permits from Caltrans for overhead crossings of highways. These easements and permits would be obtained prior to construction. Implementation of APM AG-1 and AG-2 would improve public and local agency coordination to avoid any conflicts with construction in the area. The project would have a less than significant impact on applicable plans or policies.

> **APM AG-1. Public Education Program.** A governmental relations representative will provide local governmental agencies with a briefing of the project scope and schedule in advance of construction activities. A PG&E contact name and phone number will be provided for project related inquiries.

> **APM AG-2. Coordination with Nearby Residences.** PG&E will coordinate with property owners within 300 feet of the project area at least 30 days prior to construction to alert them of project activities.

The southernmost portion of the project alignment would be located in San Luis Obispo County Regional Airport's Safety Area S-2. Although the new structures would be taller than the existing structures, they would not be considered an obstruction of airspace as defined by the San Luis Obispo County Regional ALUP. PG&E submitted required Notice of Proposed Construction and Alteration Applications for 13 towers along the power line under the Notice Criteria specified in FAA Regulations, Title 14 CFR Section 77.13, which include the towers located in the ALUP area, on May 25, 2010. PG&E has received a Determination of No Hazard to Air Navigation Letter for all 13 structures (Appendix D-2). The FAA determinations exceed the requirements of the ALUP (Robeson pers. comm. 2010). The potential for conflicts with the ALUP or applicable FAA policies would be less than significant with implementation of APM AG-3.

> **APM AG-3. Review of Project by San Luis Obispo County Airport and the Federal Aviation Administration.** PG&E will submit the project for review to San Luis Obispo County Airport and the Federal Aviation Administration to determine what, if any, hazards are posed by the project. PG&E will address any potential hazards identified during this review.

C) Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?

The project would not conflict with any habitat conservation plan or natural community conservation plan because no existing plans apply to the project area. No impact would occur.

3.11 Mineral Resources

3.11.1 ENVIRONMENTAL SETTING

Mineral resources of substantial quantities in San Luis Obispo County include the following:

- Petroleum
- Gypsum
- Sand and gravel
- Clay
- Natural gas
- Mercury
- Construction stone

Mining has historically been conducted in the Santa Lucia Range primarily for cinnabar, quicksilver, and limestone. Only a few mines are still in operation along the western Santa Lucia Range and coastal portions of San Luis Obispo County. Sand, gravel, crushed rock, and building stone are currently considered the most valuable mineral resources in the county. Several sand and gravel mines are located along the Estrella River and the Salinas River north of Atascadero. These mining operations are located in the northern portion of San Luis Obispo County and do not intersect the project alignment (SLO County 2010; Hart 1976).

The California Surface Mining and Reclamation Act (SMARA) of 1975 requires that the State Geologist classify land into mineral resource zones (MRZs) according to the known or inferred mineral potential of the land. According to the *State Mining and Geology Board's Mineral Land Classification and Designation under SMARA,* MRZs have not been designated for the San Luis Obispo County region (SMGB 2008).

3.11.2 ENVIRONMENTAL IMPACTS AND ASSESSMENT

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
A) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☑
B) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☑

A) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

The project alignment is not within a classified MRZ. There are no active mining operations along the power line alignment, nor are there any known important mineral resources in the immediate vicinity of the project corridor. No impact to known mineral resources would occur.

B) Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

There are no known locally important mineral resource recovery sites within the project area. There would be no impact to locally important mineral resources.

3.12 Noise

3.12.1 ENVIRONMENTAL SETTING

General Background

Noise is defined as unwanted and objectionable sound. Sound levels are usually measured and expressed in decibels (dB) with 0 dB corresponding roughly to the threshold of hearing. The method commonly used to quantify environmental sounds consists of evaluating all frequencies of a sound in accordance with a filter that reflects the fact that human hearing is less sensitive at very low and very high frequencies compared to mid-range frequencies. This is called "A" weighting and the dB level measurement is called the A-weighted sound level.

A-weighted sound level (dBA) is expressed on a logarithmic (power of 10) scale using a frequency-weighted pattern that duplicates the human ear's sensitivity to sound. A 70 dBA sound level is approximately twice as loud as a 60 dBA sound level and four times as loud as a 50 dBA sound level. Table 3.12-1 lists the definitions of various acoustical terms used in this analysis.

Table 3.12-1: Definitions of Acoustical Terms

Term	Definition
Decibel (dB)	A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound to the reference pressure. The reference pressure for air is 20.
A-Weighted Sound Level (dBA)	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter deemphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear, and correlates well with subjective reactions to noise.
Equivalent Noise Level (L_{eq})	The average A-weighted sound level during the measurement period. The hourly L_{eq} used for this document is denoted as dBA L_{eq}.
Community Noise Equivalent Level (CNEL)	The average A-weighted sound level during a 24-hour day, obtained after addition of 5 dB to sound levels in the evening from 7:00 pm to 10:00 pm and addition of 10 dB to sound levels in the night from 10:00 pm to 7:00 am.
Day/Night Noise Level (L_{dn})	The average A-weighted sound level during a 24-hour day, obtained after addition of 10 dB to sound levels measured in the night from 10:00 pm to 7:00 am.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive	Noise that intrudes over and above the existing ambient noise level at a given location. The relative intrusiveness of a sound depends on its amplitude, duration, frequency, time of occurrence, and tonal or informational content, as well as the prevailing ambient noise level.

SOURCE: Caltrans 1998

Ground-borne Vibrations

Vibrating objects in contact with the ground radiate energy through the ground. Vibrations from large and/or powerful objects are perceptible by humans and animals. The rumbling sound caused by vibrating room surfaces is called ground-borne noise. Ground vibration is recorded in terms of peak particle velocity in inches per second (in/sec).

The U.S. Department of Transportation (USDOT) has guidelines for vibration levels from construction activities, and recommends that the maximum peak particle velocity levels remain less than 0.05 in/sec at the nearest structures. Vibration levels greater than 0.5 in/sec have the potential to cause architectural damage to normal dwellings. The USDOT also states that vibration levels greater than 0.015 in/sec are sometimes perceptible to people, and the level at which vibration becomes annoying to people is 0.64 in/sec (USDOT 2006).

Regional Noise Environment

The power line connects PG&E's Atascadero Substation to PG&E's San Luis Obispo Substation and roughly parallels US 101. Land uses along the power line and vicinity in the City of Atascadero are primarily rural-estate and residential. The portion of the power line located in unincorporated San Luis Obispo County runs roughly parallel to US 101 and is primarily on and in the vicinity of land designated for agricultural, rural, and open space land uses. The segment of the power line within the City of San Luis Obispo is on and near land with open space, low-density, and residential land uses. The baseline noise level of agricultural and rural-residential land is approximately 30 dBA, whereas commercial use and urban areas have an average baseline noise level between 60 and 70 dBA (Figure 3.12-1) (Caltrans 1998).

The southernmost portion of the project alignment is located approximately 1 mile northeast of the San Luis Obispo County Regional Airport (SBP). The project alignment is within the area designated for the San Luis Obispo County Regional ALUP. The ALUP includes figures depicting airport noise contours and single-event noise contours. The project alignment falls outside of and below the 50-dB noise contour and the 65-dBA single-event noise contour at ground level (ALUC 2005).

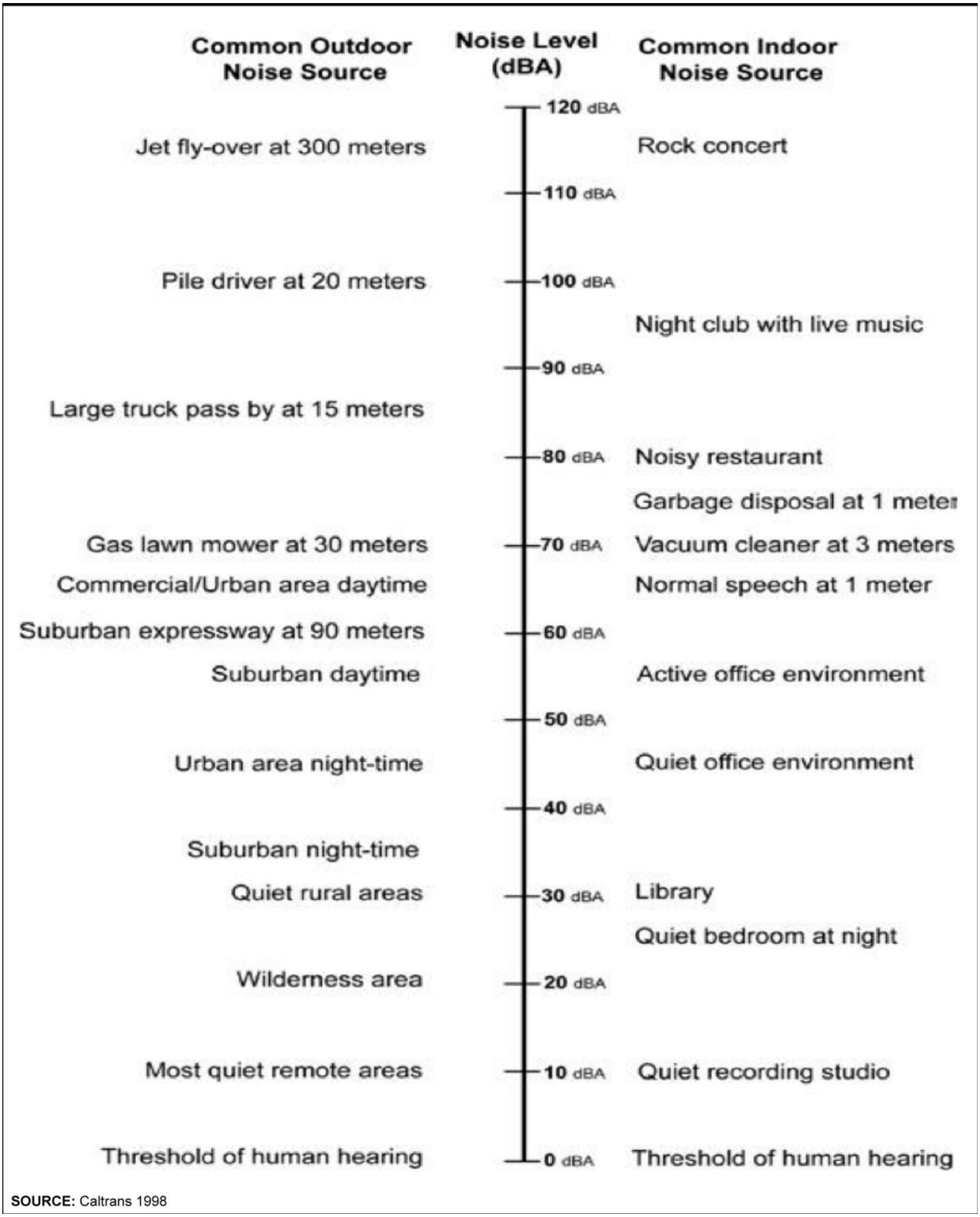
A private airstrip is located on Santa Margarita Ranch approximately 0.3 mile west of Pole 65/8 through Pole 66/2.

Sensitive Receptors

Noise exposure goals for different types of land uses depend on the noise sensitivities of those uses. Religious centers, schools, guest lodging, and libraries are particularly sensitive to noise intrusion and, therefore, have more stringent noise exposure limits than manufacturing or agricultural areas.

Sensitive receptors found in the project vicinity include residences, religious centers, recreational facilities, hospitals, and schools. Table 3.12-2 identifies the sensitive receptors within a 0.5-mile buffer of the project area.

Figure 3.12-1: Typical Noise Levels in the Environment



SOURCE: Caltrans 1998

Table 3.12-2: Noise-Sensitive Receptors Within 0.5 Mile of the Project Area

Location	Receptor
City of Atascadero	Six Religious Centers
	Three Recreation Facilities
	Four Schools
	Numerous Residences
City of San Luis Obispo	Five Religious Centers
	One Recreation Facility
	Four Schools
	Two Hospitals/Care Centers
	Numerous Residences
Unincorporated Areas of San Luis Obispo County	Three Religious Centers
	Numerous Residences

Noise Standards

CEQA does not specify a numerical threshold for "substantial increases" in noise. Additionally, there are no federal regulations that limit overall environmental noise levels; however, federal guidance documents address environmental noise and regulations for specific sources (e.g., aircraft or federally funded highways).

Table 3.12-3 summarizes federal guidelines and regulations for exterior noise.

The County of San Luis Obispo General Plan Noise Element, the City of Atascadero General Plan Noise Element, and the City of San Luis Obispo General Plan Noise Element all uphold the same policy framework for addressing potential noise impacts. None of the general plans directly regulate construction noise; however, all three plans provide the same specific policies regulating new development of noise-sensitive land uses or development resulting in noise impacts to noise-sensitive land uses caused by transportation or stationary noise sources. Outdoor noise resulting from transportation noise sources, such as traffic on public roadways, railroad line operations, and aircraft in flight, must not exceed an L_{dn} or CNEL of 60 dB in areas with noise-sensitive land uses (70 dB in areas used for outdoor sports and recreation) (Table 3.12-4). The general plans also note that where it is not possible to reduce noise in outdoor activity areas to 60 dB L_{dn}/CNEL or less using a practical application of the best available noise reduction measures, an exterior noise level of up to 65 dB may be allowed. The elevated L_{dn}/CNEL is contingent on implementation of available exterior noise level reduction measures and compliance of interior noise levels (SLO County 1992; City of SLO 1996; and Atascadero 2004).

Table 3.12-3: Summary of Federal Guidelines and Regulations for Exterior Noise (dBA)

Agency	L_{eq}	L_{dn}[1]
Federal Energy Regulatory Commission	[49]	55
Federal Highway Administration (FHA)	67	[67]
Federal Aviation Administration (FAA)	[59]	65
U.S. Department of Transportation—Federal Rail and Transit Authorities	Sliding scale, dependent on land use type	Sliding scale, dependent on land use type
U.S. Environmental Protection Agency (EPA)[c]	[49]	55
U.S. Department of Housing and Urban Development	[59]	65

Note:

[ ] indicates calculated equivalent standard

1. Because the FHA regulates peak noise level, the L_{dn} is assumed to be equivalent to the peak noise hour.

SOURCE: FRA 1998; FTA 2006; EPA 1974; FHA 2006

Table 3.12-4: Maximum Noise Exposure for Noise-Sensitive Land Uses Due to Transportation Noise Sources

Land Use	Outdoor Activity Areas[1] (L_{dn} or CNEL [dB])	Indoor Spaces (L_{dn} or CNEL [dB])
Residential	60	45
Transient Lodging	60	45
Hospitals and Nursing Homes	60	45
Theatres, Auditoriums, and Music Halls	-	35 (L_{eq}, dB)
Churches, Meeting Halls, and Office Buildings	60	45 (L_{eq}, dB)
Schools, Libraries, and Museums	-	45 (L_{eq}, dB)
Playgrounds, Neighborhood, and Parks	70	-

Notes

1: Where it is not possible to reduce noise in outdoor activity areas to 60 dB Ldn/CNEL or less using a practical application of the best available noise reduction measures, an exterior noise level of up to 65 dB Ldn/CNEL may be allowed. The elevated Ldn/CNEL is contingent on implementation of available exterior noise level reduction measures and compliance of interior noise levels with the values in this table.

SOURCE: SLO County 1992; City of SLO 1996; and Atascadero 2004

3.12.1 ENVIRONMENTAL IMPACTS AND ASSESSMENT

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
A) Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies?	☐	☐	☑	☐
B) Expose persons to or generate excessive ground-borne vibration or ground-borne noise levels?	☐	☐	☑	☐
C) Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☑
D) Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☑	☐
E) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels?	☐	☐	☑	☐
F) For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels?	☐	☐	☑	☐

A) Would the project expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies?

Construction. The proposed construction activities would require the use of heavy equipment and the assembly and installation of structures, including utility poles and towers. A summary of the average (L_{eq}) noise levels of construction equipment likely to be used during project construction is presented in Table 3.12-5. Although the types and numbers of construction equipment near any sensitive noise receptor will vary, Table 3.12-5 suggests that the loudest equipment generally would emit noise in the range of 80 to 85 dBA at a distance of 50 feet.

Table 3.12-6 lists the noise levels experienced by the closest sensitive receptor in each area.

Table 3.12-5: Construction Equipment Noise Levels

Equipment	Acoustical Usage Factor[1]	Specified L_{max} at 50 feet (dBA)	Calculated L_{eq} at 100 feet (dBA)	Calculated L_{eq} at 1,000 feet (dBA)	Calculated L_{eq} at 2,000 feet (dBA)	Calculated L_{eq} at 4,000 feet (dBA)
Auger Drill Rig	20	85	72	52	46	40
Backhoe	40	80	70	50	44	38
Chain Saw	20	85	72	52	46	40
Compactor (ground)	20	80	67	47	41	35
Compressor (air)	40	80	70	50	44	38
Concrete Mixer Truck	40	85	75	55	49	43
Concrete Pump Truck	20	82	69	49	43	37
Crane	16	85	71	51	45	39
Dozer	40	85	75	55	49	43
Drill Rig Truck	20	84	71	51	45	39
Dump Truck	40	84	74	54	48	42
Flat-Bed Truck	40	84	74	54	48	42
Generator	50	82	73	53	47	41
Grader	40	85	75	55	49	43
Man Lift-Mounted Impact Hammer (hoe ram)	20	85	72	52	46	40
Pickup Truck	40	55	45	25	19	13
Roller	20	85	72	52	46	40

Notes:

L_{max}= Maximum noise emission level of equipmen based on work cycle at distance

1. The percentage of time that equipment is in use over the time period of interest.

SOURCE: FHA 2006

Table 3.12-6: Noise Impacts to Sensitive Receptors in the Project Area

Plan	Noise Threshold	Distance to Closest Sensitive Receptor	Noise Level at Sensitive Receptor (L_{eq})
City of Atascadero	60 dBA	15 feet	>85 dBA
Unincorporated Areas of San Luis Obispo County	60 dBA	50 feet	85 dBA
City of San Luis Obispo	60 dBA	15 feet	>85 dBA

Some structures would require the use of helicopters for construction (Table 2.5-1). Noise from the helicopter would be audible at structure sites, helicopter landing zones, and along flights paths. Helicopter noise levels would range from 77 to 84 dBA during takeoff and from 72 to 77 dBA during landing. Sound-pressure levels for a helicopter in level flight and traveling at an altitude of 500 feet with an airspeed of about 60 knots would range from about 77 to 94 dBA for a duration of 4 seconds before and after passing directly overhead. Structure sites requiring helicopter access are generally located in undeveloped areas and, therefore, the potential for disturbance to large numbers of residents is small. Helicopter operations would be temporary and short in duration and, therefore, less than significant.

The project would result in the temporary generation of noise above the acceptable threshold established by federal agencies and the cities of Atascadero and San Luis Obispo and the County of San Luis Obispo. Impacts would be temporary (e.g., no more than two to three days at each site) and less than significant. Implementation of APMs NS-1 through NS-8 would further reduce impacts.

APM NS-1. Noise Minimization with "Quiet" Equipment. "Quiet" equipment (i.e., equipment that incorporates noise-control elements into the design-compressors have "quiet" models) will be used during construction whenever possible.

APM NS-2. PG&E Construction Hours. PG&E will limit construction to the hours between 7 a.m. and 7 p.m., Monday through Saturday, to the extent feasible. If nighttime work is needed because of clearance restrictions on the power line, PG&E will take appropriate measures to minimize disturbance to local residents, including contacting nearby residences to inform them of the work schedule and probable inconveniences.

APM NS-3. Limit of Unnecessary Engine Idling. PG&E will encourage construction crews to limit unnecessary engine idling. (See Air Quality measures.)

APM NS-4. Equipment Noise Emissions. PG&E construction crews will use equipment that is specifically designed for low noise emissions.

APM NS-5. Noise Minimization with Portable Barriers. Compressors and other small stationary equipment will be shielded with portable barriers in proximity to residential areas.

APM NS-6. Noise Minimization through Direction of Exhaust. Equipment exhaust stacks and vents will be directed away from buildings.

APM NS-7. Noise Minimization through Truck Traffic Routing. Truck traffic will be routed away from noise-sensitive areas to the extent feasible.

APM NS-8. Noise Disruption Minimization through Residential Notification. PG&E will coordinate with San Luis Obispo County, the City of Atascadero, and the City of San Luis Obispo to notify residents located near the alignment about the timeframe for construction activities.

Operation and Maintenance. Operation and maintenance activities for the power line would be similar in scope to existing operation and maintenance activities. No new sources of noise are associated with project operation or maintenance; therefore, no impact would occur.

B) Would the project expose persons to or generate excessive ground-borne vibration or ground-borne noise levels?

Construction. Construction activities may generate temporary localized ground-borne vibration. Vibration levels from tamping[1] activities are expected to generate vibration levels of 0.03 in/sec at a distance of 50 feet. These levels are dependent on the soil type at the construction site and the type of equipment used. Because vibration levels exceeding 0.64 in/sec could cause some persons to become annoyed, tamping operations could, under some circumstances, temporarily impact persons in buildings within 50 feet of construction equipment. Persons in buildings further than 50 feet away from the construction area would not be impacted by construction vibrations. Project-related vibrations would not cause any structural damage. Impacts from vibrations would be temporary (e.g., no more than two or three days at each site) and localized and, therefore, less than significant. Implementation of APMs NS-2 and NS-8 would further reduce impacts.

Operation and Maintenance. Operation and maintenance activities for the power line would be similar in scope to existing operation and maintenance activities. No new sources of vibration are associated with project operation or maintenance; therefore, no impact would occur.

C) Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Permanent increases in ambient noise levels in the project vicinity would not occur. Structure replacement and reconductoring would not generate a new or different source of permanent noise. Operation and maintenance activities would be consistent with activities conducted prior to implementation of the project. No permanent impact to the noise environment would occur as a result of the project.

D) Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Construction. Construction would be temporary with a target start date of January 2011 and a projected completion date of December 2012. Pole removal and replacement would occur over a

[1] Ram or pack a substance (soil or similar material) down or compact firmly.

few hours at each pole site. Any increases in ambient noise levels in the project vicinity during construction would be short-term, intermittent, and, therefore, less than significant. Noise would be further reduced with the implementation of APMs NS-1 through NS-8.

Operation and Maintenance. Operation and maintenance activities for the power line would be similar in scope to existing operation and maintenance activities. Project operation or maintenance would not result in an increase in existing ambient noise levels; therefore, no impacts would occur.

E) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

The southernmost end of the project alignment is located 1 mile northeast of SBP and is within the ALUP area. The project alignment falls outside of the 50-dB noise contour and the 65-dBA single-event noise contour at ground level. People potentially exposed to the noise from the airport would be construction workers in the temporary construction area. Noise from periodic aircraft operations would be largely masked by the noise of construction equipment and the impact would be less than significant.

F) For a project located within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

The Santa Margarita Ranch airstrip is approximately 0.3 mile west of Pole 65/8 through Pole 66/2. The airstrip is infrequently used and would not expose construction workers to excessive noise levels. Impacts would be less than significant.

3.13 Population and Housing

3.13.1 ENVIRONMENTAL SETTING

Population

The proposed project would be located entirely within the cities of Atascadero and San Luis Obispo, and unincorporated areas of San Luis Obispo County. Table 3.13-1 summarizes the population and recent trends for the area. Population and housing centers in the project area are located in the cities of Atascadero and San Luis Obispo, which account for 11 percent and 16 percent of the County's population, respectively.

Table 3.13-1: Project Region Population Totals and Trends

City/County	2000 Census	Estimated 2008 Population	Projected 2020 Population
City of Atascadero	26,411	28,452	29,830
City of San Luis Obispo	44,174	43,636	46,110
County of San Luis Obispo	246,681	265,297	304,920

SOURCE: USCB 2009

Based on the San Luis Obispo Council of Governments population forecasts for the next 20 years, the population in the County will grow at a rate between 0.80 and 1.53 percent, with a greater increase in population in unincorporated County areas than in cities. The total population of the County is expected to be 335,470 by 2030 (SLOCOG 2006).

Housing

The number of housing units and associated vacancy rates in the cities of Atascadero and San Luis Obispo, and unincorporated areas of the County in 2000 are listed in Table 3.13-2.

Table 3.13-2: Project Region Housing Units and Vacancy Rates (2000)

City/County	Housing Units	Vacancy Rate
City of Atascadero	9,848	3.2%
City of San Luis Obispo	19,306	3.5%
County of San Luis Obispo	102,275	9.3%

SOURCE: USBC 2000

3.13.2 ENVIRONMENTAL IMPACTS AND ASSESSMENT

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
A) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☑
B) Displace substantial numbers of existing housing units or people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☑

A) Would the project induce substantial population growth in an area, either directly or indirectly?

Construction. The proposed project would not include construction of new homes or businesses, land use changes, or infrastructure extensions that would directly induce substantial population growth in the area. The project would not increase the capacity of the existing power line, and thus, would not induce growth in the project area.

The project would require a maximum of 50 construction workers at any one time. Construction workers would be drawn from the local area or commute from neighboring cities. The construction phase is short in duration (22 months) and the local PG&E workforce would be sufficient to complete the project. No direct or indirect impacts to population growth would occur.

Operation and Maintenance. Operation and maintenance of the reconductored power line would be performed by the existing local PG&E workforce, and would have no potential to induce substantial population growth. Reconductoring would not increase transmission capacity and would increase reliability only. No impacts on population and housing would occur.

B) Would the project displace substantial numbers of existing housing units or people, necessitating the construction of replacement housing elsewhere?

The project would not displace any existing housing or people. No impact would occur to housing.

3.14 Public Services

3.14.1 ENVIRONMENTAL SETTING

Fire Protection and Emergency Services

San Luis Obispo County Fire Department

Fire protection and emergency services within San Luis Obispo County are provided by CALFIRE, a California state agency that functions as the County Fire Department under contract with San Luis Obispo County. The County Fire Department consists of 21 stations staffed by 180 full-time state employees, 100 state seasonal firefighters, 300 paid-call and reserve firefighters, and 120 state inmate firefighters (CALFIRE 2010). The closest stations are:

- Morro Torro Fire Station, SR 41, Atascadero
- Santa Margarita Fire Station, 22375 El Camino Real, Santa Margarita
- San Luis Obispo Fire Station, 635 North Santa Rosa Street, San Luis Obispo

City of San Luis Obispo Fire Department

Fire protection and emergency services within the City of San Luis Obispo are provided by the San Luis Obispo City Fire Department. The emergency response program goal is to respond to all emergency calls in 4 minutes or less. The fire department consists of 55 full-time employees, including 45 firefighters with emergency response capabilities (City SLO 2009a). The department includes four fire stations; the closest station to the project area is Fire Station No. 3 at 1280 Laurel Lane, approximately 0.5 mile from the project alignment.

City of Atascadero Fire Department

Fire protection and emergency services within the City of Atascadero are provided by the Atascadero City Fire Department. The average response time within city limits is 5 to 6 minutes. The department staffs two fire stations, with 22 full-time and 16 reserve firefighters (Atascadero 2009a). The closest station to the project area is Fire Station No. 2 at 9801 West Front Road, approximately 0.5 mile from the project alignment.

Police Services

California State Highway Patrol

Traffic patrol along the US 101 corridor is provided by the CHP. The CHP building is located at 675 California Boulevard in San Luis Obispo (CHP 2010).

San Luis Obispo County Sheriff's Department

The County Sheriff's Department is the primary agency responsible for law enforcement in the County. The Sheriff's Department is staffed with 377 sworn deputy sheriffs, including 154 sworn corrections officers. The department offices are located at 1585 Kansas Avenue (SLO County 2010).

City of San Luis Obispo Police Department

Police services in the City of San Luis Obispo are provided by the San Luis Obispo Police Department. The department consists of 92 employees, 64 of whom are sworn police officers. The

police station is located at 1042 Walnut Street (City SLO 2009b), approximately 2.25 miles from the project alignment.

City of Atascadero Police Department

Police services in Atascadero are provided by the Atascadero Police Department. The department consists of 41 employees, 31 of whom are sworn police officers. The police station is located at 5505 El Camino Real (Atascadero 2009b), approximately 2 miles from the project alignment.

Schools

San Luis Coastal Unified School District

The City of San Luis Obispo and surrounding areas are served by the San Luis Coastal Unified School District (SLCUSD). The district consists of ten elementary schools, two middle schools, three high schools, and one adult school (SLCUSD 2010). None of the schools are located within 0.25 mile of the project alignment.

Atascadero Unified School District

The City of Atascadero and surrounding areas are served by the Atascadero Unified School District (AUSD). The district includes twelve K-12 schools and the Atascadero Adult Education program. San Gabriel Elementary, located at 8500 San Gabriel Road in Atascadero, is the only school in the district located within 0.25 mile of the project alignment (AUSD 2010).

Other Schools

The following private schools are located within 0.25 mile of the project alignment:

- Kidz Korner Preschool, 3396 Johnson Avenue, San Luis Obispo
- Montessori School at Unity Christ Church of San Luis Obispo, 1490 Southwood Drive, San Luis Obispo
- Escuela del Rio, 9465 Morro Road, Atascadero

Parks

Atascadero Lake Park

Atascadero Lake Park is located east of SR 41, and north of Santa Rosa Road and Atascadero Substation. The park includes a pedestrian path around the edge of Atascadero Lake. The park also has a playground, restroom facilities, large and small barbecue areas, horseshoe pits, a sand volleyball court, and the Charles Paddock Zoo (Atascadero 2010).

Reservoir Canyon Open Space Area

The City of San Luis Obispo owns and manages the 700-acre Reservoir Canyon Open Space Area located east of US 101. Parking for the open space area is located south of the Reservoir Canyon laydown area. Four existing transmission towers are located within the open space area. Hikers typically use the utility access road to hike up to the ridge from the parking area (City SLO 2009c).

3.14.2 ENVIRONMENTAL IMPACTS AND ASSESSMENT

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
A) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
(i) Fire protection?	☐	☐	☐	☑
(ii) Police protection?	☐	☐	☐	☑
(iii) Schools?	☐	☐	☐	☑
(iv) Parks?	☐	☐	☑	☐
(v) Other public facilities?	☐	☐	☐	☑

A) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, the construction of which could cause significant environmental impacts, to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

(i) Fire protection?

The proposed project would not require additional fire services in the area and would not impact fire protection or fire suppression objectives. The project would have no impacts on local or regional fire protection.

(ii) Police protection?

The proposed project would not require additional police services during construction or operation and maintenance. No impacts to police services would occur.

(iii) Schools?

The nearest schools to the project area are the San Gabriel Elementary School, Montessori School at Unity Christ Church, Escuela del Rio, and Kidz Korner Preschool. The project would not create a need for new schools. Any construction workers not drawn from the local area would be expected to commute from neighboring areas and would not likely relocate their families. There would be no impact to schools associated with the project.

(iv) Parks?

Recreationists at local parks could be impacted or disturbed by construction activities or noise. The impacts to parks and recreational resources would be temporary. Impacts would be less

than significant given the distance to and short-term disturbance at each pole and tower installation site.

(v) Other public facilities?

There would be no impacts to public facilities not otherwise discussed in this section.

3.15 Recreation

3.15.1 ENVIRONMENTAL SETTING

Atascadero Lake Park

Atascadero Lake Park is located east of SR 41, and north of Santa Rosa Road and Atascadero Substation. The park includes a pedestrian path around the edge of Atascadero Lake. The park also has a playground, restroom facilities, large and small barbecue areas, horseshoe pits, a sand volleyball court, and the Charles Paddock Zoo (Atascadero 2010).

Eagle Creek Golf Course

Eagle Creek Golf Course is a 9-hole public golf course, open year-round, located west of US 101 at 13000 Atascadero Road in Atascadero (TheGolfCourses.com 2009).

Reservoir Canyon Open Space Area

The City of San Luis Obispo owns and manages the 700-acre Reservoir Canyon Open Space Area located east of US 101. Parking for the open space area is located south of the proposed Reservoir Canyon laydown area. Four existing project towers are located within the open space area. Hikers typically use the access road to hike up to the ridge from the parking area (City SLO 2009).

3.15.2 ENVIRONMENTAL IMPACTS AND ASSESSMENT

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
A) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☑
B) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	☑

A) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that physical deterioration of the facility would occur or be accelerated?

Several recreational facilities are located in the project region. Construction traffic could impact access to the parking area for the Reservoir Canyon Open Space Area. This impact may temporarily reduce usage of the existing recreational facility. The project would not result in the

accelerated deterioration of any existing parks or recreational facilities; therefore, no impact would occur.

B) Would the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

The proposed project would not include the construction or expansion of any recreational facilities. No impact would occur.

3.16 Transportation and Traffic

3.16.1 ENVIRONMENTAL SETTING

Existing Traffic Volumes and Levels of Service

Roadways and intersections are rated at varying levels of service (LOS). LOS is a measure of roadway operating conditions, ranging from LOS A, which represents the best range of operating conditions, to LOS F, which represents the worst. Basic definitions are presented in Table 3.16-1. LOS can be estimated based the on the road's traffic volume-to-road capacity (v/c) ratio or the average delay experienced by vehicles on the roadway.

Regional Transportation

The roadway system that would be used for the project throughout western San Luis Obispo County consists of an interconnected network of federal, state, city, and county roads.

Highways

A summary of the roadway characteristics for the highways in the project region is provided in Table 3.16-2.

Table 3.16-1: Level of Service Criteria for Roadways

LOS	v/c	Traffic Flow Characteristics
A	0.00-0.60	Free flow; insignificant delays
B	0.61-0.70	Stable operation; minimal delays
C	0.71-0.80	Stable operation; acceptable delays
D	0.81-0.90	Approaching unstable flow; queues develop rapidly (no excessive delays)
E	0.91-1.00	Unstable operation; significant delays
F	>1.00	Forced flow; jammed conditions

SOURCE: Transportation Research Board 2000

Table 3.16-2: Summary of Roadway Characteristics for Highways in the Project Region

Highway	Jurisdiction	Classification	Lanes	Physical Relationship to Power Line
US 101	Caltrans	Freeway	4	Overhead Crossing
SR 41	Caltrans	Major Arterial	2	Access Road
SR 58	Caltrans	Arterial	4	Overhead Crossing

SOURCE: Caltrans 2010

US Highway 101. US Highway 101 (US 101) is one of California's primary western freeways, linking San Francisco and Los Angeles. Access to and from US 101 and the project area would be via several different off-ramps, including SR 41 and Santa Barbara Road in Atascadero, and California Boulevard, SR 1, and Marsh Street in San Luis Obispo. Some structures would be accessed directly from the US 101 shoulder.

State Route 41. State Route (SR) 41 (also known as Morro Road) originates at SR 1 and ends at the entry to Yosemite National Park in Mariposa County. SR 41 is a two-lane highway throughout the project region. SR 41 borders the north end of the project area and would be used to access several areas of the project alignment.

State Route 58. SR 58 is an east-west highway that connects its western terminus in Santa Margarita at US 101 to its eastern terminus in Barstow, California. SR 58 is a two-lane highway throughout the project region. SR 58 would be used to reach access roads to the north and south of the highway.

Local Access

The local transportation network for the project area is composed of two-lane city-maintained and county-maintained roads. Roadway characteristics for city and county roads in the project area are summarized in Table 3.16-3.

Alternative Transportation

Bicycle Facilities

The general plans of the cities of Atascadero and San Luis Obispo describe designated bikeways within each city's limits. The general plans for both cities use the same classification system and definitions. The definitions of the classifications are as follows:

- Class I: Bike path is separated from the ROW of the main road.
- Class II: Bike path is divided from the main road by markings designating the ROW.
- Class III: Bike path is shared on roadways.

None of the bikeways in Atascadero have been classified. Atascadero is planning to adopt a Bike Plan in October 2010, which is expected to be expanded into a comprehensive bikeway and trail system. The Bike Plan would use a combination of Class I, Class II, and Class III paths to provide for both the bicycle commuting and recreational needs of the community (Atascadero 2004).

Two Class III bicycle paths are located along the power line alignment within the City of San Luis Obispo on Southwood Drive and Flora Street (City SLO 2006).

Transit and Rail Services

Public transit options in the project region include bus and train systems. The cities of Atascadero and San Luis Obispo provide a daily fixed-route bus service within the respective city limits. San Luis Obispo County provides a regional bus service to all urban areas of San Luis Obispo County. Greyhound offers interregional transportation with stops in San Luis Obispo and Atascadero.

Table 3.16-3: Summary of Roadway Characteristics for City- and County-Maintained Roads in the Project Area

Jurisdiction	Road	Classification	Physical Relationship to Power Line
City of Atascadero	Santa Rosa Road	Collector	Access Road
City of Atascadero	San Gabriel Road	Collector	Overhead Crossing; Access Road
City of Atascadero	San Diego Road	Collector	Overhead Crossing
City of Atascadero	Santa Barbara Road	Local	Overhead Crossing; Access Road
City of San Luis Obispo	Sydney Street	Local	Access Road
City of San Luis Obispo	Southwood Drive	Residential Collector	Overhead Crossing
City of San Luis Obispo	Johnson Avenue	Residential Arterial	Access Road
County of San Luis Obispo	Powerline Road	Local	Access Road
County of San Luis Obispo	FS Route 30S11	Unknown	Access Road
County of San Luis Obispo	Old US 101	Unknown (Gated)	Access Road
County of San Luis Obispo	Vista De La Cuidad	Local	Access Road
County of San Luis Obispo	Reservoir Canyon Road	Local	Access Road

SOURCE: City of Atascadero 2004; City of SLO 2006; SLO County 1979

Amtrak provides train service between Paso Robles and the City of San Luis Obispo. There is no Amtrak service within Atascadero.

Air Traffic

The San Luis Obispo County Airport (SBP) is located approximately 1.5 miles from the southern end of the power line in the City of San Luis Obispo. Two major airlines provide service to SBP. SBP would be used for project helicopter landing, refueling, and overnight storage.

A private airstrip is located on Santa Margarita Ranch property, approximately 1,700 feet west of Pole 66/2.

3.16.2 ENVIRONMENTAL IMPACTS AND ASSESSMENT

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
A) Cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☐	☐	☑	☐
B) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☑	☐
C) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☑	☐
D) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☑	☐
E) Result in inadequate emergency access?	☐	☐	☑	☐
F) Result in inadequate parking capacity?	☐	☐	☑	☐
G) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts or bicycle racks)?	☐	☐	☑	☐

A) Would the project cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system?

Construction. Table 3.16-4 presents the estimated impacts of construction traffic to the existing traffic volume on local highways. The measured "trips" for transportation generally are discussed in terms of passenger car equivalent trips. Larger vehicles and equipment, such as dump trucks and semitrailers, are measured as 2.5 trips to account for the larger size. Most construction activities would require an average of three to four vehicles. The replacement of lattice towers

Table 3.16-4: Existing and Estimated Daily Peak-Hour Traffic Conditions on Project Roadways

Roadway	Segment	Existing Peak-Hour Traffic (Number of Vehicles)	Capacity (Number of Vehicles)	Additional Project Traffic	Existing Peak-Hour v/c Ratio	Projected Peak-Hour v/c Ratio	Existing LOS/ Projected LOS
US 101	Jct. SR 41, Atascadero	6,700	8,000	27	0.84	0.84	D/D
US 101	Jct. SR 58, Santa Margarita	4,400	8,000	27	0.55	0.55	A/A
US 101	North City Limits	4,700	8,000	34	0.58	0.59	A/A
SR 41	Santa Rosa Road, Atascadero	900	3,200	27	0.28	0.28	A/A
SR 58	Jct. US 101	720	3,200	27	0.23	0.24	A/A

SOURCES: Caltrans 2008

would generate the greatest increase in traffic (trips) volumes on local highways during construction. The lattice towers would be accessed from the "north city limits" segment of US 101 and would require an estimated 34 trips during peak hours. Pole replacement activities would generate an estimated 27 trips. The v/c ratios for the projected construction period either do not change or increase by 0.01, which is less than significant (Table 3.16-4). No change in LOS would occur on any roads as a result of project construction.

Implementation of APM TT-1 would further minimize impacts to traffic volumes, traffic flow, LOS ratings, and v/c ratios to a less than significant level.

> **APM TT-1. Impacts to Existing Traffic Flows.** PG&E will develop a project-specific Transportation Management Plan (TMP), which will be submitted to the CPUC for review at least 30 days prior to construction. The TMP will conform to the California Joint Utility Traffic Control Committee's *Work Area Protection and Traffic Control Manual*. The TMP will include the following:
>
> - Standard safety practices, including installation of appropriate barriers between work zones and transportation facilities, placement of appropriate signage, and use of traffic control devices.
> - Flaggers and/or signage will be used to guide vehicles through or around construction zones using proper construction techniques.
> - Provision that all equipment and materials will be stored in designated staging areas on or adjacent to the work sites in a manner that minimizes traffic obstructions and maximizes sign visibility.

- Acceptable vehicle speeds on project roadways. Vehicle speeds will be limited to safe levels as appropriate for all roads, including access roads and overland routes without existing, posted speed limits.
- PG&E will avoid equipment/material transportation via helicopter, to the extent practical, during high traffic hours along the Highway 101 corridor.
- PG&E will obtain Cal Trans encroachment permits and comply with permit conditions as necessary.

Temporary road closures could occur along sections of the power line alignment requiring overhead crossing. Road closures along US 101 and SR 58 would be made in coordination with the CHP and Caltrans. Road closures would not exceed five minutes in duration. Any necessary encroachment permits would be obtained from the affected agencies. The temporary duration of potential road closures and implementation of APM TT-1 would reduce impacts from road closures to a less than significant level.

Operation and Maintenance. Operation and maintenance activities for the power line would be similar in scope to existing operation and maintenance activities. The current impact to traffic flows during project operation and maintenance would not change; therefore, no impact would occur.

B) Would the project exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?

Construction. Caltrans considers LOS D or better on state highway segments to be acceptable for planning purposes. All local highways in the project area are currently operating at acceptable LOSs. The maximum number of trips generated by a construction activity on local highways would be 34. This slight increase in traffic levels would not change existing LOSs as shown in Table 3.16-4. Construction would only generate three to four trucks at a time on local roads. Impacts to existing LOS ratings of all project roadways would be less than significant.

Operation and Maintenance. Operation and maintenance activities for the power line would be similar in scope to existing operation and maintenance activities. The current impact to LOS standards during project operation and maintenance would not change; therefore, no impact would occur.

C) Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

Construction. Construction of the project would require the use of a helicopter. The helicopter would typically follow a flight path through rural areas parallel to and along the east side of the power line. PG&E would coordinate with any potentially affected residents to minimize the duration of the necessary work and any resulting inconvenience. A Lift Plan would be prepared in accordance with APM TT-2 and would reduce impacts to air traffic patterns to a less than significant level.

> **APM TT-2. Lift Plan Development and Implementation.** A Lift Plan will be prepared and approved by the FAA prior to all construction helicopter operations and will not result in a change in air traffic patterns either temporarily or permanently. PG&E does not anticipate

that residents will be required to temporarily vacate their homes. In the unlikely event that final construction plans and the Lift Plan require otherwise, PG&E will coordinate with potentially affected residents (providing a minimum of 30 days notice) to minimize the duration of the necessary work and any resultant inconvenience.

Operation and Maintenance. Operation and maintenance would not require the use of a helicopter and would have no impact on air traffic patterns.

D) Would the project substantially increase hazards due to a design feature or incompatible uses?

Construction. Construction activities could temporarily interfere with the normal function of the roadways and could increase traffic safety hazards. Implementation of AMP TT-1 would reduce traffic safety hazards by use of traffic control devices and methods and creation of a barrier between traffic and project activities. PG&E would consult with the CHP and Caltrans for any sections of the power line alignment needing closure over freeway areas, including US 101 and SR 58. Impacts associated with road hazards would be reduced to a less than significant level with the implementation of AMP TT-1.

Operation and Maintenance. Operation and maintenance activities for the power line would be similar in scope to existing operation and maintenance activities. Existing protocols for reducing traffic hazards during project operation and maintenance would be sufficient. No impacts would be associated with traffic hazards.

E) Would the project result in inadequate emergency access?

Construction. Construction would result in the temporary closure of Forest Service Road 30S11 for a minimum of two days. Forest Service Road 30S11 would be used to access the project area during tower removal and reconductoring. The road is used as an emergency access route and as a recreational hiking/biking trail. Additional road closures also may be necessary, but are not expected to exceed five minutes in duration. Implementation of APMs TT-1, TT-3, and TT-4 would reduce impacts to emergency access in the project area to a less than significant level.

APM TT-3. Emergency Route Access. PG&E will coordinate with local emergency personnel in the event that project activities may impact an access point or route during an emergency. All construction activities will be coordinated with local law enforcement and fire protection services and the project will not result in inadequate emergency access.

APM TT-4. Notification of Road Closure. PG&E will coordinate with users of Forest Service Road 30S11 to ensure that temporary closure of the road will not be of an inconvenience, and will work with any affected parties to make alternative arrangements for access. PG&E will post signs on the road informing bikers and hikers of the anticipated schedule for closure of this road.

Operation and Maintenance. Operation and maintenance activities for the power line would be similar in scope to existing operations and maintenance. Existing protocols for reducing impacts to emergency access during project maintenance and operation would be sufficient. Impacts associated with inadequate emergency access would be less than significant.

F) Would the project result in inadequate parking capacity?

Construction. Construction workers would park personal vehicles in PG&E work yards and construction crews would carpool to power line construction sites in PG&E trucks to the greatest extent feasible. Formal parking is not greatly available along the project alignment; therefore, impacts to parking capacity would be less than significant.

Operation and Maintenance. Crews would continue to park in PG&E work yards and carpool to the project area for operation and maintenance activities. Existing parking capacity is sufficient for existing operation and maintenance activities; therefore, the continued operation and maintenance of the reconductored power line would not result in reduced parking capacity and no impacts would occur.

G) Would the project conflict with adopted policies, plans, or programs supporting alternative transportation?

Construction. The proposed project would not conflict with plans, policies, or programs supporting development of alternative transportation. The proposed project may cause temporary trail closure for bikers and hikers, but would not permanently remove bicycle lanes or conflict with alternative transportation routes. APM TT-4 would require the posting of signs to inform trail users prior to temporary closures. Impacts would be less than significant.

Operation and Maintenance. No impacts would occur from operation or maintenance activities. The project would not conflict with any regional or local alternative transportation programs.

3.17 Utilities and Service Systems

3.17.1 ENVIRONMENTAL SETTING

Utilities

Water Supply

Atascadero Mutual Water Company supplies potable water to over 29,000 customers in the Atascadero area. The company obtains all of its water from Salinas River underflow and the Atascadero Subbasin of the Paso Robles Groundwater Basin (AMWC 2010). Potable water in the City of San Luis Obispo is provided by the city, which primarily obtains water from Salinas Reservoir and Whale Rock Reservoir. Groundwater wells supply less than 2 percent of the water of the City of San Luis Obispo (City SLO 2008).

In the area between Atascadero and San Luis Obispo, water is supplied primarily from private groundwater wells, which are regulated by San Luis Obispo County Environmental Health Services Division. In some areas, water is also provided by the several reservoirs located throughout the County (SLO County 2010).

Electricity

Electric power is provided throughout San Luis Obispo County by PG&E.

Natural Gas

Natural gas is provided throughout San Luis Obispo County by Southern California Gas Company.

Service Systems

Wastewater

The City of Atascadero has one wastewater treatment facility that is capable of treating approximately 2.39 million gallons per day (MGD) (Atascadero 2009). The City of San Luis Obispo has one wastewater treatment facility that is capable of treating approximately 4.5 MGD (City SLO 2009). The unincorporated areas of the project area are served by private septic tanks that are regulated by the San Luis Obispo County Department of Planning and Building.

Stormwater

The City of Atascadero has stormwater drains that are maintained by the City's Public Works Department. The City of San Luis Obispo has stormwater drains that are maintained by the City's Public Works and Community Development Departments. These departments are also responsible for coordinating implementation of the Stormwater Management Program of the City of San Luis Obispo.

Most of the unincorporated communities within the County do not have formal stormwater infrastructure. The natural hydrology of the watershed is used to convey stormwater runoff to receiving waters. San Luis Obispo County uses retention/detention basins to slow runoff and allow for infiltration in areas lacking natural pathways for stormwater runoff (SLO County 2006).

Solid Waste Disposal

Garbage services in the project area are provided by two franchised garbage service providers: Atascadero Waste Alternative and San Luis Garbage. San Luis Obispo County has three landfills and one transfer station:

- Cold Canyon Landfill, Carpenter Canyon, San Luis Obispo
- Chicago Grade Landfill, Homestead Road, Atascadero
- Paso Robles Landfill, SR 46, Paso Robles
- Nipomo Transfer Station, 325 Cuyama Lane, Nipomo

Cold Canyon Landfill and Chicago Grade Landfill are certified by the RWQCB to accept treated wood waste (CalRecycle 2010).

Communications

Telephone service is provided throughout San Luis Obispo County by AT&T, Inc.

3.17.2 ENVIRONMENTAL IMPACTS AND ASSESSMENT

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
A) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☑
B) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☑
C) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☑
D) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☑	☐
E) Result in a determination by the wastewater treatment provider, which serves or may serve the project, that it has adequate capacity to serve the project's projected	☐	☐	☐	☑

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
demand in addition to the provider's existing commitments?				
F) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☑
G) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☑

A) Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Construction. Wastewater services would be provided to construction workers by portable toilets. Waste would be disposed of at appropriately licensed off-site facilities. The amount of effluent generated by construction crews of five workers each would not cause the wastewater treatment plants in either Atascadero or the City of San Luis Obispo to exceed treatment capacity. The plants would not exceed wastewater treatment requirements as a result of the project. No impacts would occur.

Operation and Maintenance. Operation and maintenance of the project would not generate wastewater; therefore, no impacts are anticipated.

B) Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Construction. Water would be required for dust control as required by the SWPPP and may be further required to keep sandy soils firm during auguring of new pole and tower holes. Water would be obtained from existing municipal sources or private wells. The project would not require the construction of new or the expansion of existing water facilities. Therefore, there would be no impacts to water or wastewater treatment facilities resulting in the need for new or expanded facilities.

Operation and Maintenance. Operation and maintenance activities for the power line would be similar in scope to existing operation and maintenance activities, and would not change the existing needs for water or wastewater treatment service in the project area. No impacts would occur.

C) Would the project require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

The proposed project would not require the construction of new stormwater drainage facilities or expansion of existing facilities. The power line alignment would remain the same as the existing alignment and no impacts to stormwater drainage are anticipated.

D) Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Construction. The primary need for water during construction would be for dust control activities within an approximate 40-foot radius of each LDS pole and a 100-foot radius of each tower and TSP, and along dirt and gravel access roads. Re-establishment of some existing access roads would require vegetation clearing and minimal grading to ensure stability for vehicle access, for which water would also be required. Water may also be used to maintain the firmness of sandy soils during auguring of new pole and tower holes.

Water would be trucked from the cities of Atascadero and San Luis Obispo as needed. Potable water for construction workers would be available at Atascadero Substation and San Luis Obispo Substation. Sufficient existing water supplies exist to provide for the temporary and minimal construction crew requirements; therefore, the project would have a less than significant impact.

Operation and Maintenance. Operation and maintenance activities for the power line would be similar in scope to existing operation and maintenance activities, and would not alter available water supply resources. No impacts would occur.

E) Would the project result in a determination by the wastewater treatment provider, which serves or may serve the project, that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Construction. The project would require portable toilets for construction workers. Sanitary waste would be disposed of at appropriately licensed official facilities with adequate capacity. Licensed wastewater facilities in the cities of Atascadero and San Luis Obispo have adequate capacity and no impact would result.

Operation and Maintenance. Operation and maintenance activities for the power line would be similar in scope to existing operation and maintenance activities, and would not change the available capacity of regional wastewater treatment facilities. No impacts are anticipated.

F) Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Construction. Construction debris would be picked up and hauled away as needed for recycling and/or proper disposal. Wood poles and stumps, produced during removal of existing poles, would be taken to a consolidation site at a designated PG&E Service Center. As containers are filled, poles would be transported to an appropriate licensed Class I waste disposal facility or the composite lined portion of a solid waste landfill. The County has two approved disposal sites for the treated wood waste. The Class I Chemical Waste Management Kettleman Hills Facility in

Kettleman City, California, is also available.All three disposal sites have significant disposal capacity available (CalRecycle 2010). The project would have no impacts on existing landfill capacity.

Operation and Maintenance. Operation and maintenance activities for the power line would be similar in scope to existing operation and maintenance activities. The project would not generate more solid waste than what is already associated with current operation and maintenance activities; therefore, no impact would occur.

G) Would the project comply with federal, state, and local statutes and regulations related to solid waste?

Project construction, operation, and maintenance would produce solid waste, but all waste generated would be disposed of according to all applicable federal, state, and local statutes and regulations related to solid waste. No impacts are anticipated.

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3.18 Mandatory Findings of Significance

3.18.1 ENVIRONMENTAL IMPACTS AND ASSESSMENT

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
A) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
B) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☒	☐	☐
C) Have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

A) Would the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?

Implementation of the proposed project would entail replacing similar diameter poles and lattice steel towers; therefore, the project would not substantially increase the existing permanent footprint of the project area. The project could impact biological resources including natural habitats and special-status species. Mitigation has been identified for the protection of special-status species such as, but not limited to, CRLF, western spade foot toad, western pond turtle, burrowing owl and other migratory bird species, bats, and special-status plants. Construction would occur within USFWS-designated critical habitat areas. Impacts to sensitive habitats would be temporary and less than significant with the implementation of mitigation measures.

Disturbance to wetland habitats could result in potentially significant impacts to several special-status plants and wildlife. Construction within wetland habitats would be limited to work at Pole 66/10 and culvert installation and repair activities listed in Table 2.5-3. The upper portion of Pole 66/10 would be cut and removed, and the lower portion would remain in the wetland as an interset pole to support distribution and communication lines. A replacement pole would be located outside the wetland area. All ground-disturbing work in these locations would be performed in dry conditions and timing would be dependent on seasonal rainfall. No additional grading, vegetation removal, or tree trimming would occur within wetland areas. Access to Tower 73/1 is within 20 feet of a wetland. Implementation of mitigation measures would reduce wetland impacts to less than significant.

Project construction would include ground-disturbing activities that could adversely affect the integrity of cultural deposits, resulting in the loss of cultural and/or historical information and the alteration of the site setting of a historical resource, if these resources are present. Documented cultural resources and newly discovered resources identified during the cultural resources survey would be avoided to the greatest extent feasible; however, if avoidance of the resource is not possible, then the resource would be evaluated for CRHR or National Register of Historic Places eligibility, pursuant to the APMs described in Section 3.6. The project has potential to encounter previously undiscovered significant cultural resources. Impacts to cultural resources would be less than significant.

B) Would the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

Related Projects

A list of cumulative projects used for this analysis is provided in Table 3.18-1. The list includes projects in the vicinity of the project area in the cities of Atascadero and San Luis Obispo and in San Luis Obispo County. The projects were reviewed to identify whether the proposed project could contribute to cumulatively significant impacts when evaluated in combination with these other projects. The majority of the projects are located in the City of Atascadero, at least 1 mile or more from Atascadero Substation, or in the City of San Luis Obispo, at least 1 mile or more from San Luis Obispo Substation.

Figure 3.18-1 shows the locations of projects analyzed for cumulative impacts in relation to the proposed project area.

Table 3.18-1: Cumulative Projects in the Project Vicinity

	Project Name	Project Components	Location	Status
	City of Atascadero			
1	West Front	Mixed-use development to include restaurant, hotel, commercial retail, and business park space on a 9.36-acre lot.	9002 West Front Road	Some components have been constructed. Other components are in the formal application review process.
2	Colony Square	Mixed-use development to include 19,450 sq. ft. of residential space, 17,100 sq. ft. of office space, a 35,000-square-foot theater, and 75,230 sq. ft. of retail space on an 8.14-acre lot.	6901-6917 El Camino Real	The project is under construction.
3	Wal-Mart	Mixed-use development to include 139,560 sq. ft. of retail space and residential units on a 26.1-acre lot.	2055 El Camino Real	The project is in the formal application review process.
4	Home Depot Center	Over 224,000 sq. ft. of retail space on a 29.6-acre lot.	905 El Camino Real	The project is in the formal application review process.
5	Tractor Supply	60,000 sq. ft. of retail space on a 5.19-acre lot.	11600 El Camino Real	The project is obtaining grading permits.
6	Rite Aid	17,340 sq. ft. of retail space on a 2.93-acre lot.	7025 El Camino Real	The project is under construction.
7	The Acacias	Mixed-use development to include 6,500 sq. ft. of commercial space, 2,166 sq. ft. of office space, and 40 residential units.	4705 El Camino Real	The project is in the formal application review process.
	County of San Luis Obispo			
8	Nacimiento Water Project	Development of an intake and pump station at Lake Nacimiento, including approximately 45 miles of transmission pipeline, three storage tanks, two intermediate pump stations, turnouts, a control center, new Supervisory Control and Data Acquisition, a project control system, and associated appurtenant facilities.	Throughout the County	Currently under construction. The project is expected to be completed by December 2010.

Table 3.18-1 *(Continued)*: Cumulative Projects in the Project Vicinity

	Project Name	Project Components	Location	Status
9	AT&T Fiber Optic Cable Project San Luis Obispo to Los Angeles	Installation of fiber optic cable along 242 miles between the City of San Luis Obispo and Los Angeles in the railroad ROW.	Southern San Luis Obispo County, Santa Barbara County, Ventura County, and Los Angeles County	The 30-day public review period for the Draft Supplemental Environmental Impact Report ended on June 30, 2010.
10	Unnamed Project on Sante Fe Road	Development of six industrials building on a site with an existing outdoor storage facility. The buildings are proposed to allow manufacturing of steel tanks, and will vary in size from 992 sq. ft. to 12,710 sq. ft. Each building will be constructed in its own phase, with the final phase reaching completion in 11 years.	Sante Fe Road, San Luis Obispo	The project was approved on December 22, 2009.
	City of San Luis Obispo			
11	PG&E's San Luis Obispo – Callander 115 kV Power Line Reconductoring Project	17-mile-long reconductoring project from San Luis Obispo Substation to the Callander switching station.	Alignment travels from San Luis Obispo Substation south, primarily paralleling Orcutt Road (approx. 13 miles), then traverses west to Cabrillo Highway where it parallels Cabrillo Highway for approx. 4 miles and terminates at Callander Switching Station (2375 Willow Road, Nipomo)	The project is currently under construction. The project is expected to be completed by December 2010.
12	PG&E's San Luis Obispo – Santa Maria 70 kV Power Line Reconductoring Project	26-mile-long reconductoring project from the City of San Luis Obispo south to PG&E's Santa Maria Substation.	Alignment travels from San Luis Obispo Substation south, primarily paralleling Orcutt Road (approx. 23 miles), then crosses US 101 just south of Nipomo, and terminates at	The project is currently under construction. The project is expected to be completed by December 2010.

Table 3.18-1 *(Continued)*: Cumulative Projects in the Project Vicinity

	Project Name	Project Components	Location	Status
			Santa Maria Substation (Cook Street between Depot and Railroad Avenue)	
13	Alano Building Project	Renovation of the existing building and a new mixed-use project on the adjacent site.	1804 and 1814 Osos Street	The project has been approved.
14	Pacific Courtyards	10,000 sq. ft. of office space and 12 residential units.	1321 and 1327 Osos Street	The project has been approved.
15	The Mix at Monterey	9,000 sq. ft. of commercial space and five residential units.	1308 Monterey Street	The project has been approved.
16	Old Granada Theatre	Four-story mixed-use project with commercial space on the ground floor and 12 units of residential houses.	1120 Morro Street	The project has been approved.
17	Foster's Freeze	7,000 sq. ft. of commercial space and 13 residential units.	590 Marsh Street	The project has been approved.
18	Leitcher House Site	Hotel and rehabilitation of the historic house.	667 Monterey Street	The project is in the formal application review process.
19	Irish Hills Plaza East, LLC	Multiple commercial buildings totaling approximately 180,000 sq. ft.; changing land use designation from open space to commercial retail.	11980 Los Osos Valley Road	The project is under construction.
20	Prado Road Business Park	160,000 sq. ft. on a 20-acre site.	400 Prado Road	The project has been approved.
21	Long-Bonetti Ranch	Reuse of Historic ranch buildings including amending the Higuera Commerce Park Specific Plan.	3897 South Higuera Street	The project has been approved.
22	2959 Broad Street	Mixed-use project.	2959 Broad Street	The project has been approved.

Table 3.18-1 *(Continued)*: Cumulative Projects in the Project Vicinity

	Project Name	Project Components	Location	Status
23	4180 Vachell Lane	Two commercial office buildings in the manufacturing zone.	4180 Vachell Lane	The project has been approved.
24	Humbert Street Housing Authority	Affordable housing consisting of 80 condominium housing units.	Humbert Street	The project is in the formal application review process.
25	774 Caudill	6,000 sq. ft. of commercial space and four residences.	774 Caudill Street	The project has been approved.
26	ICON Project	Commercial space and affordable housing units.	1340 Taft Street	The project is in the formal application review process.
27	1101 Monterey	A new service station and car wash.	1101 Monterey Street	The project has been approved.
28	956 Monterey Street	Proposed three-story mixed-use building.	956 Monterey Street	The project has been approved.
29	El Vaquero (formerly Bermant Homes)	5,000 sq. ft. of commercial space and 33 residential units.	221 Nipomo Street	The project has been approved.
30	Chinatown Project	Commercial space (retail/restaurant/office), hotel, and residential condominiums.	Block bounded by Palm Street, Morro Street, Monterey Street, and Chorro Street	The project has been approved.
31	Four Creeks	The Creekston Project will consist of 86 dwelling units (one-bedroom units, courtyard homes, lofts, and single-family residences), commercial service space, and a daycare facility. Laurel Creek proposes 180 dwelling units (cottages, mansions, and manors, and several affordable units).	Orcutt Road near Broad Street	The project is under construction.
32	Garden Street Terrace SLO Partners, LP	95-room hotel, 34 residential condominium units, and a 25,000-square-foot retail building.	1119 Garden Street	The project is in the formal application review process.

Table 3.18-1 *(Continued)*: Cumulative Projects in the Project Vicinity

	Project Name	Project Components	Location	Status
33	Village (formerly Maymont)	35,000 sq. ft. of commercial space and 70 residential units.	2238 Broad Street	The project has been approved.
34	Housing Authority SRO Project	Mixed-use project including 19 single-room-occupancy residential units.	858 Humbert Avenue	The project is in the formal application review process.
35	Homeless Shelter Campus	Homeless shelter with bed capacity of approximately 200 persons. Proposed facility is a two-story building approximately 20,000-25,000 sq. ft. with multi-purpose rooms, offices, and a kitchen/dining area.	3433 South Higuera Street	The project has been approved.
36	Naman Project	Project includes relocation of historic structures, demolition of non-historic buildings, and construction of a two-story commercial building.	1029 Chorro Street	The project is in the formal application review process.
37	313 South Street Apartments	Affordable housing project of 68 units on the McCarthy's Steel site. Project is three stories and approximately 1,400,000 sq. ft. with subterranean parking.	313 South Street	The project is in the formal application review process.

SOURCES: Atascadero 2010; City SLO 2010; Griffith pers. comm. 2010

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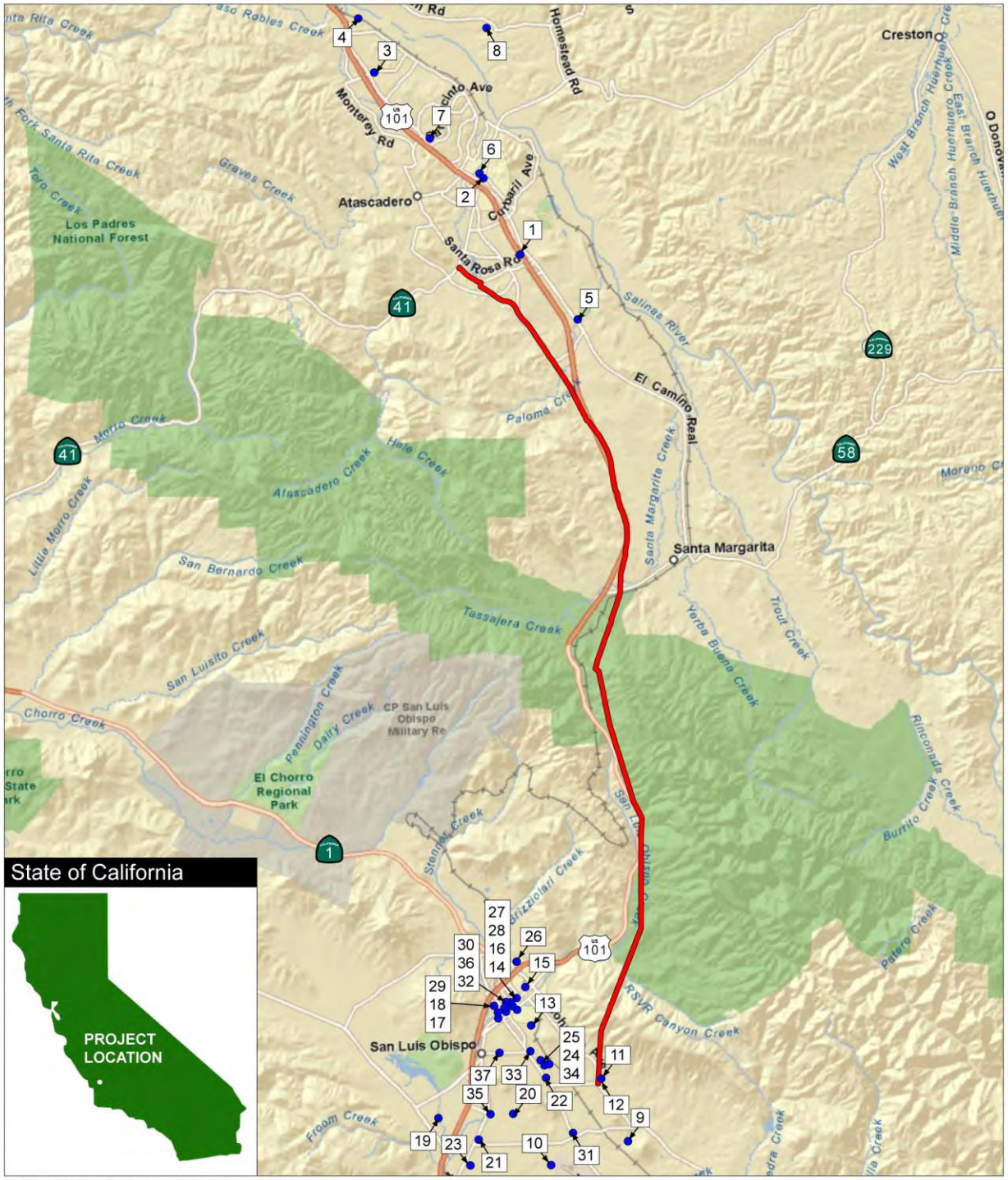
Figure 3.18-1: Cumulative Projects in the Project Vicinity



Cumulative Impacts

Aesthetics

The project would be located within an existing power line alignment. The impacts from the replacement of structures would be minimal because the new poles and towers would be similar in color and texture to the existing structures. The new structures would be approximately 10 to 20 feet taller than the existing structures. Replacement poles and towers generally would be placed within approximately 30 feet and 100 feet of the existing structure, respectively. The power line is visible from an eligible designated scenic highway; however, the reconductored power line would not be significantly more visible than the existing power line. Construction and operation would not require lighting. Impacts from glare are less than significant but would be further reduced with use of a less reflective conductor.

Only two other proposed similar projects would be located in proximity to the proposed project area. PG&E's San Luis Obispo – Callander 115 kV Power Line Reconductoring Project and San Luis Obispo – Santa Maria 70 kV Power Line Reconductoring Project would start at San Luis Obispo Substation and proceed in different directions than the proposed project. Construction of both of these projects is expected to be completed prior to the start of the proposed project. The three projects would not cumulatively significantly alter the existing visual quality of the area. The remaining projects would not be located within the same viewshed as the proposed project. Other projects in the region are contributing to increased development and urbanization; however, the proposed project would not contribute significant visual changes associated with such land use changes. The proposed project has a minimal visual impact and would not make a significant contribution to an overall cumulatively significant visual impact.

Agricultural Resources

Construction activities for the proposed project associated with access and staging would temporarily affect agricultural land use. All lands, except a negligible amount (less than 0.01 acre), would be returned to their former use once construction is completed. The other projects identified would not impact the same agricultural lands as the proposed project. The amount of permanent loss of agricultural land for the proposed project would not contribute to a significant loss of farmland, even when considering other projects.

Air Quality

Implementation of the mitigation measure discussed in Section 3.3 would reduce air emissions during construction of the proposed project to a less than significant level based on Appendix G of the CEQA Guidelines and the significance thresholds defined by the SLOCAPCD.

It is estimated that the construction schedule for approximately six development projects (two in the vicinity of Atascadero and four in the City of San Luis Obispo) could potentially overlap the construction schedule of the proposed project. Each of the cumulative projects would be required to adhere to applicable regulations, and would be required to implement mitigation to further reduce air emissions during construction. Measures would likely include fugitive dust control, using low-emission fuels, and installing filters on heavy equipment. Any potential adverse cumulative air quality impacts would be short-term (lasting only the duration of construction) and

would not be cumulatively considerable; therefore, the cumulative impact would be less than significant.

Impacts to air quality during operation and maintenance would be the same as those during current operation and maintenance practices; therefore, no contribution to cumulative impacts would occur.

Greenhouse Gases

Construction of the project would result in emissions of GHGs from on-site construction equipment and off-site worker trips. The most common GHGs associated with fuel combustion are CO_2, CH_4, and N_2O. Impacts from the proposed project would be less than significant because GHG emissions for the project would be well below existing numerical significance thresholds. Six projects have an overlapping construction schedule. Construction of these projects would create similar GHG emissions from construction vehicles and equipment. These projects would be subject to evaluation of potential impacts from GHG emissions and, where appropriate, to the implementation of BMPs. Any potential adverse cumulative GHG impacts would be short-term and not cumulatively considerable; therefore, GHG emissions would have a less than significant cumulative impact.

The amount of GHG emissions from operation and maintenance would be the same as for current operation and would not contribute to cumulative impacts.

Biological Resources

Potential impacts to biological resources could occur from construction, including impacts to special-status species and native plant communities. Potential impacts from the proposed project would be less than significant with the implementation of mitigation measures discussed in Section 3.5. The project would not contribute to cumulatively significant effects on biological resources; therefore, impacts would be less than significant.

Impacts to biological resources during operation and maintenance would be the same as those during current operation and maintenance practices; therefore, no contribution to cumulative impacts would occur.

Cultural Resources

Neither short-term construction activities nor operation and maintenance activities would affect any known cultural resources with the implementation of the mitigation measure discussed in Section 3.6, which would require the limits of the project area to be marked with visible flagging tape, excluding the known resources. Workers would be trained to identify potential cultural resources and to halt and redirect construction activities in the event that previously unidentified cultural resources are discovered. No cultural resources would be affected during project construction or during operation of the project, and no contribution to cumulative impacts would occur.

Geology and Soils

Anticipated impacts to geologic features would be less than significant. The project would not increase potential risks associated with a seismic event or impacts from collapsible or expansive soils. Short-term construction impacts to soils, including unstable soils, have the potential to occur; however, implementation of the mitigation measure described in Section 3.7 would reduce the impacts to a less than significant level.

Six projects listed in Table 3.18-1 could be constructed during the same time period as the proposed project. These projects are located more than 1 mile from the proposed project area. Impacts to local geology and soils could result from erosion or landslides during construction and implementation of the proposed project. However, these impacts would not cumulatively combine with similar impacts from other projects due to intervening distance between projects. Potential cumulative impacts to geology and soils would be less than significant.

Hazards and Hazardous Materials

The use of hazardous materials for the project would be minimal during construction and operation. Hazardous materials would be stored and used in compliance with applicable regulations. The project would not result in an increase in usage of hazardous materials. Impacts from routine use, transportation, disposal, and accidental spillage of hazardous materials would be reduced to a less than significant level with implementation of the mitigation measures discussed in Section 3.9.

Six projects would be constructed at the same time as the proposed project. These projects are located more than 1 mile from the proposed project area. Hazards or hazardous materials from the proposed project would be contained and impacts would be mitigated before impacts could cumulatively combine with the other projects to create a significant impact. All projects are required to comply with federal, state, and local safety regulations to minimize risk to the surrounding public. Cumulative impacts from hazards and hazardous materials would be less than significant based on the location of the proposed project in relation to other cumulative projects. Implementation of the mitigation measure discussed in Section 3.8 would further reduce impacts from hazards or hazardous materials.

Hydrology and Water Quality

The proposed project has the potential to cause temporary impacts to nearby waterways and water quality during construction. These impacts could include erosion, increased runoff and sedimentation, or the accidental release of hazardous materials. These temporary impacts would be less than significant with the implementation of the mitigation measure discussed in Section 3.9. Impacts to hydrology and water quality during operation and maintenance would be the same as those during current operation and maintenance; therefore, no contribution to cumulative impacts would occur.

Land Use

The project is located within an existing utility corridor. The project would have a less than significant impact to applicable land use policies and regulations; therefore, the project would not contribute to cumulative impacts to land use.

Mineral Resources

No commercial mineral resources are known to exist within the project area and the proposed project would not result in the loss of availability of a known mineral resource; therefore, the project would not contribute to potential cumulative impacts that may result in the loss of mineral resources.

Noise

The proposed project is not expected to contribute to a long-term cumulative impact on ambient noise levels in the project area. Noise from construction activities would be limited to daytime hours and would be short-term. Impacts from noise to nearby sensitive receptors would be less than significant.

It is estimated that six projects listed in the cumulative project list could be constructed during the same time period as the proposed project. These projects are located more than 1 mile from the proposed project area. Noise from the proposed project would attenuate and would not combine with noise from other projects, were construction schedules to coincide. Potential cumulative noise impacts during construction would be less than significant based on the location of the proposed project in relation to other cumulative project and the location of sensitive receptors.

Population and Housing

The proposed project would not result in impacts to population and housing. Construction workers would be drawn from existing local PG&E staff, which is anticipated to be sufficient to complete the project. The project would not displace any existing housing or people. The proposed project would not contribute to significant cumulative impacts because it would have no impacts on population and housing.

Public Services

The proposed project would not result in significant impacts to public services. The proposed project would not require the cessation or interruption of fire or police protection services, schools, or other public facilities. The project would require temporary restricted access to local parks. Impacts would be less than significant and would not contribute to a cumulatively significant impact on the parks in the project area.

Recreation

The proposed project would not cause a substantial increase in the use of or physical deterioration of parks or recreational facilities. The project would have no effects on recreation and would not contribute to cumulative effects associated with other projects.

Transportation and Traffic

Construction of the proposed project would have the potential for temporary impacts to traffic volumes, LOS standards, road hazards, and emergency access. These impacts would be temporary and less than significant. Given the location of the project area in relation to other development projects in the region, the transportation network is sufficient to accommodate construction traffic to avoid significant impacts to any one area.

Six projects could potentially be constructed during the same time period as the proposed project; however, these projects are located more than 1 mile from the proposed project area and would require the use of different local roadways. Potential cumulative traffic impacts would be less than significant based on the location of the proposed project in relation to other projects and the relatively small expected increase in traffic volume due to the proposed project.

The proposed project would require the use of a helicopter during construction for deliveries and installation at select tower and pole locations. Temporary impacts to air traffic patterns would be less than significant with the use of a Lift Plan. Other projects would be located more than 1 mile from the proposed project area, and cumulative air traffic impacts would be less than significant based on the distance of the proposed project from other projects.

Impacts to traffic and transportation during operation and maintenance would be the same as those during current operation and maintenance practices; therefore, no contribution to cumulative impacts would occur.

Utilities and Service Systems

Implementation of other development projects could result in potential cumulative impacts to utilities, particularly local water supplies and wastewater facilities. In contrast, construction of the proposed project would temporarily require a minimal water supply and generate minimal amounts of wastewater. Construction would require the disposal of a less than significant amount of all types of waste. No expanded facilities or services would be needed for the project, and use and disposal of all water and waste products would comply with all applicable laws and regulations. Impacts to utilities and service systems during operation and maintenance would be the same as those during current operation and maintenance practices; therefore, no contribution to cumulative impacts would occur

Corona and Induced Current Effects

Induced current effects would not change from existing conditions because voltage and current capacity would not change with project implementation. None of the other proposed projects in the area would generate corona noise; therefore, no cumulative effects would occur.

C) Would the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

The project would not adversely affect human beings directly or indirectly. Environmental parameters with particular potential to temporarily impact human health during construction would include impacts from changes to air quality, hazards, and hazardous material use. Potential impacts from hazards and hazardous materials or air quality and the other environmental

resources that could affect human beings during construction would be reduced to a less than significant level with the implementation mitigation measures. APMs are also included in the project to minimize effects. The proposed operation and maintenance activities would be the same as current operation and maintenance practices; therefore, no contribution to cumulative impacts would occur. The project would have a beneficial effect on residents in the area by providing more efficient and reliable transmission line services.

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3.19 Corona and Induced Current Effects

3.19.1 ENVIRONMENTAL SETTING

Corona

The corona effect is the physical manifestation of discharged energy into very small amounts of sound, radio noise, heat, and chemical reactions with air components. It is a phenomenon associated with all energized electrical devices but is especially common with high-voltage power lines.

The amount of corona produced by a power line is a function of line voltage, conductor diameter, conductor locations in relation to each other, power line elevation above sea level, condition of conductors and hardware, and local weather conditions. Corona typically becomes a design concern for power lines 345 kV and higher (i.e., transmission lines). It is less noticeable for lines that are operated at lower voltages (i.e., subtransmission and distribution-sized lines). The electric field gradient is greatest at the conductor surface. Larger-diameter conductors have lower electric field gradients at the conductor surface and, therefore, lower corona than smaller-diameter conductors.

Induced Currents

Small electric currents can be induced by electric fields in metallic objects located close to power lines. An electric current can flow when an object has an induced charge and a path to ground is presented. The amount of induced current that can flow is important to evaluate because of the potential for nuisance shocks to people and the possibility of other effects such as fuel ignition.

3.19.2 ENVIRONMENTAL IMPACTS AND ASSESSMENT

The CEQA Guidelines do not provide significance criteria for evaluating significant impacts from corona or induced current effects. Corona and induced current could have a significant impact through:

- Audible noise
- Radio and television interference
- Fuel ignition
- Disturbance of cardiac pacemakers
- Computer interference

The proposed project would replace the existing conductor with a larger-diameter conductor (715.5 KCmil AAC, 0.974-inch-diameter); therefore, the only change from existing conditions that would occur would be a reduction in the existing corona produced by the line. Conductor replacement would result in a reduction of existing audible noise and radio and television interference, which may be present with the existing power line.

Induced current effects would not change from existing conditions because voltage and current would not change with project implementation. The chances of ignition of nearby fuel sources would remain unlikely and are unchanged from existing conditions. Cardiac pacemaker interference would be unlikely because modern pacemakers are designed to revert to

asynchronous operation when the sensing circuitry from the heart detects interference. The field strength needed to cause interference with a computer monitor is very high and would not occur near the power line. The project would generate no new impacts related to corona and would have no change in impacts associated with induced currents.

4: Mitigation Monitoring Plan

4.1 Mitigation Monitoring Implementation

Pacific Gas and Electric Company (PG&E) proposes to reconductor the Atascadero – San Luis Obispo 70 kV Power Line. An Initial Study (IS) was prepared to assess the project's potential environmental effects based on information in the Proponent's Environmental Assessment (PEA), project site visits, responses to data requests, and supplemental research. The majority of the project's impacts would occur during project construction. Within PG&E's application, Applicant Proposed Measures (APMs) were proposed to reduce potentially significant adverse impacts related to project construction and operation.

The purpose of this Mitigation Monitoring Plan (MMP) is to ensure effective implementation of each APM, as well as the mitigation measures identified in the Mitigated Negative Declaration (MND) and imposed by the California Public Utilities Commission (CPUC) as part of project approval.

This MMP is presented below in Table 4.1-1 and includes:

- APMs and mitigation measures that PG&E must implement as part of the project
- Actions required to implement these measures
- Monitoring requirements
- Timing of implementation for each measure

The CPUC will use this MMP as the framework for a Mitigation Monitoring, Compliance, and Reporting Plan (MMCRP). The MMCRP will be created by the CPUC to formalize protocols to be followed prior to and during construction by CPUC third-party environmental monitors (CPUC EMs) and Pacific Gas & Electric (PG&E) project staff. The MMCRP will include, but will not be limited to, the following topics:

- Agency Jurisdiction
- Roles/ Responsibilities
- Communication
- Compliance Verification and Reporting
- Project Changes

Final language of the MMCRP will be made in consultation with PG&E. Drafted language for the project variance and dispute resolution protocols are provided below.

4.1.1 PROJECT VARIANCES

The CPUC Project Manager along with the CPUC Monitoring Team will ensure that any variance process or deviation from the procedures identified under the monitoring program is consistent with CEQA requirements. No project variance will be approved by the CPUC if it creates new significant impacts. A variance should be strictly limited to minor project changes that will not

trigger other permit requirements unless the appropriate agency has approved the change, that does not increase the severity of an impact or create a new impact without appropriate agency approval, and that complies with the intent of the mitigation measure.

A proposed project change that has the potential for creating significant environmental effects will be evaluated to determine whether supplemental California Environmental Quality Act (CEQA) review is required. Any proposed deviation from the approved project, adopted mitigation measures, APMs, and correction of such deviation, will be reported immediately to the CPUC Monitoring Project Director and Project Manager for their review. The CPUC Monitoring Project Director and Project Manager will review the variance request to ensure that all of the information required to process the variance is included, and then forward the request to the CPUC Project Manager for review and approval. The CPUC Project Manager may request a site visit from the CPUC EM, or may need additional information to process the variance. In some cases, a variance may also require approval by jurisdictional agencies. In general, a variance request must include the information listed below.

- Detailed description of the location, including maps, photos, and/or other supporting documents
- How the variance request deviates from a project requirement
- Biological resource surveys or verification that no biological resources would be significantly impacted
- Cultural resource surveys or verification that no cultural resources would be significantly impacted
- Agency approval (if necessary)

4.1.2 DISPUTE RESOLUTION

It is expected that the MMP will reduce or eliminate many potential disputes; however, even with the best preparation, disputes may occur.

Issues should be first addressed at the field level informally between the CPUC EMs and PG&E's EMs at the regular progress meetings. Questions may be raised to the PG&E Project Environmental Manager or PG&E Project Construction Manager. Should the issue persist or not be resolved at these levels, the following procedures will be used:

- **Step 1.** Disputes unresolved in the field and complaints (including those from the public) should be directed to the CPUC Project Manager for resolution. The Project Manager will attempt to resolve the dispute informally. Should this informal process fail, the CPUC Project Manager will inform PG&E prior to initiating Step 2.
- **Step 2.** Should this informal process in the field fail, the CPUC Project Manager may issue a formal letter requiring corrective actions to address the unresolved or persistent deviations from the Proposed Project or adopted MMP.
- **Step 3.** If a dispute or complaint regarding implementation or evaluation of the Program or mitigation measures cannot be resolved informally or through a letter request, any affected participant in the dispute or complaint may file a written "notice of dispute" with the CPUC's Executive Director. This notice should be filed in order to resolve the dispute in a timely manner, with copies concurrently served on other

affected participants. Within 10 days of receipt, the Executive Director or designee(s) shall meet or confer with the filer and other affected participants to resolve the dispute. The Executive Director shall issue an Executive Resolution describing his/her decision, and serve it to the filer and other affected participants.

- **Step 4.** If one or more of the affected parties is not satisfied with the decision as described in the Resolution, such party(ies) may appeal it to the Commission via a procedure to be specified by the Commission.

Parties may also seek review by the CPUC through existing procedures specified in the CPUC Rules of Practice and Procedure for formal and expedited dispute resolution, although a good faith effort should first be made to use the foregoing procedure.

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Table 4.1-1: Mitigation Monitoring Plan

Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Time of Action
Aesthetics		
APM AE-1: Construction Activities. PG&E will make an effort to keep construction activities as clean and inconspicuous as practical by storing building materials and equipment away from public view and keeping most construction activity within the right-of-way.	Verify construction activities are orderly	During construction
APM AE-2: Tree Replacement. In the City of Atascadero where project implementation requires native tree removal, native mature trees removed that come under the jurisdiction of the city's tree ordinance will be replaced at a rate of 5:1 and, pursuant to discussion with city officials, replacement trees will be sited to help screen new poles. In the City of San Luis Obispo some trees will be removed in back or side yards to provide sufficient working space for construction equipment, and safe electrical clearances for the new TSPs and conductor. Property owners have been consulted and written permission will be obtained from these property owners prior to removal of any trees.	Verify consultation with appropriate contacts	Prior to tree removal
APM AE-3: New Source of Substantial Light or Glare Avoidance. PG&E will replace the existing conductor with a non-specular conductor for the specific purpose of minimizing the reflectivity of any new project facilities.	Verify conductors are non-specular	Prior to the installation of conductors
APM AE-5: Replacement of Lattice Steel Towers with TSPs in SLO City Limits. In order to minimize the footprint and reduce potential visibility, TSPs will replace lattice steel towers within San Luis Obispo City limits. This allows for a small impact area within properties. Note: Previous discussions with property owners have resulted in the determination of low impact locations with respect to vegetation removal, future property use, TSP access, and visual impact.	Verify TSP replacements for existing lattice steel towers occur in the City of San Luis Obispo	Prior to construction

Table 4.1-1 *(Continued)*: Mitigation Monitoring Plan		
Applicant Proposed Measure (APM) or Mitigation Measure	**Monitoring Requirement**	**Time of Action**
Air Quality		
Mitigation Measure AQ-1 (proposed to supersede APM AQ-1 "Fugitive Dust Minimization"). A Fugitive Dust Control Plan shall be developed at least 30 days prior to project construction. The plan shall be submitted to SLOCAPCD for approval. Copies of the finalized dust control measures shall be submitted to CPUC with documentation of approval from SLOCAPCD. Elements of the Fugitive Dust Control Plan shall include, but not be limited to, measures such as the following: 1. The amount of disturbed area shall be reduced wherever possible. 2. Water trucks or sprinkler systems shall be used to prevent airborne dust from leaving the site. Increased watering frequency shall be required whenever wind speeds exceed 15 miles per hour (mph). Reclaimed (non-potable) water shall be used whenever possible. Non-potable water shall not be used in or around crops used for human consumption. 3. Permanent dust control measures identified in the approved project revegetation and landscape plans shall be implemented as soon as possible following completion of any soil-disturbing activities. Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading shall be sown with a fast germinating, non-invasive grass seed and watered until vegetation is established. All disturbed soil areas not subject to revegetation shall be stabilized using approved chemical soil binders, jute netting, or other methods approved by SLOCAPCD. 4. Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface. 5. Wheel washers (or equivalent) shall be installed at all access points, or if appropriate, at designated landing zones and laydown areas, to prevent tracking of mud onto public roads. Other specific measures to prevent	Verify approval and implementation of Fugitive Dust Control Plan by SLOCAPCD	Prior to and during construction

Table 4.1-1 *(Continued)*: Mitigation Monitoring Plan		
Applicant Proposed Measure (APM) or Mitigation Measure	**Monitoring Requirement**	**Time of Action**
mud tracking shall be provided in the SWPPP. 6. Streets shall be swept at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water shall be used where feasible. 7. If county grading and building ministerial permits are required, all of these fugitive dust measures shall be shown on grading and building plans. 8. A person or persons shall be designated to monitor fugitive dust emissions and enhance implementation of the measures, as necessary, to minimize dust complaints, reduce visible emissions below 20 percent opacity, and prevent transport of dust off site. The name and telephone number of such person(s) shall be provided to the SLOCAPCD Compliance Division prior to the start of any grading, earthwork, or demolition.		
APM AQ-2: NOA Emissions Prevention. The following measures will be implemented during construction. These measures are those required by SLOCAPCD District Rule 412 – Airborne Toxic Control Measures, Section 93105: Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations, part (e) for areas to be graded of one acre or less. ▪ Prior to any ground disturbance, sufficient water will be applied to the area to be disturbed to prevent visible emissions from crossing the property line. ▪ Areas to be graded or excavated will be kept adequately wetted to prevent visible emissions from crossing the property line. ▪ Construction vehicle speed at the work site will be limited to 15 mph or less. ▪ Equipment will be washed down before moving from the property onto a	Verify compliance with listed measures	During construction

Table 4.1-1 *(Continued)*: Mitigation Monitoring Plan		
Applicant Proposed Measure (APM) or Mitigation Measure	**Monitoring Requirement**	**Time of Action**
paved public road. ▪ Storage piles will be kept adequately wetted, treated with a chemical dust suppressant, or covered when material is not being added to or removed from the pile. ▪ Visible track-out on the paved public road will be cleaned using wet sweeping or a HEPA filter equipped vacuum device within 24 hours.		
Mitigation Measure AQ-3. The following measures shall be implemented, as feasible, during construction to reduce toxic diesel PM emissions: 1. On- and off-road equipment shall be subject to the following restrictions: a. Staging and queuing areas shall not be located within 1,000 feet of sensitive receptors; b. Diesel idling within 1,000 feet of sensitive receptors shall not be permitted; c. Alternative-fueled equipment shall be used whenever possible; and d. Signs that specify the no idling requirements shall be posted and enforced at the project area. 2. Off-road diesel equipment shall comply with the 5-minute idling restriction identified in Section 2449(d)(3) of CARB's In-Use off-Road Diesel regulation:www.arb.ca.gov/regact/2007/ordiesl07/frooal.pdf. 3. Signs shall be posted in the designated queuing areas and job sites to remind off-road equipment operators of the 5-minute idling limit.	Verify compliance with listed measures	During construction
Greenhouse Gas		
APM GHG-1: GHG Emissions Minimization. The following measures will be implemented	Verify compliance with	During construction

Table 4.1-1 *(Continued)*: Mitigation Monitoring Plan		
Applicant Proposed Measure (APM) or Mitigation Measure	**Monitoring Requirement**	**Time of Action**
during construction to minimize GHG emissions. ▪ Identify park-and-ride facilities in the project vicinity and encourage construction workers to carpool to the job staging area to the extent feasible. The ability to develop an effective carpool program for the proposed project will depend upon the proximity of carpool facilities to the staging area, the geographical commute departure points of construction workers, and the extent to which carpooling will not adversely affect worker arrival time and the project's construction schedule. Crew transportation to the project site is addressed in Section 3.11 Transportation and Traffic. ▪ Minimize unnecessary construction vehicle idling time. The ability to limit construction vehicle idling time is dependent upon the sequence of construction activities and when and where vehicles are needed or staged. Certain vehicles, such as large diesel powered vehicles, have extended warm-up times following start-up that limit their availability for use following start-up. Where such diesel powered vehicles are required for repetitive construction tasks, these vehicles may require more idling time. The project will apply a "common sense" approach to vehicle use, so that idling is reduced as far as possible below the maximum of 5 consecutive minutes required by California law; if a vehicle is not required for use immediately or continuously for construction activities, its engine will be shut off. Construction foremen will include briefings to crews on vehicle use as part of pre-construction conferences. Those briefings will include discussion of a "common sense" approach to vehicle use. ▪ Minimize construction equipment exhaust by using low-emission or electric construction equipment where feasible. Portable diesel fueled construction equipment with engines 50 hp or larger and manufactured in 2000 or later will be registered under the California Air Resources	listed measures	

Table 4.1-1 *(Continued)*: Mitigation Monitoring Plan		
Applicant Proposed Measure (APM) or Mitigation Measure	**Monitoring Requirement**	**Time of Action**
Board (CARB) Statewide Portable Equipment Registration Program, or will meet at a minimum US EPA/CARB Tier 1 engine standards. ▪ Minimize welding and cutting by using compression of mechanical applications where practical and within standards. ▪ Encourage use of natural gas powered vehicles for passenger cars and light duty trucks where feasible and available. ▪ Encourage the recycling of construction waste where feasible.		
Biological Resources		
Mitigation Measure BO-1 (proposed to supersede APM BO-1 "Avoidance of and Minimization of Potential Impacts to Birds"). Removal of vegetation or any other ground disturbance activities shall not occur from February 1 to September 15 to avoid impacts to native breeding/nesting birds. If work during the breeding/nesting season cannot be avoided, a qualified biologist shall survey within the project footprint and encompassing adjacent habitats up to 500 feet from the project boundary for owls or raptors and up to 250 feet for all other bird species, unless state or federal protocols for listed or fully protected species dictate otherwise. Surveys shall occur within five working days of the start of construction or ground disturbing activities. If no active nests are found within the survey area, no further mitigation shall be necessary. If breeding activities and/or an active nest(s) are found within the survey area, a non-disturbance buffer shall be established at a minimum of 250 feet from breeding habitat/nest sites of listed species, species of special concern, species protected under the Migratory Bird Treaty Act (raptors shall have a minimum of a 500 foot buffer established), or a qualified on-site biologist may determine a non-disturbance buffer distance sufficient to minimize disturbance based on the nest location, topography, cover, species' tolerance to disturbance, and type/duration of potential disturbance, as determined by the qualified on-site biologist. The appropriate agency(ies) shall be contacted regarding identified nests of listed and/or species of special concern.	Verify timing and completion of survey and approval of Avian Protection Plan by USFWS Verify implementation of Avian Protection Plan and establishment of appropriate buffers	Prior to and during construction

Table 4.1-1 *(Continued)*: Mitigation Monitoring Plan		
Applicant Proposed Measure (APM) or Mitigation Measure	**Monitoring Requirement**	**Time of Action**
If it is determined, based on the professional judgment of the biologist that work is unlikely to adversely impact the active nest(s) or disrupt breeding behavior, then work may proceed within the non-disturbance buffer as long as a qualified biologist is on site to monitor nest(s) for signs of disturbance. Alternatively, if it is determined that project activities are resulting in nest disturbance, no further work shall occur within the non-disturbance buffer(s) until the nest becomes inactive or the young have fledged, as determined by the biologist or by the appropriate agency. Monitoring guidelines shall be provided in an Avian Protection Plan to be submitted to USFWS and CDFG for review and approval prior to construction. Documentation of plan approval shall be submitted to the CPUC for record-keeping. Reconductoring the power lines shall conform to PG&E's most current version of Bird and Wildlife Protection Standards, and shall include the use of bird guards.		
APM BO-2: General Avoidance of Biological Resources Impacts. ▪ Litter and trash management. All food scraps, wrappers, food containers, cans, bottles, and other trash from the project area will be deposited in closed trash containers. Trash containers will be removed from the project area at the end of each working day. ▪ Parking. Vehicles and equipment will be parked on pavement, existing roads, and previously disturbed or developed areas or work areas as identified in this document. Off-road parking will only be permitted in previously identified and designated work areas. ▪ Route and speed limitations. Vehicles will be confined to established roadways and pre-approved access roads, overland routes and access areas. Access routes and temporary work areas will be limited to the minimum necessary to achieve the project goals. Routes and boundaries of work areas, including access roads, will be clearly mapped prior to initiating project construction. Vehicular speeds will be kept to 15 mph on	Verify compliance with listed measures	During construction

Table 4.1-1 *(Continued)*: Mitigation Monitoring Plan

Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Time of Action
unpaved roads. ▪ Maintenance and refueling. All equipment will be maintained such that there will be no leaks of automotive fluids such as fuels, solvents, or oils. All refueling and maintenance of vehicles and other construction equipment will be restricted to designated staging areas located at least 100 feet from any down gradient aquatic habitat unless otherwise isolated from habitat. Proper spill prevention and cleanup equipment will be maintained in all refueling areas. ▪ Minimization of fire hazard. During fire season in designated State Responsibility Areas, all motorized equipment driving off paved or maintained gravel/dirt roads will have federal or state approved spark arrestors. All off-road vehicles will be equipped with a backpack pump filled with water and a shovel. All fuel trucks will carry a large fire extinguisher with a minimum rating of 40 B:C, and all equipment parking and storage areas will be cleared of all flammable materials. ▪ Pets and firearms. No pets or firearms will be permitted at the project site.		
APM BO-3: Nesting Acorn Woodpeckers. PG&E currently holds a Special Use Permit with the USFWS for Removal and Relocation of Active Nests, dated July 15, 2008. All woodpecker cavities in wood poles will be visually inspected prior to pole removal, if safe to do so. All poles having cavities that contain elliptical, white eggs or those cavities that have live chicks in a nest will be managed as a pole having an active woodpecker nest. Cavities having nests containing slightly glossy, pale bluish- or greenish-white colored eggs will be considered starling nests and are not afforded protection and no further action will be required. Prior to disturbing the pole, the entrance to the nest cavity will be covered with duct tape or other suitable adhesive product to prevent the eggs or chicks from falling out of the nest cavity. The orientation of the cavity opening will be noted for future reference, and will then be cut out the section of pole containing the active nest, 3 feet above the cavity and 3 feet below the cavity. The pole section containing the active nest will remain in a vertical position to	Verify compliance with USFWS Special Use Permit	During construction

Table 4.1-1 *(Continued)*: Mitigation Monitoring Plan

Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Time of Action
minimize further disturbance to eggs or chicks in the nest. Once the replacement pole is set, the pole section containing the nest will be strapped to the replacement pole, orienting the cavity hole as noted prior to relocation. The section of pole containing the nest will be placed no lower than one-third the height of the pole. The pole section will be securely positioned on the replacement pole with rope or metal strapping. The adhesive cover will be removed over the cavity entrance. As a last step, the pole number, circuit name, number of chicks or eggs, date of relocation, and crew supervisor name will be documented and this nest relocation information will be sent electronically to Mike Best, PG&E Bird Protection Program Manager (MBB8). This information will be included in PG&E's annual report to the U.S. Fish and Wildlife Service as required by our Special Purpose Permit MB057942-0.		
Mitigation Measure BO-4 (proposed to supersede APM BO-4 "Pre-construction Surveys and Relocation of Species"). Pre-construction surveys shall be conducted by a USFWS-approved biologist no more than two weeks prior to initiating any ground-disturbing activities to occur within 300 feet of suitable CRLF habitat. All suitable aquatic and upland habitat, including refugia habitat such as under shrubs, downed logs, small woody debris, and burrows, shall be thoroughly inspected. Before the start of work each morning, the biologist shall check under any equipment and stored construction supplies left in the work area overnight within 300 feet of suitable habitat. All pole holes or tower leg holes, in suitable habitat, shall be backfilled or covered at the end of each work day to prevent entrapment of special-status species. If CRLFs are encountered in the project area, work within 50 feet of the animal shall cease immediately and the USFWS-approved biologist shall be notified. Based on the professional judgment of the USFWS-approved biologist and in coordination with the USFWS, if project activities can be conducted without harming or injuring the animal(s), the frog shall be left at the location of discovery and monitored by the USFWS-approved biologist. All project personnel shall be notified of the finding and at no time shall work occur within 50 feet of the animal without a biological monitor present. If it is determined by the USFWS-approved biologist that relocating the CRLF(s) is necessary, the following steps shall be followed: 1. Prior to handling and relocation, the USFWS-approved biologist shall	Verify USFWS approval of biologist and completion of survey	Two weeks prior to construction within 300 feet of CRLF habitat

Table 4.1-1 *(Continued)*: Mitigation Monitoring Plan

Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Time of Action
take precautions to prevent introduction of amphibian diseases in accordance with the Revised Guidance on Site Assessments and Field Surveys for the California Red-legged Frog (USFWS 2005). Equipment and clothing of biologists shall be disinfected prior to mobilizing to the action area to handle amphibians after working in other aquatic habitats. 2. If relocation of CRLF is determined to be necessary, CRLFs shall be captured by hand, dipnet, or other USFWS-approved methods; transported by hand, dipnet, or temporary holding container; and released as soon as practicable the same day of capture. Handling of CRLFs shall be avoided to the maximum extent practicable. Holding/transporting containers and dipnets shall be thoroughly cleaned and disinfected prior to transporting to the action area and shall be rinsed with freshwater on site immediately prior to usage unless doing so would result in the injury or death of the animal(s) due to the time delay. 3. CRLFs shall be relocated to the nearest suitable habitat outside of an area where actions could result in mortality, harm, or harassment. The individual(s) shall be released within suitable habitat at a location agreed upon by the USFWS. If suitable habitat cannot be identified, the USFWS shall be contacted to determine an acceptable alternative. Transporting CRLFs to a location other than the location described herein shall require authorization by the USFWS.		
Mitigation Measure BO-5 (proposed to supersede APM BO-5 "Development and Implementation of a Worker Environmental Awareness Program" and APM BO-16 "Specialized CRLF Training"). A USFWS-approved biologist shall design and lead an Environmental Training and Monitoring Program (ETMP) for all construction and on-site personnel prior to beginning construction activities. Training shall include a discussion of avoidance and minimization measures to be implemented to protect biological resources, as well as the terms and conditions of the Biological Opinion and other permits. Training shall	Verify content of training material and submittal of training attendance sheets	30 days prior to construction

Table 4.1-1 *(Continued)*: Mitigation Monitoring Plan

Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Time of Action
include information on the federal and state ESAs, the MBTA, and the Bald and Golden Eagle Protection Act, and the consequences of noncompliance with these acts. Workers shall be informed of the presence, life history, and habitat requirements of all special-status species, including the CRLF, with a potential to be affected within the project area. The training shall include a description of the CRLF and its habitat and the importance of the CRLF and its habitat, along with the general measures that are being implemented to conserve the CRLF, as they relate to the project. Training shall include information on state and federal laws protecting nesting birds, wetlands, and other water resources. An educational brochure shall be produced for construction crews working on the project. The brochure shall include color photos of sensitive species as well as a discussion of mitigation measures. No construction worker shall be involved in field operations without having participated in this special-status species/sensitive habitat informational training. A copy of the ETMP shall be submitted to the CPUC at least 30 days prior to construction. Training attendance sheet(s) shall be submitted to the CPUC after each training session.		
APM BO-6: Designated Equipment Staging. PG&E will restrict equipment to designated staging areas and roads to avoid disturbance to existing vegetation.	Verify staging area locations and use	Prior to and during construction
APM BO-7: Storm Water Permit. PG&E will obtain coverage under the Construction Storm Water Permit Program and implement established Best Management Practices (BMPs) as identified by the Central Coast Regional Water Quality Control Board for erosion and sediment control. These BMPs may include, but are not limited to, silt fencing, temporary berms, restrictions on cleaning, installation of vegetative strips, and temporary sediment disposal.	Verify implementation of Regional Water Quality Control Board BMPs	During construction
APM BO-8: Avoidance of Environmentally Sensitive Resource Areas. Sensitive resources identified during pre-construction surveys in the project vicinity will be mapped and clearly marked in the field. Such areas will be avoided during construction to the extent practicable and/or additional measures specific to sensitive species types as described herein and that may be required by the USACE, FWS, CDFG, and RWQCB permits, will be implemented to	Verify field marking of sensitive resource	Prior to and during construction

Table 4.1-1 *(Continued)*: Mitigation Monitoring Plan

Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Time of Action
avoid or minimize impacts.		
APM BO-9: Biological Monitor On-site During Construction Activities in Sensitive Areas and Reporting and Communication. A qualified biological monitor will be on-site during all ground-disturbing construction activities in or near sensitive habitats previously identified by a qualified biologist. The monitor will ensure implementation of and compliance with all avoidance and mitigation measures. The monitor will have the authority to stop work or determine alternative work practices in consultation with agencies and construction personnel as appropriate if construction activities are likely to impact sensitive biological resources. The biological monitor will document monitoring activities in daily logs to document construction activities and environmental compliance. The daily logs will be included in the project report submitted to the appropriate agencies following completion of construction. The biological monitor will be responsible for reporting any capture and relocation, harm, entrapment, or death of a listed species to the USFWS and/or the CDFG and for reporting any permit violations in a timely manner and as indicated in their respective permits. Weekly monitoring reports will be submitted to CPUC, and to any resource agencies (upon request), throughout construction. A final project summary report will be submitted to the CPUC 90 days after the completion of construction activities.	Verify biological monitoring near sensitive habitats	During construction
	Verify submittal of project summary report	Within 90 days after completion of construction activities
APM BO-10: Restricted Construction Hours. Construction activities within 300 feet of suitable aquatic habitat will not begin prior to 30 minutes after sunrise and will cease no later than 30 minutes before sunset.	Verify timing of construction activities	During construction within 300 feet of suitable aquatic habitat
APM BO-11: Helicopter Avoidance of Known Nesting Birds. PG&E will avoid helicopter flights near known active nesting bird sites as determined in consultation with the USFWS and/or CDFG.	Verify helicopter avoidance near active avian nests	During helicopter operations

Table 4.1-1 *(Continued)*: Mitigation Monitoring Plan

Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Time of Action
APM BO-12: Avoidance of and Minimization of Potential Impacts to Wetlands and Water Resources. A Stormwater Pollution Prevention Plan (SWPPP) will be developed that describes sediment and hazardous materials control, fueling and equipment management practices, and other factors deemed necessary for the project. Erosion control measures will be implemented where necessary to reduce erosion and sedimentation in wetlands, waters of the United States, and waters of the state, as well as aquatic habitat occupied by sensitive species. Erosion control measures will be monitored on a regularly scheduled basis, particularly during times of heavy rainfall. Corrective measures will be implemented in the event erosion control strategies are inadequate. Sediment/erosion control measures will be continued at the project site until such time that soil stabilization is deemed adequate. Brush or other similar debris material will not be placed within any stream channel or on its banks. No project work activity is planned within the limits of any stream channel.	Verify completion and implementation of the SWPPP	Prior to and during construction
APM BO-13: Avoidance of Impacts to Natural Habitats. Minimization of grading and vegetation along access roads and pole and tower work areas. Clearing and grading will be limited to previous access roads that have become overgrown with vegetation. Vegetation will be cut at ground level and leave existing root systems intact where possible.	Verify the grading and vegetation management locations	During construction
Mitigation Measure BO-14 (proposed to supersede APM BO-14" Avoidance of CRLF Habitat"). PG&E shall install exclusion fencing around aquatic habitat in areas where construction activities are within the vicinity of aquatic habitat (the upland habitat buffer). Prior to commencing construction activities, flagging, signage, and/or high visibility fencing shall be erected around the CRLF habitat to identify and protect it from the encroachment of personnel and equipment. These areas shall be avoided by all construction personnel. The fencing shall be inspected before the start of each workday and maintained until completion of the project. Only when the construction of the project is completed in that area shall the fencing be removed.	Verify installation of exclusion fencing around aquatic habitats	Prior to and during construction
APM BO-15: Fencing of Staging Areas within Proposed Critical Habitat Boundaries. PG&E will install exclusion fencing around staging areas that will be used during the typical CRLF	Verify installation of exclusion fencing staging	During construction, between April 1 and November 1

Table 4.1-1 *(Continued)*: Mitigation Monitoring Plan

Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Time of Action
avoidance window, from April 1 through November 1, within the proposed critical habitat boundaries. Prior to the commencement of construction activities, exclusion fencing will be erected around the staging areas to preclude entry by CRLF. Fencing will be keyed at least 6 inches into the ground. The fencing will be inspected and maintained during the avoidance window until completion of the project. Only when the construction of the project, in a specified area, is completed, will the fencing be removed.	areas within CRLF critical habitat	
APM BO-17: Qualified Biologist CRLF Inspection. PG&E will obtain Section 7 of the Federal Endangered Species Act coverage under the Programmatic Biological Opinion for CRLF. The name(s) and credentials of biologists who will conduct activities specified in the following measures will be submitted at least 15 days prior to the onset of activities at specific locations. Project activities will not begin until PG&E has received written approval from the USFWS that the biologist(s) is qualified to conduct the work. A USFWS-approved biologist will survey the work site, locations that include the primary constituent elements of suitable habitat, a minimum of two weeks before the onset of activities. If CRLF, tadpoles, or eggs are found, the approved biologist will contact the USFWS to determine if moving any of these life-stages is appropriate. In making this determination, the USFWS will consider if an appropriate relocation site exists. If the USFWS approves moving animals, the approved biologist will be allowed sufficient time to move CRLF from the work site before work activities begin. Only USFWS-approved biologists will participate in activities associated with the capture, handling, and monitoring of CRLF. The USFWS-approved biologist will be present at the work site until such time as all removal of CRLF, instruction of workers, and habitat disturbance has been completed. For the purpose of this measure, habitat disturbance refers to clearing or grading in areas of dense vegetation within 100 feet of aquatic habitat, as well as culvert placement or fill activities in drainages within the proposed critical habitat boundaries. After this time, the contractor or permittee will designate a person to monitor on-site compliance with all minimization measures. The USFWS-approved biologist will ensure that this individual receives training outlined above and in the identification of the CRLF. The monitor and the USFWS-approved biologist will have the authority to halt any action that might result in impacts that exceed the levels anticipated by the USACE and USFWS during	Verify USFWS consultation	Prior to construction
	Verify completion of surveys and relocations	Two weeks prior to construction

Table 4.1-1 *(Continued)*: Mitigation Monitoring Plan

Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Time of Action
review of the proposed action. If work is stopped, the USACE and USFWS will be notified immediately by the USFWS-approved biologist or on-site biological monitor.		
APM BO-18: Work Timing Window to Protect CRLF. PG&E will complete work activities within California red-legged frog proposed critical habitat areas between April 1 and November 1. If PG&E demonstrates a need to conduct activities outside this period, the USACE may authorize such activities after obtaining the USFWS's approval.	Verify timing and approval of construction activities within CRLF critical habitat	During construction, between April 1 and November 1
APM BO-19: Dewatering Method that Protects CRLF. If a work site is to be temporarily dewatered by pumping, intakes will be completely screened with wire mesh not larger than five millimeters (mm) to prevent CRLF from entering the pump system. Water will be released or pumped downstream at an appropriate rate to maintain downstream flows during construction. Upon completion of construction activities, any barriers to flow will be removed in a manner that will allow flow to resume with the least disturbance to the substrate.	Verify screen size on pumps and discharge rates	During construction
APM BO-20: Removal of Exotic Species. A USFWS-approved biologist will permanently remove, from within the project area, any individuals of exotic species identified during regular surveys or monitoring, such as bullfrogs, crayfish, and centrarchid fishes, to the maximum extent possible. The permittee will have the responsibility to ensure that their activities are in compliance with the CDFG.	Verify removal of exotic species	During construction
Mitigation Measure BO-21 (proposed to supersede APM BO-21 "Refueling and Equipment Maintenance Methods that Protect CRLF"). All fueling and maintenance of vehicles and other equipment and staging shall only occur at distances greater than 100 feet from any riparian habitat or water body. The USACE and the permittee shall ensure contamination of habitat does not occur during such activities. Prior to the onset of work, the USACE shall ensure that the permittee has prepared a plan to allow a prompt and effective response to any accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.	Verify response plan approval by USFWS	Prior to construction
	Verify distance of refueling and maintenance activities from riparian habitat	During construction

Table 4.1-1 *(Continued)*: Mitigation Monitoring Plan

Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Time of Action
APM BO-22: Limitation of Vehicle Access, Potential Impact Areas, and Potential Disturbance. PG&E will limit the number of access routes, number and size of staging areas, and the total area of the proposed project activity to the minimum necessary. Routes and boundaries will be clearly demarcated. Movement of heavy equipment to and from the project site will be restricted to established roadways where possible to minimize habitat disturbance. If saturated soils are encountered, timber mats will be employed to prevent rutting and compaction. Staging areas will be located outside of an appropriate buffer established from aquatic habitat.	Verify demarcation of routes and boundaries and the use of timber mats	Prior to and during construction
APM BO-23: Staging and Stockpiling Restrictions. During construction, PG&E will restrict stockpiling of construction materials, portable equipment, vehicles, and supplies to the designated construction staging areas. PG&E will ensure that contamination of habitat does not occur during such operations. All workers will be informed of the importance of preventing spills and the appropriate measures to take should a spill occur.	Verify location of construction materials and supplies	During construction
Mitigation Measure BO-24 (proposed to supersede APM BO-24 "Avoidance of and Minimization of Potential Impacts to Burrowing Owls"). Pre-construction surveys shall be conducted by a qualified biologist for burrowing owls for all project work areas that provide suitable nesting or wintering habitat (annual grasslands and pastures). Although burrowing owls are not likely to nest in the project area, the potential for nesting owls cannot be precluded. The work area surveys shall be conducted within the ROW, covering the work area and surrounding areas visible from the ROW. The survey shall include checking for the burrowing owl and owl signs (e.g., white wash at burrow entrances). If ground-disturbing activities in suitable habitat are delayed or suspended for more than 30 days after the pre-construction surveys, the site shall be resurveyed. If no burrowing owls are detected, no further mitigation shall be necessary. If active burrows are found near a work area, work in the vicinity of the burrows shall be limited as follows: a. No disturbance shall occur within approximately 160 feet (50 meters) of occupied burrows during the non-breeding season of September 1 through January 31, or within approximately 250 feet (75 meters) during	Verify completion of survey	Within 30 days prior to construction
	Verify presence of an owl monitor, if necessary	During construction near active burrows

Table 4.1-1 *(Continued)*: Mitigation Monitoring Plan

Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Time of Action
the breeding season of February 1 through August 31. b. Limits of the exclusion zone in the project work area shall be clearly marked with signs, flagging, and/or fencing. If work within these limits is unavoidable while burrows are active, work shall only be conducted in the presence of a qualified monitor who shall determine if the owls show signs of disturbance. Alternatively, upon prior approval from the CDFG, a passive relocation effort (displacing the owls from the work area) may be conducted as described below, and subject to approval from the CDFG. Passive relocation of owls may occur during the non-breeding season (September 1 through January 31) with prior approval from the CDFG. Passive relocation shall include installing one-way doors on the entrances of burrows. The one-way doors shall be left in place for 48 hours to ensure the owls have vacated the nest site. Owls shall not be relocated during the breeding season. All pole and tower leg holes shall be backfilled or covered at the end of the work day to prevent entrapment of burrowing owls. The open ends of LDS poles, in suitable habitat, shall be covered during storage to prevent burrowing owls from inhabiting the pole openings.		
Mitigation Measure BO-25/26 (proposed to supersede APMs BO-25 "Biological Surveys Prior to Bat Breeding Season" and BO-26 "Bat Avoidance Measures"). Before the spring breeding season (and prior to start of construction), a qualified biologist shall perform a survey for roosting bats or maternity colonies at the proposed project site. Surveys shall evaluate the probability for trees to host roosting bats. For trees considered to have a high probability for bats, acoustic monitoring shall be performed in early summer to detect if there are any roosting sites in the trees. If avoidance of an active roosting bat or maternity colony is not practicable, a sufficient buffer shall be established in consultation with the CDFG. If acoustic monitoring detects that bats are using trees that need to be cut down, exclusionary one-way doors shall be installed in late August, after completion of the maternity season. Roost trees shall be removed after it has been confirmed that roosting bats have departed. If a roost is lost, PG&E shall consult with the CDFG to see if the agency recommends bat boxes be installed in the vicinity of the cut tree.	Verify timing and completion of survey	Prior to construction

Table 4.1-1 *(Continued)*: Mitigation Monitoring Plan

Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Time of Action
APM BO-27: Biological Monitoring of Existing Bats in Project Area. In the event that a roosting bat or maternity colony occurs within or near the project area, a qualified biological monitor will be provided and will remain on-site during construction activities to ensure there is no nest abandonment.	Verify monitoring of active bat nest	During construction
Mitigation Measure BO-28 (proposed to supersede APM BO-28 "Implementation of Revegetation and Monitoring Plan" and APM AE-4 "Revegetation and Regrading"). PG&E shall prepare a Revegetation and Monitoring Plan prior to construction. A copy of the plan shall be submitted to the CPUC prior to construction. The plan shall include, but not be limited to, the following provisions: a. All old conductors shall be removed from the project site. b. Disturbed areas (ground disturbance for pole placements, tower footings, and minor grading for small concrete staging areas located approximately 80 feet uphill from towers), other than existing access roads, shall be stabilized and revegetated with appropriate (i.e., conducive with PG&E line clearance requirements) native species. c. If applicable, the site shall be monitored following construction for an appropriate period of time to ensure the successful re-establishment of native species, to prevent establishment of weeds, and to ensure the successful reestablishment of native species. d. Stream contours shall be returned to their original condition once coffer dams are removed, unless consultation with the USFWS has determined that it is not beneficial to the species or is not feasible. e. Permanent dust control measures shall be implemented through revegetation and landscaping as soon as any ground-disturbing activities are completed. Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading shall be sown with a fast-germinating, non-invasive grass seed, or otherwise covered with	Verify content and implementation of the Revegetation and Monitoring Plan	Prior to and post construction

Table 4.1-1 *(Continued)*: Mitigation Monitoring Plan		
Applicant Proposed Measure (APM) or Mitigation Measure	**Monitoring Requirement**	**Time of Action**
mulch or plastic. f. All disturbed soil areas not subject to revegetation shall be stabilized using best management practices. g. Disturbed serpentine grassland areas shall be restored, as determined by the project biologist, and may be reseeded with local genotypes of native serpentine grassland species.		
Mitigation Measure BO-29 (proposed to supersede APM BO-29 "Avoidance of and Minimization of Potential Impacts to Special-Status Plants"). The following measures shall be implemented: a. Focused botanical surveys, within suitable habitat, shall be conducted during the appropriate blooming period for the following species to determine if additional special-status plant species that have the potential to occur are present within the work areas: – La Panza mariposa lily *(Calochortus simulans)* – Round-leaved filaree *(California macrophylla)* – Hardham's evening primrose *(Camissonia hardhamiae)* – San Luis Obispo owl's-clover *(Castilleja densiflora ssp. obispoensis)* – Dwarf soaproot *(Chlorogalum pomeridianum var. minus)* – Yellow-flowered eriastrum *(Eriastrum luteum)* – Ojai fritillary *(Fritillaria ojaiensis)* – San Benito fritillary *(Fritillaria viridea)* – Jones' layia *(Layia jonesii)* – Chaparral ragwort *(Senecio aphanactis)* – Most beautiful jewel-flower *(Streptanthus albidus ssp.*	Verify completion of survey	Prior to construction
	Verify completion of a mitigation monitoring plan, if necessary	During construction

Table 4.1-1 *(Continued)*: Mitigation Monitoring Plan

Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Time of Action
peramoenus) – Caper-fruited tropidocarpum *(Tropidocarpum capparideum)* b. Prior to construction, any special-status plant species that are known to occur on the project site shall be enumerated, photographed, and conspicuously flagged for avoidance. If timing of field surveys and flagging must occur outside of the appropriate blooming period, the data map and global positioning system (GPS) locations collected during focused botanical surveys can be used to meet this condition. c. Work within areas occupied by special-status plant species shall be limited to existing access roads and to the smallest area that is safely practical. Where possible, staging areas, spoils storage, and equipment/vehicle parking shall be restricted to areas outside of where special-status plant species are located. d. If possible, for annual plant species, timing of work activities within areas occupied by special-status plant species shall occur after seeds have set in the spring but prior to fall rains to minimize project effects on the seed bank. e. Mature seeds shall be collected from sensitive plant species that are likely to be impacted by project construction activities. The seeds shall be properly stored for post-construction propagation and re-establishment. Sensitive plants that are likely to be impacted shall be translocated, if possible, under the supervision of the project biologist by digging up the plant and replanting it in suitable habitat. f. If ground disturbance is required in an area, the first 6 inches of topsoil, if available, within occupied habitat shall be stored separately on site and protected from exotic weeds seed dispersal. The stored soil shall be used as topsoil when soils are redistributed to the project sites during post-		

Table 4.1-1 *(Continued)*: Mitigation Monitoring Plan

Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Time of Action
construction in an attempt to salvage any viable seeds in the seed bank. g. In the event that any special-status plants cannot be avoided, PG&E shall consult with the USFWS and/or the California Department of Fish and Game (CDFG) (depending on whether the species is on the federal or state list of sensitive species) to determine the appropriate measures to minimize effects to the species and its habitat during construction and operation of the project. The CPUC shall be informed of the results of any agency consultations. A mitigation and monitoring plan may be required that identifies the impacts to special-status plant species and remedial actions to mitigate impacts. Monitoring may be required for subsequent years to ensure compliance with mitigation activities and evaluate plant recovery. In addition to the aforementioned avoidance measures, the following plant-specific mitigation measures shall be implemented: h. San Luis Obispo Dudleya: Any damaged plants shall be salvaged by moving them into in a botanical garden for cultivation. Salvaged individuals may be replanted in suitable areas as identified by the biologist during post-construction. i. San Luis Mariposa Lily and Mesa Horkelia: Any damaged plants shall be salvaged by digging up bulbs (San Luis Mariposa Lily) or plants (Mesa Horkelia) to be replanted in suitable areas as identified by the biologist during post-construction. Seeds for replanting shall also be collected from plants that are likely to be impacted. j. Brewer's Spineflower and Straight-awned Spineflower: Work shall occur after plants have dispersed their seeds for the year and during the dry season (May 1 to October 15). If construction is to occur during the active growth and flowering period, individual species shall be flagged and avoided. Individuals collected shall be counted and reported.		

Table 4.1-1 *(Continued)*: Mitigation Monitoring Plan

Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Time of Action
Plants located in impacted areas shall be monitored during subsequent growing seasons post-construction. Supplemental seeding from garden-grown seeds shall occur if necessary. k. Santa Lucia Manzanita: Damage to shrub branches shall be avoided. All damaged branches shall be removed and discarded.		
APM BO-30: Weed Control. PG&E will clean equipment and vehicles prior to arriving on-site. Equipment will be inspected and cleaned as needed prior to use in areas with rare plants. All plant material (e.g., straw, mulch, seeds, etc.) used for erosion control and/or road maintenance will be weed-free. If weed-free straw or mulch is not available, rice straw and mulch will be used. A USFWS-approved biologist will ensure that the spread or introduction of invasive exotic plant species will be avoided to the maximum extent possible. When practicable, invasive exotic plant in the project areas will be removed. The weed control measures under the Special Status Plants heading below describe the steps that PG&E will be taking. Seed mixes will be approved by a biologist prior to application. Where possible, local or on site seed sources will be used. Gravel used for road maintenance will be from weed free-sources. Gravel sources will be inspected for the presence/absence of noxious weeds prior to utilization of gravel in the project area as appropriate.	Verify cleaning of construction equipment and vehicles Verify approval of plant material and gravel for erosion control	During construction
APM BO-31: Implementation of Dust Control Plan. PG&E will prepare a Dust Control Plan prior to construction in coordination with the appropriate agencies to ensure impacts to special-status plants and associated vegetation communities are avoided or minimized.	Verify content and implementation of Dust Control Plan	Prior to and during construction
APM BO-32: Hazardous Substance Control and Emergency Response Plan. PG&E has and will implement its system-wide program which includes established procedures for handling and managing hazardous substances and emergency response in the event of a hazardous substance spill.	Verify content and implementation of Hazardous Substance Control and Emergency Response Plan	Prior to and during construction
APM BO-33: Project-specific Fire Prevention and Response Plan Development and	Verify content and	Prior to and during construction

Table 4.1-1 *(Continued)*: Mitigation Monitoring Plan

Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Time of Action
Implementation. PG&E will incorporate established system-wide Fire Prevention and Response procedures that will include reducing the potential for igniting combustible materials. The procedures will cover electrical hazards, flammable materials, smoking, vehicle and equipment access, and fire watches during construction and maintenance procedures during subsequent operation. Project personnel will be directed to park away from dry vegetation; not to smoke; and to equip vehicles with appropriate firefighting equipment; such as water dispensers and shovels, in times of high fire hazard. The procedures will also describe methods to reduce the potential fire hazard from operation of the power line.	implementation of the Fire Prevention and Response procedures	
APM BO-34. Restricted Access to Pole 66/10. Pole 66/10, which is located in a seasonal wetland, shall be accessed from the south side to eliminate the need to cross the drainage north of Pole 66/10 (shown as S17 in the Wetland Delineation Report). Trampling and compaction of the wetland at Pole 66/10 shall be minimized. If necessary, timber mats shall be installed to avoid surface disturbance to the wetland from equipment.	Verify the access route to Pole 66/10 and the use of timber mats, if necessary	During construction
Mitigation Measure BO-35 (proposed to supersede APM BO-35 "Water-crossing Construction Timing" and APM WQ-9 "Water-crossing Construction Timing"). Water-crossing construction shall be scheduled during dry months, typically between May 1 and October 15, when the waterways have low or no flow, to minimize potential impacts.	Verify timing of water-crossing construction	During construction
Mitigation Measure BO-36 (proposed to supersede APM BO-36 "Use of Coffer Dams" and APM WQ-10 "Use of Coffer Dams"). If any creek flow is present during installation of a permanent culvert along the access road to Tower 69/0 a coffer dam shall be installed and the entire flow of the creek shall be diverted around the work area during construction. The water diversion system shall comply with Section 404 of the Clean Water Act and/or Section 1602 of the Fish and Game Code. Measures such as the following shall be implemented prior to installation of, during the use of, and during the removal of, as appropriate, the coffer dam: a. Water shall be diverted by use of appropriate-sized flumes or pumps capable of handling 150 percent of the anticipated flows. b. Water discharge rates shall be controlled by use of energy dissipaters to	Verify completion of surveys and implementation of listed measures	Prior to and during construction

Table 4.1-1 *(Continued)*: Mitigation Monitoring Plan

Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Time of Action
avoid downstream erosion and water quality degradation, as necessary. c. Water quality (turbidity) shall be monitored during construction downstream of the flume or pump discharge point to ensure no significant impacts to water quality occur. d. Restoration of impacted areas outside of the road prism shall occur immediately after the culvert is installed and the coffer dam is removed. e. Documentation of studies, construction activities, monitoring, and restoration shall be submitted to the CPUC upon completion of each task.		
APM BO-37: Sediment Barriers to Protect Wetland (W3). Sediment barriers between the wetland and the access road that leads to Tower 73/1 will be maintained while re-establishing this road.	Verify use of sedimentation barriers	During construction
Mitigation Measure BO-38 (proposed to supersede APM BO-38 "Reporting Requirement"). PG&E shall prepare a compliance certification to be filed with the USACE and the USFWS to certify, after completion of construction, that the project was completed in accordance with the permit conditions. The information contained in the compliance certification shall include: 1. The type(s) of action(s) that occurred; 2. The number of acres affected and habitat type (e.g., upland or riparian.); 3. The linear feet of work; 4. How the site(s) was restored and a description of the area after the completion of the action; 5. What measures were employed to protect CRLF; 6. How the site(s) was restored or, if no restoration occurred, the justification for not conducting this work; and 7. A description of the area after completion of the action.	Verify receipt of certified compliance certificate	Post construction

Table 4.1-1 *(Continued)*: Mitigation Monitoring Plan

Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Time of Action
Each compliance certification provided by PG&E shall contain maps, as appropriate, that indicate the location of all actions. Each report shall have a table and photos cross-referenced to locations on the map as appropriate. The compliance certification shall also document the number of CRLFs that were known to be taken, and the form of take (e.g., harassment by moving or mortality) during project activities. The USFWS recognizes that accurately quantifying the number of individuals that may have been taken may not be possible; in these cases, the reporting of all observations and relative numbers shall provide useful information. The report shall also recommend modifications to future measures to enhance the protection of the CRLF. A copy of the certified compliance certificate shall be submitted to CPUC once provided by USACE and USFWS.		
Mitigation Measure BO-39: To prevent CRLFs and other amphibians and reptiles from becoming entangled or trapped in erosion control materials, plastic mono-filament netting (i.e., erosion control matting) or similar material shall not be used within the project area. Acceptable substitutes include coconut coir matting or tackified hydroseeding compounds.	Verify erosion control materials	During construction
Cultural Resources		
Mitigation Measure CR-1 (proposed to supersede APM CR-1 "Archaeological and Paleontological Site Avoidance"). At historical sites P-40-041211 and P-40-040213 and any other known cultural resources within 50 meters of the project area, the limits of the project area near the resource shall be marked with visible flagging tape prior to construction. The construction crews shall be instructed that no vehicle access, travel, equipment staging, storage, or other construction-related work shall occur outside the flagged areas to ensure known cultural resources are not inadvertently damaged during implementation of the project. PG&E shall avoid known cultural resources. Poles, towers, or other facilities shall be relocated, if necessary, to avoid these resources.	Verify field demarcation of project area limits	Prior to and during construction
APM CR-2: Pre-construction Worker Education. PG&E will design and implement a Worker Education Program that will be provided to all project personnel who may encounter and/or alter historical resources or unique archaeological properties, including construction	Verify content of training material and submittal of training attendance sheets	Prior to construction

Table 4.1-1 *(Continued)*: Mitigation Monitoring Plan

Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Time of Action
supervisors and field personnel. No construction worker will be involved in field operations without having participated in the Worker Education Program. The Worker Education Program will include, at a minimum: ▪ A review of archaeology, history, prehistory and Native American cultures associated with historical resources in the project vicinity. ▪ A review of applicable local, state and federal ordinances, laws and regulations pertaining to historic preservation. ▪ A discussion of site avoidance requirements and procedures to be followed in the event that unanticipated cultural resources are discovered during implementation of the project. ▪ A discussion of disciplinary and other actions that could be taken against persons violating historic preservation laws and PG&E policies. ▪ A statement by the construction company or applicable employer agreeing to abide by the Worker Education Program, PG&E policies and other applicable laws and regulations. Environmental training will also be provided to workers regarding the protection of paleontological resources and procedures to be implemented in the event fossil remains are encountered by ground-disturbing activities. The Worker Education Program may be conducted in concert with other environmental or safety awareness and education programs for the project, provided that the program elements pertaining to cultural resources are provided by a qualified instructor meeting applicable professional qualifications standards.		
APM CR-3: Unanticipated Discoveries Management. In the unlikely event that previously unidentified cultural resources are uncovered during implementation of the project, all work within 165 feet (50 meters) of the discovery will be halted and redirected to another location. PG&E's cultural resource specialist or his/her designated representative will inspect the discovery and determine whether further investigation is required. If the discovery can be	Verify the halt of construction activities	During the discovery of previously unidentified cultural resources

Table 4.1-1 *(Continued)*: Mitigation Monitoring Plan

Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Time of Action
avoided and no further impacts will occur, the resource will be documented on California State Department of Parks and Recreation cultural resource record forms and no further effort will be required. If the resource cannot be avoided and may be subject to further impact, PG&E will evaluate the significance and CRHR eligibility of the resource and implement data recovery excavation or other appropriate treatment measures if warranted. In the unlikely event that previously unidentified paleontological resources are uncovered during implementation of the project, all ground disturbing work will be temporarily halted or diverted away from the discovery to another location. PG&E's paleontological resources specialist or his/her designated representative will inspect the discovery and determine whether further investigation is required. If the discovery is significant, but can be avoided and no further impacts will occur, the resource will be documented in the appropriate paleontological resource records and no further effort will be required. If the resource is significant, but cannot be avoided and may be subject to further impact, PG&E will evaluate the significance of the resources, and implement data recovery excavation or other appropriate treatment measures as recommended by a qualified paleontologist.		
Mitigation Measure CR-4. Prior to construction, all project personnel shall attend environmental training regarding the protection of paleontological resources and procedures to be implemented in the event fossil remains are encountered by ground-disturbing activities. The training shall include, but shall not be limited to: 1. A review of applicable local, state and federal ordinances, laws and regulations pertaining to paleontologic preservation. 2. A discussion of disciplinary and other actions that could be taken against persons violating historic preservation laws and PG&E policies. This training may be combined with other environmental training for the project, provided that the program elements pertaining to paleontological resources are provided by a qualified instructor meeting applicable professional qualification standards (including SVP [1991, 1995, 2005]). Attendance sheets shall be submitted to	Verify content of training material and submittal of training attendance sheets	Prior to construction

Table 4.1-1 *(Continued)*: Mitigation Monitoring Plan		
Applicant Proposed Measure (APM) or Mitigation Measure	**Monitoring Requirement**	**Time of Action**
the CPUC within one week of training events.		
Mitigation Measure CR-5. Prior to construction, a qualified Principal Paleontologist (qualified according to SVP standards) or his/her designee shall conduct on-site inspection of high sensitivity units in areas where ground-disturbing project activities shall occur. Designation of areas of avoidance, special interest, and concern may be appropriate. During construction, deeper excavations or grading (more than 2' deep, excluding augering or hand-digging for pole or tower fitting holes) in high-sensitivity units shall be monitored closely by a qualified Principal Paleontologist or his/her designated assistant. Paleontological monitors shall have the authority to temporarily halt or redirect work at specific locations in order to assess and/or recover paleontological remains, and to establish buffer zones around potentially significant specimens using flagging on lath until the find is assessed by the Principal Paleontologist. The paleontological monitor will maintain a daily log of monitoring activities to document the location of monitoring, observations of sediment type and distribution, observations regarding fossils, collection of fossils and other information. Daily logs and photographs will be supplied to the Principal Paleontologist. Upon completion of construction, if no paleontological resources are identified during the project, the Principal Paleontologist will compile a simple summary letter report of monitoring. A copy of the summary report shall be submitted to the CPUC for recordkeeping. If paleontological resources are identified, upon completion of construction, the Principal Paleontologist shall compile a final monitoring report. This report shall include, but shall not be limited to: 1. Inclusive dates of monitoring 2. Present personnel qualifications 3. Summary of the monitoring effort and coverage using text and maps 4. Documentation of paleontological localities discovered and resources	Verify qualification of Principal Paleontologist and preconstruction surveys Verify monitoring activities	Prior to and during, and post construction

Table 4.1-1 *(Continued)*: Mitigation Monitoring Plan		
Applicant Proposed Measure (APM) or Mitigation Measure	**Monitoring Requirement**	**Time of Action**
identified 5. Interpretation fossil discoveries 6. Evaluation of the adequacy of the monitoring effort 7. Suggestions for improving paleontological resource monitoring procedures 8. A copy of the final monitoring report shall be submitted to the CPUC for recordkeeping.		
Mitigation Measure CR-6. If previously unidentified paleontological resources are uncovered during implementation of the project, all ground disturbing work shall be temporarily halted or diverted away from the discovery to another location. PG&E's paleontological resources specialist (i.e., a Principal Paleontologist qualified according to SVP standards) or his/her designated representative shall inspect the discovery and determine whether further investigation is required. If the discovery is determined to be "unique" under CEQA, but can be avoided and no further impacts shall occur, the resource and locality shall be documented in the appropriate paleontological resource records and no further effort shall be required. Locality documentation shall include: 1. One or more UTM readings using a global positioning system unit 2. Accurate elevation measurement 3. Depth below surface 4. Lithologic analysis 5. Detailed field map of the locality Additional information may include: a. One or more stratigraphic columns	Verify the halt of construction activities	During the discovery of previously unidentified paleontological resources

Table 4.1-1 *(Continued)*: Mitigation Monitoring Plan

Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Time of Action
b. Sedimentary structure analysi c. Taphonomic analysis and photographs of the fossil in situ, if recommended by the Principal Paleontologist If the resource is determined to be "unique" under CEQA and cannot be avoided and may be subject to further impact, PG&E shall ensure that the fossils are recovered, prepared, identified, catalogued, and analyzed according to current professional standards under the direction of a qualified Principal Paleontologist. All recovered fossils shall be curated at an accredited and permanent scientific institution according to SVP standards; typically the Natural History Museum of Los Angeles County and UC Berkeley accept paleontological collections at no cost to the donor.		
Geology and Soils		
APM GE-1: Appropriate Design Measures Implementation. A landslide survey of the planned project alignment was conducted, which included a reconnaissance to identify potential problems at planned pole and tower locations. Appropriate design features have been developed where potential problems were found to exist. Appropriate design features may include excavation of potentially problematic soils during construction and replacement with engineered backfill, relocation of poles to avoid problematic soils or landslide areas, and pole depth specifications. Where significant potential for damage due to surface fault rupture is identified, towers/poles siting and design will be modified to the extent feasible to avoid or reduce damage.	Verify implementation of appropriate design features	Prior to construction
APM GE-2: Conduct Geotechnical Surveys for Landslides and Protect Against Slope Instability. A geologic hazard and foundation evaluation was conducted by Kleinfelder (2008 & 2010) to explore the tower locations along the project route for the presence of geologic hazards that may affect the foundations of the new power line towers/poles and to provide remedial measures for the foundations. The geotechnical survey included slope stability analyses in areas of planned grading and excavation that cross and are immediately adjacent	Verify implementation of appropriate design features	Prior to construction

Table 4.1-1 *(Continued)*: Mitigation Monitoring Plan

Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Time of Action
to areas with the potential for unstable slopes, landslides, earth flows, and debris flows along the approved project route. The existing access roads will be re-established eliminating the necessity for grading new access and spur roads and subsequent potential ground disturbance. The geotechnical survey included identification of potential landslide hazards, and provided information for development of excavation plans and procedures. In addition, the geotechnical survey indicated the presence of unstable slopes at or adjacent to the proposed project structures. Where appropriate, foundation support and protection measures will be designed and implemented; this will help to maintain the stability of slopes adjacent to newly graded or re-graded access roads, work areas, and project structures during and after construction, and to minimize potential for damage to project facilities.		
APM GE-3: Slope Instability During Construction Minimization. During pole replacement activities along the hilly terrain, construction slopes and existing natural slopes impacted by construction operations will be evaluated for stability. In developing grading plans and construction procedures for re-establishing access roads and replacing power poles, slope stability will be analyzed. Construction slopes and grading plans will be designed to limit the potential for slope instability and minimize the potential for erosion and flooding during construction. The project will not result in any new cut or fill slopes, either permanent or temporary. Construction activities likely to result in slope instability will be suspended, as necessary, during and immediately following periods of heavy precipitation when unstable slopes are more susceptible to failure.	Verify implementation of appropriate design features	During construction
Mitigation Measure GE-4 (proposed to supersede APM GE-4 "Avoid Unstable Slope Elements"). During construction, PG&E shall avoid areas where boulders on slopes could pose risks to structures, where feasible. If avoidance of areas just downslope of boulders is not possible, PG&E shall either remove or stabilize boulders located immediately uphill of structures that pose potential high risk of damage to those structures. In addition, PG&E shall position structures to span over potential landslide areas or relocate structures to avoid landslide hazards. Boulder removal shall involve either removal of intact boulders or removal of boulders that have been fractured into multiple pieces.	Verify completion of survey and implementation of recommendations	Prior to and during construction

Table 4.1-1 *(Continued)*: Mitigation Monitoring Plan

Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Time of Action
A qualified geotechnical engineer shall evaluate boulders to determine the best methods to stabilize boulders located upslope of project structures that are removed. Recommendations shall be developed and implemented to mitigate hazards posed by the boulders. Boulder stabilization could involve any of the following practices, but is not limited to: 1. Installing and securing wire mesh on the downslope side of the boulder, as approved by a qualified biologist; 2. Installing rock anchors and shotcrete; 3. Depending on the slope on which the boulder rests, constructing an earthen berm in front of the boulder on the downslope side; or 4. Other methods recommended by a geotechnical expert.		
APM GE-5: Soft or Loose Soils During Construction Minimization. Where soft or loose soils are encountered during construction, appropriate measures will be implemented to avoid, accommodate, replace, or improve soft or loose soils encountered during construction. Such measures may include: ▪ Locating construction facilities and operations away from areas of soft and loose soil. ▪ Over-excavating soft or loose soils and replacing them with engineered backfill materials. ▪ Increasing the density and strength of soft or loose soils through mechanical vibration and/or compaction. ▪ Treating soft or loose soils in place with binding or cementing agents. Construction activities in areas where soft or loose soils are encountered will be scheduled for the dry season to allow safe and reliable equipment access.	Ensure compliance with listed measures	During construction
APM GE-6: Erosion Control and Sediment Transport Plan Implementation. An Erosion	Verify content and	Prior to and during construction

Table 4.1-1 *(Continued)*: Mitigation Monitoring Plan

Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Time of Action
Control and Sediment Transport Plan will be prepared in association with the SWPPP. This plan will be prepared in accordance with the State Water Board guidelines and other applicable BMPs. Implementation of the plan will help stabilize disturbed areas and waterways and will reduce erosion and sedimentation. The plan will designate BMPs that will be followed during construction activities. Erosion-minimizing efforts may include measures such as: ▪ Avoiding excessive disturbance of steep slopes, ▪ Using drainage control structures (straw wattles or silt fencing) to direct surface runoff away from disturbed areas, ▪ Strictly controlling vehicular traffic, ▪ Implementing a dust-control program during construction, ▪ Restricting access to sensitive areas, ▪ Using vehicle mats in wet areas, and ▪ Revegetating disturbed areas where applicable following construction. In areas where soils are to be temporarily stockpiled, soils will be placed in a controlled area and will be managed with similar erosion control techniques. Where construction activities occur near a drainage channel and drainage from these areas flows towards a water body, stockpiles will be placed at least 100 feet from the water body or will be properly contained (such as covering with plastic sheeting to minimize risk of sediment transport to the drainage). Plywood and plastic covering will be used to cover the excavated holes until pole installation activities begin. Erosion-control measures will be installed, as necessary, before any clearing during the wet season and before the onset of winter rains. Temporary measures such as silt fences or straw wattles intended to minimize erosion from temporarily disturbed areas will remain in place until disturbed areas have stabilized. The SWPPP will be designed specifically for the hydrologic setting of the proposed project,	implementation of Erosion Control and Sediment Transport Plan	

Table 4.1-1 *(Continued)*: Mitigation Monitoring Plan

Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Time of Action
which includes slopes, intermittent and seasonal streams, and the Salinas River. BMPs documented in the Erosion Control and Sediment Transport Plan will also be included in the SWPPP.		
APM GE-7: Minimize Road Construction. PG&E is not planning on constructing new access roads, but instead utilizing existing access roads. Some roads will require minimal grading to re-establish the road integrity and allow safe movement for construction equipment and/or moving or trimming of vegetation to allow vehicle passage. In these cases, PG&E will implement BMPs for road re-establishment; and these modifications will be permanent for continued use of the roads for power line maintenance, eliminating long-term impacts from temporary roads.	Verify implementation of BMPs	During construction
APM GE-8: Minimize Soil and Bedrock Impact to Foundation Design. Appropriate design measures for protection of reinforcement, concrete, and metal-structural components against corrosion will be utilized, such as the use of corrosion-resistant materials and coatings, increased thickness of project components exposed to potentially corrosive conditions, and use of passive and/or active cathodic protection systems.	Verify implementation of appropriate design features	During construction
Hazards and Hazardous Materials		
APM HM-1: Hazardous Substance Control and Emergency Response Plan Development and Implementation. PG&E will submit a Hazardous Substance Control and Emergency Response Plan to the CPUC for recordkeeping at least 30 days prior to project construction. The plan will identify methods and techniques to minimize the exposure of the public to potentially hazardous materials during all phases of project construction through operation. The plan will require implementing appropriate control methods and approved containment and spill-control practices (i.e., spill control plan) for construction and materials stored on-site. All hazardous materials and hazardous wastes will be handled, stored, and disposed of, in accordance with all applicable regulations, by personnel qualified to handle hazardous materials. With the exception of the poles, all hazardous materials will be collected in project-specific containers at the site, and transported to a PG&E service center designated as a PG&E	Verify content and implementation of the Hazardous Substance Control and Emergency Response Plan	Prior to and during construction

Table 4.1-1 *(Continued)*: Mitigation Monitoring Plan

Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Time of Action
consolidation site. Poles will be scheduled for transportation to the appropriate licensed Class 1 or a composite-lined portion of a solid waste landfill. The plan will include, but not be limited to, the following: ▪ Proper disposal of potentially contaminated soils ▪ Vehicles and equipment parking near sensitive resource areas during construction ▪ Emergency response and reporting procedures to address hazardous material spills Emergency-spill supplies and equipment will be available to respond in a timely manner if an incident should occur. Response materials such as oil-absorbent material, tarps, and storage drums will be used as needed to contain and control any minor releases. A search of government databases indicates that there are no hazardous waste sites located within the project area. If hazardous materials are encountered in excavated soils or groundwater as noted through sheen, odor, or other non-typical appearance, work will be stopped until the material is properly characterized and appropriate measures are taken to protect human health and the environment. If excavation of hazardous materials is required, they will be managed, transported, and disposed of in accordance with federal, state, and local regulations. Removed wood poles will be collected in project-specific containers at a PG&E service center designated as a PG&E consolidation site. Poles will be scheduled for transport to an appropriate licensed Class 1 or composite lined portion of a solid waste landfill as containers are filled. Chemical Waste Management's Kettlemen Hills Facility is typically used. There is no disposal capacity issue at this facility associated with the treated wood poles generated by this project.		
Mitigation Measure HM-2 (proposed to supersede APM HM-2 "Environmental Training and Monitoring Program (ETMP) Development and Implementation"). An ETMP shall be established to communicate to all field personnel any environmental concerns and	Verify content of training material and submittal of training attendance sheets	30 days prior to construction

Table 4.1-1 *(Continued)*: Mitigation Monitoring Plan

Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Time of Action
appropriate work practices, including spill prevention and response measures and BMPs. The training program shall emphasize site-specific physical conditions to improve hazard prevention (e.g., identification of flow paths to nearest water bodies) and shall include a review of all site-specific plans, including, but not limited to, the project's SWPPP, Erosion Control and Sediment Transport Plan, Health and Safety Plan, and Hazardous Substances Control and Emergency Response Plan. A PG&E-designated representative shall be identified to ensure that the plans are followed throughout the construction period. BMPs, as identified in the project SWPPP and Erosion Control and Sediment Transport Plan, shall be implemented during project construction to minimize the risk of an accidental release and to provide the necessary information for emergency response. A copy of the ETMP shall be submitted to the CPUC at least 30 days prior to construction. Training attendance sheet(s) shall be submitted to the CPUC after each training session.		
APM HM-3: Project-specific Fire Prevention and Response Plan Development and Implementation. PG&E will prepare and submit a Fire Prevention and Response Plan to the CPUC and to local fire protection authorities for notification at least 30 days prior to construction. The plan will include fire protection and prevention methods for all components of the project during construction. The plan will include procedures to reduce the potential for igniting combustible materials by preventing electrical hazards, use of flammable materials, and smoking onsite during construction and maintenance procedures. Project personnel will be directed to park away from dry vegetation; to equip vehicles with fire extinguishers; not to smoke; and to carry water, shovels, and fire extinguishers in times of high fire hazard.	Verify content and implementation of the Fire Prevention and Response Plan	Prior to and during construction
APM HM-4: Health and Safety Plan Development and Implementation. PG&E will prepare a site-specific Health and Safety Plan (HSP) to ensure that potential safety hazards will be kept at a minimum. The HSP will include elements that establish worker training and emergency response procedures relevant to project activities. The plan will be submitted to the CPUC at least 30 days prior to construction for CPUC recordkeeping.	Verify content and implementation of the Health and Safety Plan	Prior to and during construction

Table 4.1-1 *(Continued)*: Mitigation Monitoring Plan

Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Time of Action
APM HM-5: Safe Practices and Record Keeping for Storage of Chemicals On-site. If it is necessary to store any chemicals on-site, they will be managed in accordance with all applicable regulations. Material Safety Data Sheets will be maintained and kept available on-site, as applicable.	Verify availability of Material Safety Data Sheets on site	During construction, in the event any chemicals are stored on site
APM HM-6: Safety Precautions Used for Removal of Contaminated Soils. In the event that soils suspected of being contaminated (based on evidence from visual, olfactory, or other means) are removed during excavation activities along the power line corridor, the excavated soil will be tested and, if contaminated above hazardous levels, will be contained and disposed of at a licensed waste facility. The presence of known or suspected contaminated soil will require testing and investigation procedures to be supervised by a qualified person, as appropriate, to meet state and federal regulations.	Verify compliance with state and federal regulations	During construction, in the event of contaminated soils
Hydrology and Water Quality		
APM WQ-1: Development and Implementation of a Stormwater Pollution Prevention Plan. Following project approval, PG&E will prepare and implement a SWPPP to minimize construction impacts on surface and groundwater quality. Implementation of the SWPPP will help stabilize graded areas and waterways and reduce erosion and sedimentation. The plan will designate BMPs that will be adhered to during construction activities. Erosion and sediment control measures, such as straw wattles, water bars, covers, silt fences, and sensitive area access restrictions (e.g., flagging) will be installed before the onset of winter rains or any anticipated storm events. Mulching, seeding, or other suitable stabilization measures will be used to protect exposed areas during construction activities, as necessary. During construction, measures will be in place to ensure that contaminants are not discharged from the construction sites.	Verify content and implementation of SWPPP	Prior to and during construction
APM WQ-2: Environmental Training and Monitoring Program (ETMP) Development and Implementation. Worker environmental awareness will communicate environmental issues and appropriate work practices specific to this project. This awareness will include spill prevention and response measures and proper BMP implementation. The SWPPP training	Verify content of training material and submittal of training attendance sheets	Prior to construction

Table 4.1-1 *(Continued)*: Mitigation Monitoring Plan

Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Time of Action
will emphasize site-specific physical conditions to improve hazard prevention (e.g., identification of flow paths to nearest waterbodies) and will include a review of all site-specific water quality requirements, including applicable portions of , the Erosion Control and Sediment Transport Plan, Health and Safety Plan, and PG&E's Hazardous Substances Control and Emergency Response program. Details about the program will be described in the SWPPP.		
APM WQ-3: Preparation of an Erosion Control and Sediment Transport Plan (ECSTP). PG&E will prepare an Erosion Control and Sediment Transport Plan (ECSTP) as an element of the SWPPP describing BMPs, to be used during construction. PG&E will ensure all BMPs are inspected before and after each storm event, maintained on a regular basis, and replaced as necessary through the course of construction. The plan will address construction in or near sensitive areas described in Section 3.4 Biological Resources. BMPs, where applicable will be designed based on specific criteria from recognized BMP design guidance manuals. Erosion-minimizing efforts may include measures such as: ▪ Avoiding excessive disturbance of steep slopes ▪ Defining ingress and egress within the project area ▪ Implementing a dust control program during construction ▪ Restricting access to sensitive areas (e.g. usage of silt fencing for the protection of wetland features) ▪ Using vehicle mats in wet areas ▪ Revegetating disturbed areas where applicable following construction ▪ Proper containment of stockpiled soils (including construction of berms in areas near water bodies, wetlands, or drainage channels) Erosion control measures identified in the ECSTP will be installed in an area before clearing begins during the wet season in that area and before the onset of winter rains or any anticipated storm events. Temporary measures such as silt fences or wattles, intended to	Verify content and implementation of Erosion Control and Sediment Transport Plan	Prior to and during construction

Table 4.1-1 *(Continued)*: Mitigation Monitoring Plan

Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Time of Action
minimize sediment transport from temporarily disturbed areas, will remain in place until disturbed areas have stabilized. Such temporary measures will be placed and monitored by a qualified inspector to ensure effectiveness and these measures are repaired as needed. PG&E will keep water equipment such as water trucks and water truck filling areas well-maintained and make repairs as soon as possible; will use water minimally for dust control and to clean construction areas and sweep and vacuum to the maximum extent possible; and will direct runoff to areas where it can be reused or absorbed into the ground. Water for dust control will be applied at a rate that will not lead to significant water runoff or potentially cause a nuisance. The ECSTP will be submitted to the CPUC for review at least 30 days prior to the commencement of construction. The plan will be revised and updated as needed, and resubmitted to the CPUC if construction activities evolve to the point that the existing approved ECSTP does not adequately address the project.		
APM WQ-4: Limited On-site Vehicle and Equipment Fueling. PG&E will use offsite fueling stations to the extent possible, including refueling of helicopters. On-site fueling is not likely, however, if necessary, conditions specified in SWPPP will be implemented. No refueling or fuel storage will occur within 100 feet of sensitive areas, including intermittent streams, wetlands, biological and cultural areas, or within 150 feet of wells, unless otherwise approved by the environmental inspector.	Verify location of vehicle and equipment fueling	During construction
APM WQ-5: Proper Concrete Curing Techniques. PG&E will use proper storage and handling techniques for concrete curing compounds and will protect drain inlets prior to the application of curing compounds. If necessary, concrete washout will be performed in a designated area to be determined in the field and in the SWPPP, or concrete trucks will provide self-contained cleanout units. Temporary concrete washout facilities will be located a minimum of 50 feet from storm drain inlets, open drainage facilities, and watercourses. Concrete will be washed only from mixer chutes into approved concrete washout facilities. Concrete washout from concrete pumper bins can be washed into concrete pumper trucks	Verify proper concrete washout methods	During construction

Table 4.1-1 *(Continued)*: Mitigation Monitoring Plan

Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Time of Action
and discharged into designated washout areas or properly disposed of offsite.		
APM WQ-6: Proper Sanitary/Septic Waste Management. PG&E will locate sanitary facilities away from drainage facilities and watercourses and at least 100 feet from sensitive areas in a location convenient for pump-out; ensure that no untreated raw wastewater will be discharged or buried; treat temporary septic systems wastes to appropriate levels before discharging; and arrange for regular waste collection by a licensed hauler before facilities overflow.	Verify location of sanitary facilities	During construction
APM WQ-7. Restricted Access to Pole 66/10. Pole 66/10, which is located in a seasonal wetland, shall be accessed from the south side to eliminate the need to cross the drainage north of Pole 66/10 (shown as S17 in the Wetland Delineation Report). Trampling and compaction of the wetland at Pole 66/10 shall be minimized. If necessary, timber mats shall be installed to avoid surface disturbance to the wetland from equipment.	Verify the access route to Pole 66/10 and the use of timber mats, if necessary	During construction
APM WQ-8: Hazardous Substance Control and Emergency Response Plan. PG&E has and will implement its system-wide program which includes established procedures for handling and managing hazardous substances and emergency response in the event of a hazardous substance spill. These procedures will add to the requirements in the project SWPPP. PG&E crew members will arrange to have emergency-spill supplies and equipment immediately available at all work areas. Oil-absorbent materials, tarps, and storage drums will be used to contain and control any minor releases. Detailed information for responding to accidental spills, and for handling any resulting hazardous materials, will be provided in the project's Hazardous Substances Control and Emergency Response Plan.	Verify content and implementation of Hazardous Substance Control and Emergency Response Plan	Prior to and during construction
APM WQ-11: Sediment Barriers to Protect Wetland (W3). Sediment barriers between the wetland and the access road that leads to Tower 73/1 will be maintained while re-establishing this road.	Verify use of sediment barriers	During construction

Table 4.1-1 *(Continued)*: Mitigation Monitoring Plan		
Applicant Proposed Measure (APM) or Mitigation Measure	**Monitoring Requirement**	**Time of Action**
Land Use and Planning		
APM AG-1: Public Education Program. A governmental relations representative will provide local governmental agencies with a briefing of the project scope and schedule in advance of construction activities. A PG&E contact name and phone number will be provided for project related inquiries.	Verify coordination with local governments	Prior to construction
APM AG-2: Coordination with Nearby Residences. PG&E will coordinate with property owners within 300 feet of the project area at least 30 days prior to construction to alert them of project activities.	Verify coordination with local property owners	Prior to construction
APM AG-3: Review of Project by San Luis Obispo County Airport and the Federal Aviation Administration. PG&E will submit the project for review to San Luis Obispo County Airport and the Federal Aviation Administration to determine what, if any, hazards are posed by the project. PG&E will address any potential hazards identified during this review.	Verify coordination with FAA and San Luis Obispo County Airport	Prior to construction
Noise		
APM NS-1: Noise Minimization with "Quiet" Equipment. "Quiet" equipment (i.e., equipment that incorporates noise control elements into the design—compressors have "quiet" models) will be used during construction whenever possible.	Verify use of "quiet" equipment	During construction
APM NS-2: PG&E Construction Hours. PG&E will limit construction to the hours between 7 a.m. and 7 p.m., Monday through Saturday, to the extent feasible. If nighttime work is needed because of clearance restrictions on the power line, PG&E will take appropriate measures to minimize disturbance to local residents, including contacting nearby residences to inform them of the work schedule and probable inconveniences.	Verify timing of construction activities	During construction
APM NS-3: Limit of Unnecessary Engine Idling. PG&E will encourage construction crews to limit unnecessary engine idling. (See Air Quality measures.)	Verify no excessive idling	During construction

Table 4.1-1 *(Continued)*: Mitigation Monitoring Plan

Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Time of Action
APM NS-4: Equipment Noise Emissions. PG&E construction crews will use equipment that is specifically designed for low noise emissions.	Verify use of low noise emission equipment	During construction
APM NS-5: Noise Minimization with Portable Barriers. Compressors and other small stationary equipment will be shielded with enclosures or portable barriers when used in proximity to residential areas.	Verify use of portable barriers for stationary equipment	During construction
APM NS-6: Noise Minimization through Direction of Exhaust. Equipment exhaust stacks and vents will be directed away from buildings, to the extent feasible for crews to comply with safe work procedures.	Verify direction of exhaust stacks	During construction
APM NS-7: Noise Minimization through Truck Traffic Routing. Truck traffic will be routed away from noise-sensitive areas where feasible.	Verify use of designated truck routes	During construction
APM NS-8: Noise Disruption Minimization through Residential Notification. PG&E will coordinate with San Luis Obispo County, the City of Atascadero, and the City of San Luis Obispo to notify residents that are located near the alignment of the timeframe for construction activities.	Verify coordination with local residents	Prior to and during construction
Traffic and Transportation		
APM TT-1: Impacts to Existing Traffic Flows. PG&E will develop a project-specific Transportation Management Plan (TMP), which will be submitted to the CPUC for review at least 30 days prior to construction. The TMP will conform to the California Joint Utility Traffic Control Committee's Work Area Protection and Traffic Control Manual. The TMP will include the following: ▪ Standard safety practices, including installation of appropriate barriers between work zones and transportation facilities, placement of appropriate signage, and use of traffic control devices. ▪ Flaggers and/or signage will be used to guide vehicles through or around	Verify content and implementation of the Transportation Management Plan	Prior to and during construction

Table 4.1-1 *(Continued)*: Mitigation Monitoring Plan

Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Time of Action
construction zones using proper construction techniques. ▪ Provision that all equipment and materials will be stored in designated staging areas on or adjacent to the work sites in a manner that minimizes traffic obstructions and maximizes sign visibility. ▪ Acceptable vehicle speeds on project roadways. Vehicle speeds will be limited to safe levels as appropriate for all roads, including access roads and overland routes without existing, posted speed limits. ▪ PG&E will avoid equipment/material transportation via helicopter, to the extent practical, during high traffic hours along the Highway 101 corridor. ▪ PG&E will obtain Cal Trans encroachment permits and comply with permit conditions as necessary.		
APM TT-2: Lift Plan Development and Implementation. A Lift Plan will be prepared and approved by the FAA prior to all construction helicopter operations and will not result in a change in air traffic patterns either temporarily or permanently. PG&E does not anticipate that residents will be required to temporarily vacate their homes. In the unlikely event that final construction plans and the Lift Plan require otherwise, PG&E will coordinate with potentially affected residents (providing a minimum of 30 days notice) to minimize the duration of the necessary work and any resultant inconvenience.	Verify approval and implementation of the Lift Plan	Prior to and during construction
APM TT-3: Emergency Route Access. PG&E will coordinate with local emergency personnel in the event that project activities may impact an access point or route during an emergency. All construction activities will be coordinated with local law enforcement and fire protection services and the project will not result in inadequate emergency access.	Verify coordination with local emergency personnel	Prior to and during construction
APM TT-4: Notification of Road Closure. PG&E will coordinate with users of Forest Service Road 30S11 to ensure that closure of the road will minimize any inconveniences, and will work with any affected parties to make alternative arrangements for access. PG&E will post	Verify notification to users of Forest Service Road 30S11	Prior to construction

Table 4.1-1 *(Continued)*: Mitigation Monitoring Plan		
Applicant Proposed Measure (APM) or Mitigation Measure	**Monitoring Requirement**	**Time of Action**
signs on the road informing bikers and hikers of the anticipated schedule for closure of this road.		

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2 PROJECT DESCRIPTION

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6: Report Preparation

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This section lists the individuals who either prepared or participated in the preparation of this IS/MND.

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APPENDIX A:
Air Quality Calculations

Atascadero – San Luis Obispo 70 kV Power Line Reconductoring Project
Summary of Construction Phase Emissions

Emissions	NOx	ROG	NOx + ROG	Exhaust PM10	Fugitive PM10	CO	SO2	PM2.5	CO2[1]	CO2 - with implementation of APM GHG-1[3]	CH4[2]
Peak Daily (lb/day)	85.3	9.5	94.8	2.9	172.9	49.3	2.7	2.5	15851	13473	0.0664
Q1 2011 (ton/quarter)	1.795	0.188	1.984	0.068	2.429	0.739	0.023	0.058	222.2	188.9	0.0008
Q2 2011 (ton/quarter)	0.609	0.061	0.670	0.024	2.105	0.182	0.001	0.021	59.4	50.5	0.0006
Q3 2011 (ton/quarter)	0.405	0.057	0.461	0.017	1.298	0.121	0.000	0.014	37.5	31.9	0.0004
Q4 2011 (ton/quarter)	0.491	0.050	0.541	0.019	0.758	0.136	0.001	0.016	43.7	37.1	0.0002
Q1 2012 (ton/quarter)	0.167	0.016	0.183	0.007	0.726	0.048	0.000	0.006	17.3	14.7	0.0002
Q2 2012 (ton/quarter)	0.167	0.016	0.183	0.007	0.748	0.048	0.000	0.006	17.3	14.7	0.0002
Q3 2012 (ton/quarter)	0.167	0.016	0.183	0.007	0.748	0.048	0.000	0.006	17.3	14.7	0.0002
Q4 2012 (ton/quarter)	0.526	0.068	0.594	0.024	0.518	0.215	0.001	0.021	50.78	43.2	0.0002
Annual (ton/quarter)											
2011	3.300	0.356	3.656	0.128	6.591	1.178	0.025	0.109	362.8	308.4	0.0019
2012	1.027	0.116	1.144	0.044	2.740	0.359	0.001	0.038	102.6	87.2	0.0007
Project Total (tons)	4.328	0.472	4.800	0.172	9.331	1.537	0.026	0.147	465.5	395.7	0.0026

1. Metric tons
2. Methane emissions from truck use only (metric tons).
3. Implementation of APM GHG-1 was assumed to reduce construction equipment, construction vehicles, and worker commutes by approximately 15 percent.

Atascadero – San Luis Obispo 70 kV Power Line Reconductoring Project

Construction Emissions Modeling

Equipment

Activity (as defined by personnel /equipment list)	Duration (days)	Duration (weeks)	Start Date	End date	Percent of Phase	Pickup	Water Truck	Motor Grader	D6 Dozer	Semi Tractor	Crawler Backhoe	Concrete Truck	Line Truck	Crawler Auger	Dump Truck	Crane	Boom Truck	Rigging Truck	Mower
Q1 2011																			
Survey	13	2.5	Complete																
Drainage crossings	21	3.0	1-Jan-11	22-Jan-11	23%	1					1	1							
Tower Installation Aerial	14	2.0	1-Jan-11	15-Jan-11	16%	2	1												
Auger TSP holes - non CRLF	21	3.0	1-Jan-11	22-Jan-11	23%									1	1				
Access road improvements and restablishment	56	8.0	1-Jan-11	28-Feb-11	62%	1	1	1											1
Excavate Tower Holes - non CRLF	95	13.5	1-Jan-11	31-Mar-11	100%									1	1				
Tower installation Ground - Non CRLF - part 1	28	4.0	1-Mar-11	31-Mar-11	31%											1	1	1	
TSP installation - Non CRLF	28	4.0	1-Mar-11	31-Mar-11	31%	2										1	1	1	
Material Equipment Supplies Hauled to or from staging areas	14	13.5	1-Jan-11	31-Mar-11	16%							1	1				1		
Auger pole holes	95	13.5	1-Jan-11	30-Jun-11	100%		1						1						
Pole delivery	95	13.5	1-Jan-11	30-Jun-11	100%								1						
Pole installation - Ground	95	13.5	1-Jan-11	30-Jun-11	100%	1							1						
Material Arrival	46	6.5	1-Jan-11	15-Feb-11	51%					1									
					Total:	7	3	1	0	1	1	2	4	2	2	2	3	2	1
					Weighted:	2.79	1.78	0.62	0.00	0.51	0.23	0.39	3.16	1.23	1.23	0.62	0.78	0.62	0.62
Q2 2011																			
Auger pole holes	95	13.5	1-Jan-11	30-Jun-11	100%		1						1						
Pole delivery	95	13.5	1-Jan-11	30-Jun-11	100%								1						
Pole installation - Ground	95	13.5	1-Jan-11	30-Jun-11	100%	1							1						
Material Equipment Supplies Hauled to or from staging areas	14	13.5	1-Jan-11	31-Mar-11	15%							1	1				1		
Excavate Tower Holes - CRLF habitat	90	12.9	1-Apr-11	31-Oct-11	100%									1	1				
Tower installation Ground - CRLF habitat - part 1	90	12.9	1-Apr-11	31-Oct-11	100%											1	1	1	
					Total:	1	1	0	0	0	0	1	4	1	1	1	2	1	0
					Weighted:	1.00	1.00	0.00	0.00	0.00	0.00	0.15	3.15	1.00	1.00	1.00	1.15	1.00	0.00
Q3 2011																			
Conductor installation, wood poles	14	2.0	30-Jun-11	15-Jul-11	16%	3							5						
Material Equipment Supplies Hauled to or from staging areas	14	13.5	1-Jan-11	31-Dec-11	15%							1	1				1		
Excavate Tower Holes - CRLF habitat	90	12.9	1-Apr-11	31-Oct-11	100%									1	1				
Tower installation Ground - CRLF habitat - part 1	90	12.9	1-Apr-11	31-Oct-11	100%											1	1	1	
					Total:	3	0	0	0	0	0	1	6	1	1	1	2	1	0
					Weighted:	0.47	0.00	0.00	0.00	0.00	0.00	0.15	0.93	1.00	1.00	1.00	1.15	1.00	0.00
Q4 2011																			
Excavate Tower Holes - CRLF habitat	30	4.3	1-Apr-11	31-Oct-11	33%									1	1				
Tower installation Ground - CRLF habitat - part 1	30	4.3	1-Apr-11	31-Oct-11	33%											1	1	1	
Tower installation Ground - Non CRLF - part 2	63	9.0	1-Nov-11	31-Dec-11	70%											1	1	1	
Material Equipment Supplies Hauled to or from staging areas	14	13.5	1-Jan-11	31-Dec-11	15%							1	1				1		
					Total:	0	0	0	0	0	0	1	1	1	1	2	3	2	0
					Weighted:	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.15	0.33	0.33	1.03	1.18	1.03	0.00
Q1 2012																			
Tower installation Ground - Non CRLF - part 2	91	13.0	1-Jan-12	1-Apr-12	100%											1	1	1	
Material Equipment Supplies Hauled to or from staging areas	13	12.9	1-Jan-12	31-Oct-12	14%							1	1				1		
					Total:	0	0	0	0	0	0	1	1	0	0	1	2	1	0
					Weighted:	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.14	0.00	0.00	1.00	1.14	1.00	0.00
Q2 2012																			
Material Equipment Supplies Hauled to or from staging areas	13	12.9	1-Jan-12	31-Oct-12	14%							1	1				1		
Tower installation Ground - CRLF habitat - part 2	90	12.9	1-Apr-12	31-Oct-12	100%											1	1	1	
					Total:	0	0	0	0	0	0	1	1	0	0	1	2	1	0
					Weighted:	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.14	0.00	0.00	1.00	1.15	1.00	0.00
Q3 2012																			
Material Equipment Supplies Hauled to or from staging areas	13	12.9	1-Jan-12	31-Oct-12	14%							1	1				1		
Tower installation Ground - CRLF habitat - part 2	90	12.9	1-Apr-12	31-Oct-12	100%											1	1	1	
					Total:	0	0	0	0	0	0	1	1	0	0	1	2	1	0

					Weighted:	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.14	0.00	0.00	1.00	1.15	1.00	0.00
Q4 2012																			
Tower installation Ground - CRLF habitat - part 2	30	4.3	1-Apr-12	31-Oct-12	33%											1	1	1	
Conductor installation, steel towers	14	2.0	31-Oct-12	16-Nov-12	16%	3							5						
Right of way Restoration and clean-up	28	4.0	30-Nov-12	31-Dec-12	31%	1		1	1	1									
Material Equipment Supplies Hauled to or from staging areas	4	4.3	1-Jan-12	31-Oct-12	5%							1	1				1		
					Total:	4	0	1	1	1	0	1	6	0	0	1	2	1	0
					Weighted:	0.78	0.00	0.31	0.31	0.31	0.00	0.05	0.83	0.00	0.00	0.33	0.38	0.33	0.00

Atascadero – San Luis Obispo 70 kV Power Line Reconductoring Project
Potential Disturbed Acreage

Grading of Existing Access Roads		
Distance	2.5	miles
Width	12	feet
Area	158400	square feet
Area	**3.6**	acres

Number of Structures	**Total**	**CRLF**	**Regular**
Replacement Light-Duty Steel Poles*	137	42	95
Replacement Lattice Steel Towers	36	27.5	8.5
Replacement TSPs	5		5.0
Area Disturbed	**Acres/unit**	**Total Acres**	
Light-Duty Steel Pole	0.1	4.2	9.5
Lattice Steel Towers	0.7	19.3	6.0
TSPs	0.7		3.5
	Total	**23.5**	**19.0**

Estimation of Acres disturbed, by Quarter	**Days Poles**	**Days CRLF Poles**	**Days CRLF LST**	**Days Tower**	**Acres Poles**	**Acres CRLF Poles**	**Acres Tower**	**Acres CRLF LST**	**Acres Roads**	**Acres TSPs**	**Acres Quarter**
Q1 - Poles, Access rd, Tower	90	0	0	90	9.5	0	2.2	0.0	3.64	3.5	18.87
Q2 - CRLF Poles, CRLF Tower	0	90	90	0	0	4.2	0.0	4.1	0	0	8.33
Q3 - CRLF Tower	0	0	90	0	0	0	0.0	4.1	0	0	4.13
Q4 - Tower, CRLF Tower	0	0	30	60	0	0	1.5	1.4	0	0	2.86
Q5 - Tower	0	0	0	90	0	0	2.2	0.0	0	0	2.23
Q6 - CRLF Tower	0	0	90	0	0	0	0.0	4.1	0	0	4.13
Q7 - CRLF Tower	0	0	90	0	0	0	0.0	4.1	0	0	4.13
Q8 - CRLF Tower	0	0	30	0	0	0	0.0	1.4	0	0	1.38
Total	90	90	420	240	9.5	4.2	6.0	19.3	3.6	3.5	46.04

* Includes 5 interset poles.

Atascadero – San Luis Obispo 70 kV Power Line Reconductoring Project

Emissions calcs for Construction equipment

Emissions factors, approximate HP ratings, and load defaults are from URBEMIS 2007, Ver 9.2.4

						Emissions Factor, g/hp/hr							Emissions, ton/day						
Equipment	**Fuel**	**Number**	**HP**	**Load**	**Hr/day**	**ROG**	**NOx**	**PM**	**PM2.5*****	**CO**	**SO2**	**CO2**	**ROG**	**NOx**	**PM10**	**PM2.5**	**CO**	**SO2**	**CO2***
Q1 2011																			
Water Truck	Diesel	3	189	0.5	10	0.302	2.876	0.100	0.085	0.798	0.004	324.222	0.0009	0.0090	0.0003	0.0003	0.0023	0.0000	0.9193
Motor Grader	Diesel	1	174	0.61	10	0.461	3.562	0.209	0.178	2.067	0.004	346.974	0.0005	0.0042	0.0002	0.0002	0.0022	0.0000	0.3683
Backhoe	Diesel	1	147	0.55	10	0.243	2.567	0.085	0.072	0.707	0.004	312.846	0.0002	0.0023	0.0001	0.0001	0.0006	0.0000	0.2530
Crawler auger	Diesel	2	147	0.55	10	0.427	3.99	0.159	0.135	1.199	0.004	364.039	0.0008	0.0071	0.0003	0.0002	0.0020	0.0000	0.5888
Crane	Diesel	2	208	0.43	10	0.255	2.513	0.093	0.079	0.714	0.003	244.589	0.0005	0.0050	0.0002	0.0002	0.0013	0.0000	0.4376
Mower	Diesel	1	147	0.55	10	0.243	2.567	0.085	0.072	0.707	0.004	312.846	0.0002	0.0023	0.0001	0.0001	0.0006	0.0000	0.2530
Q1 Total**													**0.1622**	**1.5199**	**0.0600**	**0.0510**	**0.4608**	**0.0019**	**143.8188**
Q2 2011																			
Water Truck	Diesel	1	189	0.5	10	0.302	2.876	0.1	0.085	0.798	0.004	324.222	0.0003	0.0030	0.0001	0.0001	0.0008	0.0000	0.3064
Crawler auger	Diesel	1	147	0.55	10	0.427	3.99	0.159	0.135	1.199	0.004	364.039	0.0004	0.0036	0.0001	0.0001	0.0010	0.0000	0.2944
Crane	Diesel	1	208	0.43	10	0.255	2.513	0.093	0.079	0.714	0.003	244.589	0.0003	0.0025	0.0001	0.0001	0.0007	0.0000	0.2188
Q2 Total**													**0.0483**	**0.4606**	**0.0172**	**0.0146**	**0.1235**	**0.0005**	**41.8005**
Q3 2011																			
Crawler auger	Diesel	1	147	0.55	10	0.427	3.99	0.159	0.135	1.199	0.004	364.039	0.0004	0.0036	0.0001	0.0001	0.0010	0.0000	0.2944
Crane	Diesel	1	208	0.43	10	0.255	2.513	0.093	0.079	0.714	0.003	244.589	0.0003	0.0025	0.0001	0.0001	0.0007	0.0000	0.2188
Q3 Total**													**0.0322**	**0.3078**	**0.0119**	**0.0101**	**0.0841**	**0.0003**	**26.1719**
Q4 2011																			
Crawler auger	Diesel	1	147	0.55	10	0.427	3.99	0.159	0.135	1.199	0.004	364.039	0.0004	0.0036	0.0001	0.0001	0.0010	0.0000	0.2944
Crane	Diesel	2	208	0.43	10	0.255	2.513	0.093	0.079	0.714	0.003	244.589	0.0005	0.0050	0.0002	0.0002	0.0013	0.0000	0.4376
Q4 Total**													**0.0451**	**0.4341**	**0.0166**	**0.0141**	**0.1174**	**0.0005**	**37.3306**
2011 Annual Total													0.2878	2.7224	0.1057	0.0898	0.7858	0.0033	249.1218
Q1 2012																			
Crane	Diesel	1	208	0.43	10	0.241	2.336	0.085	0.072	0.677	0.003	244.589	0.0002	0.0023	0.0001	0.0001	0.0006	0.0000	0.2188
Q1 Total**													**0.0121**	**0.1175**	**0.0043**	**0.0036**	**0.0317**	**0.0002**	**11.1587**
Q2 2012																			
Crane	Diesel	1	208	0.43	10	0.241	2.336	0.085	0.072	0.677	0.003	244.589	0.0002	0.0023	0.0001	0.0001	0.0006	0.0000	0.2188
Q2 Total**													**0.0121**	**0.1175**	**0.0043**	**0.0036**	**0.0317**	**0.0002**	**11.1587**
Q3 2012																			
Crane	Diesel	1	208	0.43	10	0.241	2.336	0.085	0.072	0.677	0.003	244.589	0.0002	0.0023	0.0001	0.0001	0.0006	0.0000	0.2188
Q3 Total**													**0.0121**	**0.1175**	**0.0043**	**0.0036**	**0.0317**	**0.0002**	**11.1587**
Q4 2012																			
Motor Grader	Diesel	1	174	0.61	10	0.435	3.341	0.193	0.164	2.062	0.004	346.974	0.0005	0.0039	0.0002	0.0002	0.0022	0.0000	0.3683
Crane	Diesel	1	208	0.43	10	0.241	2.336	0.085	0.072	0.677	0.003	244.589	0.0002	0.0023	0.0001	0.0001	0.0006	0.0000	0.2188
Dozer	Diesel	1	147	0.55	10	0.406	3.735	0.146	0.124	1.145	0.004	364.039	0.0004	0.0033	0.0001	0.0001	0.0009	0.0000	0.2944
Q4 Total**													**0.0565**	**0.4867**	**0.0224**	**0.0191**	**0.1945**	**0.0006**	**44.9573**
2012 Annual Total													0.0929	0.8391	0.0353	0.0300	0.2894	0.0010	78.4334
Project Total													0.3807	3.5615	0.1409	0.1198	1.0752	0.0043	327.5552
Peak daily (lb/day)													6.36	59.61	2.35	2.00	18.07	0.07	6217

* Metric tonnes

** Calculated based on the URBEMIS default of 17 days per month x 3 months per quarter = 51 days.

*** For offroad combustion sources, it was assumed that 89% of PM10 would be PM2.5. This follows the SCAQMD calculation methodology, 2006.

Atascadero – San Luis Obispo 70 kV Power Line Reconductoring Project
Emissions calcs for on-site and commute truck miles

Truck	Fuel	Absolute Number	Weighted Number[1]	Average VMT Per day	Total VMT per day	Days per quarter[2]	Total VMT per quarter	Emissions Factors (lb/mile)[3] CO	NOx	ROG	SOx	PM10	PM2.5	CO2	CH4
Q1 2011															
Pickup	Gasoline	9	2.8	40	111.6	66	7365.6	0.00826	0.00084	0.00085	0.00001	0.00009	0.00006	1.10235	0.00008
Semi	Diesel	1	0.5	20	10.2	66	673.2	0.01112	0.03456	0.00280	0.00004	0.00166	0.00144	4.22046	0.00013
Concrete truck	Diesel	2	0.4	20	7.8	66	514.8	0.01112	0.03456	0.00280	0.00004	0.00166	0.00144	4.22046	0.00013
Line truck	Diesel	5	3.2	20	63.2	66	4171.2	0.01112	0.03456	0.00280	0.00004	0.00166	0.00144	4.22046	0.00013
Dump truck	Diesel	2	1.2	20	24.6	66	1623.6	0.01112	0.03456	0.00280	0.00004	0.00166	0.00144	4.22046	0.00013
Boom truck	Diesel	3	0.8	20	15.4	66	1016.4	0.01112	0.03456	0.00280	0.00004	0.00166	0.00144	4.22046	0.00013
Rigging truck	Diesel	2	0.6	20	12.4	66	818.4	0.01112	0.03456	0.00280	0.00004	0.00166	0.00144	4.22046	0.00013
Q2 2011															
Pickup	Gasoline	3	1.0	40	40	66	2640	0.00826	0.00084	0.00085	0.00001	0.00009	0.00006	1.10235	0.00008
Line truck	Diesel	5	3.2	20	63	66	4158	0.01112	0.03456	0.00280	0.00004	0.00166	0.00144	4.22046	0.00013
Concrete truck	Diesel	1	0.2	20	3	66	198	0.01112	0.03456	0.00280	0.00004	0.00166	0.00144	4.22046	0.00013
Dump truck	Diesel	1	1.0	20	20	66	1320	0.01112	0.03456	0.00280	0.00004	0.00166	0.00144	4.22046	0.00013
Boom truck	Diesel	2	1.2	20	23	66	1518	0.01112	0.03456	0.00280	0.00004	0.00166	0.00144	4.22046	0.00013
Rigging truck	Diesel	1	1.0	20	20	66	1320	0.01112	0.03456	0.00280	0.00004	0.00166	0.00144	4.22046	0.00013
Q3 2011															
Pickup	Gasoline	3	0.5	40	20	66	1320	0.00826	0.00084	0.00085	0.00001	0.00009	0.00006	1.10235	0.00008
Line truck	Diesel	6	0.9	20	18.6	66	1227.6	0.01112	0.03456	0.00280	0.00004	0.00166	0.00144	4.22046	0.00013
Concrete truck	Diesel	1	0.2	20	3	66	198	0.01112	0.03456	0.00280	0.00004	0.00166	0.00144	4.22046	0.00013
Dump truck	Diesel	1	1.0	20	20	66	1320	0.01112	0.03456	0.00280	0.00004	0.00166	0.00144	4.22046	0.00013
Boom truck	Diesel	2	1.2	20	23	66	1518	0.01112	0.03456	0.00280	0.00004	0.00166	0.00144	4.22046	0.00013
Rigging truck	Diesel	1	1.0	20	20	66	1320	0.01112	0.03456	0.00280	0.00004	0.00166	0.00144	4.22046	0.00013
Q4 2011															
Line truck	Diesel	1	0.2	20	3	66	198	0.01112	0.03456	0.00280	0.00004	0.00166	0.00144	4.22046	0.00013
Concrete truck	Diesel	1	0.2	20	3	66	198	0.01112	0.03456	0.00280	0.00004	0.00166	0.00144	4.22046	0.00013
Boom truck	Diesel	3	1.2	20	23.6	66	1557.6	0.01112	0.03456	0.00280	0.00004	0.00166	0.00144	4.22046	0.00013
Rigging truck	Diesel	2	1.0	20	20.6	66	1359.6	0.01112	0.03456	0.00280	0.00004	0.00166	0.00144	4.22046	0.00013

Q1 2012															
Line truck	Diesel	1	0.1	20	2.8	66	184.8	0.010215	0.030924	0.00252764	0.00004042	0.00149566	0.00129354	4.215908	0.00011651
Concrete truck	Diesel	1	0.1	20	2.8	66	184.8	0.010215	0.030924	0.00252764	0.00004042	0.00149566	0.00129354	4.215908	0.00011651
Boom truck	Diesel	2	1.1	20	22.8	66	1504.8	0.010215	0.030924	0.00252764	0.00004042	0.00149566	0.00129354	4.215908	0.00011651
Rigging truck	Diesel	1	1.0	20	20	66	1320	0.010215	0.030924	0.00252764	0.00004042	0.00149566	0.00129354	4.215908	0.00011651
Q2 2012															
Line truck	Diesel	1	0.1	20	2.8	66	184.8	0.010215	0.030924	0.00252764	0.00004042	0.00149566	0.00129354	4.215908	0.00011651
Concrete truck	Diesel	1	0.1	20	2.8	66	184.8	0.010215	0.030924	0.00252764	0.00004042	0.00149566	0.00129354	4.215908	0.00011651
Boom truck	Diesel	2	1.2	20	23	66	1518	0.010215	0.030924	0.00252764	0.00004042	0.00149566	0.00129354	4.215908	0.00011651
Rigging truck	Diesel	1	1.0	20	20	66	1320	0.010215	0.030924	0.00252764	0.00004042	0.00149566	0.00129354	4.215908	0.00011651
Total															
Q3 2012															
Line truck	Diesel	1	0.1	20	2.8	66	184.8	0.010215	0.030924	0.00252764	0.00004042	0.00149566	0.00129354	4.215908	0.00011651
Concrete truck	Diesel	1	0.1	20	2.8	66	184.8	0.010215	0.030924	0.00252764	0.00004042	0.00149566	0.00129354	4.215908	0.00011651
Boom truck	Diesel	2	1.2	20	23	66	1518	0.010215	0.030924	0.00252764	0.00004042	0.00149566	0.00129354	4.215908	0.00011651
Rigging truck	Diesel	1	1.0	20	20	66	1320	0.010215	0.030924	0.00252764	0.00004042	0.00149566	0.00129354	4.215908	0.00011651
Q4 2012															
Pickup	Gasoline	4	0.8	40	31.2	66	2059.2	0.007655	0.000776	0.0079628	0.00001073	0.00008979	0.0000575	1.101525	0.00007169
Semi	Diesel	1	0.3	20	6.2	66	409.2	0.010215	0.030924	0.00252764	0.00004042	0.00149566	0.00129354	4.215908	0.00011651
Line truck	Diesel	6	0.8	20	16.6	66	1095.6	0.010215	0.030924	0.00252764	0.00004042	0.00149566	0.00129354	4.215908	0.00011651
Concrete truck	Diesel	1	0.1	20	1	66	66	0.010215	0.030924	0.00252764	0.00004042	0.00149566	0.00129354	4.215908	0.00011651
Boom truck	Diesel	2	0.4	20	7.6	66	501.6	0.010215	0.030924	0.00252764	0.00004042	0.00149566	0.00129354	4.215908	0.00011651
Rigging truck	Diesel	1	0.3	20	6.6	66	435.6	0.010215	0.030924	0.00252764	0.00004042	0.00149566	0.00129354	4.215908	0.00011651

1: Weighted number of vehicles, based on length of specific activity divided by length of quarter. See "Equipment" worksheet.

2: The URBEMIS default of 22 days per month was used to calculate emissions.

3: Most conservative emissions factors from EMFAC2007 v.2.3 for the SCAQMD

4: See fugitive worksheet for calculation of emissions factors and paved/unpaved assumptions.

5: Calculated in metric tons.

Atascadero – San Luis Obispo 70 kV Power Line Reconductoring Project
Emissions calcs for on-site and commute truck miles

	Emissions, tons/quarter								
	CO	NOx	ROG	SOx	Exhaust PM10	Fugitive PM10[4]	PM2.5	CO2[5]	CH4[5]
Q1 2011									
	0.03043	0.00311	0.003139	3.97E-05	0.000327	0.408423	0.000208	3.682939	0.000257
	0.003745	0.011632	0.000941	1.34E-05	0.000559	0.037329	0.000486	1.288753	3.94E-05
	0.002863	0.008895	0.00072	1.02E-05	0.000428	0.11341	0.000372	0.985517	3.01E-05
	0.023202	0.072074	0.00583	8.28E-05	0.003464	0.918915	0.003013	7.985217	0.000244
	0.009031	0.028054	0.002269	3.22E-05	0.001348	0.357679	0.001173	3.10817	9.51E-05
	0.005654	0.017562	0.001421	2.02E-05	0.000844	0.223913	0.000734	1.945765	5.95E-05
	0.004552	0.014141	0.001144	1.63E-05	0.00068	0.180294	0.000591	1.56672	4.79E-05
Total	**0.079476**	**0.15547**	**0.015463**	**0.000215**	**0.007649**	**2.239963**	**0.006578**	**20.56308**	**0.000773**
Q2 2011									
	0.010907	0.001115	0.001125	1.42E-05	0.000117	0.146388	7.46E-05	1.32005	9.19E-05
	0.023128	0.071846	0.005812	8.26E-05	0.003453	0.916007	0.003004	7.959947	0.000243
	0.001101	0.003421	0.000277	3.93E-06	0.000164	0.043619	0.000143	0.379045	1.16E-05
	0.007342	0.022808	0.001845	2.62E-05	0.001096	0.290796	0.000954	2.526967	7.73E-05
	0.008444	0.02623	0.002122	3.01E-05	0.001261	0.334415	0.001097	2.906013	8.89E-05
	0.007342	0.022808	0.001845	2.62E-05	0.001096	0.290796	0.000954	2.526967	7.73E-05
Total	**0.058264**	**0.148229**	**0.013025**	**0.000183**	**0.007188**	**2.022022**	**0.006226**	**17.61899**	**0.000591**
Q3 2011									
	0.005453	0.000557	0.000563	7.11E-06	5.86E-05	0.026994	3.73E-05	0.660025	4.6E-05
	0.006828	0.021212	0.001716	2.44E-05	0.001019	0.27044	0.000887	2.35008	7.19E-05
	0.001101	0.003421	0.000277	3.93E-06	0.000164	0.043619	0.000143	0.379045	1.16E-05
	0.007342	0.022808	0.001845	2.62E-05	0.001096	0.290796	0.000954	2.526967	7.73E-05
	0.008444	0.02623	0.002122	3.01E-05	0.001261	0.334415	0.001097	2.906013	8.89E-05
	0.007342	0.022808	0.001845	2.62E-05	0.001096	0.290796	0.000954	2.526967	7.73E-05
Total	**0.036511**	**0.097037**	**0.008367**	**0.000118**	**0.004695**	**1.257061**	**0.004071**	**11.3491**	**0.000373**
Q4 2011									
	0.001101	0.003421	0.000277	3.93E-06	0.000164	0.043619	0.000143	0.379045	1.16E-05
	0.001101	0.003421	0.000277	3.93E-06	0.000164	0.043619	0.000143	0.379045	1.16E-05
	0.008664	0.026914	0.002177	3.09E-05	0.001293	0.343139	0.001125	2.981822	9.12E-05
	0.007563	0.023493	0.0019	2.7E-05	0.001129	0.29952	0.000982	2.602776	7.96E-05
Total	**0.018429**	**0.057249**	**0.004631**	**6.58E-05**	**0.002751**	**0.729898**	**0.002394**	**6.342688**	**0.000194**
Annual Total 2011	**0.192681**	**0.457985**	**0.041486**	**0.000582**	**0.022284**	**6.248944**	**0.019269**	**55.87386**	**0.00193**

Q1 2012									
	0.000944	0.002857	0.000234	3.73E-06	0.000138	0.040711	0.00012	0.353394	9.77E-06
	0.000944	0.002857	0.000234	3.73E-06	0.000138	0.040711	0.00012	0.353394	9.77E-06
	0.007686	0.023267	0.001902	3.04E-05	0.001125	0.331507	0.000973	2.877638	7.95E-05
	0.006742	0.02041	0.001668	2.67E-05	0.000987	0.290796	0.000854	2.524244	6.98E-05
Total	**0.016316**	**0.049391**	**0.004037**	**6.46E-05**	**0.002389**	**0.703726**	**0.002066**	**6.10867**	**0.000169**
Q2 2012									
	0.000944	0.002857	0.000234	3.73E-06	0.000138	0.040711	0.00012	0.353394	9.77E-06
	0.000944	0.002857	0.000234	3.73E-06	0.000138	0.040711	0.00012	0.353394	9.77E-06
	0.007753	0.023471	0.001918	3.07E-05	0.001135	0.334415	0.000982	2.90288	8.02E-05
	0.006742	0.02041	0.001668	2.67E-05	0.000987	0.290796	0.000854	2.524244	6.98E-05
Total	**0.016383**	**0.049596**	**0.004054**	**6.48E-05**	**0.002399**	**0.706634**	**0.002075**	**6.133912**	**0.00017**
Q3 2012									
	0.000944	0.002857	0.000234	3.73E-06	0.000138	0.040711	0.00012	0.353394	9.77E-06
	0.000944	0.002857	0.000234	3.73E-06	0.000138	0.040711	0.00012	0.353394	9.77E-06
	0.007753	0.023471	0.001918	3.07E-05	0.001135	0.334415	0.000982	2.90288	8.02E-05
	0.006742	0.02041	0.001668	2.67E-05	0.000987	0.290796	0.000854	2.524244	6.98E-05
Total	**0.016383**	**0.049596**	**0.004054**	**6.48E-05**	**0.002399**	**0.706634**	**0.002075**	**6.133912**	**0.00017**
Q4 2012									
	0.007881	0.000799	0.008198	1.1E-05	9.24E-05	0.042111	5.92E-05	1.028867	6.7E-05
	0.00209	0.006327	0.000517	8.27E-06	0.000306	0.000205	0.000265	0.782516	2.16E-05
	0.005596	0.01694	0.001385	2.21E-05	0.000819	0.241361	0.000709	2.095122	5.79E-05
	0.000337	0.00102	8.34E-05	1.33E-06	4.94E-05	0.01454	4.27E-05	0.126212	3.49E-06
	0.002562	0.007756	0.000634	1.01E-05	0.000375	0.110502	0.000324	0.959213	2.65E-05
	0.002225	0.006735	0.000551	8.8E-06	0.000326	0.095963	0.000282	0.833	2.3E-05
Total	**0.020691**	**0.039577**	**0.011368**	**6.17E-05**	**0.001968**	**0.504681**	**0.001681**	**5.82493**	**0.0002**
Annual Total 2012	**0.069773**	**0.18816**	**0.023513**	**0.000256**	**0.009154**	**2.621676**	**0.007897**	**24.20142**	**0.000707**
Project Total	**0.262454**	**0.646144**	**0.064999**	**0.000838**	**0.031438**	**8.87062**	**0.027165**	**80.07528**	**0.002638**

1: Weighted number of vehicles, based on length of specific activity divided by length of quarter. See "Equipment" workshe
2: The URBEMIS default of 22 days per month was used to calculate emissions.
3: Most conservative emissions factors from EMFAC2007 v.2.3 for the SCAQMD
4: See fugitive worksheet for calculation of emissions factors and paved/unpaved assumptions.
5: Calculated in metric tons.

Atascadero – San Luis Obispo 70 kV Power Line Reconductoring Project
Emissions calcs for on-site and commute truck miles

	Emissions, lb/day								
	CO	NOx	ROG	SOx	Exhaust PM10	Fugitive PM10[4]	PM2.5	CO2[5]	CH4[5]
Q1 2011									
	2.974594	0.304056	0.306839	0.003877	0.031964	39.924	0.020351	396.8466	0.027641
	0.222493	0.691162	0.055909	0.000794	0.033217	2.218	0.028898	84.40914	0.002582
	0.444985	1.382324	0.111817	0.001589	0.066435	17.624	0.057796	168.8183	0.005164
	1.112463	3.455809	0.279543	0.003972	0.166087	44.06	0.144489	422.0457	0.01291
	0.444985	1.382324	0.111817	0.001589	0.066435	17.624	0.057796	168.8183	0.005164
	0.667478	2.073485	0.167726	0.002383	0.099652	26.436	0.086693	253.2274	0.007746
	0.444985	1.382324	0.111817	0.001589	0.066435	17.624	0.057796	168.8183	0.005164
Total	**6.311983**	**10.67148**	**1.145468**	**0.015793**	**0.530225**	**165.51**	**0.453818**	**1662.984**	**0.066371**
Q2 2011									
	0.991531	0.101352	0.10228	0.001292	0.010655	13.308	0.006784	132.2822	0.009214
	1.112463	3.455809	0.279543	0.003972	0.166087	44.06	0.144489	422.0457	0.01291
	0.222493	0.691162	0.055909	0.000794	0.033217	8.812	0.028898	84.40914	0.002582
	0.222493	0.691162	0.055909	0.000794	0.033217	8.812	0.028898	84.40914	0.002582
	0.444985	1.382324	0.111817	0.001589	0.066435	17.624	0.057796	168.8183	0.005164
	0.222493	0.691162	0.055909	0.000794	0.033217	8.812	0.028898	84.40914	0.002582
Total	**3.216457**	**7.01297**	**0.661366**	**0.009236**	**0.342829**	**101.428**	**0.295762**	**976.3735**	**0.035034**
Q3 2011									
	0.991531	0.101352	0.10228	0.001292	0.010655	13.308	0.006784	132.2822	0.009214
	1.334956	4.146971	0.335452	0.004766	0.199304	52.872	0.173387	506.4548	0.015492
	0.222493	0.691162	0.055909	0.000794	0.033217	8.812	0.028898	84.40914	0.002582
	0.222493	0.691162	0.055909	0.000794	0.033217	8.812	0.028898	84.40914	0.002582
	0.444985	1.382324	0.111817	0.001589	0.066435	17.624	0.057796	168.8183	0.005164
	0.222493	0.691162	0.055909	0.000794	0.033217	8.812	0.028898	84.40914	0.002582
Total	**3.43895**	**7.704132**	**0.717274**	**0.010031**	**0.376046**	**110.24**	**0.324659**	**1060.783**	**0.037616**
Q4 2011									
	0.222493	0.691162	0.055909	0.000794	0.033217	8.812	0.028898	84.40914	0.002582
	0.222493	0.691162	0.055909	0.000794	0.033217	8.812	0.028898	84.40914	0.002582
	0.667478	2.073485	0.167726	0.002383	0.099652	26.436	0.086693	253.2274	0.007746
	0.444985	1.382324	0.111817	0.001589	0.066435	17.624	0.057796	168.8183	0.005164
Total	**1.557448**	**4.838133**	**0.39136**	**0.005561**	**0.232522**	**61.684**	**0.202285**	**590.864**	**0.018074**

Q1 2012									
	0.204304	0.618476	0.050553	0.000808	0.029913	8.812	0.025871	84.31815	0.00233
	0.204304	0.618476	0.050553	0.000808	0.029913	8.812	0.025871	84.31815	0.00233
	0.408608	1.236952	0.101106	0.001617	0.059826	17.624	0.051742	168.6363	0.00466
	0.204304	0.618476	0.050553	0.000808	0.029913	8.812	0.025871	84.31815	0.00233
Total	**1.021519**	**3.092379**	**0.252764**	**0.004042**	**0.149566**	**44.06**	**0.129354**	**421.5908**	**0.011651**
Q2 2012									
	0.204304	0.618476	0.050553	0.000808	0.029913	8.812	0.025871	84.31815	0.00233
	0.204304	0.618476	0.050553	0.000808	0.029913	8.812	0.025871	84.31815	0.00233
	0.408608	1.236952	0.101106	0.001617	0.059826	17.624	0.051742	168.6363	0.00466
	0.204304	0.618476	0.050553	0.000808	0.029913	8.812	0.025871	84.31815	0.00233
Total	**1.021519**	**3.092379**	**0.252764**	**0.004042**	**0.149566**	**44.06**	**0.129354**	**421.5908**	**0.011651**
Q3 2012									
	0.204304	0.618476	0.050553	0.000808	0.029913	8.812	0.025871	84.31815	0.00233
	0.204304	0.618476	0.050553	0.000808	0.029913	8.812	0.025871	84.31815	0.00233
	0.408608	1.236952	0.101106	0.001617	0.059826	17.624	0.051742	168.6363	0.00466
	0.204304	0.618476	0.050553	0.000808	0.029913	8.812	0.025871	84.31815	0.00233
Total	**1.021519**	**3.092379**	**0.252764**	**0.004042**	**0.149566**	**44.06**	**0.129354**	**421.5908**	**0.011651**
Q4 2012									
	1.22476	0.124133	1.274048	0.001717	0.014366	17.744	0.0092	176.2441	0.01147
	0.204304	0.618476	0.050553	0.000808	0.029913	8.812	0.025871	84.31815	0.00233
	1.225823	3.710855	0.303317	0.00485	0.179479	52.872	0.155225	505.9089	0.013981
	0.204304	0.618476	0.050553	0.000808	0.029913	8.812	0.025871	84.31815	0.00233
	0.408608	1.236952	0.101106	0.001617	0.059826	17.624	0.051742	168.6363	0.00466
	0.204304	0.618476	0.050553	0.000808	0.029913	8.812	0.025871	84.31815	0.00233
Total	**3.472102**	**6.927367**	**1.830129**	**0.010609**	**0.343412**	**114.676**	**0.293779**	**1103.744**	**0.037103**
Peak Daily (lb/day)	**6.311983**	**10.67148**	**1.830129**	**0.015793**	**0.530225**	**165.51**	**0.453818**	**1662.984**	**0.066371**

1: Weighted number of vehicles, based on length of specific activity divided by length of quarter. See "Equipment" worksheet.

2: The URBEMIS default of 22 days per month was used to calculate emissions.

3: Most conservative emissions factors from EMFAC2007 v.2.3 for the SCAQMD

4: See fugitive worksheet for calculation of emissions factors and paved/unpaved assumptions.

5: Calculated in metric tons.

Atascadero – San Luis Obispo 70 kV Power Line Reconductoring Project
Fugitive Dust Emissions

Fugitive Dust from Grading
Acres calculated on Acreage worksheet.

Quarter	Acres Graded	Emission Factor* (lb PM10 / acre)	Emissions (tons PM10 / quarter)	Emissions (lb/day)
Q1 2011	18.87	20	0.1887	7.40
Q2 2011	8.33	20	0.0833	3.27
Q3 2011	4.13	20	0.0413	1.62
Q4 2011	2.86	20	0.0286	1.12
Total 2011	34.19		0.3419	
Q1 2012	2.23	20	0.0223	0.87
Q2 2012	4.13	20	0.0413	1.62
Q3 2012	4.13	20	0.0413	1.62
Q4 2012	1.38	20	0.0138	0.54
Total 2012	11.87		0.1187	
Total Project	46.06		0.4606	
Peak Daily (lb/day)				7.40

*** Emisions factor from URBEMIS2007, Version 9.2.4.**

Fugitive Dust from Roads
Calculation of Emissions Factors
Paved Surfaces

Eq 1:	**$E=[k(sL/2)^{0.65}*(W/3)^{1.5}]-C$**		From USEPA AP-42, Chapter 13 Part 2.1
Where:	E	= 0.001	Emissions PM10 (lb/vehicle mile traveled)
	k	= 0.016	Particle size multiplier (lb/vehicle mile traveled)
	sL	= 0.03	Silt loading (g/m^2)
	W	= 3	Weight (tons)
	C	= 0.00047	Brake and tire wear (lb/vehicle mile traveled)

Unpaved Surfaces

Eq 1a:	**$E=[k(s/12)^{a}*(W/3)^{b}]$**		From USEPA AP-42, Chapter 13 Part 2.2
Where:	E	= 1.1	Emissions PM10 (lb/vehicle mile traveled)
	k	= 1.5	Particle size multiplier (lb/vehicle mile traveled)
	s	= 8.5	Silt content (%)
	a	= 0.9	Empirical constant
	W	= 3	Weight (tons)
	b	= 0.45	Empirical constant

Emissions for Fugitive PM10 are calculated on the Trucks worksheet using the Emission Factors calculated above.
Vehicle miles were estimated for pickups and semis to consist of 90% paved surfaces and 10% unpaved.
Vehicle miles were estimated for other vehicles to consist of 60% paved surfaces and 40% unpaved.

Atascadero – San Luis Obispo 70 kV Power Line Reconductoring Project
Emissions calcs for helicopter use.

				Emissions Factors[2]								Emissions (ton/quarter)					
Helicopter[1]	Engine	Mode	Fuel rate[2] (lb/hr)	CO (lb/hr)	NOx (lb/hr)	HC (lb/hr)	SOx (lb/hr)	PM (lb/hr)	CO2[3] (kg/gal)	Minutes per day[4]	Days per Quarter[5]	CO (ton/Q)	NOx (ton/Q)	HC (ton/Q)	SOx (ton/Q)	PM (ton/Q)	CO2[6] (ton/Q)
Hughes 500	250B17B	Idle	63	6.13	0.09	1.27	0.06	0	9.56	14.0	16	0.01144	0.00017	0.00237	0.00011	0.00000	0.33510
		Takeoff	265	2.07	1.75	0.07	0.27	0	9.56	4.3	16	0.00120	0.00101	0.00004	0.00016	0.00000	0.43696
		Climbout	245	2.21	1.46	0.09	0.25	0	9.56	608.7	16	0.17935	0.11849	0.00730	0.02029	0.00000	56.65587
		Approach	85	4.13	0.19	0.44	0.09	0	9.56	13.0	16	0.00716	0.00033	0.00076	0.00016	0.00000	0.41982
											TOTAL	**0.1992**	**0.1200**	**0.0105**	**0.0207**	**0.0000**	**57.85**
										Peak Daily (lb/day)		24.89	15.00	1.31	2.59	0.00	7970.77

1. Assume Hughes 500 is representative of helicopter to be used: emissions factors available from USEPA.
2. Emission factors used are from USEPA AP-42 Volume II. Source recommended by FAA EDMS tech support.
3. Emission factor for Jet Fuel - CA ARB Mandatory Reporting Regulation Appendix A, Table 4.
4. Minutes per mode based on default times in EDMS, assume 2 landing / takeoff cycles per day plus 10 hours in climbout mode during structure work.
5. 16 days activity assumed, all in Q1 2011.
6. In metric tons

APPENDIX B:
Biological Resource Technical Reports

Biological Assessment
for the

Pacific Gas and Electric Company
Atascadero – San Luis Obispo
70 kV Power Line Reconductoring Project

San Luis Obispo County, California
March 2010

Prepared for:
Pacific Gas and Electric Company
245 Market Street, N10A
San Francisco, CA 94105
(415) 973-5698

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EXECUTIVE SUMMARY

Pacific Gas and Electric Company's (PG&E) Atascadero – San Luis Obispo 70 Kilovolt (kV) Power Line Reconductoring Project (project) involves replacement of wood poles, steel towers and conductor of a 15.5-mile segment of an existing power line in San Luis Obispo County, California. Project objectives do not include a capacity increase in megawatts (MW). The new 715.5 thousand circular milliliter (KCmil) all aluminum conductor (AAC) proposed for the line addresses coastal climate deterioration and voltage support issues. Past experience with smaller tension sleeves and aluminum conductors/connectors, along other systems in the area, demonstrates accelerated corrosion for sizes smaller than 715.5 KCmil AAC.

No take of federally or state-listed threatened or endangered species is expected as a result of this project. The U.S. Army Corps of Engineers (USACE) will need to review the project to determine if coverage under a Section 404 Nationwide Permit is required. Because the potential exists for impact to sensitive biological resources, the proposed project will adopt construction practices and avoidance measures, including work from helicopters, to avoid and minimize potential impacts to sensitive plant and wildlife species and their associated habitats in these areas.

Surveys were conducted by TRC Solutions, Inc (TRC) for wetland features, rare plants, critical habitat, and special-status species, including the California red-legged frog (CRLF, *Rana aurora draytonii*) and CRLF critical habitat. A Wetland Delineation Report, Rare Plant Survey Report, and Biological Assessment, prepared by TRC, summarize the results of these studies and include the results of research and surveys conducted to determine the potential for sensitive plants and wildlife to occur in the project action area.

The proposed project will involve minimal ground disturbance associated with work around most of the structures, existing access roads, and construction set-up facilities. Plant communities that might be affected by the project include native and nonnative grasslands, coastal sage scrub, coast live oak woodlands, mixed oak woodlands, valley oak savannahs, open foothill pine woodland, central coast sycamore riparian forest, disturbed/ruderal, and mixed chaparral. Roads required for project access and power line pull/tension sites will have localized, short-term effects on plant communities and will be minimized by using helicopters for part of the construction.

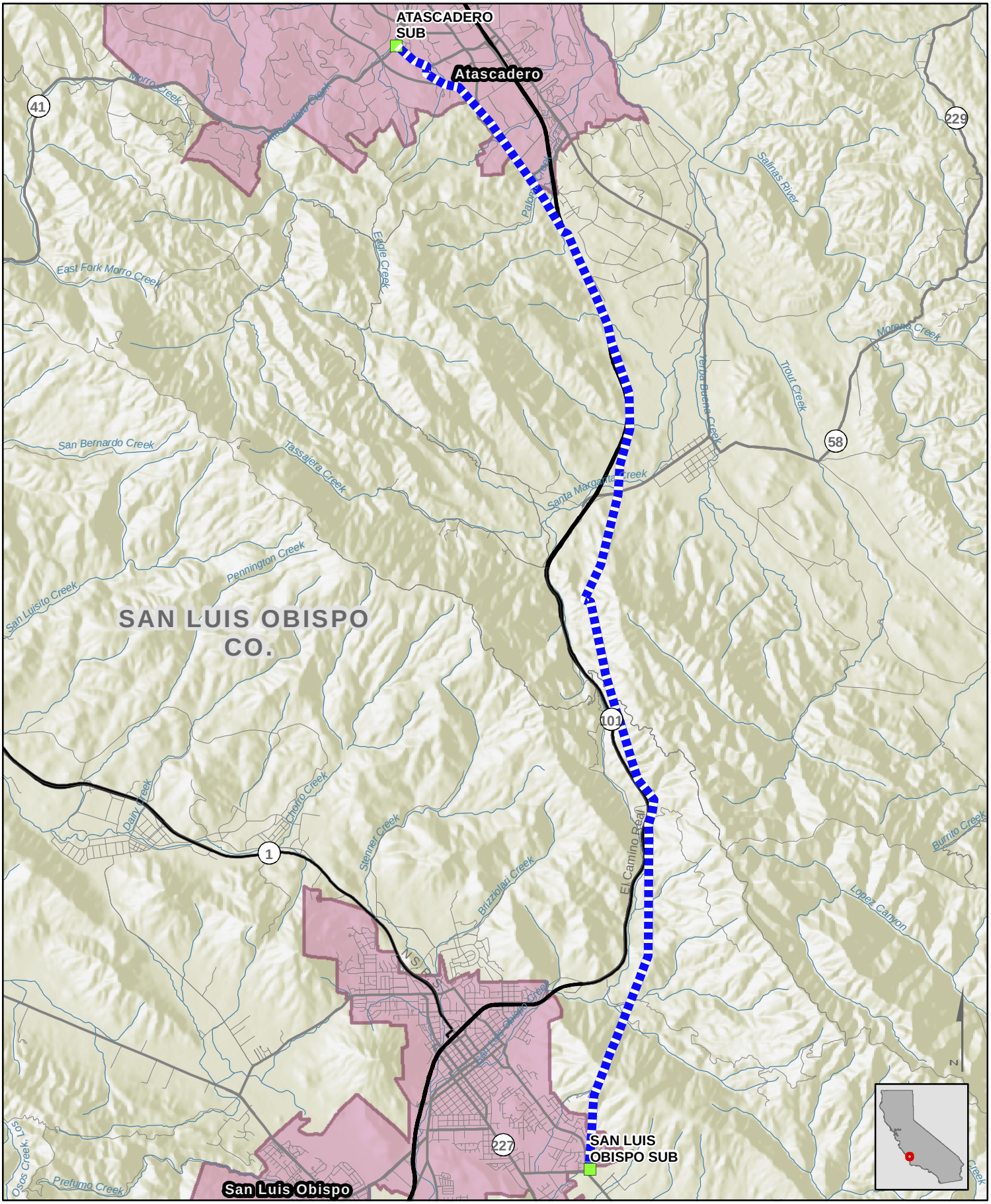
1.0 INTRODUCTION

The purpose of this Biological Assessment is to provide technical information and to review the proposed Atascadero – San Luis Obispo 70 kV Power Line Reconductoring Project in sufficient detail to determine to what extent the project may affect sensitive biological resources, including threatened, endangered, or proposed species and critical habitat. The Biological Assessment is prepared in accordance with the legal requirements found in Section 7 (a)(2) of the Endangered Species Act (16 U.S. C 1536(c)), and presents technical information upon which later determinations regarding project effects will be developed for compliance with the California Environmental Quality Act (CEQA).

A detailed study was conducted by TRC for rare plants. In addition, a Wetland Delineation Report was prepared by TRC under separate cover. This Biological Assessment, prepared by TRC, summarizes the results of these studies and includes the results of research and field surveys conducted to determine the potential for sensitive fisheries and wildlife to occur in the project action area.

2.0 PROJECT DESCRIPTION

The project consists of replacing the existing deteriorating conductor and replacing the supporting wood poles and steel towers along approximately 15.5 miles of the 70 kV power line, including the double-circuit section with the Cayucos-San Luis Obispo 70 kV circuit. The pole, tower and conductor replacement will occur within the existing alignment. The wood pole segment of the project ROW begins in the City of Atascadero at PG&E Atascadero Substation, located at the intersection of Santa Rosa Road and Highway 41 (Morro Road). The existing alignment runs west of Highway 101, through the City of Atascadero, and crosses Highway 101 south of Santa Barbara Road. The segment continues along the eastside of Highway 101, and passes through the City of Rancho Santa Margarita to the top of Cuesta Grade. From this point, the existing wood poles transition to steel towers that continue along the eastside of Highway 101 down Cuesta Grade, through Reservoir Canyon, and terminate at PG&E San Luis Obispo Substation, located at the intersection of Orcutt Road and Johnson Avenue, in the City of San Luis Obispo (see Figure 1). The existing wood poles along the segment will be replaced with direct buried light-duty steel (LDS) poles and existing lattice steel towers will be replaced with new lattice steel towers with concrete foundations, or, in five cases within the residential area near PG&E's San Luis Obispo Substation, tubular steel poles with concrete foundations will be used to replace the existing direct buried lattice steel towers.



Substation

Power Line

Creeks

City Boundary

Rev.:11/30/09

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

FIGURE 1

Project Overview Map

Atascadero - San Luis Obispo 70 kV Power Line Reconductoring Project

0 0.5 1 2 Miles

Scale: 1:100,000

The Atascadero – San Luis Obispo 70 kV Power Line Reconductoring Project is needed to improve transmission reliability, replace aging structures, and provide sufficient peak period transmission voltage for San Luis Obispo County. The existing 70 kV power line contains approximately 134 splices between PG&E's Atascadero Substation and San Luis Obispo Substation, resulting mostly from fires occurring in 1993 through 1994. Since then, many fire-damaged transmission poles have been replaced along the project existing alignment, but these poles still support the original conductor subjected to the fire. In addition, the existing towers that traverse Cuesta Grade have been in place greater than 70 years, and consequently show a great deal of rust. Furthermore, existing tower locations along Highway 101 have also been subject to concern from the California Department of Transportation (DOT) due to recent landslides occurring in close proximity to the tower locations. These concerns have raised efforts to relocate towers to safer grounds and provide concrete foundations. Lastly, it is also evident that the project alignment is subjected to high winds, fires and lightening, all contributing factors resulting in the need of upgraded replacement structures. By reconductoring this line, PG&E will continue to provide safe and reliable electric service to customers in this area. The Atascadero – San Luis Obispo 70 kV Power Line is at risk of deteriorating beyond acceptable reliability levels. This reconductoring work will correct this situation, maintain compliance with applicable grid reliability criteria, and provide for sufficient transmission voltage in the area during peak and abnormal operating conditions.

2.1 SYSTEM RELIABILITY

The existing Atascadero-San Luis Obispo 70 kV Power Line is primarily comprised of 4/0 copper conductor that was installed as early as the 1930's and 40's**.**

Installation of new transmission 715 KCmil AAC will result in greater circuit reliability for customers in the Atascadero-San Luis Obispo area and reduced maintenance on the line.

2.2 PROJECT LOCATION AND REGIONAL CONTEXT

The approximately 15.5-mile long alignment runs from the City of Atascadero to the City of San Luis Obispo, within the South Coast Range of San Luis Obispo County, California. The region consists of characteristic northwest-trending parallel ridges, with parent materials that include sedimentary formations, metamorphics, in addition to intrusive igneous rock and extrusive volcanics (Holland & Keil, 1995). The region's climate is hot and dry in the summer, and wet and cool in the winter; however, temperatures stay fairly temperate through the area due to the close proximity of the project site to the Pacific Ocean.

The northern end of the alignment from Atascadero through Santa Margarita runs mainly through low to moderate rolling hills winding through low density residential areas and grazed pastureland. The central portion of the existing alignment from Santa Margarita through the Cuesta Grade is mainly rolling foothills of mixed oak woodland and native and nonnative grassland. The southern portion of the existing alignment runs from the Cuesta Grade through San Luis Obispo across much steeper topography with mainly native and nonnative annual grasslands and chaparral/scrub, interdispersed with serpentine outcrops. Valleys between steep

hills along the southern portion of the alignment are lined with mixed oak woodlands and dense shrubbery.

2.3 PROJECT COMPONENTS

The project will consist of the following major components:

- replacing existing wooden poles with 132 new LDS poles;
- removing the top section (referred to as topping) of five existing wood poles, leaving the bottom section to support existing distribution conductor (see 'interset poles' marked on Detail Maps [Attachment A]);
- installing five new LDS poles along the alignment to replace the five topped wooden poles;
- replacing existing lattice steel towers with 36 new lattice steel towers, and five TSPs (two towers will be removed from the alignment completely, one will be left in its existing condition, and one will be modified from a suspension tower to a dead end structure);
- reconductoring the alignment, which entails replacing approximately 15.5 miles of existing conductors on Atascadero - San Luis Obispo 70 kV power line with new conductor; and
- modifying additional associated elements, including re-establishment of existing access roads, temporary work areas, helicopter landing zones and equipment laydown areas.

Pole and Tower Replacements

As part of this project, PG&E will replace existing wood poles with new direct-buried LDS steel poles and will replace lattice steel towers with 36 new lattice steel towers and five TSPs with concrete foundations. These new structures are designed to meet California Public Utilities Commission General Order 95 clearance requirements for the new 715 KCmil aluminum conductor. The LDS pole design provides superior protection from wild fires, pole rotting, and woodpecker damage when compared to wood poles.

Wood Pole Replacement

The existing wood poles, approximately 50 to 70 feet in height and 16 inches in diameter, will be replaced with new LDS poles, which will range in height from approximately 50 to 80 feet and will be approximately 15 to 25 inches in diameter (installation will result in approximately 5 square feet of permanent impact per pole). Wood pole replacements will be directly-embedded approximately 7 to 13.5 feet deep. Crews will use a temporary workspace (confined to the previously disturbed areas around the base of the existing poles to the greatest extent possible) within an approximately 40-foot radius of each pole, depending on site conditions, to provide a safe and adequate workspace. New LDS poles will use an avian-safe design to protect raptors and other birds from being electrocuted. This design is limited to the underbuild 12 kV (between Pole 60/7A and Pole 68/6) since the transmission conductors have 4 feet or more separation and,

as such, do not produce a safety risk for raptors. LDS poles will be fitted with insulators to provide the following clearances at the pole itself:

- At least 60 inches of separation phase to phase between non-insulated energized components
- At least 30 inches of separation phase to ground between a non-insulated energized component and a grounded component

New poles will be delivered and staged next to each pole site using a standard line truck with trailer (line truck with trailer can transport between two and three poles at once) or by helicopter, depending upon site-specific conditions. A line truck with trailer and a potential second truck (crew-cab truck and/or half-ton pickup) will be used to access the majority of the poles sites for pole installation and removal. A maximum of four or five truck trips are anticipated to each pole site. The truck trips to the site are to deliver the pole, auger the hole, set the new bottom section, set the new top section, and remove the old pole. Each pole site is expected to be accessed one or two days during construction. When delivering and removing poles, the line truck is expected to access two or three sites per trip per day, as schedule and conditions permit. Additionally, pole delivery, augering, and setting the bottom pole may occur in one day during a single trip.

The LDS poles consist of two sections (bottom section and matching top section) and will be delivered with new framed insulators and hardware. Pole sections will be delivered in matched pairs to each new pole site. The bottom sections are approximately 20 feet in height. The top sections are approximately 40 to 55 feet in height. The existing wood poles are 60 to 75 feet in height and are buried approximately 7 to 10 feet into the ground. New LDS poles will be approximately 5 to 10 feet taller than the existing wood poles and will be buried approximately 6 to 13.5 feet deep (holes will be approximately 2 to 3 feet wide).

New holes will be excavated using a standard line truck with auger attachment (highway digger with 15- to 18-foot depth capacity) and large crane, or by helicopter and hand dug (with the aid of a hand jack powered by an air compressor or long handled shovel); no separate foundations will be used. The replacement poles will be located as close as possible to the existing poles, usually within 3 to 6 feet, in line with the existing pole holes. A water truck may be used during augering to keep the soil firm in areas of sandy soil. Plywood and plastic covering will be used to cover the excavated holes until pole installation activities begin.

Soil will be covered with plastic covering until later backfilled around the pole base and used to backfill existing holes from the original pole-holes once removed. Any excess soil generated from project activities will be coned around the new pole to allow for future soil compaction during rains, and, or dispersed evenly over areas in which drainage and vehicle accessibility will be maintained. In the unlikely event that the soil cannot be spread and adequately contoured or compacted into the landscape, crews will remove the excess soil from the pole site and it will be disposed in accordance to the legal requirements. The appropriate construction storm water Best Management Practices (BMPs) will be used before, during, and after all project-related construction where necessary to prevent off-site sedimentation.

To assemble the LDS poles, a line truck with a boom attachment will be positioned at the pole site to land the top section on the bottom section. A truck with a worker-lift attachment will be position to allow a worker to guide the top section into place and to secure the two sections. Top sections will be installed when a line clearance can be scheduled. Setting the pole top sections may be performed on separate days to accommodate line clearance schedules and any potential environmental seasonal work restrictions. If installed at separate times, the top section would remain at the pole site until assembled to the bottom section.

The boom mounted on the line truck will be used to loosen old poles as needed. Crews will pull the old wood poles directly out of the ground using the line truck. However, in some instances, the old wood poles will be cut at the base or cut 6 to12 inches below the surface and left in place due to site conditions. Pole removal activities will utilize bucket trucks to remove cross arms and wires. Poles are expected to be cut into two sections for removal on the line truck with trailer or by helicopter. All old poles, associated hardware, and any other debris generated from project activities will be removed from the project and disposed of properly. In addition, existing pole stumps from past pole replacements may be removed. If the location of these stumps is suitable, the new steel pole will be installed in the same hole. Otherwise, the stumps may be cut at or below ground level, or left in place where necessary to avoid potential impacts to resources. Existing holes will be filled with soil excavated from the new replacement pole. In the unlikely event that additional fill is needed, fill will be imported.

In addition, each LDS pole will have two grounding rods. The grounding rods are approximately 8 feet in length and will be installed approximately 6 feet apart within the established temporary work area (40-foot radius). Ground rods will be located at a minimum of 12 inches from the pole surfaces. No permanent environmental impacts will be associated with the grounding rod installation.

Any existing anchors and/or conduit will be replaced and set in place next to the new LDS pole. The new anchors will be power installed screw anchors (PISA) single 8-inch or twin 8-inch helix. PISA anchors will be installed at a minimum depth of five times the helix diameter. The rod will not extend more than 3 feet out of the ground. The basic determination of the holding strength of the PISA installed anchors is dependent on the installing torque applied on the anchor. A larger diameter single-helix or twin-helix will provide more holding strength. The determination for the installation of a single-helix or twin-helix is dependent on the variations in soil characteristics in the areas. Anchors will be installed with a Digger Dereck Line and directional drill. No auger holes will be required for installation.

Top Removal

At five distribution interset wood pole locations, a line truck will be used to access and remove pole tops from the existing wood poles. The pole will be secured by the line truck, and a chainsaw will be used to remove the top portion of the pole. The pole tops will be transported via line truck and trailer to the PG&E Templeton Service Center and stored in a 40 cubic yard lined boxes for further transport. Following construction, pole sites will be restored to preconstruction conditions.

Pole Removal

Pole removal activities will utilize bucket trucks to remove cross arms and wires. Poles are expected to be cut into two sections for removal on the line truck with trailer or by helicopter. In addition, existing pole stumps from past pole replacements may be removed. If the location of these stumps is suitable, the new steel pole will be installed in the same hole. In addition, existing pole stumps from past pole replacements may be removed. Otherwise, the stumps may be cut at or below ground level, or left in place where necessary to avoid potential impacts to resources. Construction debris will be picked up and hauled away as needed for recycling and/or proper disposal. Wood poles and stumps will be taken to the designated Templeton Service Center collection bin by a line truck with trailer and 40 cubic yard lined boxes for transport. Once collection bins are filled, the bins will be transported to a licensed Class 2 landfill. All fully treated wood containers will be transported to Chemical Waste Management for disposal in compliance with all applicable DOT shipping regulations and Title 22 of California Code of Regulations.

Tower Replacement

The existing direct-buried, lattice steel towers, approximately 20 by 20 feet at the base and approximately 80 to 110 feet tall, will be replaced by new lattice steel towers, with concrete foundations, approximately 20 by 20 feet at the base and approximately 10 to 20 feet taller than the existing structures. Each tower leg with concrete foundation will result in approximately 7 square feet of permanent impact, resulting in a total of approximately 28 square feet of permanent impact per tower. New towers will be constructed typically within approximately 30 feet north- or south-of, and in line with, the existing towers, depending on existing terrain and PG&E engineering design. Crews will use temporary workspace within an approximately 100-foot radius of each tower, depending on site conditions, to provide a safe and adequate workspace. At locations where vehicle access is not available, an approximately 200-square-foot area, approximately 80 feet uphill from each tower and perpendicular to the alignment, will be leveled and used to mix concrete for the tower foundations (compressor staging areas). New towers will use an avian-safe design to protect raptors and other birds from being electrocuted; this may include the installation of anti-perch devices, as necessary.

Holes typically up to 10 to 15 feet deep and approximately 3 feet in diameter will be excavated using a crawler mounted auger, or by hand digging, with the aid of a hand jack powered by an air compressor for the tower legs and concrete foundations at each tower corner (some foundations may be deeper near high slide areas). Four foundation bores (one bore for each tower leg) will be excavated for each tower replacement. Where equipment access is limited, tower and foundation equipment and materials will be flown in by helicopter.

Five direct-buried lattice steel towers, four located within the City of San Luis Obispo and one located just north of the City of San Luis Obispo boundary in unincorporated San Luis Obispo County (near PG&E's San Luis Obispo Substation), are planned to be replaced with five new TSPs that will be approximately 55 to 85 feet in height. The installation of TSPs will free-up approximately 350 square feet of space on each of the properties in question. The new TSP locations will be located on the same parcels that currently hold the lattice towers currently sit,

and within the current alignment to optimize property use by the owners. These new structures will allow for a smaller footprint within the property boundary.

Structure Addition, Elimination, Relocation, or Modification

Design and/or environmental conditions require the elimination or relocation of the following towers:

- Tower 68/9 will be relocated approximately 100 feet south.
- Tower 74/1 is being removed in order to avoid impacts to nearby jurisdictional water.
- Tower 74/2 will be relocated approximately 150 feet north.
- Tower 75/1 and Pole 63/3 are being removed and will not be replaced.
- Tower 75/2 is being replaced with a TSP and will be moved approximately 80 feet north.
- Towers 71/1 and 71/2 were recently replaced and upgraded and currently maintain present PG&E design standards, and therefore, will not be replaced. However, Tower 71/1 will be modified from a suspension tower to a dead-end tower.
- Poles 62/12 and 67/0 were recently replaced and upgraded and currently maintain present PG&E design standards, and therefore, will not be replaced.
- Pole 66/14A will be newly installed along the alignment 255 feet north of Pole 66/15.

As a general rule, new lattice steel towers or TSP will not be more than 20 feet taller than the existing towers and new LDS poles will not be more than 10 feet taller than the existing wood poles.

Reconductoring

Reconductoring will involve the replacement of the existing conductor with a heavier duty conductor that will increase the reliability of the line. Pull and tension locations will be necessary for the reconductoring operation. Equipment will be staged at the pull and tension sites, approximately 40 feet wide by 200 feet long, located at both ends of the project alignment and at locations near Towers 68/8, 71/1, and 73/3. When required, temporary crossing structures will be installed to protect roadways during installation of the new conductors. Reconductoring will also include replacing insulators.

The following describes steps to replace the existing conductor with new conductors. PG&E plans to utilize daily clearances, planned in advance with PG&E's System Operations group to accomplish both tower replacement and the reconductoring work. Utilizing daily clearances will ensure that the Atascadero - San Luis Obispo 70 kV line can be returned to service quickly should it be needed to support the local transmission system.

Step 1—Grounding

To protect workers, equipment will be grounded to capture induced voltage from nearby active circuits. During construction, ground rods (0.625-inch diameter copper rods) will be driven into the ground near equipment. They will be deep enough to reach firm ground and approximately 1-

foot of the rod will protrude. Grounding equipment will be connected to these ground rods during construction and be disconnected when the line is restored to service. Crews will meet or exceed General Order 95 standards and work will be done in accordance with PG&E's Code of Safe Practices.

Step 2—Unclipping and Traveler Installation

New ceramic and non-ceramic insulators will be placed on the new poles and towers with conductor rollers at their end and the conductor on the existing poles and towers will be unclipped from the insulators. Once the rollers are in place, the hoist will lift the conductor off the existing poles or towers and lower the conductor onto the rollers on the new poles or towers. Rollers, insulators, and the tools required to install them will be delivered to the site by helicopter or vehicle depending upon site-specific conditions. PG&E will use all-terrain vehicles or pickup trucks to access the base of the towers or poles; and helicopters, in some cases, to assist with the installation of insulators, to install insulators, rollers, and conductors.

Step 3—Conductor Replacement

After the rollers have been installed in a predetermined section of the line, a cable from the puller truck will be attached to the existing conductor at one end of the pull section, and a nylon pulling rope will be attached to the existing conductor on the opposite end. As the puller truck removes the old conductor, the pulling rope will be pulled into place. A line truck with a drum puller and empty conductor reel at the pull end will pull the old conductor onto the reel where it will be collected for salvage. Once the pull rope is in place, the new conductor will be attached to the rope at the opposite end. Reel stands mounted on a line truck at the tension site will feed new conductor along the rollers previously installed at each structure, while also maintaining tension in the line so that it does not sag to the ground. The new conductor will be pulled through each structure under a controlled tension to keep it elevated and away from obstacles, thereby preventing damage to the line and protecting the public. Transport vehicles (crew-cab truck and/or half-ton pickup) will be used to transport personnel to pull and tension sites. Conductor will be pulled in stages along the transmission corridor between the tension and pull sites.

Once the new conductor is pulled into place and the conductor tension between structures is adjusted to a precalculated level, it will be removed from the rollers and clipped into the end of each insulator. The rollers will then be removed and vibration dampers and other accessories will be installed.

At dead-end structures (conductor end points or tower angle points), PG&E will use a boom truck to support the down-strain load, and enable the removal of the rollers. The crew will then access the structures to remove the rollers and attach the dead-end material to the structures. Tension pull sites have been strategically located to avoid biologically sensitive areas.

Old conductor will be removed from the sites on a line truck and trailer, then salvaged at a PG&E Service yard or recycled. Distribution 12 kV underbuild will be re-used and transferred directly to new poles, except in locations where interset poles will remain. Packing crates, spare bolts, and construction debris will be picked up and hauled away for recycling or disposal during

construction. PG&E will conduct a final survey to ensure that cleanup activities have been successfully completed as required.

Specialty Construction Area

A tap circuit known as the "San Luis Obispo – Cayucos 70 kV" branches off of the Atascadero - San Luis Obispo 70 kV line from Tower 73/0 (a double-circuit interconnection, 6-strand, 0.464- to 0.724-inch diameter). In order to support the tap circuit at this location while replacing the tower, a "shoofly" will be constructed. The shoofly will consist of 3 to 4 temporary wood poles, approximately 80 feet tall and set approximately 10 feet into the ground, and placed around the tower to support the conductors while the existing tower is removed and replaced in the same location. This temporary structure will allow one of the double-circuit lines to remain in service during the construction activities. "Shoofly" poles will be installed by a standard digger derrick line truck and conductor will be transferred to temporary structures with a bucket truck. Following construction of the tower, the conductors will be placed in rollers and the temporary poles removed. A shoofly may also need to be installed at Tower 75/0 to enable this dead-end angle tower to be removed and replaced in the same location. This will ensure the same circuit alignment is maintained.

Project Access

The existing transmission corridor will be accessed by helicopter, trucks, all-terrain vehicles, and by foot. PG&E will access poles and towers in sensitive areas using only the minimum equipment required. Structure sites will be accessed using existing public and private roads and existing access roads that are present in the project area (see Detail Maps in Attachment A). In many instances, replacement poles and structures will be flown in by helicopter. While existing access roads (currently used for operations and maintenance) will be utilized for project access, some roads will require minimal grading to re-establish the road integrity and allow safe movement for construction equipment, and/or mowing or trimming of vegetation to allow vehicle passage. In these cases, PG&E will implement BMPs for road re-establishment; and these modifications will be permanent. No new access roads will be constructed for the project.

Drainage Crossings

Existing access roads leading to some of the structures may require culvert installation or repair, or other crossing facilities that will sustain the weight of the construction equipment and vehicles. The locations where crossing structures or repairs may be required are shown in the Detail Maps in Attachment A and listed in Table 1.

Table 1: Drainage Access Crossings

Access Description	Type	Culvert Size	Culvert Length	Location
Four crossings of two intermittent drainages; three crossings will be spanned with temporary bridges if necessary; a temporary culvert will be installed in the northernmost crossing.	Temporary bridge and PVC or metal pipe	Approximately 24 inches	Approximately 20 feet	Access to Eagle Ranch in Atascadero, Poles 62/16 to 63/10
Three crossings of intermittent drainages will be spanned with temporary bridges.	Temporary bridge	N/A	N/A	Access from Powerline Road in Santa Margarita, Poles 64/12 to 64/14
One intermittent drainage will have a culvert installed	Corrugated metal pipe	Two culverts approximatley 30 inches each	Approximately 50 feet	Access road to 69/0 from Santa Margarita Ranch
One intermittent drainage will have culverted crossing repaired.	Existing culvert is blocked. The culvert inlet will be cleaned out and the road re-established over the culvert.	N/A	N/A	Access road to 69/0 from Santa Margarita Ranch
Gravel will be placed on an existing road where it fords an ephemeral swale.	Rock	N/A	N/A	Access road to 70/0 off Lowe Mountain Road
A temporary bridge will be installed over one intermittent drainage.	Temporary bridge	N/A	N/A	Access to 72/2 and 72/1 from Wood Winery

Temporary Bridge

The temporary bridge will use a full length "Hinge" design, 35 to 45 feet long by 13 feet wide (approximately 22,000 to 30,000 pounds (lbs)), for the crossing of intermittent drainages as specified in Table 1. The bridge will be assembled offsite and delivered to specific locations on a transport truck (folded in half during transport to approximately 8 feet wide). An excavator will be used to unload the bridge from the transport truck, and install over the water features. Trench plates will be installed as approaches to the bridge, rather than gravel or earthen approaches to minimize potential sedimentation.

Riprap and Erosion Control

Crossings will be designed to maintain the existing creek-flow velocities as closely as feasible. Maintaining the existing channel hydraulics will reduce sedimentation, scour, and bank erosion. This method will minimize the need for constructed bank-protection facilities. Boulder riprap will be used, where necessary, to protect structures and prevent erosion.

Grading

Re-establishment of some existing access roads will require vegetation clearing and minimal grading to secure stability for vehicle access. Access road portions will be graded with a motor grader and/or dozer brought to the site on a trailer hauled by a semi-truck. The grading is expected to be performed following any necessary vegetation trimming and clearing activities. One crew of three to four people will perform both grading and vegetation activities. In addition to the grader, the crew will use up to two pick-up trucks to access the roads and to conduct the grading and vegetation work. Any temporary disturbance to the route area will be minimal and short term. Access roads that require improvements, such as brushing or grading, are shown in the Detail Maps in Attachment A.

Vegetation Removal/Trimming

Some existing access roads will require mowing/brushing, trimming or removal of vegetation to gain access and to reduce the potential fire danger resulting from vehicle travel. Vegetation will be mowed and shredded or removed from access roads using an ASV mower or similar equipment. Where accessible, vegetation will be trimmed with the use of a bucket truck and chainsaw or smaller manual clippers. PG&E will use BMPs during vegetation removal. Tree trimming and/or removal will be avoided when feasible, however, trimming and/or removal may be necessary if existing trees interfere with access to existing structures. Tree removal and trimming, within the existing alignment, will be performed to meet clearances as required under GO 95-D. Where tree removal is necessary within private properties, PG&E will coordinate with appropriately with property owners. Additionally, PG&E will coordinate with local jurisdiction regarding mature and historical tree protection and apply for any necessary Tree Removal Permits. A list of trees anticipated for removal is shown in Table 2. Access roads that require vegetation removal or trimming are shown in the Detail Maps in Attachment A. A water truck will be used to assist with grading and control dust emissions.

Table 2: Anticipated Tree Removal

Number	Tree Species	Quantity	Diameter Breast Height (inches)	Location (nearest structure)	Local Jurisdiction
9	Valley oak	1	28	60/15	Atascadero
10	Valley oak	1	12	60/15	Atascadero
12	Pine	1	27	60/19	Atascadero
21	Pine	2	7	61/11	Atascadero
25	Pine	5	13	61/15	Atascadero
25	Eucalyptus	2	10	61/15	Atascadero
26	Pine	1	38	61/15	Atascadero
27	Pine	1	14	61/15	Atascadero
29	Pine	3	7	61/17	Atascadero
30	Pine	1	5	61/17	Atascadero
31	Oak	1	13	61/18	Atascadero
32	Oak	1	5	61/18	Atascadero
34	Valley oak	1	20	62/1	Atascadero
38	Oak	1	9	62/9	Atascadero
38	Liquid amber	1	6	62/9	Atascadero
61	Coast live oak	1	6	63/4	County
102	Pine	1	30	76/0	San Luis Obispo
102	Pine	1	20	76/0	San Luis Obispo
103	Pine	1	35	75/3	San Luis Obispo
103	Pine	2	2	75/2	County
104	Coast live oak	1	29	69/0	County

Temporary Construction Areas

Temporary construction areas include helicopter landing areas, laydown areas, temporary construction yards, and pull/tension sites, and shoo-fly areas. These sites will be located in non-sensitive areas, such as annual grasslands or developed areas, to the extent possible. However, Tower Pull and Tension Site #1 will be located in oak woodland located near Tower 68/8. Tree trimming and/or removal will be avoided when feasible, but, may be necessary if existing trees

interfere with access to existing structures. Temporary construction areas are identified in the Detail Maps in Attachment A and in Table 3.

Helicopter Landing Zones

Most tower structures will be removed and installed by helicopter. Helicopter landing zones will be located in relatively flat areas that allow enough space for helicopters to take-off and land safely. These sites may also be used as equipment and material storage areas, and for assembly of structures**.** From the helicopter landing zones, the helicopter will transport structure materials to and from the structure sites along the ROW. The helicopter types may include Bell 214 (load capacity 6,000 pounds), Sikorsky SU62 Sky Crane, Bell Long Ranger, and Hughes 500, depending upon availability at the time of construction. Helicopters are expected to be used for four days per week between 6:30 a.m. and 5:00 p.m. to complete the pole and/or tower installations and removal. Helicopters will be refueled and left during non-use hours at the San Luis Obispo Airport. The perimeter of landing zones will be barricaded off for safety with k-rails or t-posts with rope.

Helicopters will typically follow a flight path through rural areas parallel to and along the east side of the line. A Lift Plan will be prepared and approved by the Federal Aviation Administration prior to all construction helicopter operations.

Table 3: Temporary Construction Areas

Description	Location	Approx. Acreage
Laydown Area, Construction Yard, Helicopter Landing Zone, and Concrete Transfer Area	Santa Margarita near Wilhelmina Ave.	2.8
Tower Pull and Tension Site #1	Tower 68/8	0.5
Helicopter Landing Zone and Laydown Area	Tower 69/6	0.2
Laydown Area	Tower 70/1	0.3
Tower Pull and Tension Site #2	Tower 71/1	0.5
Laydown and Concrete Transfer Area	Wood Winery near Tower 72/3	2.1
Laydown Area	Wood Winery near Tower 72/3	1.0
Cayucus Tap Support, Tension and Pull Sites, and Shoofly Area	Tower 73/0	0.3
Tower Pull and Tension Site #3	Tower 73/3	0.5
Shoofly Area	Tower 75/0	0.3
Laydown Area, Construction Yard, Helicopter Landing Zone, and Concrete Transfer Area	Near Tower 73/3 in Reservoir Canyon	3.1

Temporary Laydown Areas and Construction Yards

Temporary laydown areas and construction yards are intended for equipment and materials storage and staging, and worker and project vehicle parking. These temporary construction areas will be located on flat ground easily accessible for pick-up and drop off of construction materials. Minimal site preparation may be required for laydown areas and temporary construction yards, including minimal grading and/or vegetation clearing. Poles and towers will be assembled with associated hardware at the temporary laydown areas and construction yards. The PG&E Templeton Service Center and San Luis Obispo Substation may be used as construction yards to stage equipment and hardware. No power will be required at laydown areas or construction yards. If necessary, a self-contained generator will be available from the local PG&E Service Center or a rental company.

No perimeter fencing will be required for the laydown areas and construction yards. If necessary, chain linked screens, erected with cement blocks will be used for security purposes. No ground excavation will be required to construct the temporary fencing.

Pull and Tension Sites

Line pulling for the pole segment of the project will be conducted with standard line trucks parked along the road or under the line, with no additional grading required. Pull and tension sites for the poles will be located directly adjacent to the poles and will be set along the project alignment approximately 1 mile apart. For the tower segment, pull and tension sites will be reasonably flat and in line with the conductor. These sites will be located in non-sensitive areas, such as annual grasslands or developed areas, to the extent possible. However, Tower Pull and Tension Site #1 will be located in oak woodland located near Tower 68/8 as shown on the Detail Map in Attachment A. Minimal grading will be required adjacent to some of the tower pull sites to establish level pads for the pulling and tensioning equipment. If necessary for equipment stability, gravel will be spread over the pads and removed at the end of the project. Pull and tension sites will be approximately 8,000 sq. feet (40 feet wide by 200 feet long).

Several pieces of equipment will be placed at the tower pull and tension sites, including rope trucks or tensioners, conductor reels to receive the old conductor as it is removed, and reels of new conductor will supply the line from another pull site along the corridor. The reels will be transported to the project on trailers pulled by a semi-truck, which will also be parked on-site. Cranes will be on-site to lift conductor reels on and off of the trailers.

2.4 PROJECT SCHEDULE

Construction is scheduled to start January 1, 2011, with an estimated completion date of November 30, 2012. Project construction is anticipated to take approximately two years to complete. Construction activities within critical habitat for CRLF will be avoided before April 1 and after the first rains of the winter (typically around November 1). To allow for structure work outside of CRLF critical habitat, use of the Reservoir Canyon and Santa Margarita staging areas, which are within the critical habitat boundaries, will likely be required. The U.S. Fish and Wildlife Service (USFWS) will be consulted for any work within CRLF critical habitat

boundaries that is required between November 1 and April 1. Construction activities may also be restricted during the period of February 15 through August 15 to avoid nesting birds. Table 4 lists the schedule of activities that would occur within and outside of critical habitat for CRLF.

Table 4: Proposed Construction Schedule

Proposed Schedule	Project Activity Outside of CRLF Critical Habitat	Project Activity Within CRLF Critical Habitat
January 1 to March 31, 2011	Access road re-establishment (grading, rock removal, vegetation trimming and removal), and LDS pole installation and wood pole removal begins. Reconductoring to occur as sections of pole line are completed. TSP and tower foundation work begins in non-CRLF areas.	Access road use and equipment/ material staging at the staging area off Wilhemina Avenue in Santa Margarita.
March 1 to March 31, 2011	Tower/TSP installation and removal begins in non-CRLF areas. Reconductoring to occur as sections of tower line are completed.	Access road use and equipment/material staging at the Reservoir Canyon staging area. Tower 71/1 modification within CRLF critical habitat boundaries using crane, line trucks, and transportation equipment (this tower is along the Hwy. 101 shoulder and only requires modifications, not full replacement).
April 1, 2011	Pole and tower construction begins. Reconductoring to occur as sections of pole line are completed. The focus of work will be within CRLF critical habitat boundaries.	Pole and tower construction within CRLF critical habitat boundaries begins. Access road re-establishment (grading, rock removal, culvert and bridge installation, vegetation trimming and removal), within CRLF critical habitat boundaries. Reconductoring to occur as sections of pole line are completed.
September 3, 2011	Wood Pole project segment operational	
October 31, 2011	Tower construction within CRLF critical habitat areas stops and continues in non-CRLF habitat areas. Reconductoring to occur as sections of tower line are completed.	Tower construction within CRLF critical habitat boundaries stops.
April 1 to October 31, 2012	Tower/TSP installation and removal continues in non-CRLF areas with a focus on CRLF crititat habitat	Tower installation and associated reconductoring begins again within CRLF critical habitat boundary.

	boundaries. Reconductoring to occur as sections of tower line are completed.	Reconductoring to occur as sections of tower line are completed. Revegetation and cleanup
November 1, 2012	Tower and work within CRLF critical habitat boundary completed. Tower project segment operational.	
November 1 to November 30, 2012	Revegetation and Cleanup	

2.5 REQUIRED APPROVALS

PG&E will obtain permits for the project, as needed, from federal and state agencies. Table 5 lists discretionary permits and approvals that may be required for project construction.

Table 5: Discretionary and Ministerial Permits and Approvals that May Be Required

Regulatory Authority	Agency	Jurisdiction/Purpose	Project Requirements
Federal			
Section 404 Nationwide Permit	U.S. Army Corps of Engineers (Corps)	Work in "waters of the United States," including wetlands.	For poles placed in wetlands or access required across drainages that result in placement of fill.
Section 7 consultation (through federal review process)	U.S. Fish and Wildlife Service (USFWS); National Oceanic and Atmospheric Administration (NOAA) Fisheries	Potential impacts to federally listed species or critical habitat.	Consultation may be required for California red-legged frog and critical habitat.
Notice of Proposed Construction or Alteration under Federal Aviation Regulations Part 77	Federal Aviation Administration (FAA)	Regulations apply to poles and/or towers over 200 feet in height above ground level at its site, or within certain proximities to local Airports.	Alignment structures greater than 200 feet in height will require referral to the FAA.

Regulatory Authority	Agency	Jurisdiction/Purpose	Project Requirements
State			
Permit to Construct (General Order No. 131-D)	California Public Utilities Commission (CPUC)	Construction, modification, or alteration of Power line facilities.	The upgrades qualify for the Notice of Construction process rather than a formal permit under the CPUC's General Order No. 131-D, Section III.B.
Section 401 Water Quality Certification	Central Coast Regional Water Quality Control Board	Consistency with state water quality standards.	Water Quality Certification will be required prior to obtaining a Section 404 Permit from the Corps, if required.
1600 Streambed Alteration Agreement	California Department of Fish and Game (CDFG)	For work that affects the bed or bank of a stream or lake.	The CDFG may issue a Streambed Alteration Agreement for construction activities that affect drainages.
Standard Encroachment Permit	California Department of Transportation (Caltrans)	For use of the California State highways for other than normal transportation purposes, including construction activities completed within the right-of-way.	A Standard California State Encroachment Permit may be obtained for reconductoring work being conducted within the Caltrans right-of-way; this includes temporary lane closures, temporary work space needed to replace structures located along Highway 101 and Highway 58, and reconductoring activities that cross the aforementioned highways.
National Pollution Discharge Elimination System (NPDES) Storm Water Permit	State Water Resources Control Board	Construction activities disturbing 1 acre or more of soil must submit a Notice of Intent to comply with the terms of the general permit.	The project will develop and implement a Storm Water Pollution Prevention Plan (SWPPP).
Local			
Air Pollution Control District (APCD) Permit	Air Pollution Control District of San Luis Obispo County	For conducting activities which may result in air pollution.	An APCD permit will be obtained to remove structures and drill into serpentine rock.

3.0 SENSITIVE SPECIES CONSIDERED

3.1 LITERATURE REVIEW

Before preparing the biological assessment, a review of documentation relevant to the project action area was conducted. The California Natural Diversity Data Base (CNDDB) was accessed for information on sensitive plant or wildlife species known to occur in the project action area and within a 5 mile buffer around the project action area (CDFG, 2009). Sensitive species include all federally and state-listed endangered and/or threatened species, candidates for listing, species of concern, and species listed as rare by the California Native Plant Society (CNPS) (see Attachment B: CNDDB Maps for Plants and Wildlife). Biologists considered the habitat requirements for plant and wildlife species during the survey. A list of sensitive species with the potential to occur was compiled, and the habitat requirements of each species were considered.

Table 6 (plants) and Table 7 (invertebrates and wildlife) list the sensitive species identified in the literature review, their listing status, their habitat association, and survey results.

3.2 DESCRIPTION OF PROJECT ACTION AREA

To delineate the project action area, local topography, hydrology, special-status species populations, and potential project effects were considered. The project action area includes a 100-foot radius around the proposed tower locations; 40-foot radius around the proposed pole locations; and 10 feet on either side of access roads, potential pull and tension site locations, and all staging, landing zones, and laydown area locations. In addition, vegetation communities were identified and mapped along a 500-foot wide corridor of the project alignment. The project action area also includes areas outside of the area described above that support special-status species and could potentially be affected by project construction activities if significant amounts of contaminants, sedimentation, noise, or air pollution were to be carried beyond the immediate area. These areas include nesting trees within 0.25 mile (1320 feet), vernal pools within 250 feet, CRLF critical habitat within 250 feet, and water up to 1000 feet downstream that has the potential to support special-status fish and/or critical habitat. It is not anticipated that direct or indirect effects resulting from project construction or operation will extend beyond this project action area. In addition, there will be no effects from activities that are interrelated and interdependent with that action.

3.3 FIELD SURVEYS

Rare plant surveys and plant community mapping were conducted by Madeleine van der Heyden, Lead Biologist; Marc Doalson, Lead Biologist; Mark Cassady, Senior Biologist; and Julie Pollack, Staff Biologist from June 17 to 22, 2009. Mr. Cassady conducted additional surveys of an access road and staging areas near Wood Winery and Reservoir Canyon on July 27, 2009.

Biologists surveyed potential habitat to determine if any sensitive plant and/or wildlife species occur within the project action area identified prior to or during the survey. Binoculars were used to assess existing tower locations that could not be accessed by vehicle or foot during the survey.

During the survey, each plant and wildlife species encountered was identified and recorded. Later, all plants and wildlife species encountered were researched to determine possible sensitivity status (i.e. Federal, State and/or CNPS). Each plant species was identified using identification keys in *The Jepson Manual* (Hickman, 1993). Field guides used to identify wildlife are listed in the references section of this report. Special-status species observed within the project action area were mapped using Trimble and Garmin Global Positioning System (GPS) units. Population sizes for special-status plants were recorded where observed by either direct counts of individuals or population estimates. Representative photographs of plant communities and rare plant and wildlife species observed within the surveyed area is included in Attachment D. A list of all plant and wildlife species observed during the surveys is included in Attachment E.

Plant communities observed within the project action area were classified according to the Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland, 1986), where possible, and were mapped using a combination of GPS and aerial photograph mapping.

Table 6: Special-Status Plants and Communities Analyzed for this Project

Common Name ***Scientific Name***	**Status**	**Habitat Type and Survey Window**	**Potential in the Project Action Area**
Hoover's bentgrass *Agrostis hooveri*	CNPS 1B.2	Chaparral, cismontane woodland, as well as valley and foothill grassland; usually grows in sandy substrate and dry soils derived from sandstone or siliceous shale at an elevation of 60 to 610 meters. Blooming period is April to July.	Unlikely. The range of species falls within the lower elevation portions of the project action area. Three CNDDB records occur within less than 5 miles of the project action area. One record occurs along Mount Lowe Road east of Tower 70/0. However, species was not observed during the survey.
Arroyo de la Cruz manzanita *Arctostaphylos cruzensis*	CNPS 1B.2	Broadleafed upland forest, coastal bluff scrub, closed-cone coniferous forest, chaparral, coastal scrub, as well as valley and foothill grassland; grows in sandy soils. Known from fewer than twenty occurrences. Elevation range is 60 to 310 meters. Blooming period is December to March.	No potential. Range of species is outside of the project action area. There are no CNDDB records within 5 miles of the project action area.
Santa Lucia manzanita *Arctostaphylos luciana*	CNPS 1B.2	Chaparral and cismontane woodland; grows in shale. Elevation range is 350 to 850 meters. Blooming period is December to March.	Observed within the project action area. Species was observed adjacent to the project action area off of Mount Lowe Road east of Tower 70/0 but not within any proposed impact area. CNDDB records occur also along the line near Tower 69/3; additional records occur elsewhere within less than 2 miles east of the project action area.
Morro manzanita *Arctostaphylos morroensis*	FT, CNPS 1B.1	Chaparral (maritime), cismontane woodland, coastal dunes (pre-Flandrian), and coastal scrub; grows in sandy loam. Known from fewer than 10 occurrences in the Morro Bay area; estimated to cover less than 350 acres as of 1996. Elevation range is 5 to 205 meters. Blooming period is December to March.	No potential. Elevation range and specific habitat requirements of species are not present within the project action area. There are no CNDDB records within 5 miles of the project action area.
Oso manzanita *Arctostaphylos osoensis*	CNPS 1B.2	Chaparral and cismontane woodland; grows in dacite porphyry buttes. Elevation range is 300 to 500 meters. Known only from two occurrences in the mountains north of Los Osos Valley. Blooming period is February to March.	No potential. Range of species is outside of the project action area. There are no CNDDB records within 5 miles of the project action area.

Common Name ***Scientific Name***	**Status**	**Habitat Type and Survey Window**	**Potential in the Project Action Area**
Pecho manzanita *Arctostaphylos pechoensis*	CNPS 1B.2	Closed-cone coniferous forest, chaparral, and coastal scrub; grows in siliceous shale. Known only from Pecho Hills area. Elevation range is 125 to 850 meters. Blooming period is November to March.	Unlikely. Range of species is outside of the project action area. However, there is a historic record mapped along the Cuesta Ridge East Trail about 4 miles southeast of the Cuesta Pass. This site is out of the species range and needs further confirmation. Species was not observed during the survey.
Santa Margarita manzanita *Arctostaphylos pilosula*	CNPS 1B.2	Closed-cone coniferous forest, chaparral, and cismontane woodland. Elevation range is 170 to 1,100 meters. Blooming period is December to March.	Observed outside of the project action area. One CNDDB occurs 1.25 miles west of Pole 63/3 and a second one occurs 5 miles southwest of PG&E's San Luis Obispo Substation.
Dacite manzanita *Arctostaphylos tomentosa* ssp. *daciticola*	CNPS 1B.1	Chaparral and cismontane woodland; grows on dacite porphyry buttes. Known only from Hollister Peak. Elevation range is 100 to 300 meters. Blooming period is March.	No potential. Range and elevation range of species are outside of the project action area. There are no CNDDB records within 5 miles of the project action area.
Wells' manzanita *Arctostaphylos wellsii*	CNPS 1B.1	Broadleafed upland forest, closed-cone coniferous forest, and chaparral; grows on sandstone. Elevation range is 30 to 400 meters. Blooming period is December to May.	Unlikely. The nearest CNDDB record is approximately 2.25 miles east of Pole 64/0 and additional records are south of PG&E's San Luis Obispo Substation. Species was not observed during the survey.
Marsh sandwort *Arenaria paludicola*	FE, SE, CNPS 1B.1	Marshes and swamp that are freshwater or brackish; grows in sandy openings. Known from only two natural occurrences in Black Lake Canyon and at Oso Flaco Lake. Individuals re-introduced in Black Lake Canyon in 1995. Introduced population in Los Osos well established as of 2003. Experimental introduction also underway in Nipomo as of 2004. Elevation range is 3 to 170 meters. Blooming period is May to August.	No potential. Range and elevation range of species are outside of the project action area and no suitable habitat is present. There are no CNDDB records within 5 miles of the project action area.
Miles' milk-vetch *Astragalus didymocarpus* var. *milesianus*	CNPS 1B.2	Coastal scrub; grows on clay soils. Elevation range is 20 to 90 meters. Blooming period is March to June.	Unlikely. Elevation range of species is outside of the project action area; however, the nearest CNDDB records are 2.5 miles northeast of PG&E's Atascadero Substation and 2.5 miles west of the southernmost portion of the project.

Common Name ***Scientific Name***	**Status**	**Habitat Type and Survey Window**	**Potential in the Project Action Area**
Coulter's saltbush *Atriplex coulteri*	CNPS 1B.2	Coastal bluff scrub, coastal dunes, coastal scrub, as well as valley and foothill grassland; grows in alkaline or clay. Few recent sightings. Elevation range is 3 to 460 meters. Blooming period is March to October.	Unlikely. Suitable habitat within the project action area but was not detected during the survey. The range of species appears to be further to south and the only CNDDB record in San Luis Obispo County is 13 miles southwest of the project action area.
San Joaquin spearscale *Atriplex joaquiniana*	CNPS 1B.2	Chenopod scrub, meadows and seeps, playas as well as valley and foothill grassland; grows in alkaline soils. Report from San Luis Obispo County needs verification. Elevation range is sea level to 835 meters. Blooming period is April to October.	Unlikely. The range of species appears to be further to the north of the project action area and the only CNDDB record in San Luis Obispo County is in the vicinity of Morro Bay. The only source of information for this site is a collection from 1899.
Round-leaved filaree *California macrophylla*	CNPS 1B.1	Cismontane woodland as well as valley and foothill grassland; grows in clay soils. Elevation range is 15 to 1,200 meters. Most collections historical; need information on current status of occurrences. Blooming period is March to May.	Unlikely. The nearest CNDDB record is approximately 2.5 miles northeast of PG&E's Atascadero Substation; however, the range of the species is generally further inland based on the other CNDDB records. While plant communities associated with suitable habitat for this species exists within the wood pole portion, soils do not appear suitable for the species. The species was not observed within the project action area. However, the survey was conducted outside of the blooming period of this species.
San Luis mariposa lily *Calochortus obispoensis*	CNPS 1B.2	Chaparral, coastal scrub as well as valley and foothill grassland; often grows on serpentinite soils. Elevation range is 75 to 730 meters. Blooming period is May to July.	Observed within the project action area. The species was observed in many locations starting at Tower 73/0 south to Tower 75/0. Tower 75/1 could not be accessed but suitable habitat is present for this species around this tower.
San Luis Obispo mariposa lily *Calochortus simulans*	CNPS 1B.3	Chaparral, cismontane woodland, and lower montane coniferous forest, as well as valley and foothill grassland; grows on sandy, often granitic, and sometimes on serpentinite substrate. Elevation range is 395 to 1,100 meters. Blooming period is April to May.	Potential. The survey was conducted outside blooming season. The project action area is within the range of this species and suitable habitat is present. This species was likely observed 250 feet northeast of Pole 67/5 but could not be positively identified because the plants had already gone to fruit. The species was not observed within the project action area.

Common Name ***Scientific Name***	**Status**	**Habitat Type and Survey Window**	**Potential in the Project Action Area**
Dwarf western rosinweed *Calycadenia villosa*	CNPS 1B.1	Chaparral, cismontane woodland, meadows and seeps, as well as valley and foothill grassland; grows on rocky, fine soils, in open areas where native annual forbs are dominant and appear to be the climax vegetation. Elevation range is 240 to 1,350 meters. Blooming period is May to October.	Unlikely. The project action area is within the range of this species but there is no CNDDB record within 5 miles of the project action area.
Cambria morning-glory *Calystegia subacaulis.* ssp. *episcopalis*	CNPS 1B.2	Chaparral, cismontane woodland, and coastal prairie. Elevation range is 60 to 500 meters. Blooming period is (March) April to June (July).	Potential. The project action area is within the range of the species and suitable habitat is present. The nearest CNDDB record is less than 0.5 mile west of Tower 68/8. Several other CNDDB records are within less than 5 miles of the southern portion of the project action area. The species was not observed during the survey.
Hardham's evening-primrose *Camissonia hardhamiae*	CNPS 1B.2	Chaparral and cismontane woodland; grows on sandy, decomposed carbonate, disturbed or burned areas. Known from fewer than 20 occurrences. Elevation range is 140 to 945 meters. Blooming period is March to May.	Potential. The project action area is within the range of the species and suitable habitat is present. The nearest CNDDB record is approximately 2.75 miles east of Pole 65/0. Several other CNDDB records are in this general area northeast of Santa Margarita and are less than 5 miles from the project action area. Species was not observed during the survey, which was conducted outside the blooming period of this species.
San Luis Obispo sedge *Carex obispoensis*	CNPS 1B.2	Closed-cone coniferous forest, chaparral, coastal prairie, coastal scrub, as well as valley and foothill grassland; often grows on serpentinite seeps and sometimes on gabbro substrate. Elevation range is 10 to 790 meters. Blooming period is April to June.	Unlikely. The project action area is within the range of the species and suitable habitat is present. The nearest CNDDB record is within less than 1 mile east of Tower 74/0. Several other CNDDB records are within less than 5 miles of the southern portion of the project action area. However, the species was not observed during the survey and as such, due to the conspicuous nature of this species, it is unlikely to exist within the project action area.

Common Name ***Scientific Name***	**Status**	**Habitat Type and Survey Window**	**Potential in the Project Action Area**
San Luis Obispo owl's-clover *Castilleja densiflora* ssp. *obispoensis*	CNPS 1B.2	Meadows and seeps as well as valley and foothill grassland; sometimes grows on serpentinite soils. Elevation range is 10 to 400 meters. Blooming period is March to May.	Potential. The project action area is within the range of the species, and suitable habitat is present in parts of the southern portion of the project action area. The nearest CNDDB record is within less than 2 miles southeast and southwest of PG&E's San Luis Obispo Substation. Several other CNDDB records are less than 5 miles of the southern portion of the project action area. Species was not observed during the survey; however, the survey was conducted after the blooming period of this species.
Lemmon's jewel flower *Caulanthus coulteri* var. *lemmonii*	CNPS 1B.2	Pinyon and juniper woodland as well as valley and foothill grassland. Elevation range is 80 to 1,220 meters. Blooming period is March to May.	Unlikely. The range of the species is further inland to the east. The nearest CNDDB records are over 10 miles to the north and east of the northern portion of the project action area, and both records are historic. Species was not observed during the survey; however, the survey was conducted after the blooming period of this species.
Congdon's tarplant *Centromadia parryi* ssp. *congdonii*	CNPS 1B.2	Valley and foothill grassland; grows in alkaline soils. Elevation range is sea level to 230 meters. Blooming period is May to October (November).	Unlikely. Elevation range of species is outside of the project action area. Nearest CNDDB records are over 1 mile west and southwest of the southern portion of the project action area. Species was not observed during the survey.
Dwarf soaproot *Chlorogalum pomeridianum* var. *minus*	CNPS 1B.2	Chaparral; grows on serpentinite substrate. Elevation range is 305 to 1,000 meters. Blooming period is May to August.	Potential. The nearest CNDDB record is approximately 1.25 mile west of Tower 69/1. Another record occurs 2.5 miles east of PG&E's San Luis Obispo Substation. Species was not observed during the survey.
Brewer's spineflower *Chorizanthe breweri*	CNPS 1B.3	Closed-cone coniferous forest, chaparral, cismontane woodland, and coastal scrub; grows on serpentinite, rocky or gravelly substrate. Known from approximately twenty occurrences. Elevation range is 45 to 800 meters. Blooming period is April to August.	Observed. The species was observed on serpentine outcrops north of Tower 72/4, south of Tower 72/0, and north of Tower 73/2. One individual was observed within the existing access road to Tower 71/2.

Common Name ***Scientific Name***	**Status**	**Habitat Type and Survey Window**	**Potential in the Project Action Area**
Monterey spineflower *Chorizanthe pungens var. pungens*	FT CNPS 1B.2	Chaparral (maritime), cismontane woodland, coastal dunes, coastal scrub, as well as valley and foothill grassland; grows in sandy areas. Elevation range is 3 to 450 meters. Blooming period is April to June (July). Collected in San Luis Obispo County only once in 1842.	No potential. Range of species is outside of the project action area and the species was collected in San Luis Obispo County only once in 1842.
Straight-awned spineflower *Chorizanthe rectispina*	CNPS 1B.3	Chaparral, cismontane woodland, and coastal scrub; most often found in openings in chaparral growing on gravelly soils derived from granitic rock and sometimes diatomaceous shale. Associates at Black Mountain include *Adenostoma fasciculatum*, *Arctostaphylos glauca*, and *Lotus scoparius*. Elevation range is 85 to 1,035 meters. Blooming period is April to July.	Observed within the project action area. The species was observed in the northern portion of the project action area north of Pole 61/6 and south of Pole 61/7, southeast of Pole 62/1, west of and next to Pole 62/12, north of Pole 63/3, and at Pole 63/6.
Chorro Creek bog thistle *Cirsium fontinale* var. *obispoense*	FE, SE, CNPS 1B.2	Chaparral, cismontane woodland, coastal scrub, as well as valley and foothill grassland; grows in serpentinite seeps and drainages. Elevation range is 35 to 380 meters. Blooming period is February to July (August to September).	Unlikely. The project action area is within the range of the species. The nearest CNDDB records are 2.5 miles east of Tower 75/0 and 1.25 miles west of Tower 73/0 and additional records are within 5 miles of the southern portion of the project action area. However, the species was not observed during the survey and should have been easily detected due to its size.
La Graciosa thistle *Cirsium loncholepis*	FE, ST, CNPS 1B.1	Cismontane woodland, coastal dunes, coastal scrub, marshes and swamps (brackish), as well as valley and foothill grassland; grows on mesic, sandy substrate. Elevation range is 4 to 220 meters. Blooming period is May to August.	Unlikely. Elevation range of species is 90 meters below the project action area. There is no CNDDB record within 5 miles of the project action area. Species was not observed during the survey.
Surf thistle *Cirsium rhothophilum*	ST, CNPS 1B.2	Coastal bluff scrub and coastal dunes. Elevation range is 3 to 60 meters. Blooming period is April to June.	No potential. Range and elevation range of species are outside of the project action area and no suitable habitat is present. There is no CNDDB record within 5 miles of the project action area.
Pismo clarkia *Clarkia speciosa* ssp. *immaculata*	FE, SR, CNPS 1B.1	Chaparral (margins, openings), cismontane woodland, as well as valley and foothill grassland; grows in sandy soils. Known from fewer than 20 occurrences. Elevation range is 25 to 185 meters. Blooming period is May to July.	No potential. Range and elevation range of species are outside of the project action area. Nearest CNDDB record is approximately 5 miles out of PG&E's San Luis Obispo Substation.

Common Name ***Scientific Name***	**Status**	**Habitat Type and Survey Window**	**Potential in the Project Action Area**
Salt marsh bird's-beak *Cordylanthus maritimus ssp. maritimus*	FE, SE, CNPS 1B.2	Coastal dunes as well as marshes and swamps (coastal salt). Elevation range is sea level to 30 meters. Blooming period is May to October.	No potential. Range and elevation range of species are outside of the project action area, and no suitable habitat is present. There is no CNDDB record within 5 miles of the project action area.
Leafy tarplant *Deinandra increscens* ssp. *foliosa*	CNPS 1B.2	Valley and foothill grassland; grows on sandy soils. Elevation range is 300 to 500 meters. Blooming period is June to September.	Unlikely. The project action area is within the range of the species and suitable habitat is present. There is no CNDDB record within 5 miles of the project action area. The species was not observed during the survey.
Dune larkspur *Delphinium parryi* ssp. *blochmaniae*	CNPS 1B.2	Chaparral (maritime) and coastal dunes. Elevation range is sea level to 200 meters. Blooming period is April to May.	Unlikely. Range and elevation range of species are outside of the project action area. Nearest CNDDB record is approximately 1.75 miles east of Tower 75/0. However, the only source of information for this site is a collection from 1936, but the survey was conducted outside of the blooming period.
Umbrella larkspur *Delphinium umbraculorum*	CNPS 1B.3	Cismontane woodland in shaded or sunny slopes. In San Luis Obispo County frequently found on loose soil derived from disintegrating shale. Elevation range is 400 to 1,600 meters. Blooming period is April to June.	Unlikely. Although the project action area is within the general range of this species loose soil derived from disintegrating shale has not been observed. There is no CNDDB record within 5 miles of the project action area. The species was not observed during the survey.
Beach spectaclepod *Dithyrea maritima*	ST, CNPS 1B.1	Coastal dunes and coastal scrub; grows on sandy soils. Elevation range is 3 to 50 meters. Extirpated from half of its historical range. Blooming period is March to May.	No potential. Range and elevation range of species are outside of the project action area. There is no CNDDB record within 5 miles of the project action area.
Betty's dudleya *Dudleya abramsii* ssp. *bettinae*	CNPS 1B.2	Chaparral, coastal scrub as well as valley and foothill grassland; grows in serpentinite and rocky areas. Known from fewer than ten occurrences. Elevation range is 20 to 180 meters. Blooming period is May to July.	Unlikely. Range and elevation range of species are outside of the project action area. There is no CNDDB record within 5 miles of the project action area.

Common Name ***Scientific Name***	**Status**	**Habitat Type and Survey Window**	**Potential in the Project Action Area**
San Luis Obispo dudleya *Dudleya abramsii* ssp. *murina*	CNPS 1B.3	Chaparral, cismontane woodland, as well as valley and foothill grassland; grows in serpentinite soils. Elevation range is 90 to 440 meters. Blooming period is May to June.	Observed within the project action area. Species was observed next to Towers 72/0. 73/0, 73/1, 73/2, 73/4, 74/4, and 75/0. Tower 75/1 was too steep to survey but the area around this tower likely also provides habitat for this species.
Blochman's dudleya *Dudleya blochmaniae* ssp. *blochmaniae*	CNPS 1B.1	Coastal bluff scrub, chaparral, coastal scrub, as well as valley and foothill grassland; grows in rocky, often clay or serpentinite soils. Known from fewer than twenty occurrences in California. Elevation range is 5 to 450 meters. Blooming period is April to June.	Unlikely. The range of this species is further west of the power line, west of Highway 101. Several CNDDB records are approximately 4 miles west of the project action area. The species was not observed during the survey.
Yellow-flowered eriastrum *Eriastrum luteum*	CNPS 1B.2	Away from the immediate coast in broadleafed upland forest, chaparral, and cismontane woodland; grows on dry, sandy, or gravelly substrates. Elevation range is 290 to 1,000 meters. Blooming period is May to June.	Potential. The range of the species falls within the project action area. The nearest CNDDB record is less than 2 miles north of PG&E's Atascadero Substation. Additional records are within 5 miles on the east side of the project action area. Species was not observed during the survey.
Blochman's leafy daisy *Erigeron blochmaniae*	CNPS 1B.2	Coastal dunes and coastal scrub. Elevation range is 3 to 45 meters. Blooming period is June to August.	No potential. Range and elevation range of species are outside of the project action area. There is no CNDDB record within 5 miles of the project action area.
Indian Knob mountainbalm *Eriodictyon altissimum*	FE, SE, CNPS 1B.1	Chaparral (maritime), cismontane woodland, and coastal scrub; grows on sandstone. Known from 6 occurrences in the Irish Hills and Indian Knob. Elevation range is 80 to 270 meters. Blooming period is March to June.	No potential. Range and elevation range of species are outside of the project action area. Nearest CNDDB record is approximately 4.5 miles southwest of PG&E's San Luis Obispo Substation.
Hoover's button-celery *Eryngium aristulatum* var. *hooveri*	CNPS 1B.1	Vernal pools. Almost all collections are old; need information on extant occurrences. Elevation range is 3 to 45 meters. Blooming period is July.	Unlikely. Vernal pool habitat was not observed within the project action area. The nearest CNDDB record is approximately 1.25 mile southwest of and another record is 3 miles west of PG&E's San Luis Obispo Substation.

Common Name ***Scientific Name***	**Status**	**Habitat Type and Survey Window**	**Potential in the Project Action Area**
Ojai fritillary *Fritillaria ojaiensis*	CNPS 1B.2	Mesic areas in broadleafed upland forest, chaparral, and lower montane coniferous forest; grows in rocky areas on moist slopes. *Acer macrophyllum* and *Umbellularia californica* are common associates. In some areas, plants are found in openings in brush and woodland on or near serpentine soil or outcrops whereas in other areas they are found on poorly consolidated soils associated with landslides. Elevation range is 300 to 998 meters. Blooming period is March to May.	Unlikely. The project action area is within the range of this species, but there is no CNDDB record within 5 miles of the project action area. The nearest record is approximately 8.5 miles east of the southern portion of the project action area. Species was not observed during the survey; however, the survey was conducted outside the blooming period of this species.
San Benito fritillary *Fritillaria viridea*	CNPS 1B.2	Grows on slopes within serpentine chaparral in the foothill and lower montane conifer zones. Elevation range is 200 to 1,525 meters. Blooming period is March to May.	Potential. The project action area is within the range of this species. The nearest CNDDB record is approximately 1 miles west of Tower 69/3. A dried up fritillary was found on serpentine soils near Tower 73/0, but it was impossible to identify the plant at this stage. The survey was conducted after the blooming period of this species.
San Francisco gumplant *Grindelia hirsutula* var. *maritima*	CNPS 1B.2	Coastal bluff scrub, coastal scrub, as well as valley and foothill grassland; grow on sandy or serpentinite soils. Can be difficult to identify. Many herbarium specimens need to be checked for correct identification. Elevation range is 15 to 400 meters. Blooming period is June to September.	Unlikely. The range of the species is closer to the coast. There is no CNDDB record within 5 miles of the project action area. Species was not observed during the survey.
Mesa horkelia *Horkelia cuneata* ssp. *puberula*	CNPS 1B.1	Chaparral, cismontane woodland, and coastal scrub; grows in sandy or gravelly substrate. Elevation range is 70 to 810 meters. Blooming period is February to July and uncommonly to September.	Observed within the project action area near Pole 63/15. The project action area is within the range of this species and suitable habitat is present.
Kellogg's horkelia *Horkelia cuneata* ssp. *sericea*	CNPS 1B.1	Closed-cone coniferous forest, maritime chaparral, coastal dunes, and coastal scrub in sandy or gravelly openings. Elevation range is 10 to 200 meters. Blooming period is April to September.	No potential. Range and elevation range of species are outside of the project action area. There is no CNDDB record within 5 miles of the project action area.
Coulter's goldfields *Lasthenia glabrata* ssp. *coulteri*	CNPS 1B.1	Marshes and swamps (coastal salt), playas, and vernal pools. Elevation range is sea level to 1,220 meters. Blooming period is February to June.	No potential. No suitable habitat present within the project action area. Species was not observed during the survey. There is no CNDDB record within 5 miles of the project action area.

Common Name ***Scientific Name***	**Status**	**Habitat Type and Survey Window**	**Potential in the Project Action Area**
Pale-yellow layia *Layia heterotricha*	CNPS 1B.1	Cismontane woodland, pinyon and juniper woodland, as well as valley and foothill grassland; grows on alkaline or clay substrate. Often occurs on sites with below-average exotic vegetative cover. Elevation range is 300 to 1,705 meters. Blooming period is March to June.	Unlikely. The range of the species is generally further east. The nearest CNDDB record is approximately 3 miles east of Pole 65/4. Species was not observed during the survey.
Jones' layia *Layia jonesii*	CNPS 1B.2	Chaparral and valley and foothill grassland; grows on clay or serpentinite substrate. Elevation range is 5 to 400 meters. Blooming period is March to May.	Potential. The CNDDB documents one occurrence around Tower 73/0. Several others occurrences are within 5 miles of the project action area. The species was not observed during the survey, but this annual herb flowers from March to May which was before the survey was conducted.
San Luis Obispo lupine *Lupinus ludovicianus*	CNPS 1B.2	Chaparral and foothill oak woodlands; grows on sandy or sandstone-derived soils in chaparral and in open, grassy areas. Plants typically grow in sandy soils associated with the Santa Margarita formation, but one occurrence is found on limestone soil. Elevation range is 50 to 525 meters. Blooming period is April to July.	Unlikely. The range of the species is within the project action area. The nearest CNDDB records are approximately 4 miles east of Tower 68/10 and 4 miles south of PG&E's San Luis Obispo Substation. The species was not observed during the survey.
Carmel Valley bush mallow *Malacothamnus palmeri* var. *involucratus*	CNPS 1B.2	Chaparral, cismontane woodland, and coastal scrub. In Monterey County, habitat is described as "disturbed places." Elevation range is 30 to 1,100 meters. Blooming period is May to August and (uncommonly) to October.	Unlikely. The project action area is close to the range of the species, but the nearest CNDDB record occurs 5 miles west of the northern part of the project action area. The species was not observed during the survey, which was conducted during the species' blooming period.
Santa Lucia bush mallow *Malacothamnus palmeri* var. *palmer*i	CNPS 1B.2	Chaparral; occasional on rocky slopes in Santa Lucia Mountains from Atascadero-Morro Bay road northward, mostly near summits but occasionally extending down canyons to near the sea. Elevation range is 60 to 360 meters. Blooming period is May to July.	Unlikely. The southern boundary of the species range is at Morro Bay Road next to PG&E's Atascadero Substation, but there is no suitable habitat in the northernmost portion of the project action area. The nearest CNDDB record occurs along Morro Road 5 miles west of the northern part of the project action area. Species was not observed during the survey.

Common Name ***Scientific Name***	**Status**	**Habitat Type and Survey Window**	**Potential in the Project Action Area**
Crisp monardella *Monardella crispa*	CNPS 1B.2	Coastal dunes and coastal scrub. Hybridizes with *M. frutescens.* Elevation range is 10 to 120 meters. Blooming period is April to August.	No potential. Range and elevation range of species are outside of the project action area. There is no CNDDB record within 5 miles of the project action area.
San Luis Obispo monardella *Monardella frutescens*	CNPS 1B.2	Coastal dunes and coastal scrub; grows in sandy soils. 10 to 200 meters. Blooming period is May to September.	No potential. Range and elevation range of species are outside of the project action area. There is no CNDDB record within 5 miles of the project action area.
Palmer's monardella *Monardella palmeri*	CNPS 1B.2	Chaparral and cismontane woodland and with Sargent Cypress; usually grows on serpentinite substrates. Habitat at Cuesta Ridge described as "open slopes and in forest understory." Elevation range is 200 to 800 meters. Blooming period is June to August.	Potential. The nearest CNDDB record is less than 0.5 mile of Tower 74/0 and there are other records within 5 miles of the project action area. Suitable habitat is present within the project action area. Species was not observed during the survey.
Moran's navarretia *Navarretia fossalis*	FT, CNPS 1B.1	Chenopod scrub, marshes and swamps (assorted shallow freshwater), playas, and vernal pools. Elevation range is 30 to 1,300 meters. Blooming period is April to June.	Unlikely. The nearest CNDDB record is approximately 10 miles northeast of PG&E's Atascadero Substation and suitable habitat is not present in the project action area. The species was not observed during the survey.
Shining navarretia *Navarretia nigelliformis* ssp. *radians*	CNPS 1B.2	Cismontane woodland, valley and foothill grassland, and vernal pools. Elevation range is 76 to 1,000 meters. Blooming period is April to July.	Unlikely. The range of species comes close to the northern portion of the project action area. The nearest CNDDB record is approximately 4 miles northeast of Pole 63/0. The species was not observed during the survey.
Hooked popcornflower *Plagiobothrys uncinatus*	CNPS 1B.2	On sandy soil in chaparral, cismontane woodland, as well as valley and foothill grassland; grows on sandstone outcrops and canyon slopes, often in burned areas. Elevation range is 300 to 760 meters. Blooming period is April to May.	No potential. Range of species is outside of the project action area. Nearest CNDDB record is approximately 2.5 miles west of Pole 67/4. This record is from a 1990 collection, but according to CNPS needs field verification. The record appears to be over 20 miles south of the typical range of this species.

Common Name ***Scientific Name***	**Status**	**Habitat Type and Survey Window**	**Potential in the Project Action Area**
Diablo Canyon blue grass *Poa diaboli*	CNPS 1B.2	Closed-cone coniferous forest, chaparral (mesic), cismontane woodland, and coastal scrub; grows on shale and sometimes in burned areas. Elevation range is 120 to 400 meters. Blooming period is March to April.	No potential. Range of species is outside of the project action area. There is no CNDDB record within 5 miles of the project action area.
White rabbit-tobacco *Pseudognaphalium leucocephalum*	CNPS 2.2	Chaparral, cismontane woodland, coastal scrub, and riparian woodland; grows in sandy and gravelly substrate. Elevation range is sea level to 2,100 meters. Blooming period is (July) August to November (December).	Unlikely. The range of this species is generally further to the south. There is only one CNPS record in San Luis Obispo County. The CNDDB does not show any records for this species in San Luis Obispo County. The survey was conducted before the blooming period of this species.
Gambel's watercress *Rorippa gambellii*	FE, SE CNPS 1B.1	Occurs in freshwater or brackish marshes and swamps. Elevation range 5 to 330 meters. Blooming period is April to October. Known in California from only four occurrences. The Black Lake Canyon and Little Oso Flaco Lake populations were not seen in 1998 and are possibly extirpated.	Unlikely. No suitable habitat present within the project action area. There is no CNDDB record within 5 miles of the project action area. Species was not observed during the survey.
Adobe sanicle *Sanicula maritima*	SR, CNPS 1B.1	Chaparral, coastal prairie, meadows and seeps, as well as valley and foothill grassland; grows on clay and serpentinite substrate. Elevation range is 30 to 240 meters. Blooming period is February to May.	No potential. Range and elevation range of species are outside of the project action area. The nearest CNDDB record is approximately 1.5 miles southwest of PG&E's San Luis Obispo Substation.
Black-flowered figwort *Scrophularia atrata*	CNPS 1B.2	Closed-cone coniferous forest, chaparral, coastal dunes, coastal scrub, and riparian scrub. Elevation range is 10 to 500 meters. Blooming period is March to July.	Unlikely. The range of this species is further to the west, and there is no CNDDB record within 5 miles of the project action area. Although there is suitable habitat present, the species was not observed during the survey.
Chaparral ragwort *Senecio aphanactis*	CNPS 2.2	Chaparral, cismontane woodland, and coastal scrub; grows sometimes on alkaline substrate. Elevation range is 15 to 800 meters. Blooming period is January to April.	Potential. The project action area is within the range of this species, and suitable habitat is present. The survey was conducted outside of the blooming period of this species. The nearest CNDDB records are within approximately 1 mile west of Towers 72/2 and 73/2, on the west side of Highway 101. Additional CNDDB records exist within 5 miles of the project action area.

Common Name ***Scientific Name***	**Status**	**Habitat Type and Survey Window**	**Potential in the Project Action Area**
Cuesta Pass checkerbloom *Sidalcea hickmanii* ssp. *anomala*	CNPS 1B.2	Grows on rocky serpentine soil associated with Sargent cypress forests and chaparral. Elevation range is 335 to 1,200 meters. Blooming period is May to July.	Unlikely. This species is endemic to the West Cuesta Ridge in San Luis Obispo County. CNDDB records are close but the project action area is outside of the range of this species. The species was not observed during the survey.
Most beautiful jewel-flower *Streptanthus albidus* ssp. *peramoenus*	CNPS 1B.2	Chaparral, cismontane woodland, as well as valley and foothill grassland; grows on serpentinite substrate. Elevation range is 94 to 1000 meters. Blooming period is (March) April to September (October).	Potential. The project action area is within the range of this species and suitable habitat is present. The nearest CNDDB record is less than 500 feet west of Tower 73/4 and there are 5 additional CNDDB records within 5 miles of the project action area. This species was not observed during the survey.
California seablite *Suaeda californica*	FE, CNPS 1B.1	Marshes and swamps (coastal salt). Formerly known from San Francisco Bay area, where extirpated by development; now extant only in Morro Bay and near Cayucos Point. Remains from adobe bricks indicate plant may once have occurred along the Petaluma River, Sonoma County. Elevation range is sea level to 15 meters. Blooming period is July to October.	No potential. Elevation range of species is outside of the project action area. No suitable habitat is present. There is no CNDDB record within 5 miles of the project action area.
San Bernardino aster *Symphyotrichum defoliatum*	CNPS 1B.2	Cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, as well as valley and foothill grassland (vernally mesic); grows near ditches, streams, springs. Elevation range is 2 to 2,040 meters. Blooming period is July to November.	Unlikely. San Luis Obispo County is at the northern boundary of the range of this species. The closest CNDDB record is approximately 10 miles northeast of the project action area. The survey was conducted outside of this species' blooming period.
Saline clover *Trifolium depauperatum* var. *hydrophilum*	CNPS 1B.2	Marshes and swamps, valley and foothill grassland (mesic, alkaline), and vernal pools. Elevation range is sea level to 300 meters. Blooming period is April to June.	No potential. Elevation range of species is outside of the project action area. There is no CNDDB record within 5 miles of the project action area.
Caper-fruited tropidocarpum *Tropidocarpum capparideum*	CNPS 1B.1	Valley and foothill grassland (alkaline hills). Elevation range is sea level to 455 meters. Blooming period is March to April.	Potential. Although the project action area is within the range of the species, the nearest CNDDB record is approximately 4.5 miles east of Tower 68/10. This is the only CNDDB record in San Luis Obispo County. Species was not observed during the survey, which was conducted after the blooming period of this species.

Source: CDFG, 2009; CNPS, 2009; Hickman, 1993; USDA, 2009a

Months in parenthesis are uncommon.

STATUS CODES:

U.S. Fish and Wildlife Service
FE = Listed as Endangered by the Federal Government
FT = Listed as Threatened by the Federal Government

California Department of Fish and Game
SE = Listed as Endangered by the State Government
ST = Listed as Threatened by the State Government
SR = Listed as State Rare by the State Government

California Natural Plant Society
CNPS 1A = Presumed extinct in California
CNPS 1B = Rare, threatened, or endangered in California
CNPS 2 = Rare, threatened, or endangered in CA, but more common elsewhere
0.1 = Seriously endangered in CA
0.2 = Fairly endangered in CA
0.3 = Not very endangered in CA

Table 7: Sensitive Wildlife Species Analyzed for this Project

Species	Status[1]	Habitat Association	Potential in the Project Action Area
Invertebrates			
Vernal pool fairy shrimp *Brachinecta lynchi*	FT, CH	Endemic to the grasslands of the central valley, central coast mountains, and south coast mountains; in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	Unlikely. Nearest CNDDB record is approximately 1.25 mile southwest of PG&E's San Luis Obispo Substation at a former tank farm (tanks have been removed) that is now used for grazing. Wetlands found in the project action area were heavily vegetated and did not appear to pond water for a sufficient amount of time. The nearest critical habitat is approximately 10 miles north of PG&E's Atascadero Substation.
Longhorn fairy shrimp *Branchinecta longiantenna*	FE, CH	Occurs primarily along the west side of the San Joaquin Valley from Altamont Pass south to the Carrizo Plain. Only eight known populations. Limited to alkaline pools in San Luis Obispo County. Inhabit rain-filled, ephemeral pools that form in depressions, usually in grassland habitats but also in sandstone depressions. All vernal pools inhabited by this species are filled by winter and spring rains and may remain inundated until June. Potential habitat may also occur in other depressions that hold water of a similar volume, depth, area, duration, and seasonality as vernal pools. Additional ponded habitats similar to vernal pools that may contain potential habitat include swales and artificial habitats that are partially or completely unvegetated; these include railroad toe-drains, roadside ditches, abandoned agricultural drains, ruts left by heavy construction vehicles, and depressions in fire breaks. Species has very restricted distribution.	No potential. Range of species appears further to the east along the west side of the San Joaquin Valley. Nearest critical habitat with known occurrence is approximately 35 miles east of the project action area in Soda Lake on Carrizo Plain. No known occurrences near the project action area and no suitable habitat.
Kern primrose sphinx moth *Euproserpinus euterpe*	FT	The population at the Carrizo Plain is associated with sandy washes similar to those in the Walker Basin. The moth uses annual *Camissonia* species as larval foodplant. Different foodplant species are apparently more important at the two locations - *Camissonia campestris* at Carrizo Plain and *Camissonia contorta* at Walker Basin.	Unlikely. The project site is over 20 miles northwest of the closest known population, which are located in the Cuyama Valley near New Cuyama and Ventucopa where suitable habitat exists in the principal drainage systems running west into the Cuyama River near Ventucopa and along the drainages running north to the Cuyama River near New Cuyama.

Species	Status[1]	Habitat Association	Potential in the Project Action Area
Fishes			
South-central California Coast Steelhead Evolutionary Significant Unit (ESU) *Oncorhynchus mykiss irideus*	FT, CH	Occupies river basins from Pajaro River to the Santa Maria River. Most rivers in this ESU drain the Santa Lucia Mountain Range, the southernmost unit of the California Coast Ranges. The primary rivers supporting steelhead runs in this ESU are the Pajaro, Salinas, Carmel, Little Sur, and Big Sur rivers. However, an additional 15 to 20 smaller streams along the Monterey and San Luis Obispo coast also support steelhead. Migrating fish require deep (1 foot [0.3 meter]) holding pools with cover (e.g., rock ledges, bubble curtains). They move upstream in perennial or seasonal stream reaches and seek out spawning areas in riffles or pool tails where gravel is clean and plentiful and of appropriate sizes (0.25 to 0.75 inches).	Potential. Most drainages within the project action area are intermittent. The nearest CNDDB record is in San Luis Obispo Creek within approximately 1 mile west of the proposed staging area south of Reservoir Canyon Road. In addition, one steelhead was observed during construction of the Nacimiento Pipeline in a tributary to Santa Margarita Creek south of Tassajera Road.
Amphibians			
California red-legged frog (CRLF) *Rana aurora draytonii*	FT, CSC, CH	Occurs in lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Breeds January to July (peaks in February). Requires 11 to 20 weeks of permanent water for larval development. Females attach eggs to vegetation 2 to 6 inches below the surface. Requires access to aestivation habitat. Individuals have been found considerable distances from breeding sites on rainy nights. CRLF have been documented in 46 counties in California, but now remain in only 238 streams or drainages in 31 counties. Historically, occurred throughout Sonoma County; now only known in three creeks in Sonoma County (Upper Sonoma Creek, Petaluma Creek-Sonoma Creek).	Potential. The project action area is located near aquatic habitat. CNDDB records show 27 accounts of CRLF within 5 miles of the project alignment. The project action area is within CRLF critical habitat.
Western spadefoot toad *Spea hammondii*	CSC	Occurs primarily in grasslands, but occasional populations also occur in valley-foothill hardwood woodlands. Some populations persist for a few years in orchard or vineyard habitats. Grasslands with shallow temporary pools are optimal habitats. Most of the year is spent in underground burrows up to 36 inches deep, which they construct themselves. Some individuals also use mammal burrows. Recently metamorphosed juveniles seek refuge in the immediate vicinities of breeding ponds for up to several days after transformation. Breeding and egg laying occur almost exclusively in shallow, temporary pools formed by heavy winter rains. Coastal populations occur in the Salinas River basin, on the Carrizo Plain, and in the foothills northeast of point conception.	Potential. The nearest CNDDB record is approximately 1.5 miles east of Pole 65/3. In 2003, 60 to 80 tadpoles were observed in a drying wetland pool located immediately adjacent to an oil storage facility along the east side of El Camino Real. Three additional records are located approximately 4 miles from the northern portion of the project. Most surface movement would occur after rains or high nighttime humidity.

Species	Status[1]	Habitat Association	Potential in the Project Action Area
Coast range newt *Taricha torosa torosa*	CSC	Coastal drainages from Mendocino County to San Diego county. Lives in terrestrial habitats and will migrate over 0.6 mile to breed in ponds, reservoirs, and slow moving streams.	Observed within the project action area. One coast range newt was observed approximately 0.3 mile southwest of Tower 68/9 along the access road to Tower 69/0. There are also CNDDB records 2 to 2.5 miles east of this sighting and additional records are approximately 2.5 to 3 miles west of PG&E's Atascadero Substation.
Reptiles			
Western pond turtle *Actinemys marmorata pallida*	CSC	Found in permanent or nearly permanent bodies of water, including freshwater ponds, marshes, rivers, streams, and irrigation ditches, most often with deep pools. Requires exposed basking sites, such as rocks, logs, vegetation mats, or open mud banks. Range is throughout California, from the San Francisco Bay south, along the Coast Ranges into northern Baja California, absent from desert regions, except in the Mojave Desert along the Mojave River and its tributaries; habitat of less than 6,000 feet in elevation.	Potential. Suitable aquatic habitat exists within Atascadero Lake, and in nearby wetlands for foraging and basking. Could potentially travel into the project action area to nest and/or aestivate. There are 47 CNDDB records within 5 miles from the project action area. The species is not marked on the CNDDB map because the data is deemed sensitive by the CDFG.
Silvery legless lizard *Anniella pulchra pulchra*	CSC	Occurs from Contra Costa County, California, south through the Coast, Transverse, and Peninsular Ranges; through parts of the San Joaquin Valley; and along the western edge of the southern Sierra Nevada and western edge of the Mohave Desert. Associated with sandy or loose loamy soils under the sparse vegetation of beaches, chaparral, or pine-oak woodland; or under sycamores, cottonwoods, or oaks growing on stream terraces and often found under surface objects such as logs, rocks, and leaf litter. Because they emerge only at night or in rainy weather, they may be much more abundant than they appear to be.	Potential. Suitable habitat with moist warm loose soils and vegetation cover exist within and nearby the project action area. There are two CNDDB records within five miles of the project action area. Two adults and one very young juvenile were found under a log in oak woodland approximately 4 miles east of Tower 69/0 in 2003. Additional lizards have been found approximately 3 miles north of PG&E's Atascadero Substation.
Coast horned lizard *Phrynosoma coronatum*	CSC	Endemic to California. Found in isolated sections of habitat remaining along the South Coast Ranges and in isolated sections of the San Joaquin Valley floor, elevations lower than 6,500 feet. Occurs in gravelly-sandy substrate containing scattered shrubs, clearings in riparian woodlands, chamise chaparral, and annual grassland with scattered perennial seepweed or saltbush. Habitat must contain a high fraction of sand, abundance of native ants, open areas of overstory for basking, and areas with low, dense shrubs for refuge sites.	Potential. The project action area is within range and contains portions of suitable habitat. There is no CNDDB record within 5 miles of the project action area.

Species	Status[1]	Habitat Association	Potential in the Project Action Area
Two-striped garter snake *Thamnophis hammondii*	CSC	Found from northern Monterey County south through the south coast and Peninsular Ranges to Baja California. Inhabit perennial and intermittent streams and ponds in chaparral, oak woodland, and forest habitat. Aquatic habitat generally bordered by riparian vegetation and open areas for basking. During the winter two-striped garter snakes occupy adjacent upland grassland and coastal sage scrub habitat.	Potential. The project site is within range and contains suitable habitat for both summer and winter seasonal activity. There is no CNDDB record within 5 miles of the project action area.
Birds			
Tricolored blackbird *Agelaius tricolor*	CSC	Highly colonial species, most numerous in central valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, such as cattails (*Typha* sp.) or tules (*Scirpus* sp.), thickets of willow, blackberry, wild rose, and tall herbs. Requires foraging area with insect prey within a few miles of the colony, specifically nests may be located up to 4 miles from foraging areas.	Unlikely. The project action area lacks open water with nesting habitat. Annual grasslands could be used for foraging if nesting occurs nearby.
Grasshopper sparrow *Ammodramus savannarum*	CSC	Short to middle height, moderately open grasslands with scattered shrubs on rolling hills, lowland plains, in valleys and on hillsides of lower mountain slopes. The sparrow has been found in ecotones of grassland and sage scrub, areas of native and nonnative bunchgrass lacking trees, and areas with some bare ground.	Potential. Species fairly widespread along the central coast. Grassland habitats as well as those ecotoned by central coast scrub seem ideal for the sparrow. Suitable habitat exists north of Highway 58.
Golden eagle *Aquila chrysaetos*	SFP	Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons, rock outcrops, or cliff ledges provide nesting habitat in most parts of range; also, large trees in open areas. Eagles tend to occupy remote mountain ranges and upland areas, often at or above treeline where vegetation is short or sometimes absent.	Potential. The project action area generally lacks nesting habitat such as cliff ledges; however, it is possible that eagles as other raptors may nest in trees in open areas like in the oak savannah plant community. Additionally, the golden eagle could prey in annual grasslands. In December 1999, one adult was observed wintering 0.5 mile east of Eagle Peak, approximately 2.5 miles west of the project action area.
Long-eared owl *Asio otus*	CSC	Nests in conifer, oak, riparian, pinyon-juniper, and desert woodlands that are either open or are adjacent to grasslands, meadows, or shrublands. Key habitat components are some dense cover for nesting and roosting, suitable nest platforms, and open foraging areas. The San Luis Obispo County atlas confirmed breeding of these owls in eight blocks in the interior, mainly on the east side of the La Panza Range but also at the Carrizo Plain.	Unlikely, records indicate that this species breeds further inland. There are no CNDDB records within 5 miles of the project area.

Species	Status[1]	Habitat Association	Potential in the Project Action Area
Burrowing owl *Athene cunicularia*	CSC	Open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation with only sparse shrubs and taller vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel (*Spermophilus beecheyi*). May dig own burrow in soft soil. Pipes, culverts, and nest boxes may be used where burrows are scarce.	Potential. The project action area contains areas where burrowing owl may utilize grassland as wintering sites. Many small rodent burrows have been observed within the project action area. The project action area is within historic but not current breeding range.
Yellow-billed cuckoo *Coccyzus americanus*	FC, ST	Occur in broad, dense riparian woodland habitat dominated by willow (*Salix* sp.) and cottonwood (*Populus* sp.) with slow moving water present. Typical nest sites in California have high canopy closure, high bare ground cover, and low total ground cover. Yellow-billed cuckoo nest within riparian forest, along the broad, lower flood-bottoms of larger river systems.	Unlikely. The project action area lacks suitable habitat and nesting sites. One CNDDB record is less than 1 mile northwest of Tower 75/0, but the record is historic. This possible nesting specimen was collected in 1921. Additionally, one egg set was collected from an unspecified location in San Luis Obispo County in 1932.
Yellow warbler *Dendroica petechia brewsteri*	CSC	Riparian vegetation in close proximity to water along streams and in wet meadows provides habitat for this warbler. Occurs principally as a migrant and summer resident from late March through early October; breeds from April to late July in small numbers in San Luis Obispo County.	Potential. The project action area is within the breeding range of this species and potential suitable nesting habitat is present along a drainage crossed by the access road to Tower 72/2 where willows have been observed as well as along the drainage lined by willows east of the wetland where Pole 66/10 is located. There is no CNDDB record within 5 miles of the project area.
White-tailed kite *Elanus leucurus*	SFP	Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching; nests usually 20 to 100 feet above ground.	Potential. Suitable habitat is present particularly on the more open Santa Margarita Ranch land. It could also occur in open oak woodland flatter topography and hunt for prey in annual grassland. The two nearest CNDDB records from the early 2000s of fledglings and adults are on the Santa Margarita Ranch land approximately 2 and 2.5 miles east of Poles 67/1and 67/7, respectively.

Species	Status[1]	Habitat Association	Potential in the Project Action Area
Willow flycatcher *Empidonax traillii*	FE	Riparian obligate that uses willow or alder thickets along streams, especially where streams are bordered by open stands of cottonwoods. It is also found in brushy fields, and along edges of bogs, thickets, or groves of small trees in grasslands. The presence of water and deciduous riparian shrubs are essential habitat elements.	Unlikely. Only small, scattered populations remain in isolated meadows of the Sierra Nevada and along the Kern, Santa Margarita, and Santa Ynez rivers in southern California. Only marginal habitat is present directly adjacent to the project action area as along the riparian corridor in Reservoir Canyon south of Reservoir Canyon Road.
California condor *Gymnogyps californianus*	FE, SE, CH	Occurs within the Coast Ranges of California. Nesting sites are typically located in chaparral, conifer forest, or oak woodland communities on bare ground in caves and crevices, behind rock slabs or large ledges on cliffs in isolated steep, rugged areas. Condors have also been known to nest within giant sequoia. Condors often return to traditional sites for perching and resting. Traditional roost sites include cliffs and large trees and snags often near feeding and nesting areas. Foraging generally occurs in foothills, grasslands, chaparral, or oak savannah habitat	Low potential. The project action area lacks nesting sites, such as caves, cliff ledges, and rock slabs. However, condors could potentially forage in annual grasslands, chaparral, or oak savannahs within the project action area. Condors may potentially be attracted to road kill and human activity associated with the project. Critical habitat is located outside of the project action area.
Loggerhead shrike *Lanius ludovicianus*	CSC	Dry, open habitats with sparse vegetation, including grasslands, pastures, agricultural fields, and orchards. They commonly use posts, fences, and utility lines as perches. In many areas, loggerhead shrike abundance is correlated with the amount of pastureland and available perches. Loggerhead shrikes nest in trees and shrubs, and breeding shrikes typically use isolated trees or large shrubs. A common resident and winter visitor to the lowlands and foothills of California.	Potential. May occur in the northern portion of the project action area in the arid, open country on the eastern side of the Santa Lucia Range in the area of the Santa Margarita Ranch land.
Bald eagle *Haliaeetus leucocephalus*	SE, SFP	May be found throughout most of California at lakes, reservoirs, rivers, and some rangelands and coastal wetlands. Breeding habitats are mainly in mountain and foothill forests and are woodlands near reservoirs, lakes, and rivers. Nest sites are always associated with bodies of water, usually lakes and rivers that support abundant fish, waterfowl, or other water bird prey.	Unlikely. There is no breeding or nesting habitat within the project action area. Most breeding territories are in northern California, but bald eagles have been known to also nest in several locations within the Central Coast Range to inland southern California.

Species	Status[1]	Habitat Association	Potential in the Project Action Area
Yellow-breasted chat *Icteria virens auricollis*	CSC	Breed in dense riparian thickets and brushy tangles in the vicinity of watercourses, primarily in the coastal lowlands. The species appears to be closely tied to streamside thickets of willows, mesquite, and mulefat with tangles of grapevines and other riparian species. Preferred patches with a high density of blackberry vines (*Rubus* spp.). Some taller trees (i.e., alders and cottonwoods) are required for song perches. During migration, yellow-breasted chats use habitat similar to its breeding habitat.	Unlikely. In California, the range of the species is primarily in northern California, and the taxon is scarce in central and southern California. There is no CNDDB record for this species in San Luis Obispo County.
Purple martin *Progne subis*	CSC	Inhabits woodlands, low elevation coniferous forest of Douglas-fir, ponderosa pine, and Monterey pine. Nests in old woodpecker cavities mostly, also in human-made structures, such as bridges, utility poles, and lava tubes. Nest often located in tall, isolated trees or snag. Prey on aerial insects near large wetlands and other water bodies, and at upper slopes and ridges. Occur in forest and woodland areas at low to intermediate elevations throughout much of the state.	Potential. Could use nearby wetlands for foraging, and poles and oak woodlands for perching or nesting. Nearest CNDDB record is approximately 0.25 miles southwest of PG&E's Atascadero Substation and just north-northeast of the intersection of Highway 41 and San Gabriel Road. Habitat consists of sycamore woodland along Atascadero Creek. This nest site has been known for at least the past 20 years. Ten pairs observed nesting in a sycamore. Another nest site exists along Trout Creek, west of Pozo Road on the Santa Margarita Ranch, 3.5 miles east of Tower 68/8.
California spotted owl *Strix occidentalis occidentalis*	CSC	Mature forest stands of riparian/hardwood forest, live oak/bigcone Douglas-fir forest, mixed conifer forest, and redwood/California laurel forest. Nest stands often have a well-developed hardwood understory. Spotted owls occur in the southern part of the Coast Ranges within San Luis Obispo County and have been sited near Lopez Canyon.	Unlikely. The project action area lacks mature forestry with a complex multi-layered structure characteristic of spotted owl habitat.
Least Bell's vireo *Vireo bellii pusillus*	FE, SE, CH	Riparian/oak woodland vegetation that contains both canopy and shrub layers and includes some associated upland habitat. Forages on willows (*Salix* sp.) and other vegetation within riparian habitat.	Unlikely. The project action area lacks suitable dense riparian habitat. Critical habitat is outside of project action area.

Species	Status[1]	Habitat Association	Potential in the Project Action Area
Mammals			
Pallid bat *Antrozous pallidus*	CSC	Prefers rocky outcrops, cliffs, and crevices with access to open habitats for foraging. Forages within nearby deserts, grasslands, shrublands, woodlands, and forests. Day roosts are in caves, crevices, mines, and occasionally in hollow trees and buildings. Night roosts may be in more open sites, such as porches and open buildings. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites. Few hibernation sites are known, but the bat probably uses rock crevices.	Potential. Foraging habitat exists within the project action area and roosting sites such as trees exist in the project action area. The nearest CNDDB record occurs under the Highway 101 bridge spanning the Santa Margarita Creek, which is 0.25 miles west of where the power line spans Santa Margarita Creek (near Pole 66/14).
Townsend's big-eared bat *Corynorhinus townsendii townsendii*	CSC	Throughout California in a wide variety of habitats. Most common in mesic sites. Gleans from brush or trees or feeds along habitat edges. Roosts in the open, hanging from walls and ceilings of caves, mines, tunnels, buildings or other human-made structures. Roosting sites limiting. Extremely sensitive to human disturbance. May use separate sites for night, day, hibernation, or maternity roosts. Individuals may move within the hibernaculum to find suitable temperatures.	Unlikely. No suitable man-made structures would be impacted by project activities. The bat was historically documented adjacent to the project action area. The nearest CNDDB record is within 0.6 mile east of Pole 65/10. One individual was found in September of 2002 along the Santa Margarita Creek at of the Santa Margarita Ranch Headquarters in a barn built around an old rock wall that has stone arches, which create "cave-like" features. This may have been a solitary wintering male. The bat was observed in the same location through November 2002.
Western mastiff bat *Eumops perotis californicus*	CSC	Many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, etc. Roosts in crevices in cliff faces, high buildings, trees, and in tunnels.	Potential. Open woodlands exist within the project action area that may be utilized by the bat. The nearest CNDDB record is from a specimen that was collected in 1991 approximately 1 mile west of Tower 74/1.
Western red bat *Lasiurus blossevillii*	CSC	Riparian trees and shrubs in streamside habitat dominated by cottonwood, oaks, sycamore, and walnut. Foraging occurs in association with streams, forest openings, and clearings. This solitary foliage roosting species typically selects roost sites in riparian trees such as cottonwood and sycamore.	Potential. Could use riparian habitat for roosting and forage in nearby foothill and grassland clearings. Sycamore and cottonwood were seen in the Reservoir Canyon and sycamores were also seen along the creek east of the Wood Winery also near a proposed staging area.

Species	Status[1]	Habitat Association	Potential in the Project Action Area
San Diego desert woodrat *Neotoma lepida intermedia*	CSC	Joshua tree woodlands, pinyon-juniper woodlands, mixed chaparral, sagebrush, and desert habitats. Desert woodrats actively avoid open areas that do not provide adequate refuge sites. In rocky outcrops, desert woodrats construct dens in the cracks between boulders using sticks, leaves, tin cans, and other assorted materials. Desert woodrats appear to preferentially occupy dens in habitats with large-sized rocks and boulders because they provide better predator protection.	Potential. Could use mixed chaparral found in the southern segment of the project area. There is no CNDDB occurrence within 5 miles of the project area.
American badger *Taxidea taxus*	CSC	Most abundant in drier open stages of herbaceous shrub, grasslands, and open parkland, with friable soils. Need sufficient food, friable soils and open, uncultivated ground. Prey on burrowing rodents. Dig burrows and frequently use old burrows, typically associated with ground squirrels.	Potential. Suitable habitat with friable soils present. Large burrows and ground squirrels observed during the field survey. Nearest CNDDB record is approximately 0.25 mile east of where the power line crosses Highway 58.
San Joaquin Kit Fox *Vulpes macrotis mutica*	FE, ST	Historic range included most of the San Joaquin Valley as well as low elevation basins and ranges along the eastern side of the central Coast Ranges. By 1930 the range was reduced by more than half, with the largest populations occurring in the southern and western portions of the San Joaquin Valley. Today, San Joaquin kit fox occurs in the remaining native valley and foothill grasslands and chenopod scrub communities of the valley floor and surrounding foothills from southern Kern County north to Los Baños, Merced County. Inhabits grasslands, scrublands, vernal pool areas, alkali meadows and playas, and an agricultural matrix of row crops, irrigated pastures, orchards, vineyards, and grazed annual grasslands. Prefers habitats with loose textured soils and are primarily found in arid grasslands and open scrublands that are suitable for digging, but they occur on virtually every soil type.	Unlikely. The northern part of the project action area is now only part of the historic range of this species. There are no CNDDB records within five miles of the project action area. Suitable habitat is present in the northern portion of the project action area.
Critical Habitat within Project Action Area			***Impact***
South-central California Coast Steelhead Evolutionary Significant Unit (ESU) *Oncorhynchus mykiss irideus*	Finalized	Santa Margarita Creek and San Luis Obispo Creek.	Unlikely. Critical habitat is spanned by the power line between Poles 66/14 and 66/15, which span Santa Margarita Creek north of Highway 58. San Luis Obispo Creek, which is also designated critical habitat, comes close to the power line between Towers 71/5 and 72/9. However, all project activities will fall outside of steelhead critical habitat.

Species	Status[1]	Habitat Association	Potential in the Project Action Area
California red-legged frog (CRLF) *Rana aurora draytoni*	Finalized	The primary constituent elements (PCE) of critical habitat for CRLF are: (1) aquatic breeding habitat; (2) non-breeding aquatic habitat; (3) upland habitat; and (4) suitable dispersal habitat.	Potential. Critical habitat for CRLF exists between Pole 66/4 and Tower 74/3. Additionally, Poles 63/14 and 63/15 as well as Poles 65/9 to 65/12 are also within critical habitat for this species.

Sources: CDFG, 2009; Shuford and Gardali, 2008; USDA, 2009b; USFWS, 2007

[1]Definitions:

Federal Listing

FE	Federally listed endangered; species in danger of extinction throughout a significant portion of its range
FPD	Federally proposed for delisting
FT	Federally listed threatened; species likely to become endangered within the foreseeable future
CH	Critical habitat designated

State Listing

SFP	State fully protected
SE	State-listed endangered
ST	State-listed threatened
CSC	California species of special concern

4.0 PLANT SURVEY RESULTS

All structures were surveyed, except for Towers 70/2, 75/1, 75/2, and poles located in the yards of residences. Due to the steep terrain of Towers 70/2 and 75/1 and the residential location of Tower 75/2 (Tower 75/2 is located in a private residential backyard), these three towers were surveyed with binoculars and the plant communities were identified. Additionally, a short section of the access road leading from the east to Tower 75/0 was not surveyed because Tower 75/0 was accessed from the west. This access road continues east and connects to the access road that leads to Tower 74/3. See Attachment E for a list with all plants identified during the survey and Attachment F Rare Plant Survey Report for representative site and plant photographs.

Based on the surveys conducted from June 17, 2009 through June 22, 2009, the following sensitive plants and habitat were identified within the project action area.

- Six special-status CNPS List 1B (1B.1, 1B.2, and 1B.3) plant species were observed within the project action area (see Table 8 and Attachments C and E).
- Two special status CNPS List 4 plant species were observed within the project action area (see Table 8).
- One special status plant species was observed nearby outside of the project action area.
- One plant community potentially considered sensitive by the state occurs in various areas located between Towers 72/0 through 74/0.
- Three wetland plant communities were observed within the project action area: one wetland plant community was observed within a valley wildrye grassland community on the Santa Margarita Ranch land north of Highway 58 (nearby Pole 66/10), another one was observed west of the spur road located between Towers 73/1 and 73/2, and a third one is found approximately 60 feet northeast of Pole 66/2.

4.1 PLANT COMMUNITIES AND HABITAT TYPES

Annual Grassland

Annual grassland is an upland habitat that consists of a dense-to-sparse cover of introduced Mediterranean annual grasses. Most of these species grow to less than 1 meter in height. This type of grassland can include native perennial grasses and a diverse assemblage of native forbs. Annual grassland within the action area is dominated almost completely by nonnative grasses and forbs. The most common grasses in these areas include brome grasses (*Bromus hordeaceus, B. diandrus, B. madritensis,* and others), common foxtail (*Hordeum murinum*), oat grasses (*Avena* ssp.), Italian ryegrass (*Lolium multiflorum*), and in some areas silver hairgrass (*Aira caryophyllea*). Common forbs include: longbeak stork's bill (*Erodium botrys*), Spanish clover (*Lotus purshianus* var. *purshianus*), various species of vetch (*Vicia* spp.), bindweed (*Calystegia* sp.), miniature lupine (*Lupinus bicolor*), and a variety of clovers (*Trifolium* spp.). Generally, few native plants were observed in annual grasslands. One native bunchgrass, purple needlegrass (*Nassella pulchra*), was observed in isolated clusters throughout the surveyed area. In the

surveyed area annual grasslands occur in a mosaic with central coastal scrub, northern mixed chaparral, and oak woodlands.

Annual grasslands dominated by nonnative grasses, although less beneficial to wildlife than native grasslands, still provide breeding and foraging habitat for a number of species. Over time, grasslands can displace some of the natural food and cover that is usually available to these species. Songbirds, such as meadowlarks (*Stunella neglecta*), build their nest on the ground, raise their young, and forage exclusively within grasslands during the summer. Other species associated with this habitat include a variety of rodent species; such as, the California vole (*Microtus californicus*), deer mice (*Peromyscus* sp.), and California ground squirrels (*Spermophilus beecheyi*). Other species found in annual grassland include coyote (*Canis latrans*), sparrow (*Emberizidea* sp.), western bluebird (*Sialia Mexicana*), red-tailed hawk (*Buteo jamaicensis*), and a variety of reptiles, including the Western yellow-bellied racer (*Coluber constrictor mormon*) and Pacific gopher snake (*Pituophis catenifer catenifer*).

Valley Wildrye Grassland

Valley wildrye grassland is found at dry to moist sites, often adjacent to stands of riparian forest or freshwater marsh and is dominated by creeping wildrye (*Leymus triticoides*) The soils of this plant community are frequently subalkaline and/or seasonally overflowed. Plants found in this moist area include perennial emergent and facultative wetland plants including broadleaf birdsfoot trefoil (*Lotus corniculatus*), annual wetland plants including ribgrass (*Plantago lanceolata*), English rye grass (*Lolium perenne*), Mediterranean barley (*Hordeum marinum* ssp. *gussoneanum*), creeping wildrye, rabbit's-foot grass (*Polypogon monspeliensis*), hedge nettle (*Stachys ajugoides*), irisleaf rush (*Juncus xiphioides*), hyssop (*Lythrum hyssopifolia*), and Fuller's teasel (*Dipsacus sativus*) in some areas that get less water. This plant community occurs in a drainage in a topographic depression located in the valley bottom approximately 0.3 mile north of Highway 58 on the Santa Margarita Ranch property near Pole 66/10 within the action area.

Wildlife occurring in this habitat is similar to that occurring in the annual grassland. The Valley wildrye grassland supports also Brewer's blackbird (*Euphagus cyanocephalus*), American kestrel (*Falco sparverius*), broad-footed mole (*Scapanus latimanus*), long-tailed weasel (*Mustela frenata*), gray fox (*Urocyon cinereoargenteus*), and various other wildlife species. Since this habitat is moister it attracts more insects which in turn attract more swallows, bats, and night hawks.

Serpentine Grassland

Serpentine grassland found within the project region is analogous to Holland's (1986) serpentine bunchgrass vegetation community description; with the exception, and primary distinction between the two vegetation communities, that the surveyed areas contained a higher percentage of nonnative grasses than those described by Holland. The serpentine *bunchgrass* plant community is an open grassland dominated by native grasses, such as purple needlegrass; whereas the serpentine *grassland* plant community is an open grassland dominated by nonnative grasses. Serpentine grassland total cover is low but is markedly dominated by grasses such as oat

grasses (*Avena* spp.), soft chess (*Bromus hordeaceus*), and red brome (*Bromus madritensis*). Associated plants include hayfield tarweed (*Hemizonia congesta* ssp. *luzulifolia*), Turkish rugging (*Chorizanthe staticoides*), soap plant (*Chlorogalum pomeridianum*), and frequently sensitive non-listed plant species, such as San Luis Obispo mariposa lily (*Calochortus obispoensis*), club haired mariposa lily (*Calochortus clavatus* var. *calvatus*), San Luis Obispo dudleya (*Dudleya abramsii* ssp. *murina*), and Brewer's spineflower (*Chorizanthe breweri*). These areas occur at locations of serpentine outcrops and are often interspersed with nonnative grasslands. Within the project action area, serpentine grasslands can be found from Tower 72/0 south to Tower 75/1.

Wildlife species that may be found in this community are similar to those in the annual grassland communities. Reptiles, such as the California kingsnake (*Lampropeltis getula californiae*), Coast gartersnake (*Thamnophis elegans terrestris*), and western fence lizard (*Sceloporus occidentalis*), benefit from the serpentine outcrops on which they can bask. Other species present can include the canyon wren (*Catherpes mexicanus*), western meadowlark, and a variety of other mammals, birds, reptiles, and amphibians.

Central Coast Scrub

This plant community occupies a diversity of habitats from sea bluffs immediately above the ocean to drier hillsides miles from the ocean, such as the southern portion of the project. Central coast scrub consists of shrubs that are 1 to 2 meters tall and usually quite dense unless on serpentine outcrops. The plant community is adapted to fire by crown-sprouting. It occurs on exposed, often south-facing slopes with shallow, rocky soils. Within the study areas and the project vicinity, plants observed in this community include California sagebrush (*Artemisia californica*), California broom (*Lotus scoparius*), California buckwheat (*Eriogonum fasciculatum*), coyote bush (*Baccharis pilularis*), yellow yarrow (*Eriophyllum confertiflorum* var. *confertiflorum*), saw-toothed goldenbush (*Hazardia squarrosa*), sticky monkey-flowers (*Mimulus auranticus*), and Yucca (*Yucca whipplei*). The plant community is found frequently within the southern portion of the alignment and intergrades with serpentine grassland around Tower 72/0.

This type of habitat provides valuable resources for a number of species. Species associated with central coast scrub include the bobcat (*Lynx rufus*), wrentit (*Chamaea fasciata*), southern alligator lizard (*Elgaria multicarinata*), Monterey Ensatina (*Ensatina eschscholtzii eschscholtzii*), as well as a number of small mammals.

Northern Mixed Chaparral

The northern mixed chaparral plant community consists of broad-leafed sclerophyllous shrubs, 2 to 4 meters tall, forming dense often nearly impenetrable vegetation dominated by chamise (*Adenostema fasciculatum*) and one of several manzanitas (*Arctostaphylos* sp.) and ceanothus (*Ceanothus* sp.). The plants are typically deep-rooted. There is usually little or no understory vegetation present in this plant community but often there is considerable accumulation of leaf litter. The plant community is adapted to fires, to which many species respond by stump

sprouting. The community is typically found on dry, rocky, often steep slopes with little soil. The dominant species observed in the area was chamise with lesser components of manzanita (*Arctostaphylos* spp.), purple sage (*Salvia leucophylla*), black sage (*Salvia mellifera*), buck brush (*Ceanothus cuneatus*), and poison oak (*Toxicodendron diversilobum*). Northern mixed chaparral is the predominant plant community on the north-facing slope just south of Reservoir Canyon between Towers 74/3 and 73/4 within the action area.

This area could support a variety of birds, mammals, and reptiles, including the deer mouse, Western fence lizard (*Sceloporus occidentalis*), western scrub-jay (*Aphelocoma californica*), California nightsnake (*Hypsiglena ochrorhyncha nuchalata*), California striped racer (*Masticophis lateralis lateralis*), and gopher snake. Black-tailed deer (*Odocoileus hemionus columbianus*) may retreat within shrubs of the northern mixed chaparral, where deer can more easily hide from predators, such as the mountain lion (*Felis concolor*) also a potential inhabitant nearby.

Mixed Oak Woodland

This plant community reaches 10 to 25 meters in height and, in the south, typically occurs on north-facing slopes and shaded ravines, while in the north, on more exposed sites. Coast live oak (*Quercus agrifolia*) was typically the dominant oak species with varying densities of valley oak (*Quercus lobata*) and blue oak (*Quercus douglasii*). Blue oaks are found on dry ridges and gentle slopes mixed in with the dominant oak species where the oaks are more scattered, although the canopy can be nearly closed on better quality sites. Valley oaks are found on deep, well-drained alluvial soils, usually in valley bottoms, with more moisture in the summer than in soils where blue oaks are located. Associated shrub species include poison oak, California coffeeberry (*Rhamnus californica*), snowberry (*Symphoricarpos* sp.), and Mexican elderberry (*Sambucus mexicana*). Where there are no shrubs, the understory is often dominated by ripgut brome (*Bromus diandrus*) and several other nonnative grasses. In situations where coastal oak woodland intergrades with chaparral or coastal scrub, shrub species associated with these plant communities can be observed in the coastal oak woodland understory; but typical understory is composed of annual grasses and forbs. The largest extent of mixed oak woodland occurs south of Highway 58 to the Cuesta Grade area.

Mixed oak woodland is one of the most important habitats for wildlife in California. This habitat type provides browse for deer, rodents, lagomorphs, and various upland bird species that consume acorns heavily. Large predators such as black bears and bobcat can also be found in this plant community. Species seen include the acorn woodpecker (*Melanerpes formicivorus*), wild turkey (*Meleagris gallopavo*), western scrub-jay (*Aphelocoma californica*), oak titmouse (*Baeolophus inornatus*), red-shouldered hawk (*Buteo lineatus*), western skink (*Eumeces skiltonianus*), Northern Pacific rattlensnake (*Crotalus oreganus oreganus*), and cottontail rabbits (*Sylvilagus* sp.). Bats may use trees for roosting.

Mixed Oak Savannah

This plant community occurs in drier, more exposed areas where soils are shallow; the oaks are more scattered and form an open woodland, which can intergrade with annual grassland. The understory of this savannah-like coastal oak woodland is composed primarily of annual grasses and forbs with very few shrubs. Valley oak is the dominant tree species. This oak species is found on deep, well-drained alluvial soils, usually in valley bottoms, with more moisture in summer. Coast live oak is sometimes associated in areas where the oaks are denser and the understory consists of annual grassland described above. In situations where mixed oak savannah intergrades with chaparral or coast scrub, shrub species associated with these plant communities can be observed in the savannah oak woodland understory, such as on the east side of Highway 101. The largest extent of mixed oak savannah occurs on the Santa Margarita Ranch land north of Highway 58 within the action area.

Mixed oak savannah provides habitat many rodents, lagomorphs, reptiles, upland birds and mammals, including California ground squirrels, yellow-billed magpie (*Pica nuttalli*), white-breasted nuthatch (*Sitta carolinensis*), western kingbird (*Tyrannus verticalis*), red-shouldered hawk (*Buteo lineatus*), ferruginous hawk (*Buteo regalis*), turkey vulture (*Cathartes aura*) and black-tailed deer among other species. In this habitat there are fewer opportunities to hide than in mixed oak woodland as there are essentially no shrubs in the mixed oak savannah. Consequently, wildlife depends more on burrows and trees to escape from predators.

Open Foothill Pine Woodland

This plant community is generally an open, savannah-like woodland dominated by foothill pine (*Pinus sabiniana*). The understory of this vegetation community is typically dominated by native and nonnative annuals. It typically occurs on well-drained, but not necessarily deep, soils. Species associated with this vegetation community include coast live oak, valley oak, California buckeye (*Aesculus californica*), buck brush and California broom (*Lotus scoparius*).This vegetation community is only found in one portion of the action area from Poles 61/5 to 61/10.

Wildlife typically found in open foothill pine woodlands includes deer mouse, dark-eyed junco (*Junco hyemalis*), barn owl (*Tyto alba*), great horned owls (*Bubo virginianus*), mourning doves (*Zenaida macroura*), and a variety of bats.

Central Coast Sycamore Riparian Forest

Central coast sycamore riparian forest occurs in canyons along creeks throughout the South Coast Ranges and consists of moderately closed broadleafed riparian forests dominated by sycamore (*Plantanus racemosa*) and in some areas with Fremont's cottonwood (*Populus fremontii*), and lesser amounts of coast live oak and bay laurel (*Umbellularia californica*). Understories are generally dense thickets of shrubbery, including willows (*Salix* sp.), baccharis (*Baccharis* sp.), or nettles (*Urtica* sp.). This plant community is found within the action area at Reservoir Canyon and northeast of the Wood Winery between Towers 72/2 and 72/3.

Central coast sycamore riparian forest provides habitat for many species of amphibians, reptiles, birds, and mammals, including different species of bats, the Virginia opossum (*Didelphis virginiana*), black phoebe (*Sayornis nigricans*), Cooper's hawk (*Accipiter cooperii*), western screech owl (*Megascops kennicottii*), California red-sided gartersnake (*Thamnophis sirtalis infernalis*), Pacific treefrog (*Hyla regilla*), and western toad (*Bufo boreas*).

Central Coast Live Oak Riparian Forest

Central coast live oak (CCLO) riparian forest is a low, evergreen sclerophyllous riparian forest, usually with an open appearance, dominated by coast live oak. Many species are often associated with coast live oak woodland or chaparral (Holland, 1986) in the open understory. Associated shrub species include willows, mugwort (*Artemisia douglasiana*), common lippia (*Lippia nodiflora*), poison oak, California coffeeberry, and Mexican elderberry. Nonnative grasses usually form a fairly extensive ground layer. This vegetation community typically occurs in drier, outer floodplains and canyon-bottoms along perennial streams. It is often ecotonal between more mesic riparian forests near streams and more xeric chaparrals (Holland, 1986). This plant community can be found within the action area between Towers 96/1 and 96/5 and in the ravines crossed by Mount Lowe Road.

Wildlife found in central coast live oak riparian forest include many species of amphibians, reptiles, birds, and mammals, including the Pacific tree frog, arboreal salamander (*Aneides lugubris*), ring-necked snake (*Diadophis punctatus*), Diablo Range gartersnake (*Thamnophis atratus zaxanthus*), California quail (*Callipepla californica*), California towehee (*Pipilo crissalis*), bushtit (*Psaltriparus minimus*), Anna's humming bird (*Calypte anna*), sharp-shinned hawk (*Accipiter striatus),* deer mice, Audubon's cottontail (*Sylvilagus audubonii*), raccoon, striped skunk (*Mephitis mephitis*), and a variety of bats.

Ruderal

Ruderal vegetation is generally found within areas that have had anthropogenic disturbances that have consequently resulted in the removal of native vegetation. This cover type occurs widely throughout the project action area, most prominent along Highway 101 and along road edges where it appears there is relatively frequent disturbance. Within the surveyed area this cover type is typically dominated by black mustard (*Brassica nigra*), yellow star thistle (*Centaurea solstitialis*), Italian thistle (*Carduus pynocephalus*), poison hemlock (*Conium maculatum*) and other broadleafed weed species. Nonnative grasses observed include foxtail chess (*Bromus madritensis* ssp. *rubens*), wild oat (*Avena fatua*), ripgut grass, and soft chess. Larger areas that are ruderal are found between Tower 69/6 and the Vista del Ciudad Road south of Tower 71/1.

A variety of wildlife can be found in this disturbed weedy habitat. Species that live or use this habitat include the Pacific tree frog (*Hyla regilla*), gopher snake, California kingsnake, western fence lizard, European starling (*Sturnus vulgaris*), Brewer's blackbird, house finch (*Carpodacus mexicanus*), American goldfinch (*Carduelis tristis*), red-tailed hawk (*Buteo jamaicensis*), Botta's pocket gopher, and coyote.

Developed Areas

Developed areas are the result of modifying pre-settlement vegetation and introducing new, primarily nonnative species. This land cover may include urban vegetation such as tree groves, street strips, shade trees, lawns, shrubs, and ornamental plants. Developed areas in the Atascadero portion of the project consist primarily of low-density housing, scattered rural residences, and residences associated with horse and cattle grazing. Developed habitat in the San Luis Obispo portion starting at Tower 75/4 consists primarily of high density housing where ornamentals have been planted. The developed areas also include all barren access roads and paved roads defined by the absence of vegetation and the presence of rock, gravel, or soil. This includes the Highway 101 and adjacent barren areas.

Species associated with developed areas can sometimes benefit from humans. They include the raccoon, skunk, red fox (*Vulpes vulpes*), Norway rat (*Rattus norvegicus*), house mouse (*Mus musculus*), American crow (*Corvus brachyrhynchos*), American robin (*Turdus migratorius*), house sparrow (*Passer domesticus*), and northern mocking bird (*Mimus polyglottos*).

4.2 WETLANDS

TRC has identified approximately 0.85 acres of potentially jurisdictional waters of the United States, which includes 0.77 acre of seasonal wetland and 0.08 acre (1,281 linear feet) of intermittent creek within the project study area defined in the unverified Wetland Delineation Report (TRC, 2010). Wetlands found in the project action area were heavily vegetated and did not appear to pond water for a sufficient amount of time to provide breeding habitat for CRLF, coast range newt (*Taricha torosa torosa*), or Branchiopod species.

Seasonal Wetlands

Seasonal wetlands are shallow depressions that include three defining characteristics: hydrophytic vegetation, hydric soils, and hydrology (i.e., ponding). These features allow water to pond for a long enough period of time to support hydrophytic vegetation and hydric soils, but do not typically pond water for prolonged periods of time due to permeable soils. Seasonal wetlands in the project action area support a number of hydrophytic vegetative species, including iris-leaved rush (*Juncus xiphioides*), creeping wild rye (*Leymus triticoides*), hedge nettle (*Stachys ajugoides*), and rabbit's-foot grass (*Polypogon monspeliensis*). These wetland features may provide important reproductive or aestivation habitat for the western spadefoot toad (*Spea hammondii*).

Wetland features are discussed in further detail and delineated in the *Delineation of Waters of the U.S. for Pacific Gas and Electric Company's Atascadero – San Luis Obispo 70 kV Power Line Reconductoring Project in San Luis Obispo County, California* (TRC, 2010).

4.3 RARE PLANTS

The following six special status plant species (CNPS List 1B) were observed within the action area during the field survey: Santa Lucia manzanita (*Arctostaphylos luciana*), San Luis mariposa lily (*Calochortus obispoensis*), Brewer's spineflower (*Chorizanthe breweri*), straight-awned

spineflower (*Chorizanthe rectispina*), San Luis Obispo dudleya (*Dudleya abramsii* ssp. *murina*), and mesa horkelia (*Horkelia cuneata* ssp. *puberula*) (see Table 8). The locations where these species have been found can be seen in Attachment C.

One special status species was observed adjacent to the project action area on Mount Lowe Road: Santa Margarita manzanita (*Arctostaphylos pilulosa*). Because this species was observed outside of the project action area, it will not be discussed further as part of this report.

Additionally, two CNPS List 4 plant species were found during the survey: the club haired mariposa lily (*Calochortus clavatus* var. *clavatus*) and the Paso Robles navarretia (*Navarretia jaredii*). Club haired mariposa lily was found near Towers 74/4 and 75/0 as well as in the vicinity of Tower 74/0. Paso Robles navarretia was found near Tower 68/3. CNPS List 4 species are not analyzed for this project and will not be described in further detail in this report.

Survey timing was considered appropriate to detect most of the target plants listed in Table 7 as having potential to occur in the project action area. For those 14 special-status plant species with blooming periods that did not overlap with the survey timing or with occurrences very close to the impact areas, TRC biologists used habitat type and condition (as listed in Table 6) to determine the potential for these plant species to occur in the project action area.

Table 8: Rare Plants Found within the Project Action Area

Species	Common Name	Status
Arctostaphylos luciana	Santa Lucia Manzanita	CNPS List 1B.2
Calochortus obispoensis	San Luis mariposa lily	CNPS List 1B.2
Chorizanthe breweri	Brewer's spineflower	CNPS List 1B.3
Chorizanthe rectispina	Staight-awned spineflower	CNPS List 1B.3
Dudleya abramsii ssp. *murina*	San Luis Obispo dudleya	CNPS List 1B.3
Horkelia cuneata ssp. *puberula*	Mesa horkelia	CNPS List 1B.1
Calochortus clavatus var. *clavatus*	club haired mariposa lily	CNPS List 4.3
Navarretia jaredii	Paso Robles navarretia	CNPS List 4.3

Arctostaphylos luciana

Santa Lucia manzanita (*Arctostaphylos luciana*) is listed by the CNPS as a List 1B species (plants rare, threatened or endangered in California and elsewhere).

Santa Lucia manzanita was found during the field survey in two locations along Mount Lowe Road approximately 0.25 mile east of Tower 70/1. The CNDDB documents occurrences of Santa Lucia manzanita in several locations in this general area, approximately 1 mile west of Highway 101 and 2 miles west of Tower 68/9, and 4.5 miles southwest of the PG&E's San Luis Obispo Substation (CDFG, 2009).

Calochortus obispoensis

San Luis mariposa lily (*Calochortus obispoensis*) is listed by the CNPS as a List 1B species.

San Luis mariposa lily was observed mostly where serpentine soils were present between Towers 73/0 and 75/1, along Fairview Road adjacent to Tower 75/0 and Reservoir Canyon Road leading to Tower 74/1. A short section of the access road leading from the east to Tower 75/0 was not surveyed due to the existing steep terrain, but it is likely that the San Luis mariposa lily could be located along this section as it was also present along other surveyed accessible parts of this road. Similarly, Tower 75/1 could not be accessed due to the existing steep terrain, but suitable habitat is present for the San Luis mariposa lily around this tower as well. The CNDDB documents occurrences of San Luis mariposa lily in several locations within the 5 mile buffer around the project action area from Pole 64/0 south (CDFG, 2009). Associated plant species observed include *Dudleya abramsii* ssp. *murina* and *Chorizanthe breweri*.

Chorizanthe breweri

Brewer's spineflower (*Chorizanthe breweri*) is listed by the CNPS as a List 1B species.

Brewer's spineflower was found during the survey near the spur road leading to Tower 73/1 northeast of Tower 73/2, serpentine outcrops north of Tower 72/4, and south of Tower 72/0. The CNDDB documents occurrences of Brewer's spineflower in several locations in this general area, including near Towers 72/0 and 73/0 and in several other areas within the 5 mile buffer around the project action area from Pole 64/0 south (CDFG, 2009).

Chorizanthe rectispina

Straight-awned spineflower (*Chorizanthe rectispina*) is listed by the CNPS as a List 1B species.

Straight-awned spineflower was observed in the northern portion of the project action area north of Pole 61/6 and south of Pole 61/7, south of Pole 62/11a, west of and next to Pole 62/12, north of Pole 63/2, and at Pole 63/6. The CNDDB documents occurrences of straight-awned spineflower in several locations in the northern portion of the project action area south to about Pole 64/8 (CDFG, 2009).

Dudleya abramsii ssp. *murina*

San Luis Obispo dudleya (*Dudleya abramsii ssp. murina*) is listed by the CNPS as a List 1B species.

San Luis Obispo dudleya were found during the survey in many locations of the southern portion of the surveyed area where serpentine outcrops exist starting from Tower 72/0 through 75/0, and is likely to occur around Tower 75/1 (although the latter could not be surveyed due to the steep terrain.) The CNDDB documents occurrences of San Luis Obispo dudleya in several locations, many of which are west of the project action area starting from Tower 68/10 but also some around the southern portion of the project action area (CDFG, 2009).

Horkelia cuneata* ssp. *puberula

Mesa horkelia (*Horkelia cuneata* ssp. *puberula*) is listed by the CNPS as a List 1B species.

Mesa horkelia was found during the field survey in one location south of Atascadero next to Pole 63/15. The CNDDB documents occurrences of Mesa horkelia in two locations in Atascadero, approximately 1 mile west of Highway 101 and 2 miles west of Tower 68/9, and 4.5 miles southwest of PG&E's San Luis Obispo Substation (CDFG, 2009).

5.0 WILDLIFE SURVEY RESULTS

5.1 SENSITIVE WILDLIFE SPECIES

The CNDDB (CDFG, 2009) documents several special-status wildlife species occurrences within the project action area and/or within a 5 mile buffer around the project action area. The following section discusses those species with the potential to occur in the project action area along with their habitat requirements. Critical habitat has been designated for many of these species, but is not mentioned in the species descriptions below unless it occurs within the project action area. All species identified in Table 6 were evaluated for the potential to occur in the project action area.

One special-status wildlife species, a coast range newt (*Taricha torosa torosa*) was observed near a drainage approximately 0.33 mile southwest of Tower 68/9.

South/Central California Coast Steelhead

The south/central California coast steelhead (*Oncorhynchus mykiss irideus*) Evolutionarily Significant Unit (ESU) is a federal threatened species and a California species of special concern and has the potential to occur in the streams near the project action area. This ESU listing refers to the runs in coastal basins from the Pajaro River south to, but not including, the Santa Maria River. The steelhead is an anadromous species (born in fresh water, migrate to the ocean where most of their growth occurs, and return to fresh water to spawn) and, therefore, falls under the jurisdiction of the NOAA Fisheries and CDFG. Critical habitat has been designated in the project action area, but no structures are located in critical habitat nor are any other activities planned in critical habitat (Attachment G).

The primary rivers supporting steelhead runs in this ESU are the Pajaro, Salinas, Carmel, Little Sur, and Big Sur rivers. However, an additional 15 to 20 smaller streams along the Monterey and San Luis Obispo coast also support steelhead. Migrating fish require approximately 1-foot deep holding pools with cover (e.g., rock ledges, bubble curtains). They move upstream in perennial

or seasonal stream reaches and seek out spawning areas in riffles or pool tails where gravel is clean and plentiful and of appropriate sizes (approximately 0.25 to 0.75 inch) (USDA, 2009b).

Six yearlings and 13 young were observed in San Luis Creek (Cuesta County Park, San Luis Obispo) in 1997. In 2003, 110 juveniles were observed in San Luis Obispo Creek, east of Highway 101, south of San Luis Obispo. In addition, a steelhead was observed in a tributary to Santa Margarita Creek during work on the Nacimiento Pipeline Project (Weir, pers. comm.).

California Red-legged Frog

CRLF is a federal-listed threatened species and a California species of special concern. This species utilizes a range of habitat types. Aquatic habitats with relatively few introduced aquatic predators, such as the bullfrog, are required for breeding. Prime breeding habitat consists of deep, still or slow-moving waters, surrounded by dense vegetation cover, either emergent vegetation or riparian. However, the frogs are adaptable and have successfully bred in artificial ponds without emergent vegetation or along stream reaches that lack riparian vegetation. Breeding occurs from November to March. Eggs float on the surface of the water, usually attached to emergent vegetation, and hatch in 6 to 14 days; hatchlings undergo metamorphoses 3.5 to 7 months after hatching.

Upland habitat elements utilized by the red-legged frog vary widely; from organic debris such as downed logs, to industrial debris, but have in common the fact that they can be used for cover or provide foraging opportunities. Adults may spend several months in upland areas, however not much is yet known about the manner in which CRLF use upland habitats (USDA, 2009b).

The following describes five of the 32 CNDDB occurrences found within a 5 mile buffer around the project action area (CDFG, 2009). The additional 27 occurrences can be seen on the CNDDB Maps (Attachment B):

- The nearest record is from one individual found in Reservoir Canyon in a tributary to San Luis Obispo Creek in 1991. This location is approximately 500 feet southwest of Tower 73/4.

- One juvenile was observed in a tributary to San Luis Obispo Creek flowing under Highway 101 between Fox Hollow Road and Reservoir Canyon Road in 1995. The location is approximately 320 feet southeast of Highway 101 and Fox Hollow Road.

- Located approximately 2.5 miles east of San Luis Obispo, one adult was found in a deep pool protected from cattle by steep banks in a tributary to Reservoir Canyon Creek in 1995.

- Four adults were observed in the Santa Margarita Community Park along Yerba Buena Creek (north of Highway 58) just south of the railroad tracks in February of 2002.

- Fourteen metamorphing tadpoles/frogs were observed in the last drying pools in this stretch of Yerba Buena Creek, 0.5 mile south of Santa Margarita in September of 2003.

Yerba Buena Creek is approximately 1 mile east of the nearest pole and 0.5 mile east of the annual grasslands where the Santa Margarita staging area is proposed. Tower 73/4 is approximately 0.1 mile to the north of Reservoir Canyon Creek on a rocky hilltop in coastal scrub and annual grasslands habitat. A proposed staging area and pull site is located within annual grasslands approximately 0.3 mile north of Reservoir Canyon Creek.

Critical Habitat for California Red-legged Frog

Critical habitat for the CRLF was first designated on March 13, 2001, and has been revised several times since then. On December 12, 2007, the designation of critical habitat for the CRLF by the USFWS was challenged. On April 2, 2008, the court entered a consent decree requiring a proposed revised critical habitat rule to be submitted to the Federal Register by August 29, 2008, and a final revised critical habitat designation to be submitted to the Federal Register by August 31, 2009. The consent decree was modified on August 31, 2009 and required that the USFWS submit a final revised critical habitat designation to the Federal Register by March 1, 2010 (USEPA, 2009). On March 17, 2010, the USFWS designated revised critical habitat for the CRLF. In total, approximately 1,636,609 acres of critical habitat in 27 California counties fall within the boundaries of the final revised critical habitat designation. This rule becomes effective on April 16, 2010 (DOI, 2010).

The USFWS defines critical habitat for the CRLF to include the following Primary Constituent Elements (PCEs) (USFWS, 2008):

(1) *Aquatic Breeding Habitat.* Standing bodies of fresh water, including: natural and manmade (e.g., stock) ponds, slow-moving streams or pools within streams, and other ephemeral or permanent water bodies that typically become inundated during winter rains and hold water for a minimum of 20 weeks in all but the driest of years.

(2) *Non-Breeding Aquatic Habitat.* Freshwater and wetted riparian habitats, as described above, that may not hold water long enough for the subspecies to hatch and complete its aquatic life cycle but that do provide for shelter, foraging, predator avoidance, and aquatic dispersal for juvenile and adult CRLF. Other wetland habitats that would be considered to meet these elements include, but are not limited to: plunge pools within intermittent creeks; seeps; quiet water refugia during high water flows; and springs of sufficient flow to withstand the summer dry period.

(3) *Upland Habitat.* Upland areas adjacent to or surrounding breeding and non-breeding aquatic and riparian habitat up to a distance of 1 mile in most cases and comprised of various vegetational series, such as grasslands, woodlands, wetland, or riparian plant species that provides the frog shelter, forage, and predator avoidance. Upland habitat should include structural features, such as boulders, rocks and organic debris (e.g., downed trees, logs), as well as small mammal burrows and moist leaf litter.

(4) *Dispersal Habitat.* Accessible upland or riparian dispersal habitat within designated units and between occupied locations within a minimum of 1 mile of each other and that allows for

movement between such sites. Dispersal habitat includes various natural habitats and altered habitats such as agricultural fields, which do not contain barriers (e.g., heavily traveled road without bridges or culverts) to dispersal.

Critical habitat for the CRLF (Unit SLO-3 - Willow and Toro Creeks to San Luis Obispo) is found between Pole 66/4 and Tower 74/3 and along the associated access roads. Additionally, Poles 63/14 and 63/15 as well as Poles 65/9 through 65/12 and the associated access roads are also within Unit SLO-3 (Attachment G). Within the 500 ft study area, approximately 555 acres of CRLF critical habitat are found, which is approximately 0.4% of the total 122,418 acres proposed for unit SLO-3. However, only approximately 71 acres fall within the project action area. Table 9 shows the acreages for the different work area types throughout the project area. Non-breeding aquatic habitat, upland habitat, and suitable dispersal habitat occur near or within the project action area where CRLF could occur mainly during the rainy season. As the reconnaissance survey has shown, no aquatic breeding habitat, defined as standing bodies of fresh water, including: natural and manmade (e.g., stock) ponds, slow-moving streams or pools within streams, and other ephemeral or permanent water bodies that typically become inundated during winter rains and hold water for a minimum of 20 weeks in all but the driest of years, was identified within any of the work areas listed in Table 9.

Table 9: Temporary Construction Impact in CRLF Critical Habitat

Work Area Type in Critical Habitat	Acres of Impact (approximate)	Individual Work Area Dimensions
Existing Access Roads (14.7 miles)	21.5	Approximate width of 12 feet
Existing Access Road Reestablished through Grading and/or Vegetation Removal (2.5 miles)	3.5	Approximate width of 12 feet
Overland Route (1.6 miles)	2.5	Approximate width of 10 feet
Pole Work Areas (42 areas)	4.75	Approximately 40 foot radius circles
Tower Work Areas (38 areas)	27.5	Approximately 100 foot radius circles
Pull and Tension Sites (Site #1, 2, and 3)	1.5	Approximately 40 by 200 feet
Staging Areas, Laydown Areas, Construction Yards, Concrete Transfer Areas, Helicopter Landing Zones, Tap Support Shoofly	9.75	Various

Western Spadefoot

The western spadefoot (*Spea hammondii*) is a California species of special concern and can be found in dry grassland habitat close to seasonal wetlands such as vernal pool complexes, typically near extensive areas of friable (but usually not sandy) soil. Although western spadefoot populations primarily occur in grassland settings, they occasionally occur in valley-foothill woodlands, coastal scrub, and chaparral communities. The western spadefoot can also be found in creeks, drainages, and ponds.

The western spadefoot requires seasonal wetlands for reproduction and metamorphosis. The specific physical attributes that make such wetlands and adjacent uplands suitable for western spadefoot toads are not well known, but such attributes probably include ponds with sufficient depth and surface area to persist at least several weeks. It is frequently assumed that western spadefoot require loose soils for subsurface dormancy; however, there is some evidence that this species may also use rodent burrows. No information is available on western spadefoot dispersal or colonization abilities. Most surface movement would occur after rains or high nighttime humidity. Individuals may most likely move several hundred meters between breeding and non-breeding habitats (USDA, 2009b).

Although no classical vernal pool breeding habitat was identified during field surveys, the western spadefoot has potential to aestivate in the project action area because the nearest CNDDB record is only 0.3 mile southeast of the intersection of Oak Road and El Camino Real, 6 miles south to southeast of Atascadero and approximately 1.5 miles east of Pole 65/3 and it is assumed that individuals could potentially disperse into the project area. In 2003, 60 to 80 tadpoles were observed in a drying wetland pool located immediately adjacent to an oil storage facility along the east side of El Camino Real. Three additional records are located approximately 4 miles east from the northern portion of the project.

Coast Range Newt

The coast range newt (*Taricha torosa torosa*) is a California species of special concern and is often found in areas where streams and ponds dry up in the summer. During moist conditions, this species spends a large amount of time on land beneath logs, boards, rocks, and in rodent burrows; but adults must return to water to breed. Populations of coast range newt in southern California are found in drier habitats, such as oak forests, chaparral, and rolling grasslands. Coast range newts are commonly found in or near ditches, ponds, lakes, and streams; however, a permanent water source is not necessary. Stream-breeding populations typically breed in slow moving or stagnant pools in streams (USDA, 2009b).

The coast range newt occurs within the project action area. One individual was observed 0.3 miles southeast of Tower 68/9 where the access road to Tower 69/0 crosses a drainage. There are 7 CNDDB records within 5 miles of the project action area and the nearest one to the project is very close to where the observation was made (southeast of Tower 68/9). There are also CNDDB records approximately 2.5 miles east of this sighting and approximately 3 miles west of PG&E's Atascadero Substation. The likelihood of encountering this species is greatest near a water source and adjacent habitats.

Western Pond Turtle

The western pond turtle (*Actinemys marmorata pallida*) is a California species of special concern and inhabits a wide variety of aquatic habitats from sea level to elevations of 6,500 feet. This turtle is found in rivers, streams, lakes, ponds, wetlands, reservoirs, and brackish estuarine waters where it uses its aquatic habitats primarily for foraging, thermoregulation, and avoidance of predators. It requires emergent basking sites. Such sites can include rocks, logs, or emergent vegetation, and are used by the turtles for thermoregulation.

The western pond turtle overwinters in both aquatic and terrestrial habitats. Aquatic refugia consist of rocks, logs, mud, submerged vegetation and undercut areas along a bank. In late fall, western pond turtles can move as far as 1,640 feet from their aquatic habitat in search of terrestrial overwintering sites (Jennings and Hayes, 1994), which are often characterized by burrows in soil or duff layers, with the latter being mainly present in the oak woodlands. During the spring or early summer, females typically move overland for up to 325 feet to find suitable sites for egg-laying, but nesting has been reported to occur up to 660 feet away from water. Typically, western pond turtles dig nests on unshaded slopes that are not steeper than 25 degrees. Upland nesting sites must be dry and often have high clay or silt fraction (USDA, 2009b).

Although the western pond turtle was not observed during the field survey, it has potential to occur throughout the project action area. The locations of this species are deemed sensitive by the CDFG and are not shown on the CNDDB Map in Attachment B; but 47 CNDDB occurrences are documented within five miles of the project action area. One CNDDB record indicates an observation of the southwestern pond turtle together with CRLF located approximately 1 mile east of Pole 65/1 in the Santa Margarita Community Park along Yerba Buena Creek (north of Highway 58 and south of the railroad tracks) in 2002. The habitat consisted of a narrow channel (steep banked with flat top) and pond up to 6 feet deep. The soil was barren with emergent vegetation (tules (*Scirpus* sp.), etc.) surrounding the pond (CDFG, 2009). Western pond turtles have also been observed along with CRLF in Miosi Creek, a tributary to San Luis Obispo Creek that is on the west side of Highway 101 just north of Cuesta Park (Cassady, pers.comm.).

Silvery Legless Lizard

The silvery legless lizard (*Anniella pulchra pulchra*) is a California species of special concern.

Silvery legless lizard is a burrowing species associated with sandy or loose loamy soils under the sparse vegetation of beaches, chaparral, or pine-oak woodland; or under sycamores, cottonwoods, or oaks growing on stream terraces (Jennings and Hayes, 1994). It also occurs in desert scrub along the western edge of the Mojave Desert near Lancaster and in western portions of Anza-Borrego Desert State Park. Silvery legless lizards are often found under surface objects such as logs, rocks, and leaf litter.

Soil moisture is essential for the species; silvery legless lizards die if they are unable to reach a moist substrate. The silvery legless lizards can be found under oak woodland, chaparral, and coastal scrub vegetation in decomposing granite soils. The distribution of these lizards in foothill and lower montane habitat can be closely tied to decomposing granite soils (USDA, 2009b).

There are two CNDDB recorded observations within five miles of the project action area. In 2003, two adults and one juvenile were observed under a log in oak woodland approximately 4 miles east of Tower 69/0. Additionally, an adult lizard was found dead in a planter approximately 3 miles north of PG&E's Atascadero Substation on private property where silvery legless lizards have been observed in the compost heap, planters, under mulch in the garden, and under oak trees in leaf litter for several years. This species was not identified during the field survey; however, habitat and previous occurrences indicate that parts of the project action area may provide habitat where structures are located in dense chaparral or oak woodland, with associated leaf litter or duff.

Coast Horned Lizard

The coast horned lizard (*Phrynosoma coronatum*) is a California species of special concern and occurs in a variety of habitat types, including areas with exposed gravelly-sandy substrate containing scattered shrubs, clearings in riparian woodlands, chamise chaparral, and annual grassland with scattered perennial seepweed or saltbush. Key habitat elements are loose, fine soils with a high sand fraction; an abundance of native ants; open areas with limited overstory for basking; and areas with low, dense shrubs for refuge. Studies indicate that coast horned lizard populations reach maximum abundance in sandy loam areas and on alkali flats dominated by iodine bush. Historically, this taxon was found to be most abundant in relict lake sand dunes and old alluvial fans bordering the San Joaquin Valley. Currently, California horned lizard remains abundant only in localized areas along the South Coast Ranges and in isolated sections of natural habitat remaining on the San Joaquin Valley floor. The known elevational range for this taxon extends from near sea level at Monterey, Pacific Grove, and Seaside in Monterey County to approximately 6,500 feet at Breckenridge Mountain in Kern County (Jennings and Hayes, 1994).

This species was not identified during the field survey; however, the coast horned lizard has potential to occur within riparian woodlands, chamise chaparral, and annual grasslands of the project site. The project action area contains suitable habitat consisting of loose fine soils with open areas and limited overstory and shrubbery, such as in annual grasslands and coast live oak riparian habitats and ecotones at Pole 65/14 through Pole 66/4, Poles 69/1 through 69/5, and mixed chaparral and annual grassland found between Pole 63/8 through Pole 63/15. Open areas found within mixed oak savannah may also provide suitable habitat for basking.

Two-striped Garter Snake

The two-striped garter snake (*Thamnophis hammondii*) is a California species of special concern and inhabits perennial and intermittent streams and ponds in chaparral, oak woodland, and forest habitats. The species is primarily associated with aquatic habitats that are bordered by riparian vegetation and provide open areas nearby for basking. Two-striped garter snakes also occupy adjacent grassland and coastal sage scrub in upland areas during the winter. Movement ecology of the two-striped garter snake is poorly understood, and no information is available on the dispersal behavior of this species (USDA, 2009b).

This species was not identified during the field survey; however, the two-striped garter snake has potential to occur within the oak woodland where the access road to Pole 67/0 crosses two tributaries to Santa Margarita Creek, where the access roads to Towers 68/9, 69/0, 71/9, and 72/2

cross tributaries to San Luis Obispo Creek, and within the northern mixed chaparral where Tower 74/1 is bordering an intermittent water feature.

Grasshopper Sparrow

The grasshopper sparrow (*Ammodramus savannarum*) is a California species of special concern and occurs in dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain slopes. The bird favors native grasslands with a mix of grasses, forbs and scattered shrubs. While nesting, the grasshopper sparrow is loosely colonial (CDFG, 2009). The grasshopper sparrow nest is well hidden on the ground, usually placed in a slight depression so the rim of the nest is level with the ground.

Although the grasshopper sparrow was not observed during the field survey, it has potential to occur within the project site as the nearest CNDDB record of one male sparrow was vocally detected adjacent to the Santa Margarita Ranch headquarters in May of 2003. This location is approximately 0.5 mile east of Pole 65/5. Habitat consists of an agricultural field with open grassland and a nearby riparian corridor.

Golden Eagle

Golden eagle (*Aquila chrysaetos*) is a fully protected species in the state of California and occurs in rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons, rock outcrops, or cliff ledges provide nesting habitat in most parts of range as well as large trees in open areas. Eagles tend to occupy remote mountain ranges and upland areas, often at or above treeline where vegetation is short or sometimes absent (USDA, 2009b).

The project action area generally lacks nesting habitat such as cliff ledges; however, it is possible that eagles as well as other raptors may nest in trees in open areas like in the oak savannah plant community. Additionally, the golden eagle could prey in annual grasslands. Although golden eagles were not observed in the survey, there was one adult observed in December 1999, 0.5 mile east of Eagle Peak, approximately 2.5 miles west of the project action area.

Burrowing Owl

The burrowing owl (*Athene cunicularia*) is a California species of special concern and requires habitat with three basic attributes: open, well drained terrain; short, sparse vegetation; and underground burrows or burrow facsimiles. Burrowing owls occupy grasslands; deserts; sagebrush scrub; agricultural areas (including pastures and untilled margins of cropland); earthen levees and berms; coastal uplands; urban vacant lots; and the margins of airports, golf courses, and roads.

Throughout their range, burrowing owls rely on burrows excavated by fossorial mammals or reptiles, including prairie dogs, ground squirrels, badgers, skunks, armadillos, woodchucks, foxes, coyotes, and gopher tortoises. Where the number and availability of natural burrows is limited (for example, where burrows have been destroyed or ground squirrels eradicated), owls will occupy drainage culverts, cavities under piles of rubble, discarded pipe, and other tunnel like structures (USDA, 2009b).

Although burrowing owls were not observed during the survey, there is a potential for burrowing owls to winter in the project action area as the surveyed area contains many sections of potential burrowing owl habitat characterized by small rodent burrows. The project action area is within historic but not current breeding range (Shuford and Gardali, 2008). In 2003, two adults were observed wintering at a burrow site approximately 5 miles west of Tower 69/6 and two miles from Cuesta College at Camp San Luis Obispo (CDFG, 2009).

Yellow Warbler

Yellow warbler (*Dendroica petechia brewsteri*) is a California species of special concern and occurs in riparian vegetation in close proximity to water along streams and in wet meadows provides habitat for this warbler. Occurs principally as a migrant and summer resident from late March through early October; breeds from April to late July in small numbers in San Luis Obispo County (Shuford and Gardali, 2008).

Although there were no yellow warblers observed during the survey, potential suitable nesting habitat is present along a drainage crossed by the access road to Tower 72/2 where willows have been observed as well as along the drainage lined by willows east of the wetland where Pole 66/10 is located. There is no CNDDB record within 5 miles of the project area.

White-tailed Kite

White-tailed kite (*Elanus leucurus*) is a fully protected species in the state of California and occurs in rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. It uses grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching. It catches pray which consists mainly of the California vole by hovering over open area and quickly dropping down if a prey item is spotted (USDA, 2009b).

Although no white-tail kites were observed within the survey, it has potential to occur within the project site. The two nearest CNDDB records are located within the Santa Margarita Ranch land, 2 and 2.5 miles east of Poles 67/1 and 67/7, respectively.

California Condor

The California condor (*Gymnogyps californianus*) is a state and federally endangered species that inhabits large areas of remote country, which often contain open grasslands and oak savannah foothills for foraging. Nesting sites are typically located in chaparral, conifer forest, or oak woodland communities on bare ground in caves and crevices, behind rock slabs or large ledges on cliffs in isolated steep, rugged areas. Traditional roost sites include cliffs and large trees and snags often near feeding and nesting areas. Foraging generally occurs in foothills, grasslands, chaparral, or oak savannah habitat. Condors prefer to feed on the carcasses of large mammals, such as deer and cattle (USFWS, 2009).

This species and associated nests or nesting signs were not identified during the field survey; however, the project action area contains potential foraging habitat for condors, including annual

grasslands, chaparral, or oak savannahs. In addition, according to U. S. Geological Survey (USGS) Forest and Rangeland Ecosystem Science Center's Google Earth Condor Location Data, of 236 locations of sited condor activity along this section of Highway 101 (section includes locations within San Luis Obispo County stretching from Nipomo through Atascadero), only six were observed within 5 miles of the project action area. Of those six locations, four were located at least 2.5 miles away from the project alignment, as shown below (USGS, 2009):

- 4.25 miles east of Pole 68/5
- 0.5 mile west of Pole 66/16
- 0.75 mile west of Tower 69/2
- 2.5 miles east of Tower 72/1
- 3.0 miles east of Tower 72/4
- 4.1 miles east of Tower 74/4

Loggerhead Shrike

The loggerhead shrike (*Lanius ludovicianus*) is a California species of special concern and occurs in dry, open habitats with sparse vegetation, including grasslands, pastures, agricultural fields, and orchards. The species commonly uses posts, fences, and utility lines as perches. In many areas, loggerhead shrike abundance is correlated with the amount of pastureland and available perches. Loggerhead shrikes typically nest in isolated trees or large shrubs. The loggerhead shrike is a common resident and winter visitor to the lowlands and foothills of California. Highest densities occur in more arid habitats of open canopies of hardwoods, hardwood-conifers and riparian in the valley foothill regions, pinyon-juniper, juniper, desert riparian and Joshua tree habitats (Seattle Audobon Society, 2009).

The CNDDB only reports nesting loggerhead shrikes and there is no record in San Luis Obispo County (CDFG, 2009), yet, this does not preclude that they could not nest in the project action area. The northern portion of the project on the eastern side of the Santa Lucia Range (within the Santa Margarita Ranch lands) contains arid open country, suitable for the loggerhead shrike.

Purple Martin

The purple martin (*Progne subis*) is a California species of special concern and inhabits woodlands, low elevation coniferous forest of douglas-fir, ponderosa pine, and Monterey pine. The martin nests in old woodpecker cavities mostly, also in human-made structures, such as bridges, utility poles, and lava tubes. A few sites in Monterey, San Luis Obispo, and Santa Barbara counties appear to be the last places where martins still nest in western sycamore (*Platanus racemosa*) woodland (Shuford and Gardali, 2008). Nests are often located in tall, isolated trees or snags. The martin preys on aerial insects near large wetlands and other water bodies, and at upper slopes and ridges. This species occurs in forest and woodland areas at low to intermediate elevations throughout much of the state and breeds from May (rarely late April) to mid-August. On the central coast, martins are now confined to conifer regions, primarily on the immediate coastal slope.

Although the purple martin was not observed during the field survey, it has potential to occur within the project action area. The nearest CNDDB record is approximately 0.25 mile southwest of PG&E's Atascadero Substation and just north to northeast of the intersection of Highway 41 and San Gabriel Road. Habitat at this location consists of sycamore woodland along Atascadero Creek. This nest site has been recognized for the past 20 years (at minimum). Another nest site exists along Trout Creek, west of Pozo Road on the Santa Margarita Ranch, 3.5 miles east of Tower 68/8 (CDFG, 2009).

Pallid Bat

The pallid bat (*Antrozous pallidus*) is a California species of special concern and prefers rocky outcrops, cliffs, and crevices with access to open habitats for foraging. The bat forages in grasslands, shrublands, woodlands, and forests. Day-roosts are often in caves, crevices, mines, and occasionally in hollowed trees and buildings, while night-roosts may be in more open sites, such as porches and open buildings. Roosts must protect bats from high temperatures. In addition, the pallid bat is very sensitive to disturbance of roosting sites. Few hibernation sites are known, but probably the bat uses rock crevices (USDA, 2009b).

Twenty adults were observed in June of 2000 in San Luis Obispo in a 1000-foot under-city tunnel, running between Marsh Street and Chorro Street, San Luis Obispo. The tunnel conveys San Luis Obispo Creek underneath downtown San Luis Obispo and is located 1.6 miles west of Tower 75/0 (CDFG, 2009).

Although the pallid bat was not observed during the field survey, it has potential to occur in the project action area. Pallid bats were also detected in abundance during a night time acoustic survey in September of 2002 around the Highway 101 bridge over Santa Margarita Creek. The bridge provides suitable architecture for small numbers of roosting bats in the upper corners. This site is a night roost only and not a breeding location (CDFG, 2009).

Western Mastiff Bat

The western mastiff bat (*Eumops perotis californicus*) is a California species of special concern and occurs in many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral etc. This bat roosts in crevices in cliff faces, high buildings, trees, and in tunnels. Nursery roosts are found in tight rock crevices with mating taking place in the spring resulting in one young born during the summer (USDA, 2009b).

Although the western mastiff bat was not observed during the field survey, it has potential to occur in the project action area. Suitable habitat is present within the project action area. Among other places, this bat roosts in trees, which are present throughout the project action area. The nearest CNDDB record is from a specimen that was collected in 1991 approximately 1 mile west of Tower 74/1.

Western Red Bat

The western red bat (*Lasiurus blossevillii*) is a California species of special concern associated with large deciduous trees in riparian habitat. It often occurs in streamside habitats dominated by

cottonwood, oaks, sycamore, and walnut. Foraging occurs in association with streams, forest openings, and clearings.

The western red bat is primarily a solitary species that roosts in the foliage of trees and shrubs in habitats bordering forests, rivers, cultivated fields, and urban areas. This solitary foliage roosting species typically selects roost sites in riparian trees such as cottonwood and sycamore. Roost sites are generally hidden from view from all directions except below; lack obstruction beneath, allowing the bat to drop downward for flight; lack lower perches that will allow visibility by predators; have dark ground cover to minimize solar reflection and have nearby vegetation to reduce wind and dust. This species has also been described as using saguaro cavities and cave-like structures for roosting habitat (USDA, 2009b).

The western red bat has potential to occur in the project action area where streamside habitat dominated by sycamore is present between Towers 72/2 and 72/3, as well as the riparian area spanned between Towers 73/3 and 73/4.

San Diego Desert Woodrat

The San Diego desert woodrat (*Neotoma lepida intermedia*) is a California species of special concern associated Joshua tree woodlands, pinyon-juniper woodlands, mixed chaparral, sagebrush, and desert habitats. Desert woodrats actively avoid open areas that do not provide adequate refuge sites. In rocky outcrops, desert woodrats construct dens in the cracks between boulders using sticks, leaves, tin cans, and other assorted materials. Desert woodrats appear to preferentially occupy dens in habitats with large-sized rocks and boulders because they provide better predator protection.

Although no San Diego desert woodrat was observed during the survey, it has potential to occur in the project action area in the mixed chaparral found near Towers 70/2 and 70/3 and between Towers 73/4 and 74/3 in the southern segment of the project area. There are no CNDDB occurrences within 5 miles of the project area.

American Badger

The American badger (*Taxidea taxus*) is a California species of special concern. American badgers occur in a wide variety of open, arid habitats, but are most commonly associated with grasslands, savannas, mountain meadows, and open areas of desert scrub. They are not usually found in mature chaparral. The principal habitat requirements for this species appear to be sufficient food (burrowing rodents), friable soils, and relatively open, uncultivated ground. American badgers are primarily found in areas of low to moderate slope. Burrows are used for denning, escape, and predation on burrowing rodents (USDA, 2009b).

The American badger has potential to occur in the project action area. Friable soils, large burrows, and ground squirrels were observed during field survey. The nearest CNDDB record is approximately 0.25 mile east of where the power line crosses Highway 58.

5.2 WILDLIFE SPECIES NOT LIKELY TO OCCUR IN THE PROJECT ACTION AREA

The following wildlife species were determined not likely to occur in the project action area (refer to Table 6 for habitat association and potential in the area), and are not further discussed:

- Vernal pool fairy shrimp (*Brachinecta lynchi*)
- Longhorn fairy shrimp (*Branchinecta longiantenna*)
- Kern primrose sphinx moth (*Euproserpinus euterpe*)
- Tricolored blackbird (*Agelaius tricolor*)
- Long-eared owl (*Asio otus*)
- Yellow-billed cuckoo (*Coccyzus americanus*)
- Willow flycatcher (*Empidonax traillii*)
- Bald eagle (*Haliaeetus leucocephalus*)
- Yellow-breasted chat (*Icteria virens auricollis*)
- California spotted owl (*Strix occidentalis occidentalis*)
- Least Bell's vireo (*Vireo bellii pusillus*)
- Townsend's big-eared bat (*Corynorhinus townsendii townsendii*)
- San Joaquin kit fox (*Vulpes macrotis mutica*)

6.0 POTENTIAL EFFECTS

The following section describes potential direct and indirect impacts to habitat types, species, and the potential for the destruction or adverse modification of critical habitat that may result from construction of the project. Temporary and permanent impacts are described for all habitats and species. Additionally, direct and indirect impacts are discussed for each species and critical habitat that may be affected by the project. These types of impacts are described below:

- **Temporary Impacts:** The reconductoring of PG&E's Atascadero to San Luis Obispo 70 kV power line and associated pole and tower replacements could result in temporary disturbance within an approximate 500-foot wide area (250 feet on either side of the existing power line). Temporary impacts to vegetation could extend up to 100 feet around each proposed tower location and 40 feet around each proposed pole location. Temporary disturbances may occur up to 10 feet on either side of access roads and within designated pull and tension locations, staging areas, laydown areas, and landing zone locations. In certain areas, such as where rare plants were identified, the work area may be narrowed to avoid impacts to sensitive habitats and special-status species. In other areas, additional workspace needs may be required beyond the general work area. (For a more detailed description of the project action area refer to Section 2.0 Project Description of this report.)

  Temporary impacts are disturbances that may affect sensitive species for a brief defined period of time, such as the duration of the project, but will not permanently change the existing habitat. Potential temporary construction impacts may include loss of foraging and/or nesting habitat, decreased habitat value, disturbance of nesting sites, or habitat fragmentation. PG&E plans to restore all disturbed habitats within the project action area following construction. Temporary impacts resulting from construction activities will be

reduced with the implementation of the avoidance, protection, and minimization measures outlined in Section 7.0 of this report.

- **Permanent Impacts:** The Atascadero – San Luis Obispo 70 kV Power Line Project consists of the replacement of existing wooden poles with 132 new LDS poles; installation of five new LDS poles along the alignment to replace the interest poles; replacement of the existing lattice steel towers with 36 new lattice steel towers, and five TSPs (two towers will be removed from the alignment completely, one will be left in its existing condition, and one will be modified from a suspension tower to a dead end structure) on the existing 70 kV power line. Pole and tower locations will be placed in previously disturbed areas around the bases of existing poles and towers, respectively, to the greatest extent possible. New poles will be located within approximately 6 feet of existing poles and new towers will generally be located in line with and within approximately 30 feet of existing towers. Permanent impacts that may result from project construction are very small and only anticipated where aboveground land will be permanently converted from the existing habitat to a new pole or tower. Permanent impact resulting from pole installation will be approximately 5 square feet at each pole site, and 36 square feet at each tower site. However, once pole and tower installation is complete, the existing poles and towers will be removed and revegetated to closely resemble surrounding vegetation, resulting in minimal net loss of plant community (some existing wood poles may be cut at the base and left in the ground based on a variety of existing conditions.) In addition, two towers will be eliminated from the line entirely (as a result of engineering design and environmental conditions) and restored to resemble natural plant communities, thereby further offsetting any permanent impacts associated with project construction. Given the less than 1:1 replacement of existing structures with the new towers, minimal to no permanent impacts are anticipated.

  Permanent impacts will result from the installation of a culvert at feature S8 and minor work completed at features S9 and an ephemeral swale. The latter is located between Towers 69/6 and 70/0 and is crossed by the access road to Tower 70/0. However, the work completed at these drainage crossings will decrease erosion and will have a beneficial effect at existing road crossings. Permanent impacts will be reduced by avoiding location of permanent structures in sensitive habitat to the maximum extent feasible, and by properly restoring the project action area where surface disturbance has occurred.

- **Direct Impacts:** Direct impacts are defined in the Federal Endangered Species Act (FESA) as effects to species or their critical habitat that occur during the implementation of a project. Direct effects consist of direct or immediate effects of the project on the species or its habitat. These impacts are likely to result from construction of the project, but are not likely to continue once construction is complete. Direct impacts could include mortality, loss or impairment of habitat, habitat fragmentation, or increased predation due to loss of cover.

- **Indirect Impacts:** Indirect impacts are defined in the FESA as effects on the species or their habitat that are caused by or result from the proposed action, are later in time, and are reasonably certain to occur. These effects are caused by or result from project activities and are reasonably certain to occur. Indirect impacts could result from off-site or downstream sedimentation caused by erosion of disturbed areas or from contamination from hazardous

fuel or oil spills not properly cleaned up during construction. Noise from the project construction could stress wildlife sensitive to noise and may temporarily drive them out of the project action area. Dust from construction activities may cover sensitive plants and inhibit growth and may temporarily decrease the air quality for wildlife. Construction equipment may accidentally introduce noxious weeds and freshly graded areas along the roads that need to be improved and around the structures may be particularly vulnerable to weeds invasion.

- **Interrelated actions:** Interrelated actions are those that are part of a larger action and depend on the larger action for their justification–*i.e.* this action would not occur "but for" a larger action. This project is not interrelated to any other projects.

- **Interdependent actions:** Interdependent actions are those that have no significant independent utility apart from the action that is under consideration–*i.e.* other actions would not occur "but for" this action. No other projects are interdependent on this project.

6.1 PLANT COMMUNITIES

As described in Section 4, several different plant communities occur within the project action area. Project temporary impact acreages to habitat types are summarized in Table 10.

Within the 5 mile buffer around the project action area, the CNDDB has recorded four sensitive vegetation communities. They are the Northern Interior Cypress Forest, Central Maritime Chaparral, Serpentine Bunchgrass, and Coastal and Valley Freshwater Marsh (CDFG, 2009). Serpentine soils are interspersed throughout the southern portion of the project site, and the Serpentine Bunchgrass plant community, analogous to the Serpentine Grassland plant community addressed above, occurs within the project action area. The Serpentine Bunchgrass plant community is considered sensitive since rare plants are typically associated with these communities. Serpentine Bunchgrass is considered a S2.1 vegetation community by CDFG, which means that there are six to twenty known locations, or 2,000 to 10,000 acres of habitat remaining in California. This sensitive vegetation community may be impacted by construction of the facilities. Northern Interior Cypress Forest, Central Maritime Chaparral, and Coastal and Valley Freshwater Marsh were not found within the project action area.

Table 10: Project Temporary Impact Acreages

Habitat Type	Approximate Temporary Impact Acreage
Annual grassland	27.20
Valley wildrye grassland	0.83
Serpentine Grassland	3.70
Central coast scrub	3.71
Serpentine Grassland/Central Coastal Scrub	0.67
Northern mixed chaparral	3.18
Mixed oak woodland	17.22
Mixed oak savannah	12.41
Open foothill pine woodland	0.71
Central coast sycamore riparian forest	0.09
Central coast live oak riparian forest	0.09
Ruderal	4.23
Developed Areas	12.29

Annual Grassland

Temporary Impacts

Grasslands will be cleared and graded as necessary during preparation of pole and tower locations and associated access roads, pull and tension sites, staging areas, landing zones, or laydown area locations. Tower pull and tension site #3, the laydown area and concrete transfer area/laydown area northwest of Tower 72/3 near the Wood Winery, and the construction yard/helicopter landing zone/concrete transfer area near Tower 73/3 in Reservoir Canyon will be located within annual grassland habitat. Sensitive areas located in annual grasslands, such as burrowing owl habitat, will be avoided and/or impacts minimized using the measures outlined in Section 7.0 of this report. Temporary impacts will include removal of grasses and temporary loss of suitable habitat for species that utilize this habitat type. Temporary impacts to annual grasslands are quantified in Table 10.

Valley Wildrye Grassland

Temporary Impacts

Valley wildrye grasslands are only located approximately 0.3 mile north of Highway 58 on the Santa Margarita Ranch property near Pole 66/10, which will be replaced. Thus, minor affects are

anticipated for this plant community. The approximately 5 square feet of valley wildrye grassland displaced by the new pole will be offset by the removal of the existing pole. Temporary impacts may include removal or trampling of grasses and temporary loss of suitable habitat for species that utilize this habitat type. No pull and tension sites, staging areas, landing zones, or laydown area will be located within valley wildrye grassland habitat. Temporary impacts to valley wildrye grasslands are quantified in Table 10.

Serpentine Grassland

Temporary Impacts

Serpentine grasslands will be cleared and graded as necessary during preparation of the tower sites and associated access roads. The Cayucus Tap support will be located near Tower 73/0 within serpentine grassland habitat. As previously mentioned CNDDB designates serpentine bunchgrass, termed serpentine grassland within this report, as a sensitive vegetation community within the project action area (considered a S2.1 vegetation community by CDFG). Serpentine grasslands are interspersed throughout the southern portion of the project site. Impacts to serpentine grasslands that are displaced by placement of tower foundations will be offset by the removal of existing towers. Temporary impacts will include removal of grasses and temporary loss of suitable habitat for species that utilize this habitat type. Temporary impacts to serpentine grasslands are quantified in Table 10.

Central Coast Scrub

Temporary Impacts

Central coast scrub will need to be cleared, as necessary, during preparation of pole and tower locations and associated access roads. The helicopter landing zone and laydown area just east of Tower 69/6 will be located within central coast scrub. Temporary impacts will include removal of shrubbery and vegetation and temporary loss of suitable habitat for species that utilize this habitat type. Temporary impacts to central coast scrub are quantified in Table 10.

Northern Mixed Chaparral

Temporary Impacts

Vegetation will be cleared, as necessary, around new pole and tower locations and associated access roads. No pull and tension sites, staging areas, landing zones, or laydown area will be located within northern mixed chaparral habitat. Sensitive areas located in northern mixed chaparral, such as woodrat burrows, will be avoided and/or impacts minimized using the measures outlined in Section 7.0 of this report. Temporary impacts will include removal of vegetation and temporary loss of suitable habitat for species that utilize this habitat type. Temporary impacts to northern mixed chaparral are quantified in Table 10.

Mixed Oak Woodland

Temporary Impacts

Vegetation will be cleared, as necessary, around new pole and tower locations and associated access roads. Tower Pull and Tension Site #1 will be located within mixed oak woodland habitat

around Tower 68/8. PG&E plans to avoid tree removal during construction to the maximum extent feasible. In some cases, trimming and treatment of roots and branches will be necessary where pole and tower sites are very close to existing trees, along access roads to allow safe vehicle passage, and where the vegetation is too close to the conductors. Temporary impacts will include removal of vegetation and temporary loss of suitable habitat for species that utilize this habitat type. Temporary impacts to mixed oak woodlands are quantified in Table 10.

Mixed Oak Savannah

Temporary Impacts

Vegetation will be cleared, as necessary, around new pole locations and associated access roads. As mentioned, PG&E plans to avoid tree removal during construction to the maximum extent feasible. Temporary impacts will include removal of vegetation and temporary loss of suitable habitat for species that utilize this habitat type. The laydown area/construction yard/helicopter landing zone/concrete transfer area south of Highway 58 and west of Wilhelmina Ave. will be located in this plant community. Temporary impacts to mixed oak savannah are quantified in Table 10.

Open Foothill Pine Woodland

Temporary Impacts

As mentioned, PG&E plans to avoid tree removal during construction to the maximum extent feasible. Open foothill pine woodland habitat is only found in one portion of the survey area from Poles 61/5 to 61/10, thus will only be minimally affected by construction. No pull and tension sites, staging areas, landing zones, or laydown area will be located within open foothill pine woodland habitat. Temporary impacts will include removal of vegetation and temporary loss of suitable habitat for species that utilize this habitat type. Temporary impacts to open foothill pine woodland are quantified in Table 10.

Central Coast Sycamore Riparian Forest

Temporary Impacts

Trees within central coast sycamore riparian forest vegetation will likely require pruning associated the access road at Wood Winery. However, no pull and tension sites, staging areas, landing zones, or laydown area will be located within this plant community. Central coast sycamore riparian forest is located at reservoir canyon and northeast of the Wood Winery located between Towers 72/2 and 72/3. Temporary impacts to central coast sycamore riparian forest are quantified in Table 10.

Central Coast Live Oak Riparian Forest

Temporary Impacts

Central coast live oak riparian forest is located between Towers 69/1 and 69/5 and in ravines crossed by Mount Lowe Road in the project action area. As mentioned, PG&E plans to avoid tree removal during construction to the maximum extent feasible. Temporary impacts may include removal or pruning of riparian vegetation for access roads and temporary loss of suitable

habitat for species that utilize this habitat type. Temporary impacts to central coast live oak riparian forest are quantified in Table 10.

Ruderal

Temporary Impacts

Large areas of ruderal vegetation are found along Highway 101 and between Towers 69/6 and Vista del Ciudad Road (just south of Tower 71/1). One laydown area will be located within ruderal habitat around Tower 70/1.This habitat type is exposed to frequent disturbance from vehicular and pedestrian traffic or has been subjected to other disturbances and does not provide a great amount of habitat value to special-status species. Temporary impacts will be similar to those discussed for annual grasslands. Temporary impacts to ruderal vegetation are quantified in Table 10.

Developed Areas

Temporary Impacts

Developed areas are exposed to a regular regime of modification from landscaping and human influence and do not provide a great amount of habitat value to special-status species, with the exception of larger trees that may provide nesting opportunities. Cleared structures sites and associated temporary construction areas and access roads will be restored in accordance with landowner agreements following construction. Tower Pull and Tension Site #1 will be located in a developed area north and south of Tower 71/1. Temporary impacts to developed areas are quantified in Table 10.

Wetlands and Drainages

To view the location of the features described below, see the *Delineation of Waters of the U.S. for Pacific Gas and Electric Company's Atascadero – San Luis Obispo 70 kV Power Line Reconductoring Project in San Luis Obispo County, California* (TRC, 2010).

Temporary Impacts

A seasonal wetland, W2, will be temporarily impacted where Pole 66/10 will be topped. The existing pole will be topped and used as an interset pole. No fill of the wetland will result but approximately 0.17 acre of existing wetland vegetation will be trampled by foot and vehicle traffic. The existing hydrology will not be affected as the Pole will be approached from the south to prevent having to cross the drainage S17 with vehicles. Temporary impacts may result from the installation of a temporary culvert at feature S1. Temporary bridges will be placed across features S2a, S2b, S2c, S3, S4, S5, and S11. This placement of bridges will result in minimal temporary impacts at the top of banks.

Permanent Impacts

Permanent impacts will result from the installation of a culvert at feature S8. At feature S9, the existing culvert will be cleaned out; and at an ephemeral swale located between Towers 69/6 and 70/0 and crossed by the access road leading to Tower 70/0, gravel will be placed onto the road.

The improvement work at these drainage crossings will have a beneficial effect by decreasing erosion and downstream sedimentation. This work will not result in the alteration of the hydrology of these drainages.

6.2 SENSITIVE PLANT SPECIES

Direct Impacts

If sensitive plant species are present, direct impacts could result from vegetation management, or ground-disturbing activities, including access road re-establishment, other grading activities, soil foundation work, excavation of holes for replacement towers and poles, equipment assembly, and/or trampling of vegetation. Direct impacts to sensitive plants are described in Table 11.

Table 11: Sensitive Plant Species Locations

ole/Tower Location No.	Approximate Number of Sensitive Plant Species Subject to Potential Direct Impact					
	straight-awned spine flower	mesa horkelia	San Luis mariposa lily	Santa Lucia manzanita	Brewer's spine flower	San Luis Obispo dudleya
61/6	250					
61/7	250					
Access road to 62/11A	500					
62/12	50					
63/2	50					
63/6	100					
North of 63/15		20				
100 feet east of 70/1				2		
72/0					3	33
73/0			11 to 50			11 to 50
North of 73/0			11 to 50			11 to 50
50 feet north of 72/4					1	
73/0			7			1
Access road between 73/0 and 73/1			8			

73/1			7			5
Access road north of 73/2					1	
73/2						2
73/4			5			1
74/0			11			
74/1			1			
West of 74/1			64			
74/3			17			
74/4			39			6
75/0						50 to 100

Six sensitive plant species, CNPS List 1B, were found in the project action area. Biological monitors will be present during project construction and plant locations will be demarcated with flagging, fencing, and/or signage to ensure maximum possible avoidance from construction activities. Presence of a biological monitor during construction and implementation of appropriate BMPs will ensure impacts to sensitive plants are avoided or minimized. In addition, some work that is required around towers and poles at locations of steep terrain may be conducted from a helicopter. Consequently, access to the base of these structures will be minimal and potential impacts from trampling and vehicle access minimized.

Due to steepness and access restrictions, Towers 70/2, 75/1, and 75/2; the access road leading from the east to Tower 75/0; and poles located in the yards of residences could not be surveyed. If access to structure sites located on steep terrain is necessary by vehicle (versus access by helicopter) additional surveys will be conducted prior to construction. If sensitive species are found, impacts will be minimized by demarcating individual specimens with flagging, fencing, or signage. Suitable habitat for the San Luis mariposa lily is present along the access road off Sydney Road near Tower 75/0 and therefore, the access road segment that could not be surveyed from the east likely contains sensitive species. Consequently, this section of the access road will be avoided if feasible. If use of this access road is necessary, additional surveys will be conducted prior to use and individual specimens will be flagged for avoidance if feasible. The few individual sensitive plant species directly affected would not be expected to have a substantial effect on any sensitive plant populations in the project action area because the San Luis mariposa lily is fairly abundant in this area, and no overall loss of habitat is expected. Poles located in residential yards are within developed areas exposed to a regular regime of modification from landscaping and human influence and are not expected to sustain special-status plant species.

Indirect Impact

Construction dust may get deposited on sensitive plant species with the consequence of indirect impacts to sensitive plant species such as decreased photosynthesis. BMPs for dust control such as reduced speeds on access roads and regular watering will help ensure that indirect impacts

from dust are avoided. The introduction of invasive species also has the potential to reduce the habitat for sensitive plant species. As most of these plant species occur in the relatively specialized growing environment found in serpentine soils, it is unlikely that invasive non-native species would out-compete the native species. Additional measure requiring that vehicles, equipment, and materials are clean before arriving on the project site will help ensure that indirect impacts from invasive species are avoided.

6.3 SENSITIVE WILDLIFE SPECIES

Direct impacts to wildlife could include mortality, loss or impairment of habitat, habitat fragmentation, or increased predation due to loss of cover. Spills of hazardous materials or concrete could directly affect aquatic species if allowed to enter the aquatic environment. Indirect impacts could result from habitat modification that reduces nesting, foraging, or roosting opportunities; off-site or downstream sedimentation caused by erosion of disturbed areas; from contamination from hazardous fuel or oil spills not properly cleaned up during construction; and/or from noise and construction dust.

South/Central California Coast Steelhead

South/central California coast steelhead are known to occur in Santa Margarita Creek and San Luis Obispo Creek. Waterways in the project action area have been designated critical habitat; however, no tower or pole structures will be located within critical habitat and no access roads, staging areas, landing zones or other project activities have been proposed in critical habitat. None of the drainage crossings proposed for culverts, fords, or temporary bridges appear suitable for steelhead. Only one of the drainages, S7 which is broad and shallow with a mud bottom and no defined channel, likely conveys water for more than 3 months of the year. However, an alternative access road was identified so this drainage will not need to be crossed.

Direct and indirect impacts to south/central California coast steelhead are not expected to result from construction of the project because all tower and pole structures are located outside of critical habitat and away from drainage courses or other aquatic habitat supporting steelhead. Water crossings proposed by PG&E will improve the existing crossings and help to prevent downstream sedimentation. To ensure impacts on water quality and consequently steelhead as a result of project construction are avoided or minimized, PG&E will implement BMPs for erosion and sediment control, concrete materials management, and hazardous materials management; and other avoidance, protection, and minimization measures (as described in Section 7.0 of this report.)

California Red-Legged Frog

The CRLF has the potential to occur throughout the project action area as shown in Attachment C; however, the greatest likelihood to encounter this species is along water features as shown in Attachment A. Non-breeding aquatic habitat, upland habitat, and suitable dispersal habitat occur near or within the project action area and particularly during the rainy season CRLF may use these habitats. Non-breeding aquatic habitat may be used all year long by CRLF. Most structures are located away from suitable aquatic and breeding habitat. Access roads and overland routes

do, however, come close to and cross over riparian corridors and wetlands. There are 32 CNDDB occurrences within 5 miles of the project action area. The seasonal wetland at Pole 66/10 does not appear to be able to hold water long enough to support metamorphosis of tadpoles. No suitable aquatic breeding habitat was identified in the project action area.

Direct and Indirect Impacts

The proposed project will temporarily disturb approximately 8 acres of potential upland habitat within 100 feet of non-breeding aquatic habitat. Direct impacts to CRLF are unlikely given the nature of the habitat, work during the dry season, and revegetation of disturbed areas; however, if present in upland areas, frogs could potentially be crushed by equipment used to install poles and towers. Disturbance to the frog's upland dispersal habitat from ground disturbing activities will be minimal and will generally be confined to small areas of less than 0.11 acre around each pole and less than 0.72 acre around each tower. Minimal impacts may also occur on either side of access roads that need improvement as well as at the temporary construction areas listed in Table 9. Except where access roads are crossing creeks, foraging areas, which are usually within 100 feet of aquatic habitat, are outside of the project action area. Additional precautions, including biological monitoring, worker environmental training, and installation of appropriate erosion control and hazardous material management BMPs will help ensure that impacts are avoided.

Indirect impacts to CRLF, such as loss of forging opportunities due to habitat fragmentation, introduction of invasive weeds or wildlife species, or impacts to water quality from spills will be minimal. Proper revegetation, including noxious weed management, as well as utilization and installation of appropriate erosion control and hazardous material management BMP's will help ensure that such indirect impacts are avoided.

California Red-legged Frog Critical Habitat

Critical non-breeding aquatic habitat, upland habitat, and dispersal habitat exists within the project action area. No aquatic breeding habitat exists within the project action area. A total of approximately 71 acres of critical habitat is within the project action area.

Non-breeding aquatic habitat was observed within the S7 drainage 0.3 mile southeast of Tower 68/9 and south of the existing access road leading to this tower. While this slow-moving freshwater stream appeared to be low quality CRLF aquatic habitat (there was no vegetation, shelter, or pools in the general vicinity of the road), it could provide for shelter, foraging, predator avoidance, and aquatic dispersal for juvenile and adult CRLF elsewhere along the drainage.

Upland and dispersal habitat is present within the project action area, specifically between Poles 63/14 and 64/15, between Poles 65/9 through 65/12, and between Poles 66/4 and Tower 73/4. Rocky outcrops observed in these areas could provide the frog shelter and allow for predator avoidance. In general, areas identified for staging, laydown, and landing zones contain little if any rock outcrops or surface debris and are therefore unlikely to be used for upland shelter. Dispersal habitat is found within the project action area in natural habitat and altered habitat, such as cattle grazing fields, which do not contain barriers.

Temporary Impacts

Temporary impacts to the CRLF critical habitat will include disturbance from trampling, spoil or equipment storage, and staging within upland and dispersal habitat; however, with proper revegetation, these temporary activities will not alter the PCEs to the extent that they influence the function and conservation of the affected critical habitat unit. Disturbance of non-breeding aquatic habitat is anticipated to be minimal.

Western Spadefoot

The western spadefoot has the potential to occur near seasonal wetlands, creeks, and drainages in grasslands, oak woodlands, coastal scrub, and chaparral in the project action area as shown in Attachment C. Access roads come close to and cross over riparian corridors where suitable habitat occurs. The nearest CNDDB recorded observation is located approximately 1.5 miles east of Pole 65/3 outside of the action area. At this location, in 2003, 60 to 80 tadpoles were observed in a drying wetland pool.

Direct and Indirect Impacts

The proposed project will temporarily disturb approximately 4 acres of potential aestivation habitat. Potential direct and indirect impacts will be similar to those described above for the CRLF. One exception is that western spadefoot is sensitive to vibration that may trigger this species to surface even during the dry season which could lead to desiccation. Impact avoidance and minimization measures, including revegetation, biological monitoring, worker environmental training, and installation of appropriate BMPs, for erosion control and hazardous material management, will help ensure that direct and indirect impacts are avoided.

Coast Range Newt

The coast range newt has the potential to occur in drainages and wetlands and on land beneath logs, boards, rocks, and in rodent burrows in grasslands, woodlands, and chaparral throughout the project action area as shown in Attachment C. One coast range newt was observed approximately 0.3 mile southwest of Tower 68/9 along the access road to Tower 69/0 within the action area. In addition, CNDDB records designate locations approximately 2.25 miles east of this sighting and approximately 2.75 miles west of PG&E's Atascadero Substation.

Direct and Indirect Impacts

The proposed project will temporarily disturb approximately 20 acres of potential habitat. Potential direct and indirect impacts would be as described above for the CRLF and below for the silvery legless lizard, and are expected to be minimal. Impact avoidance and minimization measures, including revegetation, biological monitoring, worker environmental training, and installation of appropriate erosion control and hazardous material management BMPs will help ensure that direct and indirect impacts are avoided.

Western Pond Turtle

The western pond turtle has the potential to occur within both aquatic and terrestrial habitats throughout the project action area as shown in Attachment C. In late fall, western pond turtles can move as far as 1,640 feet from their aquatic habitat in search of terrestrial overwintering sites (Jennings and Hayes, 1994), which are often characterized by duff layers which are mainly present in the oak woodlands. During the spring or early summer, females move overland for up to 325 feet to find suitable sites for egg-laying. In addition, turtles are capable of moving long distances (at least 1 mile overland) to find water.

Direct Impacts and Indirect Impacts

The proposed project will temporarily disturb approximately 58 acres of potential habitat. Potential direct and indirect impacts would be as described above for the CRLF and below for the silvery legless lizard, and are expected to be minimal. Impact avoidance and minimization measures, including revegetation, biological monitoring, worker environmental training, covering any pits if they are not backfilled during the same day, and installation of appropriate BMPs for erosion control and hazardous materials management, will help ensure that direct and indirect impacts are avoided.

Silvery Legless Lizard

The silvery legless lizard has the potential to occur within chaparral and oak woodland throughout the project action area as shown in Attachment C. Within these plant communities, the species would typically be associated with sandy or loose loamy soils under sparse vegetation and surface objects such as logs, rocks, and leaf litter. There are two CNDDB records within five miles of the project action area: approximately 4 miles east of Tower 69/0 and approximately 3 miles north of PG&E's Atascadero Substation.

Direct and Indirect Impacts

The proposed project will temporarily disturb approximately 12 acres of potential habitat. Potential direct impacts to silvery legless lizard could include mortality, loss of foraging opportunities, habitat fragmentation, or loss of habitat resulting from clearing and grading of pole and tower sites, associated access roads, landing zones, staging areas, laydown areas, and pull and tension sites. Potential indirect impacts could include loss of habitat quality if the project sites are not properly restored.

Impact avoidance and minimization measures, including revegetation, biological monitoring, worker environmental training, and implementation of appropriate erosion control and hazardous material management BMPs will help ensure that direct impacts such as loss of foraging opportunities and indirect impacts, such as loss of habitat are avoided.

Coast Horned lizard

The coast horned lizard has the potential to occur within riparian woodlands, chaparral, and annual grasslands throughout the project action area as shown in Attachment C. Within these plant communities, this species would most typically be associated with loose fine soils with

open areas and limited overstory and shrubbery, such as in annual grasslands and coast live oak riparian habitats and ecotones, and mixed chaparral and annual grasslands. Open areas found within mixed oak savannah may also provide suitable habitat for basking.

Direct and Indirect Impacts

The proposed project will temporarily disturb less than 28 acres of potential habitat. Potential direct and indirect impacts will be similar to those described above for the silvery legless lizard. One additional indirect impact could result from the introduction of non-native ants that may displace native ants which are prey for the coast horned lizard. Impact avoidance and minimization measures, including revegetation, biological monitoring, worker environmental training, and implementation of appropriate erosion control and hazardous material management BMPs will help ensure that direct and indirect impacts are avoided.

Two-Striped Garter Snake

The two-striped garter snake has the potential to occur in and around perennial and intermittent streams and ponds in grassland, coastal scrub, chaparral, oak woodland, and riparian woodland throughout the project action area as shown in Attachment C. Access roads come close to and cross over riparian corridors and snakes may be encountered in these areas. Most structures are located away from suitable habitat.

Direct and Indirect Impacts

The proposed project will temporarily disturb approximately 2 acres of potential habitat. Potential direct and indirect impacts would be as described above for the CRLF and silvery legless lizard. Impact avoidance and minimization measures, including revegetation, biological monitoring, worker environmental training, and installation of appropriate erosion control and hazardous material management BMPs will help ensure that direct and indirect impacts are avoided.

Grasshopper Sparrow

The grasshopper sparrow has the potential to nest in grasslands found within the project alignment as shown in Attachment C. According to the CNDDB, one sparrow was vocally detected adjacent to the Santa Margarita Ranch headquarters in an agricultural field with open grassland and a nearby riparian corridor in May of 2003 .This location is approximately 0.5 mile east of Pole 65/5.

Direct and Indirect Impacts

The proposed project will temporarily disturb approximately 29 acres of potential habitat. Direct impacts to the grasshopper sparrow could include loss of nesting or foraging opportunities resulting from clearing of vegetation or habitat displacement at pole and tower sites and associated access roads, equipment and material staging areas, laydown areas, landing zones, and pull/tension sites. Other direct impacts could result from construction-related noise and vibration as well as from ground disturbing activities and trampling as a result of project activities.

Conducting nest surveys for breeding birds and avoiding construction that would disturb nests until after fledging will minimize the potential for any direct effects.

Indirect impacts on nesting birds may result from noxious weed establishment. With proper revegetation, no overall habitat loss will occur and no indirect effects toward the grasshopper sparrow are expected.

Golden Eagle

The golden eagle has the potential to occur in grassland and oak savannah with ground squirrels for foraging and may use trees in the open to nest as in the oak savannah shown in Attachment C. In December 1999, one adult was observed wintering 0.5 mile east of Eagle Peak, approximately 2.5 miles west of the project action area.

Direct and Indirect Impacts

The proposed project will temporarily disturb approximately 36 acres of potential habitat. Direct impacts to forage, cover, nesting, and roosting habitats may occur from vegetation management and ground disturbing activities. In addition, noise and the presence of humans may temporarily drive this species away and could result in failure of broods. Pre-construction breeding bird surveys and avoiding construction that would disturb nests until after fledging will minimize the potential for any direct effects. In addition, new LDS poles will use an avian-safe design to protect raptors and other birds from being electrocuted. This design is limited to the underbuild 12 kV (between Pole 60/7A and Pole 68/6) since the transmission conductors have 4 feet or more separation and as such do not produce a safety risk for raptors.

Indirect impacts to native habitats may occur from the introduction of invasive species, such as noxious weeds by vehicles trafficking to the facilities. Ground disturbing activities may crush it's pray, which mainly consists of California ground squirrels, although indirect effects would be minimal. With proper revegetation, no indirect effects are expected.

Burrowing Owl

The burrowing owl has the potential to winter in grasslands and oak savannah within the project action area as shown in Attachment C. Underground burrows or burrow facsimiles can be found in various areas along the project alignment, including those areas within the Santa Margarita Ranch land north of Highway 58. In 2003, two adults were observed wintering at a burrow site approximately 5 miles west of Tower 69/6 and two miles from Cuesta College at Camp San Luis Obispo (CDFG, 2009).

Direct and Indirect Impacts

The proposed project will temporarily disturb approximately 36 acres of potential habitat. Potential direct and indirect impacts would be as described above for the grasshopper sparrow. Conducting burrowing owl surveys if work is planned during the winter season and avoiding construction that would disturb wintering birds will minimize the potential for any direct effects. With proper revegetation, no indirect effects are expected.

Yellow Warbler

Yellow warbler has the potential to occur in riparian vegetation such as along a drainage crossed by the access road to Tower 72/2 where willows were observed as well as along the drainage lined by willows east of the wetland where Pole 66/10 is located. There is no CNDDB record within 5 miles of the project area.

Direct and Indirect Impacts

The proposed project will not physically disturb potential habitat; however, project activities will occur within 100 feet of potential habitat and could disturb nesting birds. Construction-related noise and vibration could result in birds abandoning their nests. Conducting nest surveys for breeding birds and avoiding construction that would disturb nests until after fledging will minimize the potential for any direct or indirect effects.

White-tailed Kite

White-tailed kites have the potential to occur within grasslands and oak savannahs throughout the project action area as shown in Attachment C. Particularly suitable habitat exists within the Santa Margarita Ranch land in areas where nesting and perching trees are located nearby annual grasslands and savannahs which may be used for hunting. Furthermore, the two nearest CNDDB records indicate fledglings and adults were observed on the Santa Margarita Ranch land approximately 2.0 and 2.5 miles east of Poles 67/1 and 67/7, respectively.

Direct and Indirect Impacts

The proposed project will temporarily disturb approximately 36 acres of potential habitat. Potential direct and indirect impacts would be as described above for the golden eagle. Ground disturbing activities may crush the kite's prey, which mainly consists of California meadow voles, although indirect effects would be minimal. Conducting nest surveys for breeding birds and avoiding construction that would disturb nests until after fledging will minimize the potential for any direct effects. With proper revegetation, no indirect effects are expected.

California Condor

California condors could forage in annual grasslands, chaparral, or oak savannahs within the project action area as shown in Attachment C. USGS Forest and Rangeland Ecosystem Science Center records six locations of condors within 5 miles of the project action area, the closest of which is 0.5 mile west of Pole 66/16. Condors may also be attracted to road kill and human activity associated with the project. However, the project action area lacks nesting sites and critical habitat.

Direct and Indirect Impacts

The proposed project will temporarily disturb approximately 38 acres of potential habitat. Direct impacts to condors could include loss of foraging opportunities resulting from clearing and grading of project construction areas. Although highly unlikely, it is possible that California

condors could be attracted to human activity, particularly if they have not been properly raised before being released from captive breeding programs. Construction activities may negatively affect the species if it is attracted to humans. Pre-construction breeding bird surveys will minimize the potential for any direct effects, and avian-friendly design of the new pole and tower structures will eliminate the potential for direct effects from electrocution. With proper revegetation, no indirect effects are expected.

Loggerhead Shrike

Loggerhead shrikes have the potential to occur in dry, open habitats with sparse vegetation, including grasslands and oak savannah in the project action area as shown in Attachment C. The CNDDB only reports nesting loggerhead shrikes and there is no record in San Luis Obispo County. This does, however, not preclude that they could not nest in the project action area. Particularly the northern portion of the project on the eastern side of the Santa Lucia Range (within the Santa Margarita Ranch lands) contains arid open country, suitable for the loggerhead shrike. Breeding shrikes may use isolated trees or large shrubs near construction sites as the project is within the breeding range of this species.

Direct and Indirect Impacts

The proposed project will temporarily disturb approximately 36 acres of potential habitat. Potential direct and indirect impacts would be similar to those described above for the white-tailed kite. Pre-construction breeding bird surveys and avoiding construction that would disturb nests until after fledging will minimize the potential for any direct effects. With proper revegetation, no indirect effects are expected.

Purple Martin

Purple martins could use wetlands for foraging, and poles and trees in oak and pine woodlands for perching or nesting in the project action area as shown in Attachment C. The nearest CNDDB record is approximately 0.25 mile southwest of PG&E's Atascadero Substation and just northeast of the intersection of Highway 41 and San Gabriel Road. Another nest site exists along Trout Creek, west of Pozo Road on the Santa Margarita Ranch, 3.5 miles east of Tower 68/8.

Direct and Indirect Impacts

The proposed project will temporarily disturb approximately 10 acres of potential habitat. Potential direct and indirect impacts would be similar to those described above for the white-tailed kite. Pre-construction breeding bird surveys and avoiding construction that would disturb nests until after fledging will minimize the potential for any direct effects. With proper revegetation, no indirect effects are expected.

Raptors

Non-special status raptors protected under the Migratory Bird Treaty Act (MBTA) and CDFG Code such as the Cooper's hawk (*Accipiter cooperii*), sharp-shinned hawk (*Accipiter striatus*), ferruginous hawk (*Buteo regalis*), merlin (*Falco columbarius*), prairie falcon (*Falco mexicanus*),

and owls such as the great horned owl (*Bubo virginianus*) also have potential to occur in suitable foraging and/or nesting habitat in the project action area in woodland, savannah, grasslands, and riparian communities as shown in Attachment C. Raptors also occasionally nest on transmission towers. The likelihood for raptors to nest within 0.25 mile of the project action area is high given the high number of potential nesting sites observed within the project action area.

Direct and Indirect Impacts

The proposed project will temporarily disturb approximately 53 acres of potential habitat. Potential direct and indirect impacts would be similar to those described above for the golden eagle. Pre-construction breeding bird surveys and avoiding construction that would disturb nests until after fledging will minimize the potential for any direct effects, and avian-friendly design of the new pole and tower structures will eliminate the potential for direct effects from electrocution. With proper revegetation, no indirect effects are expected.

Other Nesting Birds

The project action area has potential for other nesting migratory songbirds. For example, acorn woodpecker (*Melanerpes formicivorous*) may nest in the northern half of the project action area where wooden poles are close to oak trees in which these woodpeckers nest during the spring and summer months. The project action area also contains suitable habitat within the range of the Nuttall's woodpecker (*Picoides nuttallii*). This species nests mostly in riparian habitat in dead and occasionally live trunks or limbs of willows, sycamores, cottonwood, or alder and rarely in oak trees (CDFG, 1990a). Potential nesting habitat for this species was observed along the tributary to San Luis Obispo Creek between Towers 72/2 and 72/3. This is similar for the hairy woodpecker (*Picoides villosus*) and the northern flicker (*Colaptes auratus*). Although not threatened or endangered species, these and many other nesting bird species are protected by the federal MBTA and CDFG Code.

Direct and Indirect Impacts

The proposed project will temporarily disturb approximately 74 acres of potential habitat. Potential direct and indirect impacts would be similar to those described above for the grasshopper sparrow and white-tailed kite. Pre-construction breeding bird surveys and avoiding construction that would disturb nests until after fledging will minimize the potential for any direct effects. Additionally, if woodpeckers nest in poles that are to be removed, the nests will be protected to allow them to fledge. With proper revegetation, no indirect effects are expected.

Pallid Bat

The pallid bat may use trees for day roosts and/or may use suitable habitat for foraging in grasslands, coastal scrub, chaparral, woodlands, and developed areas within the project action area as shown in Attachment C. The nearest CNDDB record occurs under the Highway 101 bridge spanning the Santa Margarita Creek, which is 0.25 mile west of where the power line spans Santa Margarita Creek (near Pole 66/14). Pallid bats are susceptible to roost site disturbance. Potential maternity or winter roosts may occur in rock crevices on slopes and cliffs

adjacent to the project action area. In addition, roost sites, such as tree hollows, may be found within the project action areas.

Direct and Indirect Impacts

The proposed project will temporarily disturb approximately 61 acres of potential habitat. Direct impacts to the pallid bat could include loss of roosting or foraging opportunities resulting from clearing of trees and grading of project construction areas, or roosting activity disturbance resulting from construction-related noise, or displacement. This would be an insignificant loss compared with the availability of foraging habitat in the area. Trees will be assessed for roosts prior to removal. Maternity or winter roosts are not anticipated to be affected by noise- or wind-related impacts associated with helicopters. Nevertheless, if helicopters were to hover in close range to maternity or winter roosts that could occur in rock crevices, the downdraft from the height that the helicopters would be operating would not be significant at the ground and the duration of the disturbance in any one area is not expected to be substantial enough to permanently displace individual bats from their roosting site. Therefore, direct impacts are not expected to be significant.

Indirect impacts to the pallid bat could include adverse habitat modification that results in loss of future foraging or roosting opportunities. With proper revegetation, no indirect effects are expected.

Western Mastiff Bat

The western mastiff bat may use trees for day roosts and/or use suitable foraging habitat within woodlands, coastal scrub, grasslands, and chaparral within the project action area as shown in Attachment C. The nearest CNDDB record from 1991 is approximately 1 mile west of Tower 74/1.

Direct and Indirect Impacts

The proposed project will temporarily disturb approximately 58 acres of potential habitat. Potential direct and indirect impacts would be similar to those described above for the pallid bat. Maternity or winter roosts are not anticipated to be affected by noise- or wind-related impacts associated with helicopters. Direct impacts are expected to be minimal. With proper revegetation, no indirect effects are expected.

Western Red Bat

The western red bat is most likely to use riparian woodlands for roosting and nearby foothill and grassland clearings for foraging. The riparian woodlands are shown in Attachment C. Sycamore and cottonwood were observed in Reservoir Canyon and sycamores were observed along the creek east of the Wood Winery could provide suitable roosting sites for red bats.

Direct and Indirect Impacts

The proposed project will temporarily disturb approximately 29 acres of potential habitat. Potential direct and indirect impacts would be similar to those described above for the pallid bat. The maternity or winter roosts will not be impacted unless helicopters are required to hover over roost sites located in rock crevices on slopes inhabited by roosting bats. If helicopters are required to hover in close range to maternity or winter roosts, the duration of disturbance in any one area is not expected to be substantial enough to permanently displace individual bats from a roosting site. Direct impacts are expected to be minimal. With proper revegetation, no indirect effects are expected.

San Diego Desert Woodrat

The San Diego desert woodrat has potential to occur in the project action area in the mixed chaparral found near Towers 70/2 and 70/3 and between Towers 73/4 and 74/3 in the southern segment of the project area as shown in Attachment C. There are no CNDDB occurrences within 5 miles of the project area.

Direct and Indirect Impacts

The proposed project will temporarily disturb approximately 2 acres of potential habitat. Potential direct impacts to San Diego desert woodrat could include loss of habitat, or habitat fragmentation resulting from clearing and grading. Direct impacts in the form of mortality and injury are not expected with the implementation of BMPs, including reduced speed limit on access roads and biological monitoring. With proper revegetation, no indirect effects are expected.

Indirect impacts to the San Diego desert woodrat could include physical disturbance resulting from ground disturbing activities, loss of foraging or nesting opportunities. With proper revegetation, no indirect effects are expected.

American Badger

The American badger has the potential to occur throughout the project action area except for developed areas as shown in Attachment C. Although no badger dens were observed during the surveys, badgers may occur in drier open stages of shrubbery, forest, and herbaceous habitats, with friable soils and burrowing rodents. Suitable habitat with friable soils is present within the project action area particularly in the wood pole section of the project action area south of Highway 58. Large burrows and ground squirrels were observed during the survey, and the nearest CNDDB occurrence is approximately 0.25 mile east of where the power line crosses Highway 58.

Direct and Indirect Impacts

The proposed project will temporarily disturb approximately 61 acres of potential habitat. Potential direct impacts to the badger are similar to those described above for the San Diego desert woodrat. Direct impacts in the form of mortality and injury are not expected with the

implementation of BMPs, including reduced speed limit on access roads and biological monitoring. With proper revegetation, no indirect effects are expected.

Indirect impacts to the badger could include physical disturbance resulting from ground disturbing activities, loss of foraging, breeding, or hibernation opportunities. With proper revegetation, no indirect effects, such as loss of foraging, are expected.

6.4 INTERRELATED AND INTERDEPENDENT EFFECTS

This project activity is not interrelated with any other action(s), and there are no known interdependent effects**.** The Atascadero - San Luis Obispo 70 kV Power Line Reconductoring Project is needed to improve transmission reliability, replace aging structures, and provide sufficient peak period transmission voltage for the Atascadero, San Luis Obispo and nearby San Luis Obispo County areas. There are no other activities that are part of the proposed action or that depend on the action for their justification.

6.5 CUMULATIVE EFFECTS

Cumulative effects include the effects of future state, Tribal, local, or private actions that are reasonably certain to occur in the action area considered in this Biological Assessment. Future federal actions that are unrelated to the proposed action are not considered in this BA and would require separate consultation in accordance with Section 7.

The project may contribute to the cumulative effects to special-status species and their habitats resulting from current and proposed developments anticipated within the project action area. The Nacimiento Water Project is currently under construction and involves the development of an intake and pump station at Lake Nacimiento, approximately 45 miles of transmission pipeline, three storage tanks, two intermediate pump stations, turnouts, control center, new Supervisory Control and Data Acquisition (SCADA) and project control system, and associated appurtenant facilities. Periodic Caltrans work along Cuesta Grade and other construction work and development at Santa Margarita Ranch may also contribute to cumulative effects on nearby special status species and associated habitat by creating noise from different directions, adding dust from construction, adding hazardous materials, increasing the chance of accidentally running over special status species and introducing noxious weeds.

Development at the Santa Margarita Ranch may permanently impact the habitats of special-status species, including rare plants. In addition, new developments may impact CRLF critical habitat. These impacts may include take of special-status species, fragmentation or permanent loss of habitat, or reductions in the quality of habitat.

While the project may contribute to the cumulative effects resulting from new development, virtually all of the impacts from the project will be temporary in nature, as the existing pole and tower sites will be restored to resemble surrounding habitat, resulting in minimal net loss of preconstruction habitat conditions.

Cumulative impacts will be further minimized by implementation of avoidance, protection, and minimization measures described in Section 7.0.

7.0 IMPACT AVOIDANCE, PROTECTION, AND MINIMIZATION MEASURES

The proposed project will occur in areas with known and potential habitat for sensitive biological resources. However, because the project involves the replacement of existing structures and the use or improvement of existing roads, direct and indirect impacts are anticipated to be relatively minor. The following recommendations will ensure that project impacts on sensitive biological resources are avoided or further minimized.

General mitigation measures apply to the entire project action area, and are organized into preconstruction, during construction, and postconstruction measures.

Specific measures include those that will be implemented for specific species or habitat types, and detail procedures that will be utilized. Several of the species- and habitat-specific mitigation measures may be subject to further refinement following discussions with the appropriate resource agencies during the permitting process.

7.1 GENERAL PRECONSTRUCTION

- **Pre-construction Surveys and Relocation of Species.** Conduct pre-construction surveys for special-status amphibians and aquatic reptiles no more than two weeks prior to the commencement of construction. Surveys should include work areas work areas within 300 feet of suitable CRLF aquatic habitat. Surveys should be conducted by a qualified, agency-approved biologist. Potential habitat for western spade foot toad and western pond turtle exists in similar locations to those for CRLF. The biologist should relocate any special-status species to a location previously agreed upon by the USFWS and the CDFG. Before the start of work each morning, the biologist should check under any equipment and stored construction supplies left in the work area overnight within 300 feet of suitable habitat.

7.2 GENERAL CONSTRUCTION

- **Development and Implementation of a Worker Environmental Awareness Program.** A qualified biologist should conduct an environmental awareness program for all construction and on-site personnel prior to the beginning of construction activities. Training should include a discussion of avoidance and minimization measures being implemented to protect biological resources as well as the terms and conditions of the Biological Opinion and other permits. Training should include information on the federal and state Endangered Species Acts and the consequences of noncompliance with these acts. Under this program, workers should be informed about the presence, life history, and habitat requirements of all special-status species, including CRLF, with a potential to be affected within the project area. Training should include information on state and federal laws protecting nesting birds, wetlands, and other water resources. An educational brochure will be produced for construction crews working on the project. The brochure should include color photos of sensitive species as well as a discussion of mitigation measures. No construction worker

should be involved in field operations without having participated in this special-status species/sensitive habitat informational tailboard.

- **General Avoidance of Biological Resources Impacts.**
  Litter and trash management. Deposit all food scraps, wrappers, food containers, cans, bottles, and other trash from the project area in closed trash containers. Remove trash containers from the project area at the end of each working day.

  Parking. Park vehicles and equipment on pavement, existing roads, and previously disturbed or developed areas or work areas as identified in this document. Off-road parking should only be permitted in previously identified and designated work areas.

  Route and speed limitations. Confine vehicles to established roadways and pre-approved access roads, overland routes and access areas. Limit access routes and temporary work areas to the minimum necessary to achieve the project goals. Clearly map routes and boundaries of work areas, including access roads, prior to initiating project construction. Keep vehicular speeds to 15 mph on unpaved roads.

  Maintenance and refueling. Maintain all equipment such that there will be no leaks of automotive fluids such as fuels, solvents, or oils. All refueling and maintenance of vehicles and other construction equipment should be restricted to designated staging areas located at least 100 feet from any down gradient aquatic habitat unless otherwise isolated from habitat. Maintain proper spill prevention and cleanup equipment in all refueling areas.

  Minimization of fire hazard. During fire season in designated State Responsibility Areas, all motorized equipment driving off paved or maintained gravel/dirt roads should have federal or state approved spark arrestors. All off-road vehicles should be equipped with a backpack pump filled with water and a shovel. All fuel trucks should carry a large fire extinguisher with a minimum rating of 40 B:C, and all equipment parking and storage areas should be cleared of all flammable materials.

  Pets and firearms. No pets or firearms should be permitted at the project site.

  Prevention of wildlife entrapment. Backfill all pole holes or holes from tower legs or cover at the end of the work day to prevent entrapment of special-status species.

- **Designated Equipment Staging.** Restrict equipment to designated staging areas and roads to avoid disturbance to existing vegetation.

- **Storm Water Permit.** Obtain coverage under the Construction Storm Water Permit Program and implement BMPs for erosion and sediment control. These BMPs may include, but are not limited to, silt fencing, temporary berms, restrictions on cleaning, installation of vegetative strips, and temporary sediment disposal.

- **Restricted Construction Hours**. Do not begin construction activities within 300 feet of suitable aquatic habitat prior to 30 minutes after sunrise and cease construction activities no later than 30 minutes before sunset.

- **Helicopter Avoidance of Known Nesting Birds.** Avoid helicopter flights near known active nesting bird sites as determined in consultation with the USFWS and/or CDFG.

- **Avoidance of Impacts to Natural Habitats.** Sensitive resources identified during pre-construction surveys in the project vicinity should be mapped and clearly marked in the field. Minimize grading and vegetation removal along access roads and pole and tower work areas. Limit clearing and grading to previous access roads that have become overgrown with vegetation. Cut vegetation at ground level and leave existing root systems intact where possible.

- **Staging and Stockpiling Restrictions.** During construction, restrict stockpiling of construction materials, portable equipment, vehicles, and supplies to the designated construction staging areas. Ensure that contamination of habitat does not occur during such operations. Inform all workers of the importance of preventing spills and the appropriate measures to take should a spill occur.

- **Hazardous Substance Control and Emergency Response Plan.** Implement PG&E's system-wide program which includes established procedures for handling and managing hazardous substances and emergency response in the event of a hazardous substance spill. These procedures will add to the requirements in the project Storm Water Pollution Prevention Plan (SWPPP).

- **Project-specific Fire Prevention and Response Plan Development and Implementation.** Incorporate established system-wide Fire Prevention and Response procedures that will include reducing the potential for igniting combustible materials. The procedures should cover electrical hazards, flammable materials, smoking, vehicle and equipment access, and fire watches during construction and maintenance procedures during subsequent operation. Project personnel should be directed to park away from dry vegetation; not to smoke; and to equip vehicles with appropriate firefighting equipment; such as water dispensers and shovels, in times of high fire hazard. The procedures should also describe methods to reduce the potential fire hazard from operation of the power line.

- **Biological Monitor On-site During Construction Activities in Sensitive Areas and Reporting and Communication.** A qualified biological monitor should be on site during all ground-disturbing construction activities in or near sensitive habitats previously identified by a qualified biologist. The monitor should ensure implementation of and compliance with all avoidance and mitigation measures. The monitor should have the authority to stop work or determine alternative work practices in consultation with agencies and construction personnel as appropriate if construction activities are likely to impact sensitive biological resources. The biological monitor should document monitoring activities in daily logs to document construction activities and environmental compliance. The daily logs should be included in the project report submitted to the appropriate agencies following completion of construction.

The biological monitor should be responsible for reporting any capture and relocation, harm, entrapment, or death of a listed species to the USFWS and/or the CDFG and for reporting any permit violations in a timely manner and as indicated in their respective permits.

7.3 GENERAL POSTCONSTRUCTION

- **Implementation of Revegetation and Monitoring Plan**. Prepare a Revegetation and Monitoring Plan prior to construction. Remove all old conductors from the project site. Stabilize disturbed areas, other than existing access roads, and revegetate with appropriate (conducive with PG&E line clearance requirements) native species. If applicable, monitor the site following construction to prevent establishment of weeds and to ensure the successful reestablishment of native species.

7.4 CALIFORNIA RED-LEGGED FROG AND ASSOCIATED CRITICAL HABITAT

(Measures are from the USFWS Programmatic Biological Opinion for CRLF. PG&E's approach to compliance is provided in [brackets].)

- **Section 7 of the FESA Coverage**. Obtain Section 7 of the FESA coverage under the Programmatic Biological Opinion (BO) for the CRLF.

- **Authorization of Biologist** (Measure 1 of the Programmatic BO for the CRLF). Submit the name(s) and credentials of biologists who would conduct activities specified in the following measures at least 15 days prior to the onset of activities. Project activities should not begin until proponents have received written approval from the USFWS that the biologist(s) is qualified to conduct the work.

- **Pre-construction CRLF Inspection** (Measure 2 of the Programmatic BO for the CRLF). A USFWS-approved biologist shall survey the work site, [locations that include the primary constituent elements of suitable habitat], [a minimum of] two weeks before the onset of activities. If CRLF, tadpoles, or eggs are found, the approved biologist shall contact the USFWS to determine if moving any of these life-stages is appropriate. In making this determination, the USFWS shall consider if an appropriate relocation site exists. If the USFWS approves moving animals, the approved biologist shall be allowed sufficient time to move CRLF from the work site before work activities begin. Only USFWS -approved biologists shall participate in activities associated with the capture, handling, and monitoring of CRLF.

- **Specialized CRLF Training** (Measure 3 of the Programmatic BO for the CRLF)**.** Before any construction activities begin on a project, a USFWS-approved biologist shall conduct a training session for all construction personnel. At a minimum, the training shall include a description of the CRLF and its habitat, the importance of the CRLF and its habitat, the general measures that are being implemented to conserve the CRLF as they relate to the project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions.

- **Qualified Biologist CRLF Inspection** (Measure 4 of the Programmatic BO for the CRLF)**.** A USFWS-approved biologist shall be present at the work site until such time as all removal of CRLF, instruction of workers, and habitat disturbance has been completed. [For the purpose of this measure, habitat disturbance refers to clearing or grading in areas of dense vegetation within 100 feet of aquatic habitat, as well as culvert placement or fill activities in drainages within the critical habitat boundaries.] After this time, the contractor or permittee shall designate a person to monitor on-site compliance with all minimization measures. The USFWS-approved biologist shall ensure that this individual receives training outlined above in measure 3 and in the identification of the CRLF. The monitor and the USFWS-approved biologist shall have the authority to halt any action that might result in impacts that exceed the levels anticipated by the USACE and USFWS during review of the proposed action. If work is stopped, the USACE and USFWS shall be notified immediately by the USFWS-approved biologist or on-site biological monitor.

- **Prohibited Items in Project Area** (Measure 5 of the Programmatic BO for the CRLF)**.** During project activities, all trash that may attract predators shall be properly contained, removed from the work site and disposed of regularly from work areas.

- **Refueling and Equipment Maintenance Methods that Protect CRLF** (Measure 6 of the Programmatic BO for the CRLF)**.** All fueling and maintenance of vehicles and other equipment and staging shall occur at least 20 meters (60 feet) from any riparian habitat or water body. The USACE and permittee shall ensure contamination of habitat does not occur during such operation. Prior to the onset of work, the USACE shall ensure that the permittee has prepared a plan to allow a prompt and effective response to any accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

- **Prevention of Spread or Introduction of Invasive Exotic Plant Species** (Measure 7 of the Programmatic BO for the CRLF). A USFWS-approved biologist shall ensure that the spread or introduction of invasive exotic plant species shall be avoided to the maximum extent possible. When practicable, invasive exotic plant in the project areas shall be removed. [The weed control measures under the Special Status Plants heading below describe the steps that PG&E will be taking.]

- **Implementation of Revegetation and Monitoring Plan** (Measure 8 of the Programmatic BO for the CRLF). Project sites shall be revegetated with an appropriate assemblage of native riparian wetland and upland vegetation suitable for the area. A species list and restoration and monitoring plan shall be included with the project proposal for review and approval by the USFWS and the USACE. Such a plan must include, but not be limited to, location of the restoration, species to be used, restoration techniques, time for the year the work will be done, identifiable success criteria, and remedial actions if the success criteria are not achieved. [PG&E will prepare and implement a Revegetation and Monitoring Plan as described above under General Postconstruction.]

- **Stream Restoration** (Measure 9 of the Programmatic BO for the CRLF)**.** Stream contours shall be returned to their original condition at the end of the project activities, unless consultation with the USFWS has determined that it is not beneficial to the species or feasible.

- **Limitation of Vehicle Access, Potential Impact Areas, and Potential Disturbance** (Measure 10 of the Programmatic BO for the CRLF)**.** The number of access routes, number and size of staging areas, and the total area of the activity shall be limited to the minimum necessary to achieve the project goal. Routes and boundaries shall be clearly demarcated, and these areas shall be outside of riparian and wetland areas. Where impacts occur in these staging areas and access routes, restoration shall occur as identified in the two measures above. [Restrict movement of heavy equipment to and from the project site to established roadways where possible to minimize habitat disturbance. If saturated soils are encountered, employ timber mats to prevent rutting and compaction. Located staging areas outside of an appropriate buffer established from aquatic habitat.]

- **Work Timing Window to Protect CRLF** (Measure 11 of the Programmatic BO for the CRLF)**.** Work activities shall be completed between April 1 and November 1. Should the proponent or applicant demonstrate a need to conduct activities outside this period, the USACE may authorize such activities after obtaining the USFWS's approval.

- **Erosion Control** (Measure 12 of the Programmatic BO for the CRLF)**.** To control erosion during and after project implementation, the applicant shall implement best management practices, as identified by the Central Coast Regional Water Quality Control Board.

- **Dewatering Method that Protects CRLF** (Measure 13 of the Programmatic BO for the CRLF)**.** If a work site is to be temporarily dewatered by pumping, intakes shall be completely screened with wire mesh not larger than five millimeters (mm) to prevent CRLF from entering the pump system. Water shall be released or pumped downstream at an appropriate rate to maintain downstream flows during construction. Upon completion of construction activities, any barriers to flow shall be removed in a manner that would allow flow to resume with the least disturbance to the substrate.

- **Removal of Exotic Species** (Measure 14 of the Programmatic BO for the CRLF). A USFWS-approved biologist shall permanently remove, from within the project area, any individuals of exotic species [identified during regular surveys or monitoring], such as bullfrogs, crayfish, and centrarchid fishes, to the maximum extent possible. The permittee shall have the responsibility to ensure that their activities are in compliance with the CDFG.

- **Avoidance of CRLF Habitat.** Install exclusion fencing around aquatic habitat in areas where construction activities are within the nearby vicinity of aquatic habitat (the upland habitat buffer). Prior to the commencement of construction activities, flagging, signage, and/or high visibility fencing should be erected around the CRLF habitat to identify and protect it from the encroachment of personnel and equipment. Avoid these areas by all construction personnel. Inspect the fencing before the start of each workday and maintain until completion of the project. Remove the fencing only when the construction of the project

is completed. Use only tightly woven netting or similar material for all geo-synthetic erosion control materials such as coir rolls and geo-textiles. Do not use plastic monofilament matting for erosion control measures.

- **Fencing of Staging Areas within Critical Habitat Boundaries.** Install exclusion fencing around staging areas that will be used during the typical CRLF avoidance window within the critical habitat boundaries. Prior to the commencement of construction activities, exclusion fencing should be erected around the staging areas to preclude entry by CRLF. Fencing should be keyed at least 6 inches into the ground. Inspect and maintain the fencing during the avoidance window until completion of the project. Remove the fencing only when the construction of the project is completed.

- **Reporting Requirement.** Prepare a compliance certification to be filed with the USACE and the USFWS to certify, after completion of construction, that the action was completed in accordance with the permit conditions. The information contained in the compliance certification shall include:

  1. the type(s) of action(s) that occurred;
  2. the number of acres affected and habitat type (e.g., upland, riparian.);
  3. the linear feet of work;
  4. how the site(s) was restored and a description of the area after the completion of the action;
  5. which measures were employed to protect CRLF;
  6. how the site(s) was restored or, if no restoration occurred the justification for not conducting this work; and
  7. a description of the area after ther completion of the action.

  Each compliance certification shall contain maps as appropriate indicating the location of all actions. Each report shall have a table and photos keyed to the map as appropriate. The compliance certification shall also document the number of CRLF that were known to be taken, and the form of take (e.g., harassement by moving, mortality) during the project's activities. The USFWS recognizes that accurately quantifying the number of individuals that may have been taken may not be possible; in these cases, the reporting of all observations and relative numbers would provide useful information. The report shall also recommend modifications to future measures to enhance the protection of the CRLF.

7.5 SPECIAL-STATUS AND NESTING BIRDS

- **Avoidance of and Minimization of Potential Impacts to Birds**. Conduct pre-construction bird nesting surveys for the project area pull sites, structure replacement locations, and clearing and grading activities before work is performed between February 1 and August 15. To the extent possible, avoid working in the vicinity of active nests; however, if avoidance is not practicable, maintain a buffer zone, as determined by a qualified biologist, around the active nest to prevent nest abandonment. In the event that work will take place within 50 feet

(300 feet for raptors) of an active nest, a biological monitor should monitor the activity of the nesting birds during work to determine if construction activities are resulting in significant disturbance to the birds. If the qualified biologist determines that work is disrupting nesting, then halt work in that area until nesting is completed and the young have fledged. Provide monitoring guidelines in an Avian Protection Plan to be submitted to the USFWS and CDFG for review and approval prior to construction. Submit documentation of Plan approval to the CPUC for recordkeeping. Installation of the replacement power lines should conform to PG&E's most current version of Bird and Wildlife Protection Standards, and should include the use of bird guards. Nest disturbance is dependent on a number of site-specific and activity-specific factors, including the sensitivity of the species, proximity to work activity, amount of noise or frequency of the work activity, and intervening topography, vegetation, or structures; and the buffer could be increased or reduced dependent on the site-specific conditions.

- **Nesting Acorn Woodpeckers.** PG&E currently holds a Special Use Permit with the USFWS for Removal and Relocation of Active Nests, dated July 15, 2008. All woodpecker cavities in wood poles will be visually inspected prior to pole removal, if safe to do so. All poles having cavities that contain elliptical, white eggs or those cavities that have live chicks in a nest will be managed as a pole having an active woodpecker nest. Cavities having nests containing slightly glossy, pale bluish- or greenish-white colored eggs will be considered starling nests and are not afforded protection and no further action will be required. Prior to disturbing the pole, the entrance to the nest cavity will be covered with duct tape or other suitable adhesive product to prevent the eggs or chicks from falling out of the nest cavity. The orientation of the cavity opening will be noted for future reference, and will then be cut out the section of pole containing the active nest, 3 feet above the cavity and 3 feet below the cavity. The pole section containing the active nest will remain in a vertical position to minimize further disturbance to eggs or chicks in the nest. Once the replacement pole is set, the pole section containing the nest will be strapped to the replacement pole, orienting the cavity hole as noted prior to relocation. The section of pole containing the nest will be placed no lower than one-third the height of the pole. The pole section will be securely positioned on the replacement pole with rope or metal strapping. The adhesive cover will be removed over the cavity entrance. As a last step, the pole number, circuit name, number of chicks or eggs, date of relocation, and crew supervisor name will be documented and this nest relocation information will be sent electronically to Mike Best, PG&E Bird Protection Program Manager (MBB8). This information will be included in PG&E's annual report to the U.S. Fish and Wildlife Service as required by our Special Purpose Permit MB057942-0.

7.6 BURROWING OWLS

- **Avoidance of and Minimization of Potential Impacts to Burrowing Owls**. A qualified biologist should conduct pre-construction surveys for burrowing owls for all project work areas that provide suitable nesting or wintering habitat (annual grasslands and pastures). Although burrowing owls are not likely to nest in the project area, the potential for nesting owls cannot be precluded. The work area surveys should take place within the ROW, covering the work area and surrounding areas visible from the ROW. The survey should include checking for the burrowing owl and owl signs (e.g., white wash at burrow entrances).

If ground-disturbing activities in suitable habitat are delayed or suspended for more than 30 days after the pre-construction surveys, the site should be resurveyed. If no burrowing owls are detected, no further mitigation is necessary. If active burrows are found near a work area, work in the vicinity of the burrows should be limited as follows:

- No disturbance should occur within approximately 160 feet (50 meters) of occupied burrows during the non-breeding season of September 1 through January 31, or within approximately 250 feet (75 meters) during the breeding season of February 1 through August 31.
- The limits of the exclusion zone in the project work area should be clearly marked with signs, flagging and/or fencing.

If work within these limits is unavoidable while burrows are active, work should only take place within the presence of a qualified monitor who will monitor to determine if the owls show signs of disturbance or, upon prior approval from CDFG a passive relocation effort (displacing the owls from the work area) may be conducted as described below, and subject to the approval of the CDFG. Passive relocation of owls may occur during the non-breeding season (September 1 through January 31) with prior approval from CDFG. Passive relocation should include installing one-way doors on the entrances of burrows. The one-way doors should be left in place for 48 hours to ensure the owls have vacated the nest site. Owls should not be relocated during the breeding season. All pole holes should be backfilled or covered at the end of the work day to prevent entrapment of burrowing owls. The open ends of LDS poles should be covered during storage to prevent burrowing owls from inhabiting the pole openings.

7.7 BATS

- **Biological Surveys Prior to Bat Breeding Season.** Before the spring breeding season (and prior to start of construction), a qualified biologist should perform a survey for roosting bats or maternity colonies at the proposed project site. Surveys will evaluate the probability for trees to host roosting bats. For trees considered to have a high probability for bats, acoustic monitoring will be performed in early summer to detect if there are any roosting sites.

- **Bat Avoidance Measures.** If avoidance of an active roosting bat or maternity colony is not practicable, establish a sufficient buffer in consultation with the California Department of Fish and Game. If acoustic monitoring detects that bats are using trees that need to be cut down, exclusionary one-way doors will be installed in late August, after completion of the maternity season. Roost trees will be removed after it has been confirmed that roosting bats have departed. If a roost is lost, PG&E will consult with the California Department of Fish and Game to see if the agency recommends bat boxes to be installed in the vicinity of the cut tree.

- **Biological Monitoring of Existing Bats in Project Area.** In the event that a roosting bat or maternity colony occurs within or near the project area, provide a qualified biological monitor who should remain on-site during construction activities to ensure there is no nest abandonment.

7.8 SPECIAL STATUS PLANTS

- **Avoidance of and Minimization of Potential Impacts to Special Status Plants.** A qualified botanist should conduct a pre-construction survey prior to commencement of construction in each area. Mark or flag all rare plant populations appropriately for exclusion, or as appropriate, mark the limits of construction between the population and the work area. Complete surveys and mark or flag no more than 30 days prior to construction. In the event that any previously unidentified listed plants, or CNPS List 1-3 plants cannot be avoided, consult with the USFWS and/or the CDFG (depending on whether the species is on the federal or state list of sensitive species) to determine appropriate measures to minimize effects to the species and its habitat during construction of the project, as well as during operation and maintenance. Inform the CPUC of the results of any agency consultations.

- **Weed Control.** Clean equipment and vehicles prior to arriving on site. Inspect equipment and clean as needed prior to use in areas with rare plants. Ensure that all plant material (e.g., straw, mulch, seeds, etc.) used for erosion control and/or road maintenance will be weed-free. If weed-free straw or mulch is not available, use rice straw and mulch. A USFWS-approved biologist should ensure that the spread or introduction of invasive exotic plant species will be avoided to the maximum extent possible. When practicable, remove invasive exotic plant in the project areas. Seed mixes should be approved by a biologist prior to application. Where possible, use local or on site seed sources. Gravel used for road maintenance should be from weed free-sources. Gravel sources should be inspected for the presence/absence of noxious weeds prior to utilization of gravel in the project area as appropriate.

- **Implementation of Dust Control Plan.** Prepare a Dust Control Plan prior to construction in coordination with the appropriate agencies to ensure impacts to special-status plants and associated vegetation communities are avoided or minimized.

7.9 CREEK CROSSINGS AND WETLAND HABITATS

- **Avoidance of Environmentally Sensitive Resource Areas.** Map sensitive resources identified during pre-construction surveys in the project vicinity and clearly mark them in the field. Avoid such areas during construction to the extent practicable and/or implement additional measures specific to sensitive species types as described herein and that may be required by the USACE, FWS, CDFG, and RWQCB permits to avoid or minimize impacts.

- **Avoidance of and Minimization of Potential Impacts to Wetlands and Water Resources**. Develop a SWPPP that describes sediment and hazardous materials control, fueling and equipment management practices, and other factors deemed necessary for the project. Implement erosion control measures where necessary to reduce erosion and sedimentation in wetlands, waters of the United States, and waters of the state, as well as aquatic habitat occupied by sensitive species. Monitor erosion control measures on a regularly scheduled basis, particularly during times of heavy rainfall. Implement corrective measures in the event erosion control strategies are inadequate. Continue sediment/erosion control measures at the

project site until such time that soil stabilization is deemed adequate. Do not place brush or other similar debris material within any stream channel or on its banks.

- **Water-crossing Construction Timing.** Schedule water-crossing construction during dry months when the waterways have low or no flow in order to minimize potential impacts.

- **Use of Coffer Dams.** If any flow is present during installation of the permanent culvert, install coffer dams and divert the entire flow around the work area during construction.

- **Sediment Barriers to Protect Wetland (W3).** Maintain sediment barriers between the wetland and the access road that leads to Tower 73/1 while re-establishing this road.

- **Restricted Access to Pole 66/10.** Access the existing Pole 66/10, which is located in a seasonal wetland, from the south side in order to prevent having to cross the drainage north of Pole 66/10 (shown as S17 in Attachment A). Minimize trampling and compaction of the wetland at Pole 66/10. If necessary, install timber mats to avoid surface disturbance to this wetland from equipment.

8.0 CONCLUSION AND DETERMINATION

Potential adverse impacts to these species and their habitats can be minimized or avoided through sensitive design and planning, and by implementing avoidance, protection, and minimization measures outlined in Section 7. Implementing appropriate construction BMPs, restricting work to non-sensitive or designated areas, providing environmental awareness training to the crew, careful handling of fuels and concrete near waterways, and restoring the site appropriately are general measures that will minimize or avoid potential impacts that may be associated with project construction. Implementation of these measures will greatly reduce the potential for impact to special-status species and their habitats.

8.1 DETERMINATION STATEMENTS

South-Central California Coast Steelhead ESU

The proposed project is not likely to adversely affect the federally threatened South-Central Coast California steelhead.

California Red-Legged Frog

The proposed project may affect but is not likely to adversely affect the federally threatened CRLF.

California Red-Legged Frog Critical Habitat

The proposed project would not result in the destruction or adverse modification of critical habitat for the CRLF.

California Condor

The proposed project is not likely to adversely affect the state and federally endangered California condor.

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Attachment A: Detail Maps

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

Workspace Point
- Bridge
- Gate
- Low water crossing/culvert
- Parking area
- Temporary bridge
- Truck parking

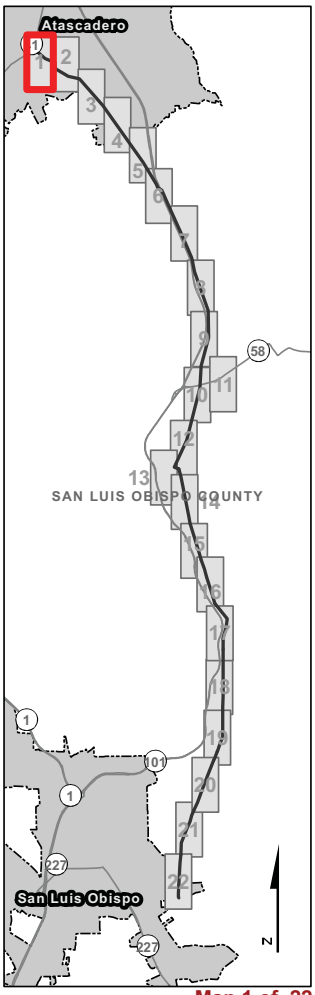
Structure
- Steel tower
- Wood pole
- Interset pole
- Distribution pole
- Staging Areas and Landing Zones
- Pull Sites
- Project Study Area

Streams and Wetlands
- Streams
- Wetland

Access Roads
- Existing Access Road
- Existing Access Road Reestablished Through Grading and/or Vegetation Removal
- Overland Route

0 150 300 600 Feet

1:3,600



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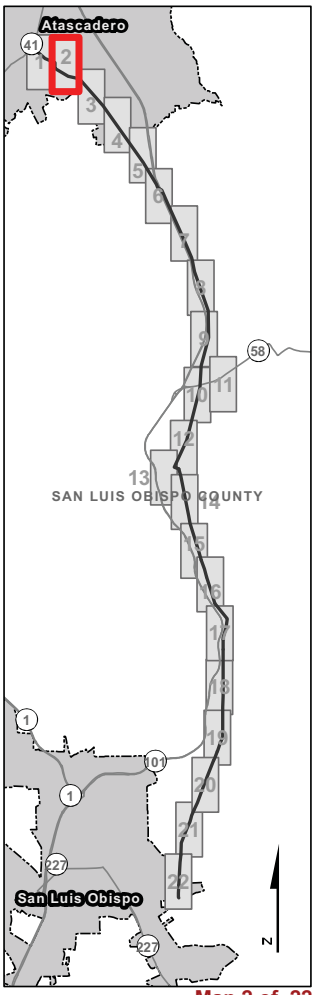

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PG&E

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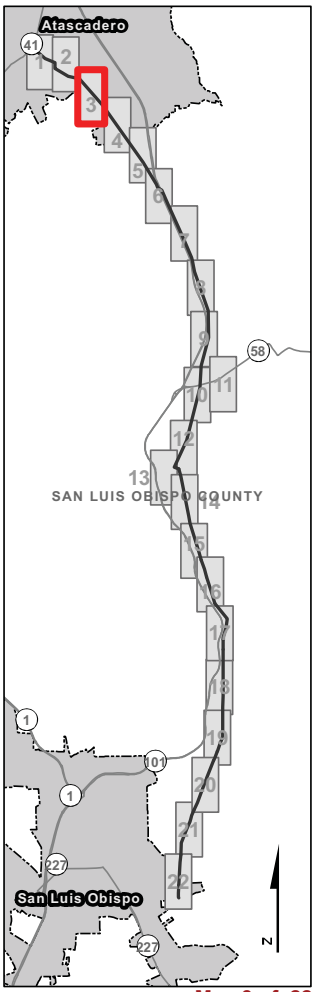

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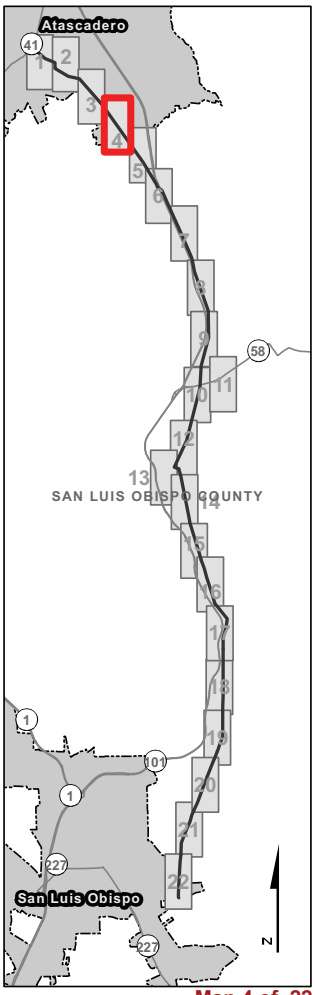

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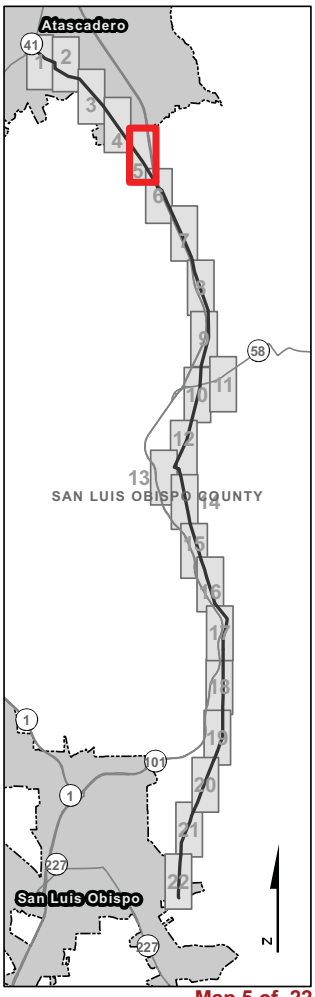

Preliminary and subject to change based on California Public Utilities Commission requirements, final engineering, and other factors

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- Bridge
- Gate
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- Parking area
- Temporary bridge
- Truck parking

Structure
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- Pull Sites
- Project Study Area

Streams and Wetlands
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- Wetland

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- Overland Route

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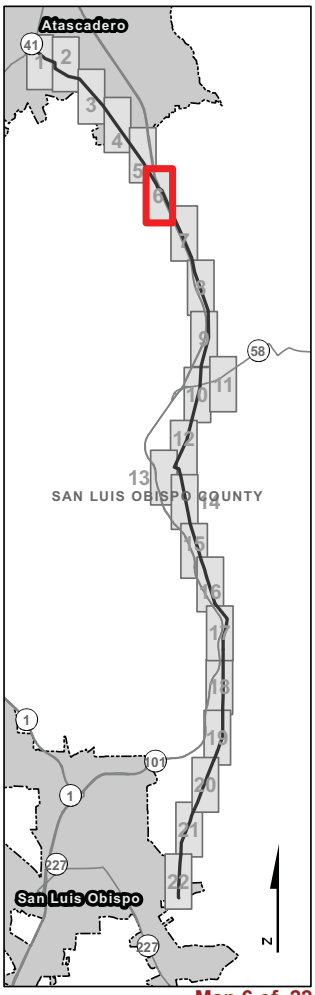

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PG&E

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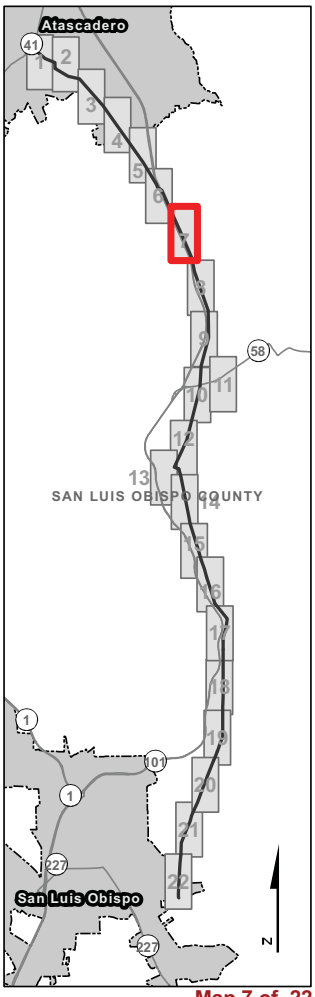

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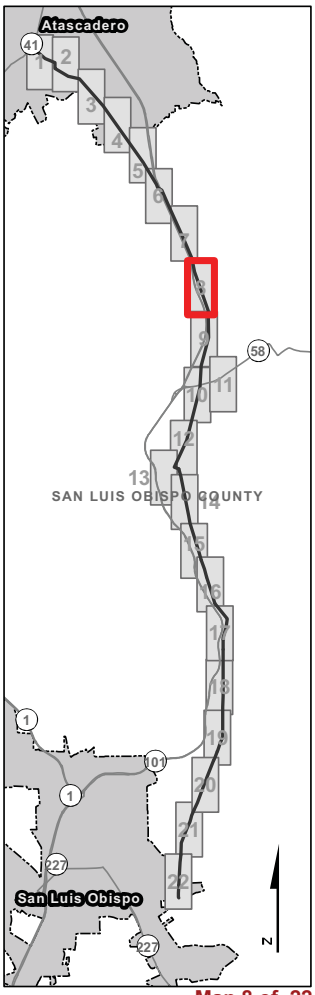

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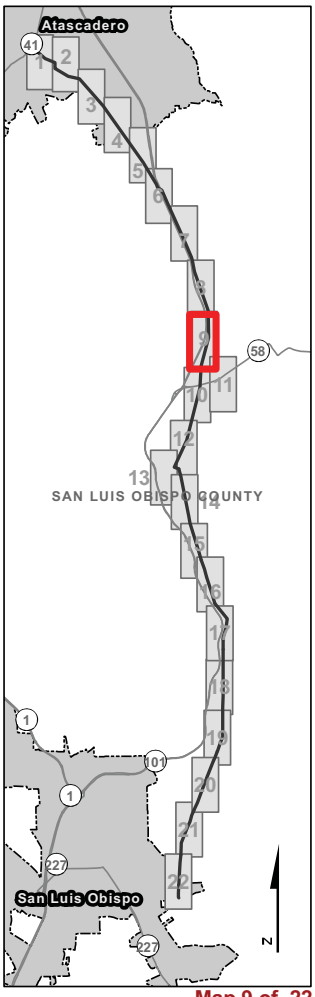

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PG&E

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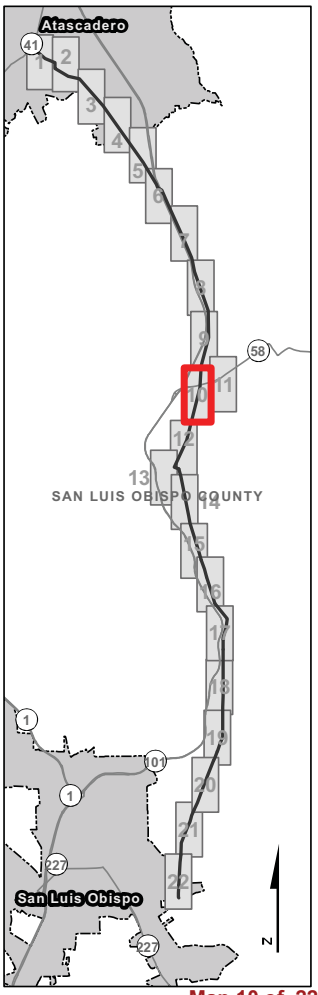

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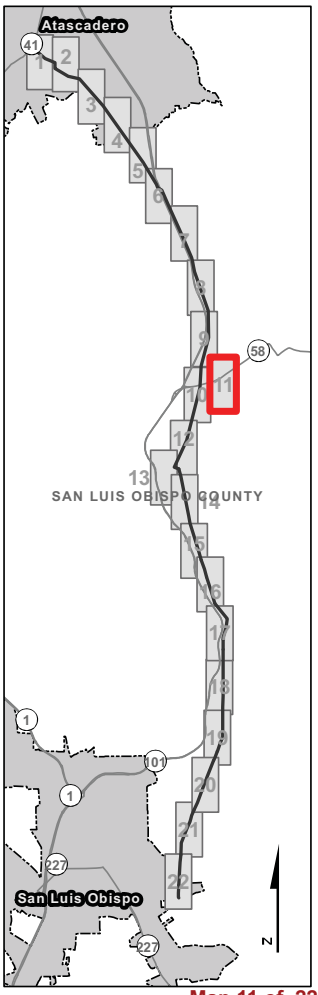

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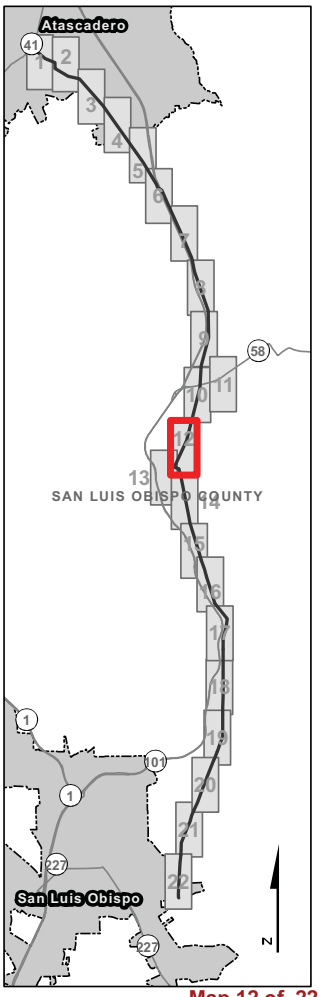

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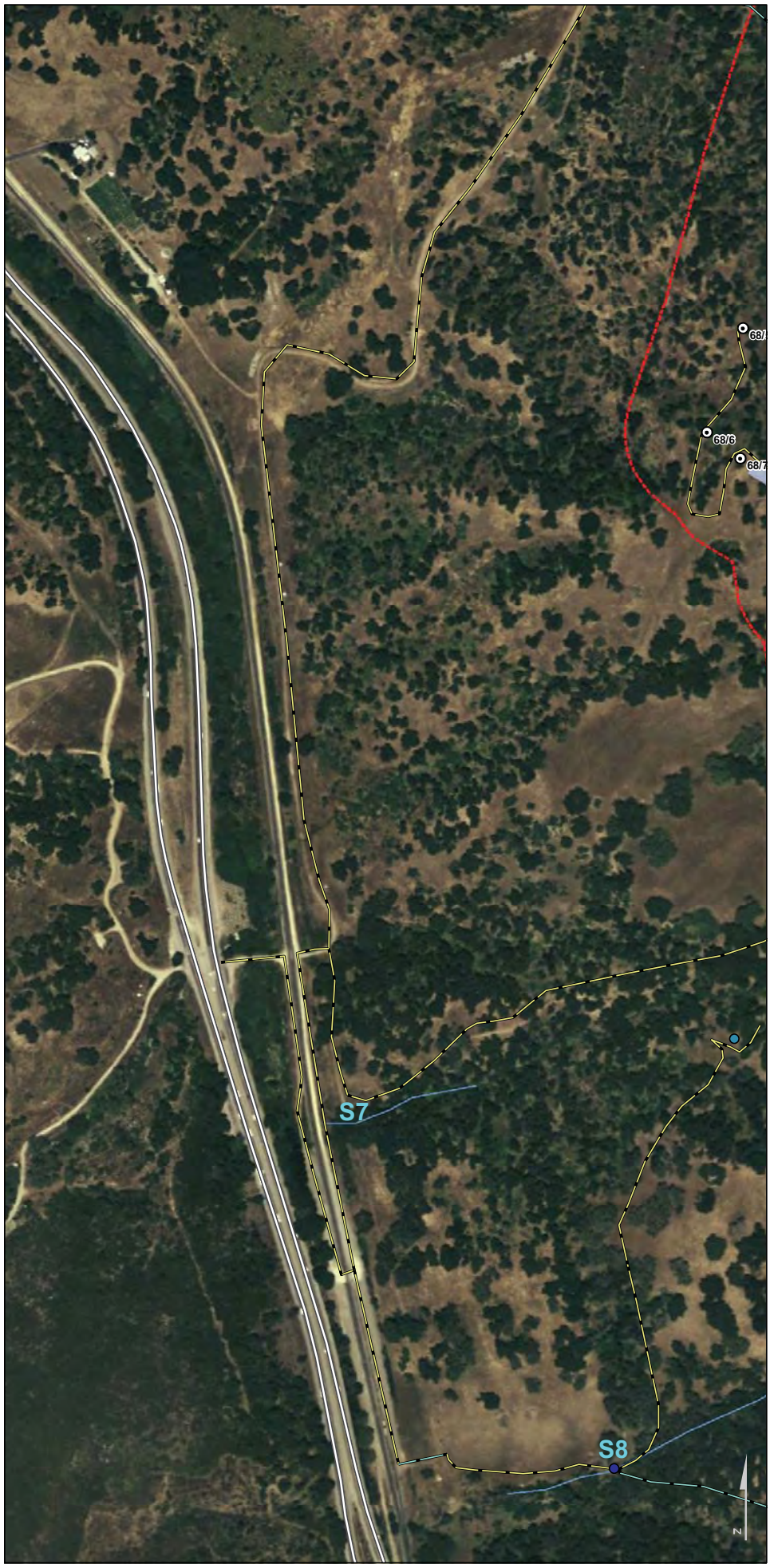

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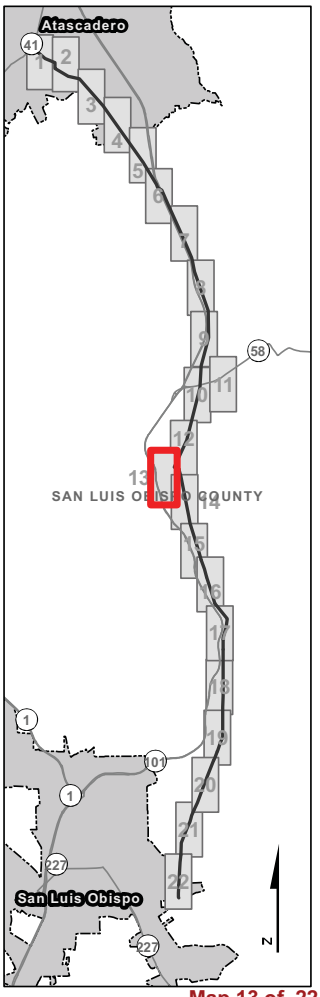

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PG&E

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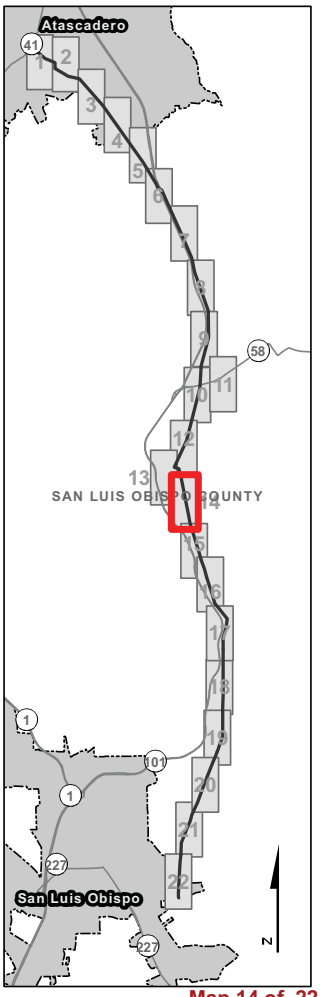

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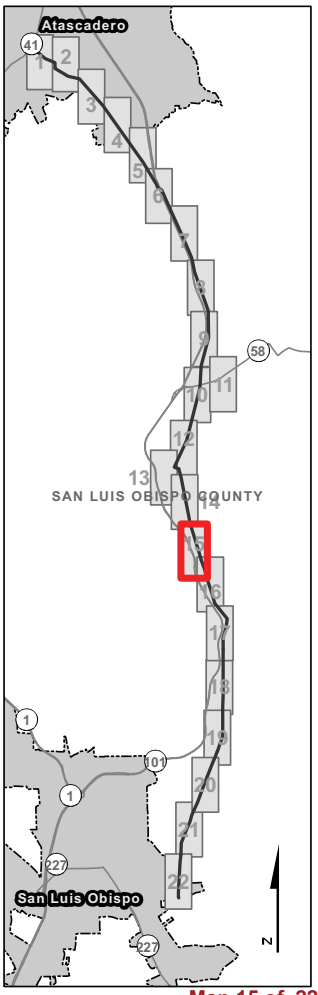

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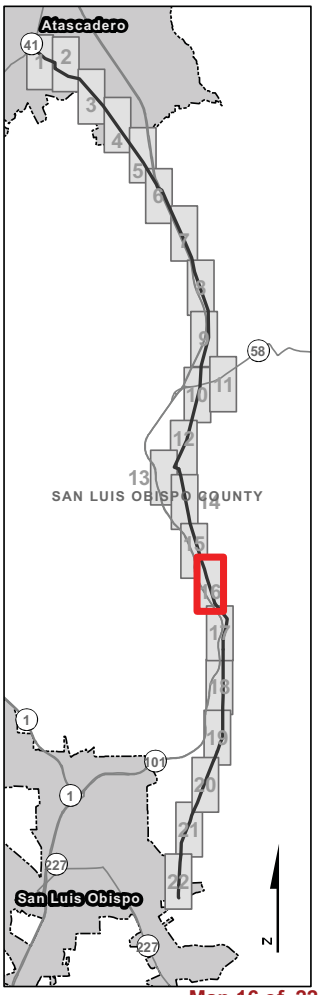

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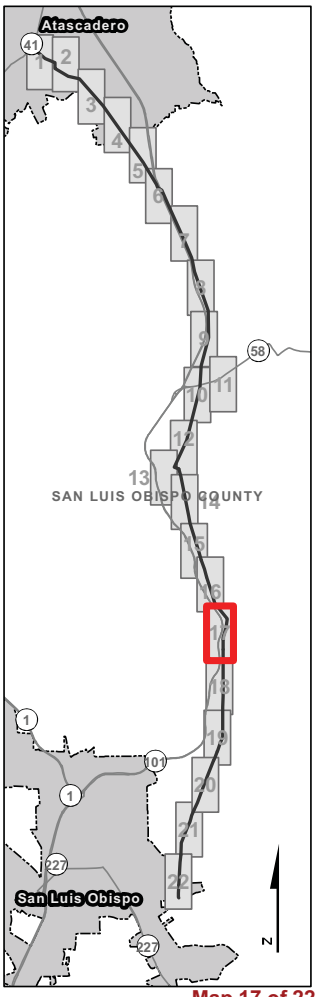

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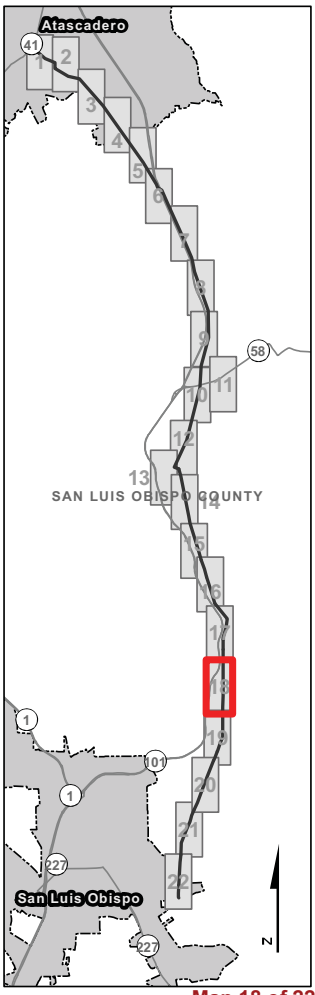

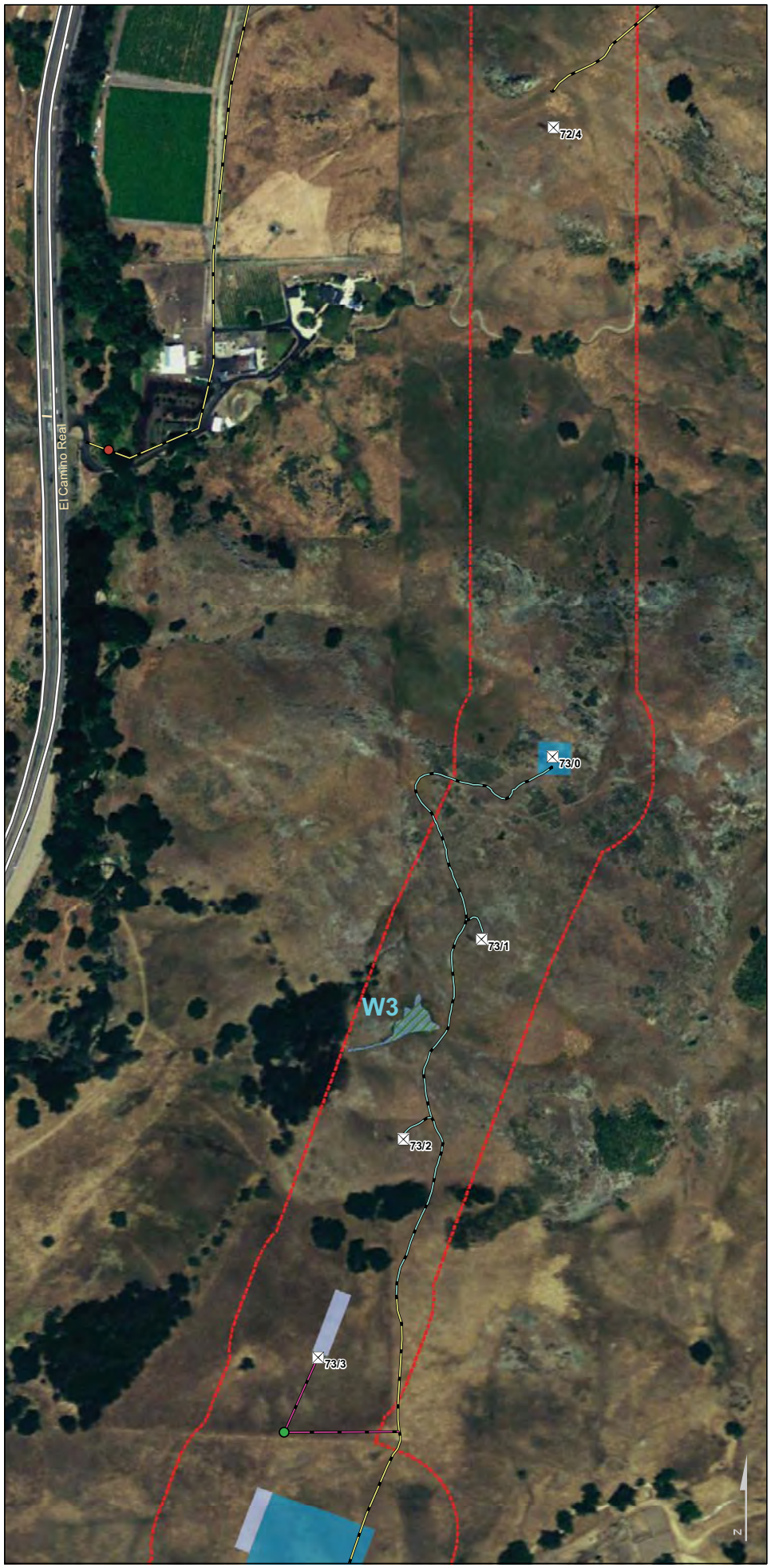

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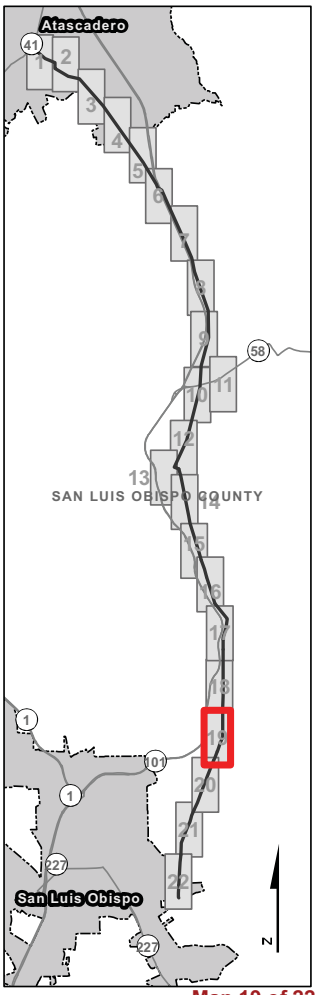

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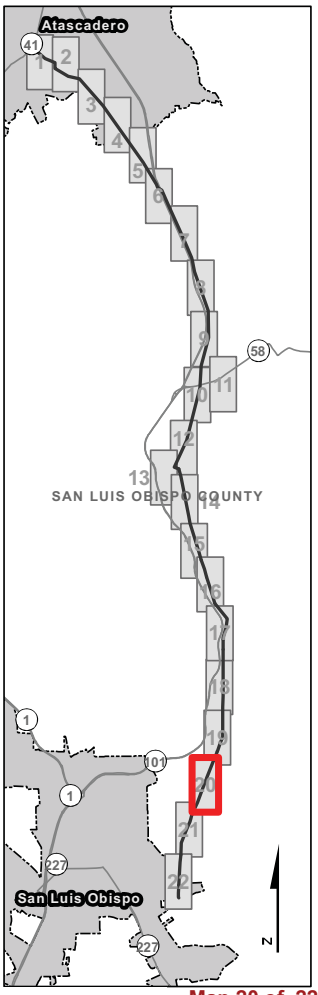

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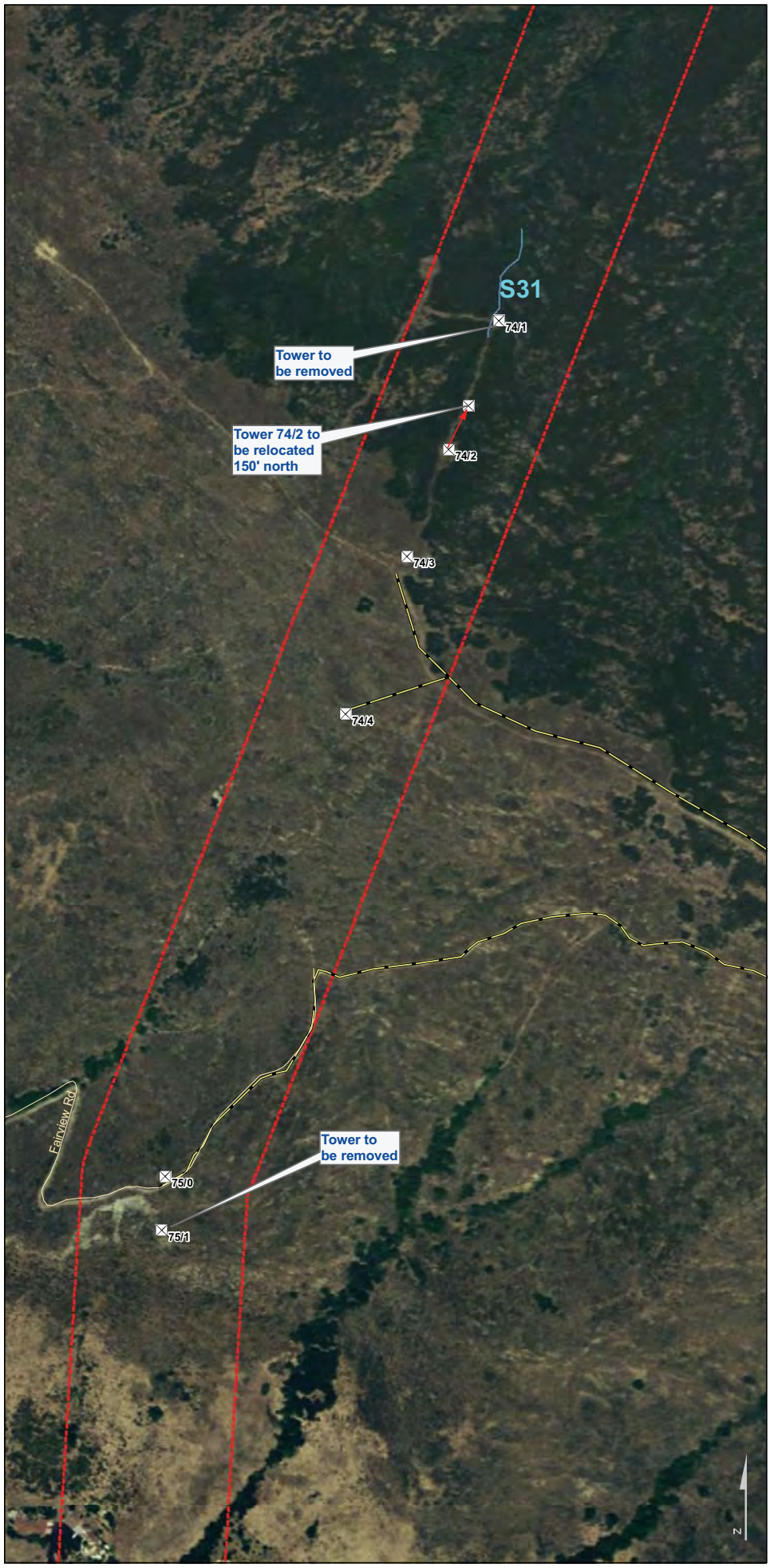

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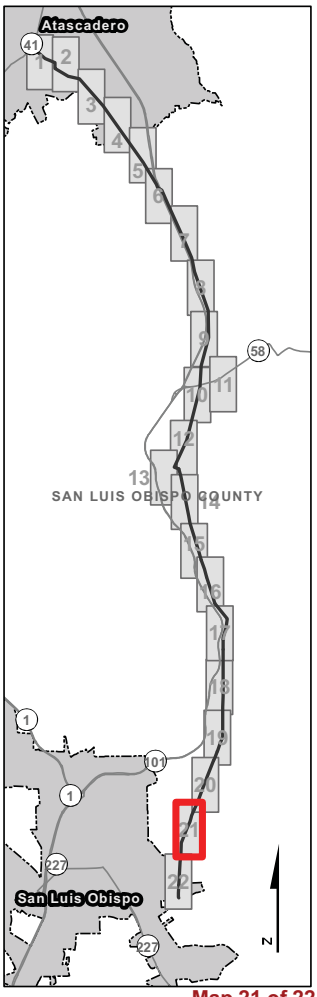

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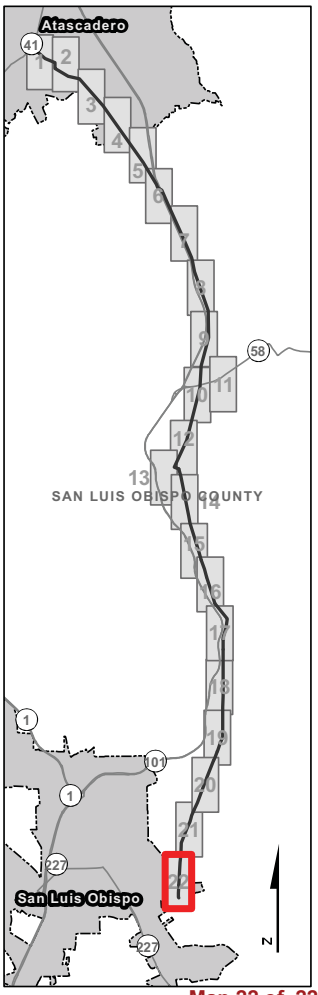
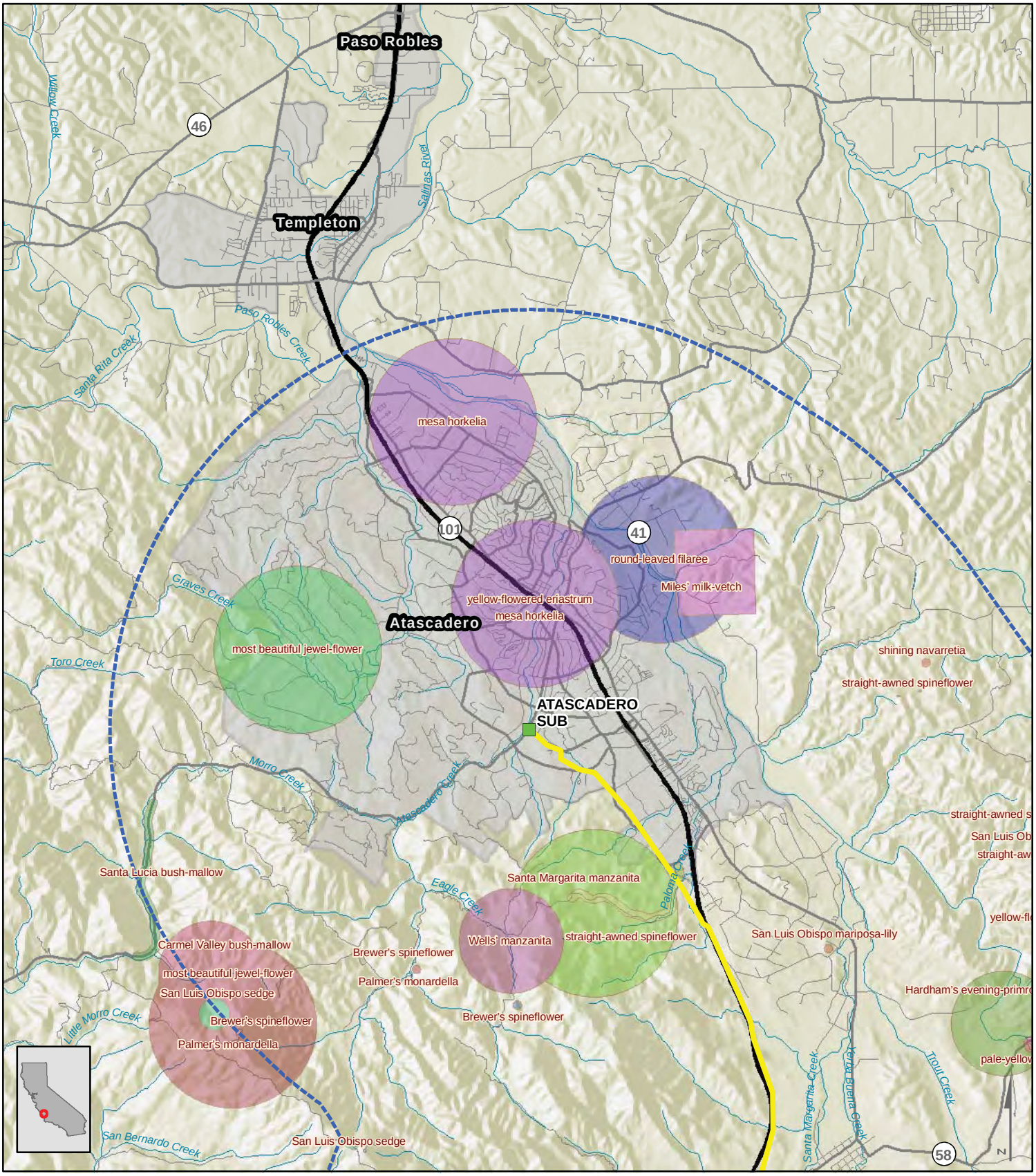


Attachment B: CNDDB Maps for Plants and Wildlife



Data Source: November, 2009 California Diversity DataBase

Rev.:12/16/09

Substation

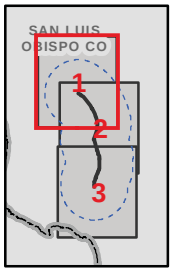
Power Line

5 Miles Buffer

Creeks

City Boundary

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



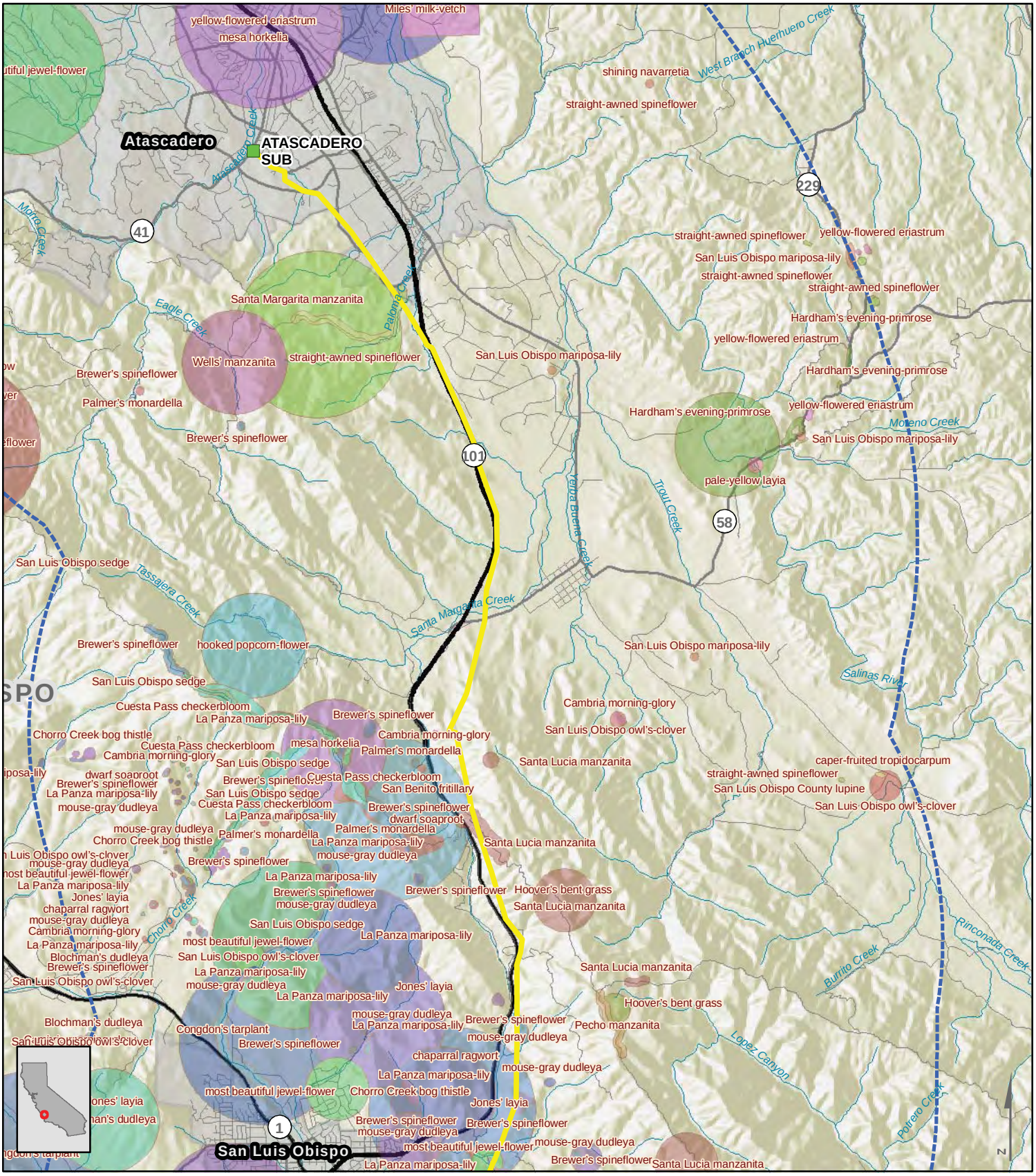
Map 1 of 3

PG&E

Attachment B:
CNDDB Maps for Plants

0 0.5 1 2 Miles

Scale: 1:100,000



Data Source: November, 2009 California Diversity DataBase

Rev.:12/16/09

- Substation
- Power Line
- 5 Miles Buffer
- Creeks
- City Boundary

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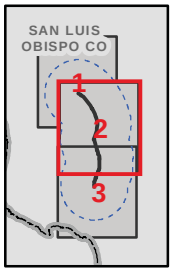


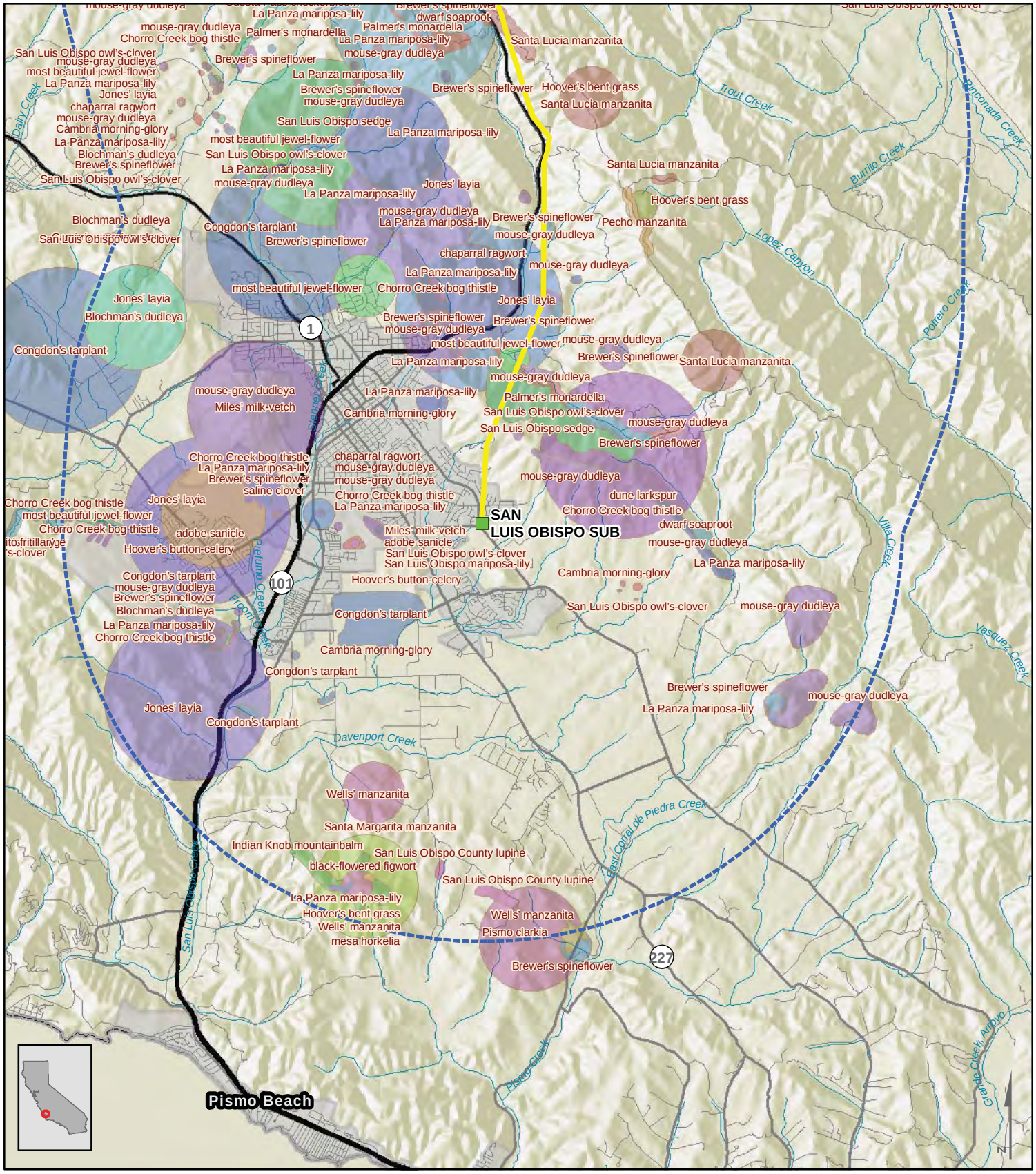
Map 2 of 3

PG&E

Attachment B: CNDDB Maps for Plants

0 0.5 1 2 Miles

Scale: 1:100,000



Data Source: November, 2009 California Diversity DataBase

Rev.:12/16/09

Substation

Power Line

5 Miles Buffer

Creeks

City Boundary

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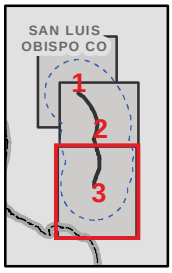


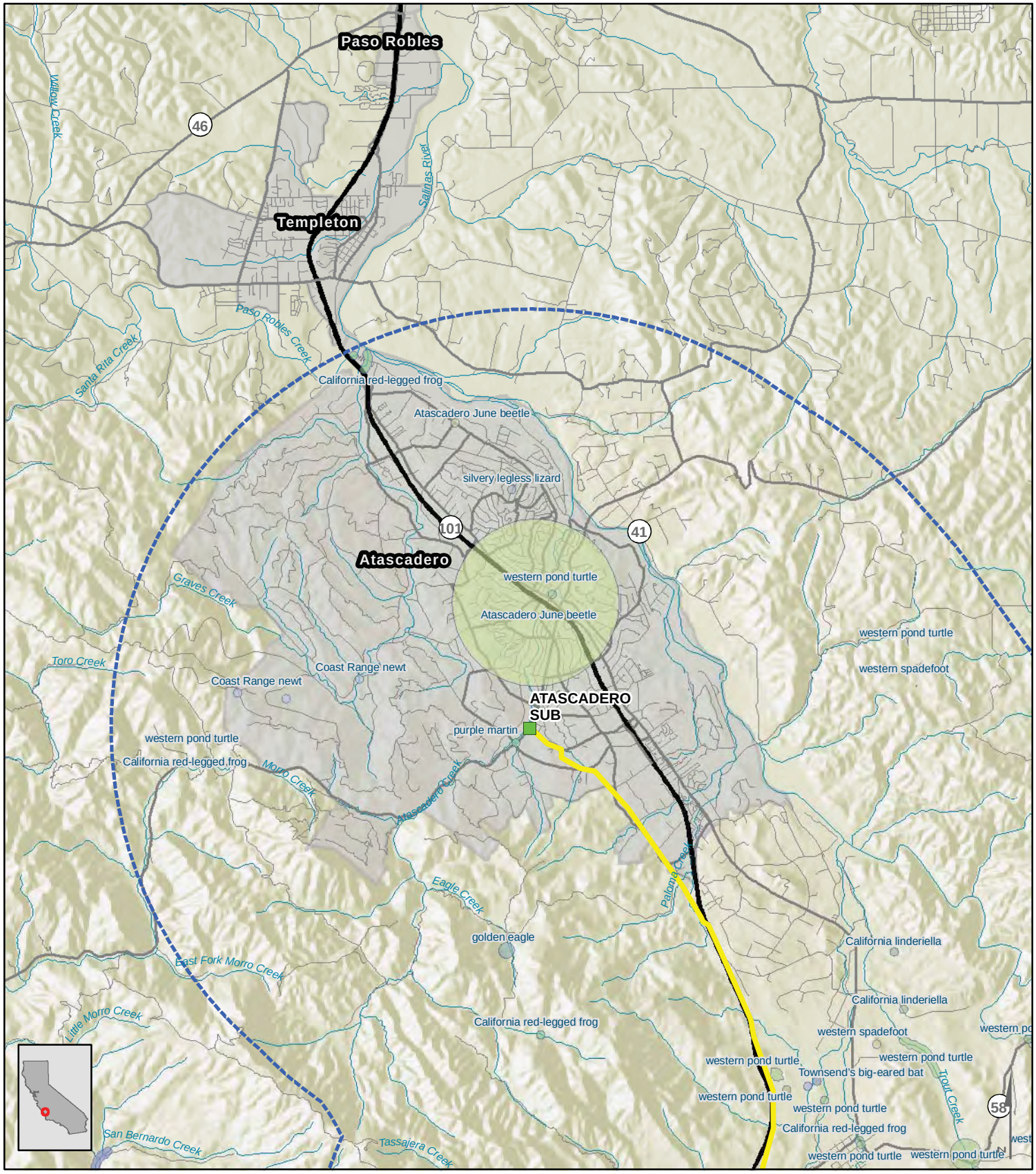
Map 3 of 3

PG&E

Attachment B:
CNDDB Maps for Plants

0 0.5 1 2 Miles

Scale: 1:100,000



Data Source: November, 2009 California Diversity DataBase

Substation

Power Line

Creeks

City Boundary

5 Miles Buffer

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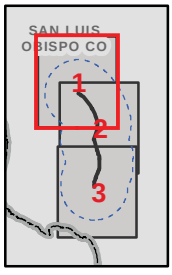
Rev:12/16/09



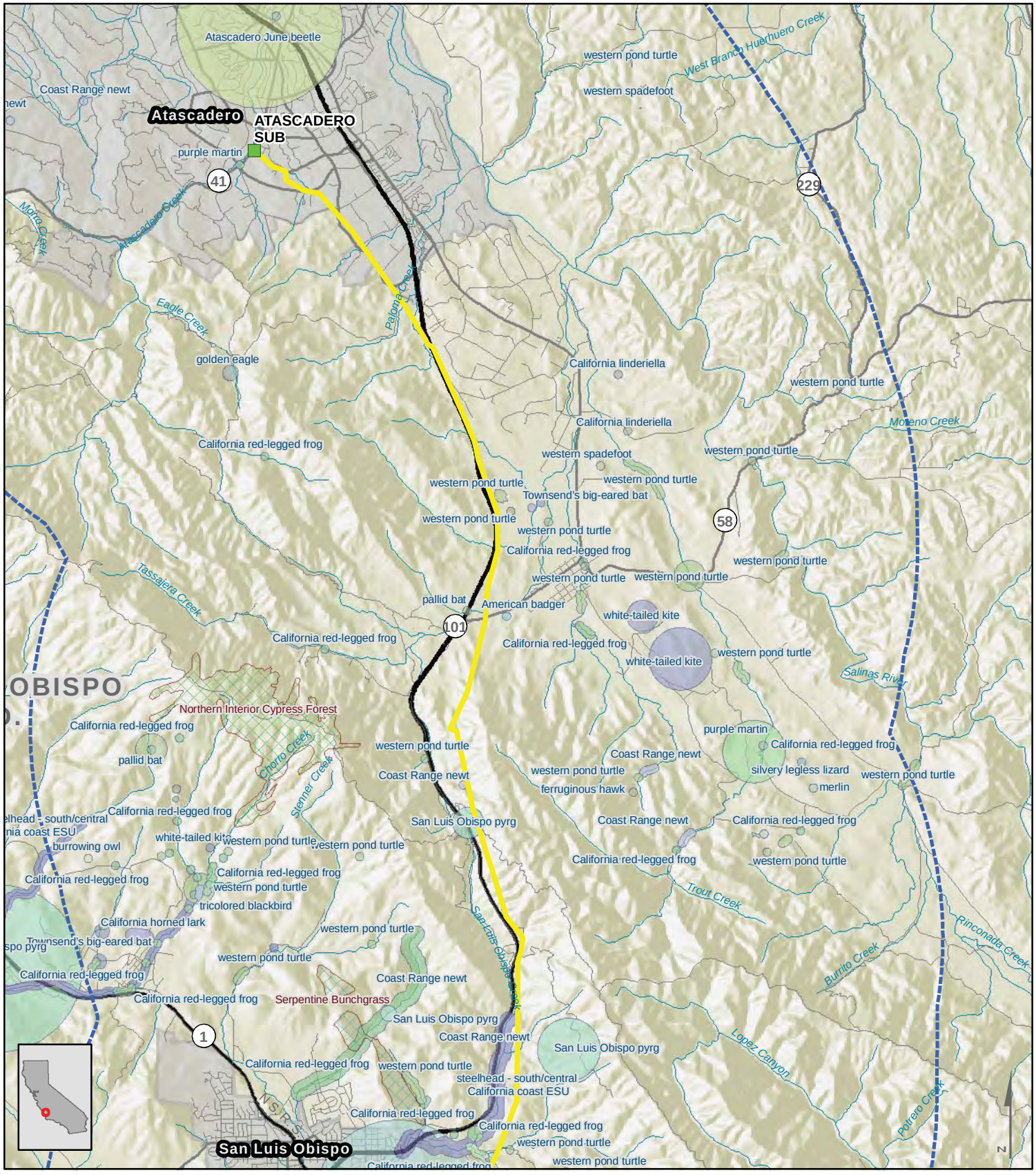
Map 1 of 3

PG&E

Attachment B:
CNDDB Maps for Wildlife

0 0.5 1 2 Miles

Scale: 1:100,000



Data Source: November, 2009 California Diversity DataBase

Substation

Power Line

Creeks

City Boundary

5 Miles Buffer

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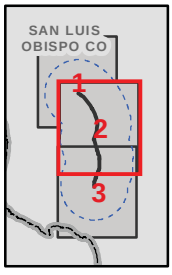
Rev:12/16/09



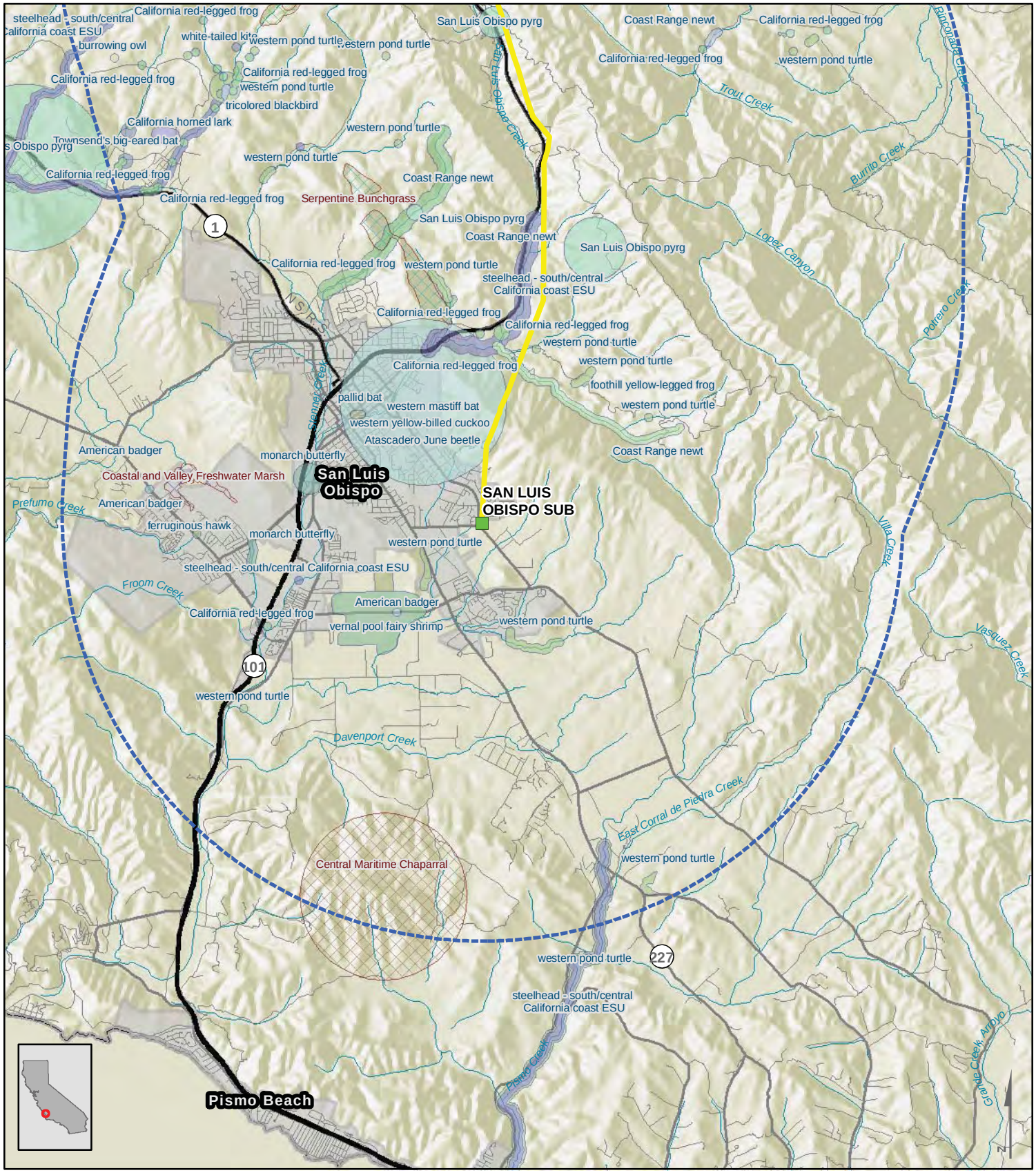
Map 2 of 3

PG&E

Attachment B:
CNDDB Map for Wildlife

0 0.5 1 2 Miles

Scale: 1:100,000



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Substation

Power Line

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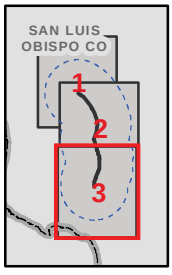


Map 3 of 3

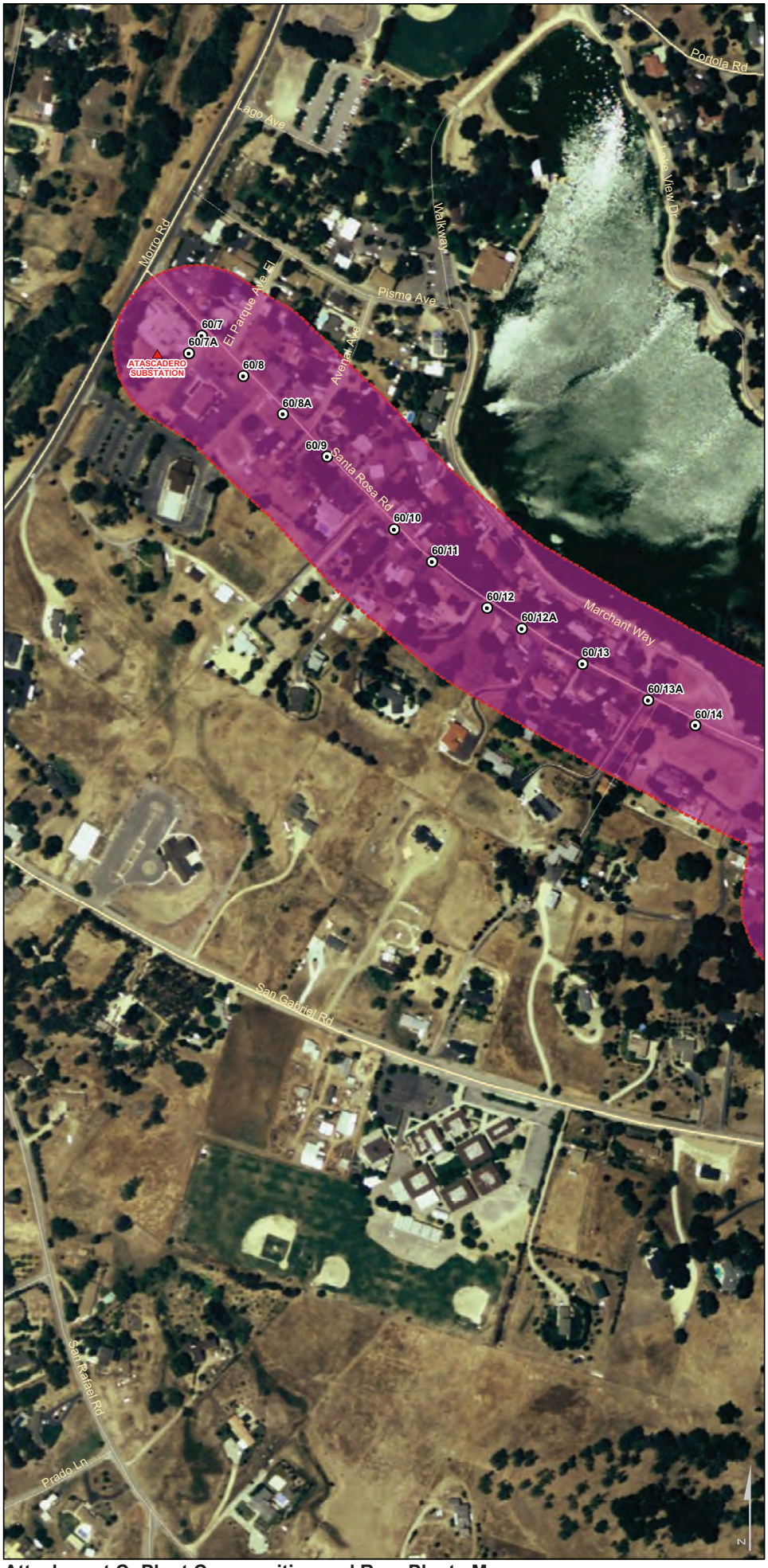
PG&E

Attachment B:
CNDDB Map for Wildlife

0 0.5 1 2 Miles

Scale: 1:100,000

Attachment C: Plant Communities and Rare Plants Maps



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

PG&E

Structure

- Wood pole
- Steel tower
- Interset pole
- Distribution pole

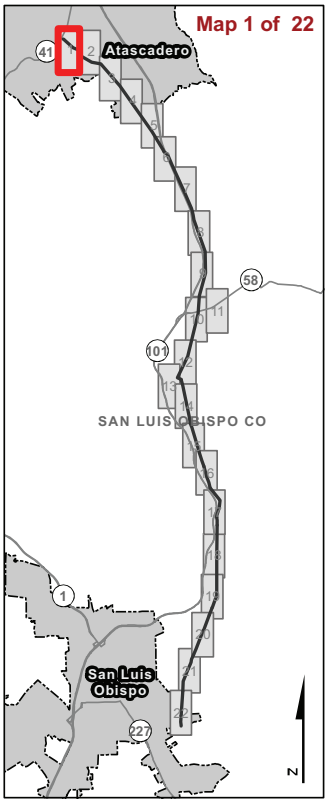
Sensitive Plant

- Arctostaphylus luciana
- Calochortus obispoensis
- Chorizanthe breweri
- Chorizanthe rectispina
- Dudleya abramsii ssp. murina
- Horkelia cuneata ssp. puberula

Plant Communities

- Annual Grassland
- Central Coast Live Oak Riparian Forest
- Central Coast Sycamore Riparian Forest
- Central Coastal Scrub
- Coastal Sage Scrub/Serpentine Grassland
- Developed
- Mixed Oak Savannah
- Mixed Oak Woodland
- Northern Mixed Chaparral
- Open Foothill Pine Woodland
- Ruderal
- Serpentine Grassland
- Valley Wildrye Grassland
- Project Area
- Access Roads
- Stream
- Caolchortus obispoensis
- Dudleya abramsii ssp. murina
- Calochortus obispoensis and Dudleya abramsii ssp. murina

Feet
0 150 300 600
1:3,600



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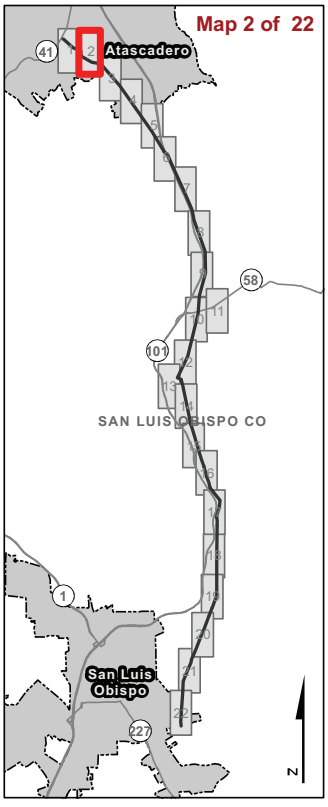

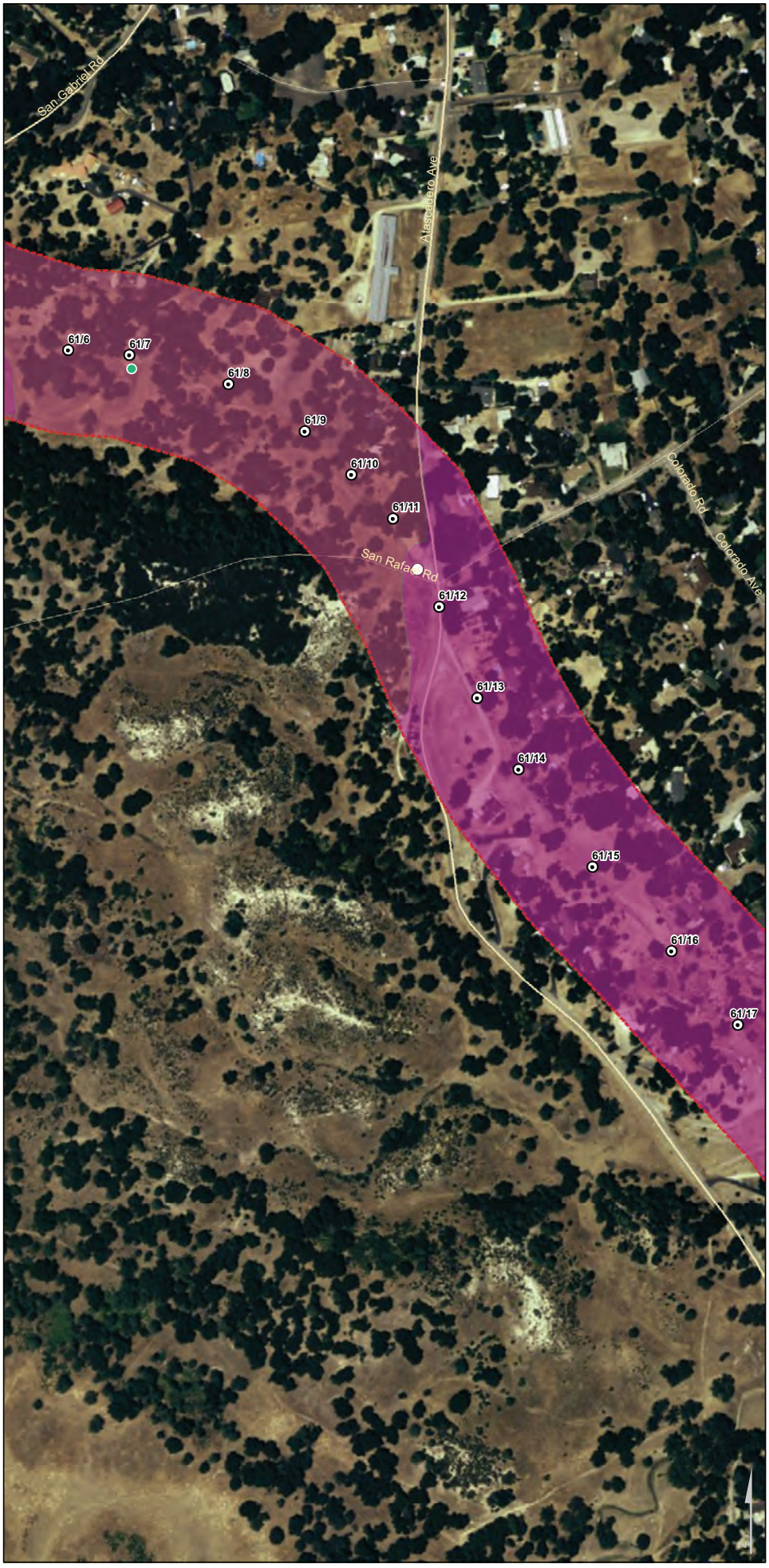

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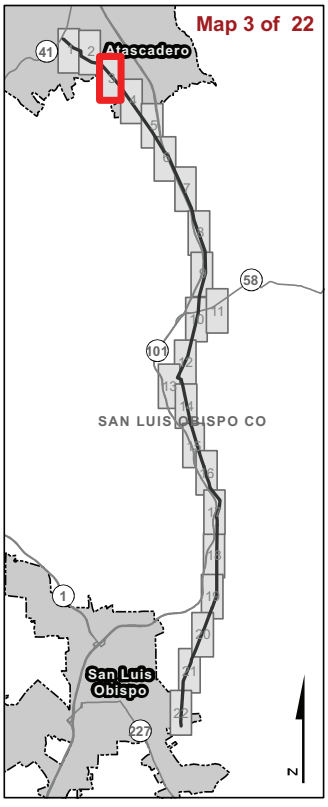

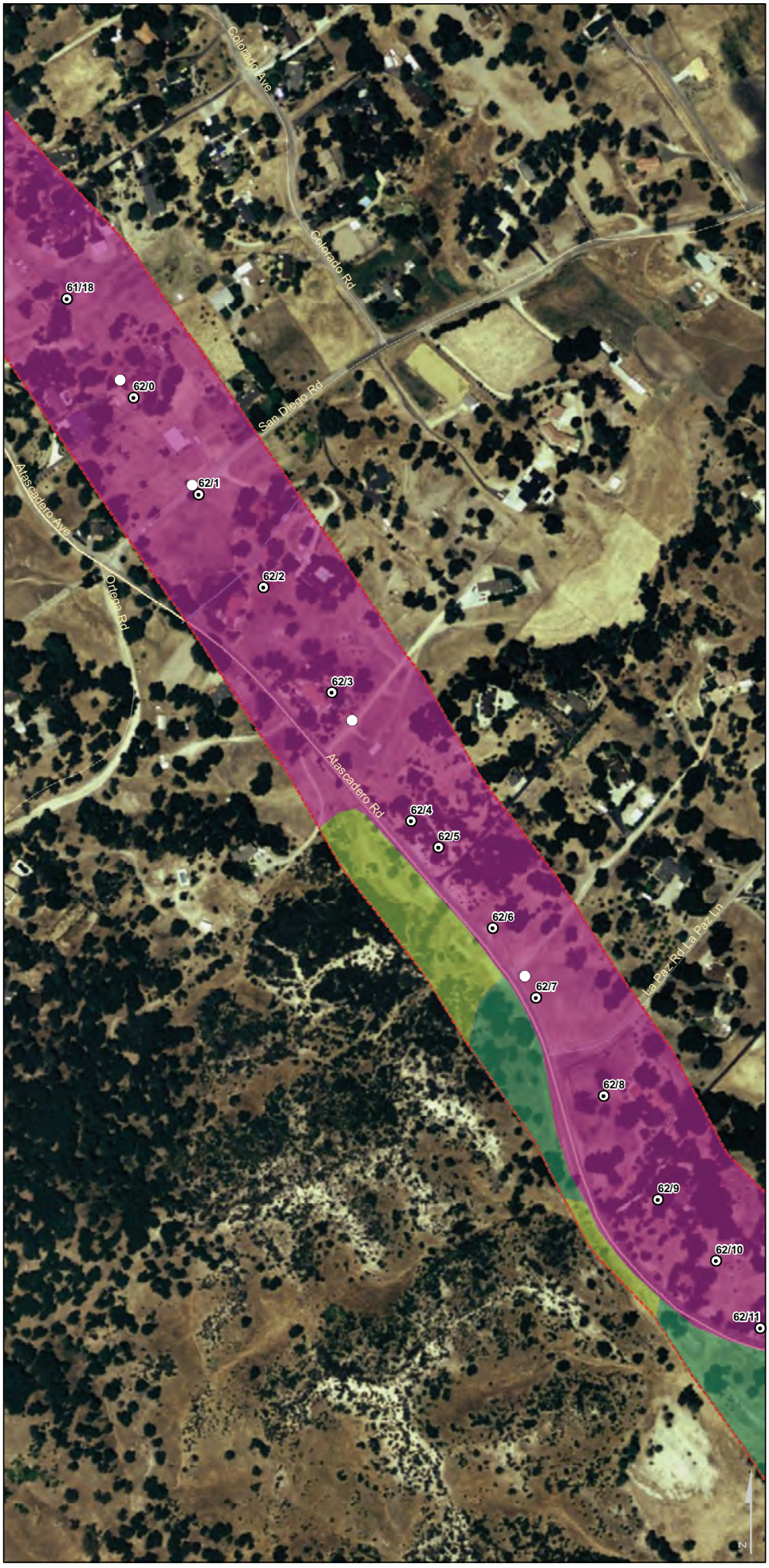

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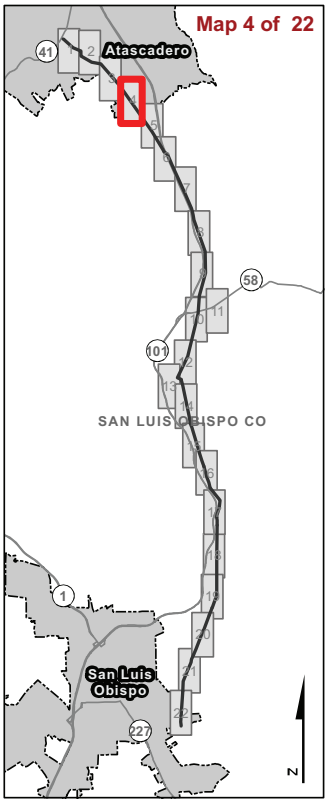

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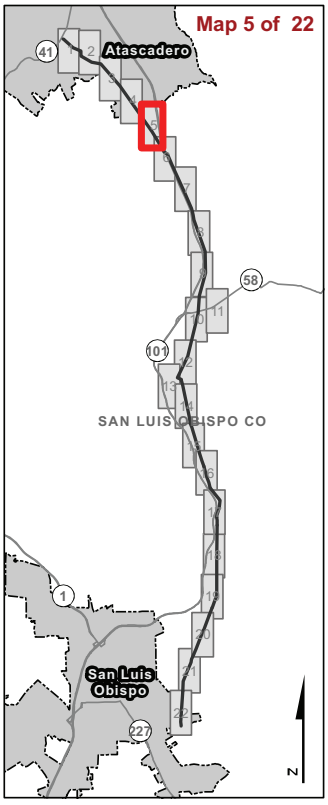

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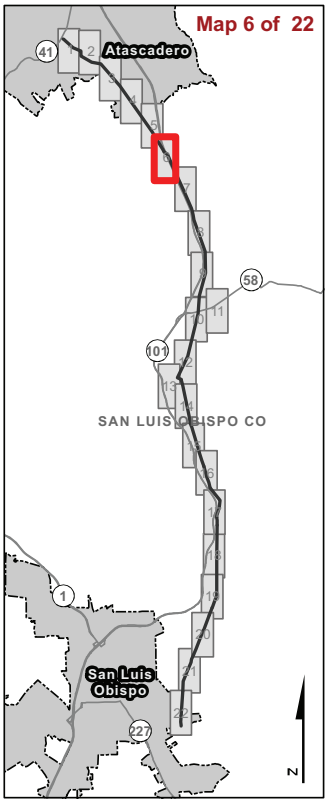

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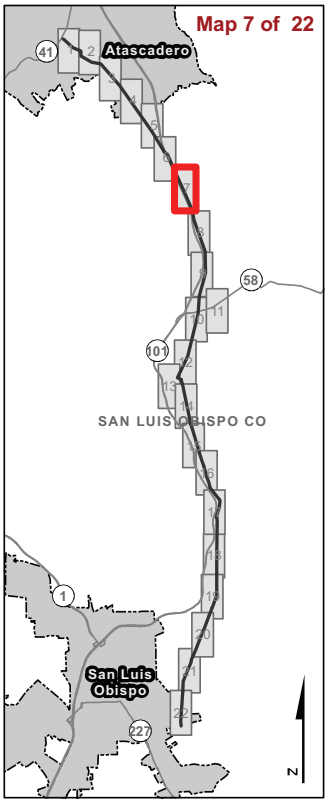

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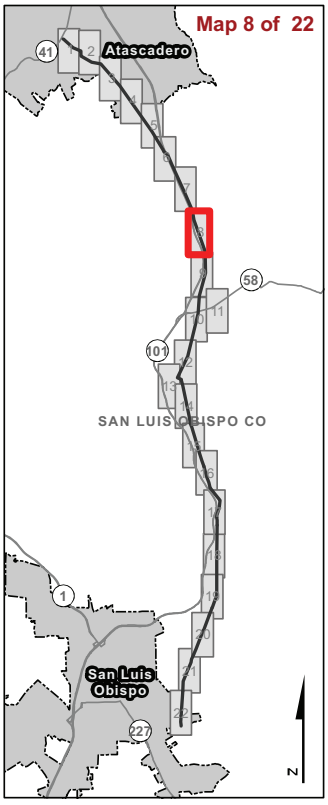

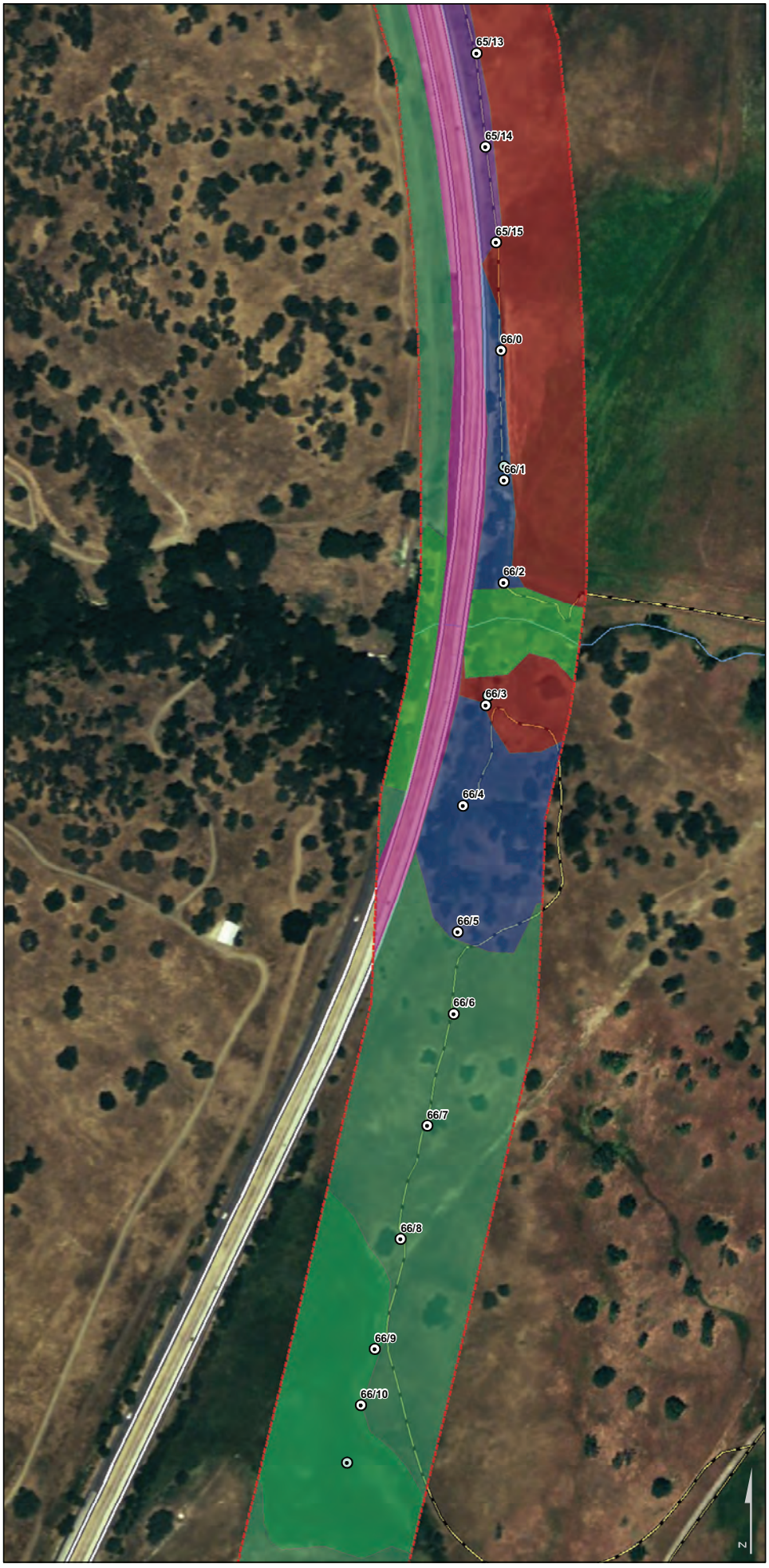

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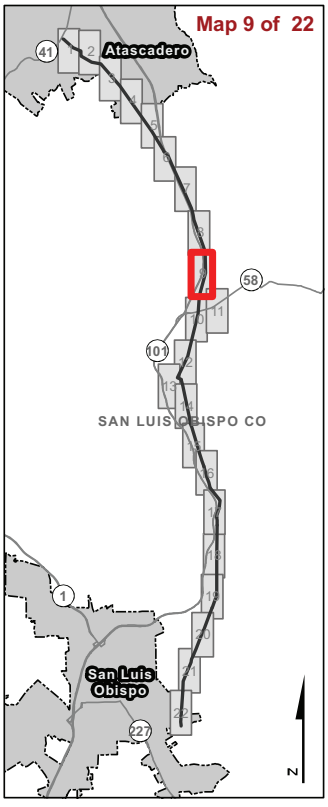

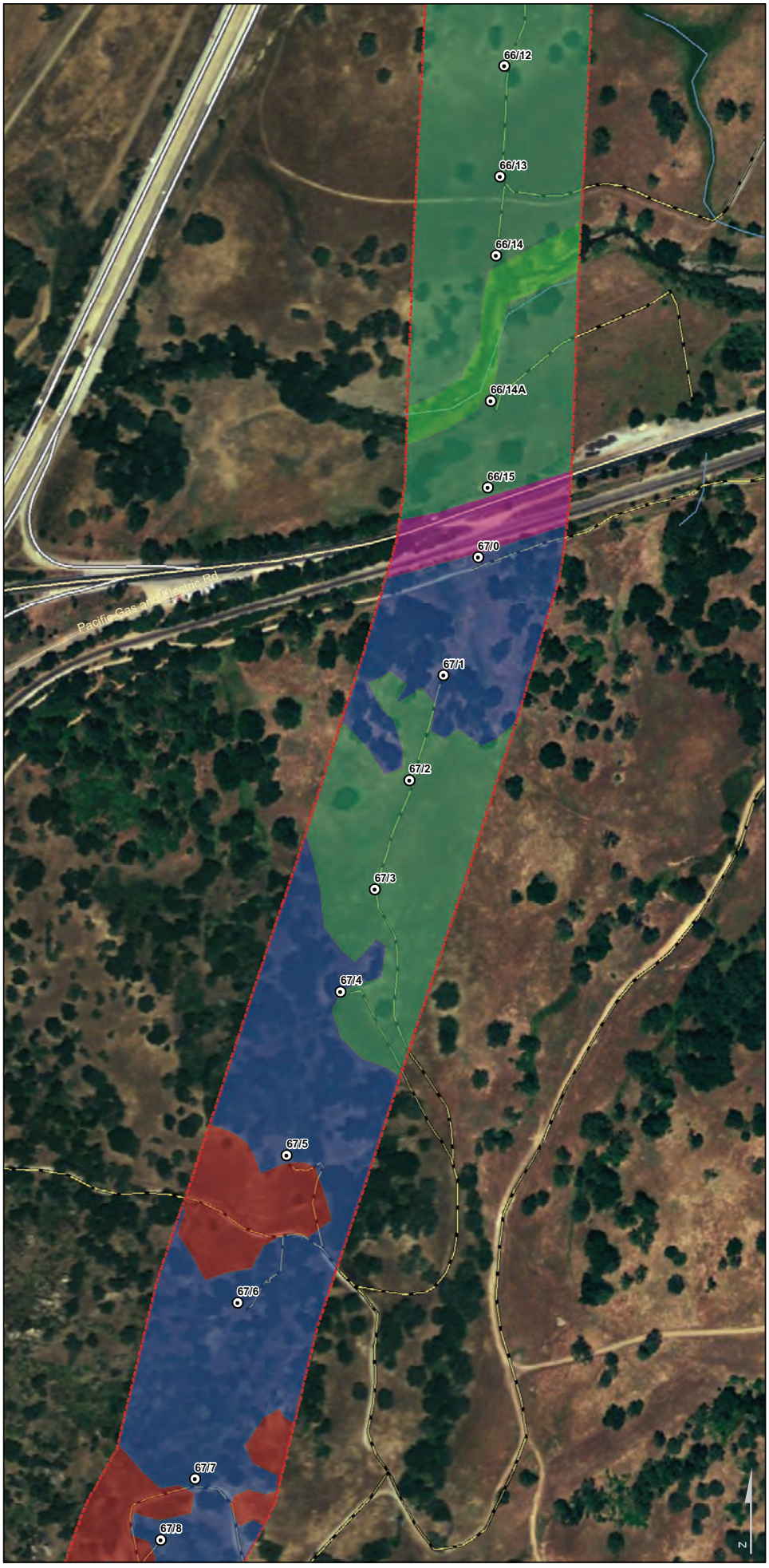

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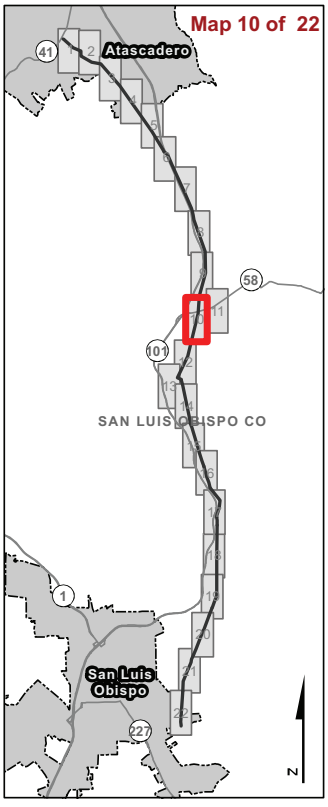

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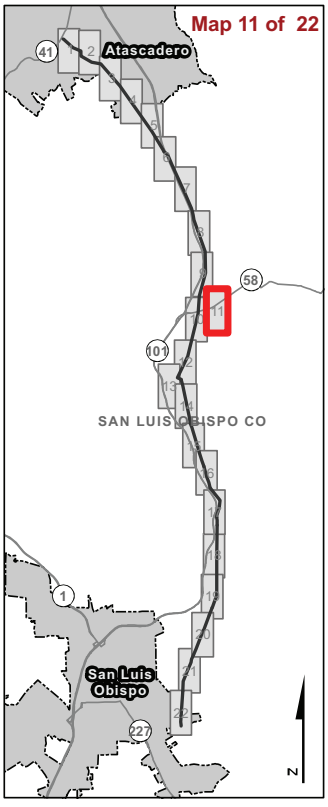

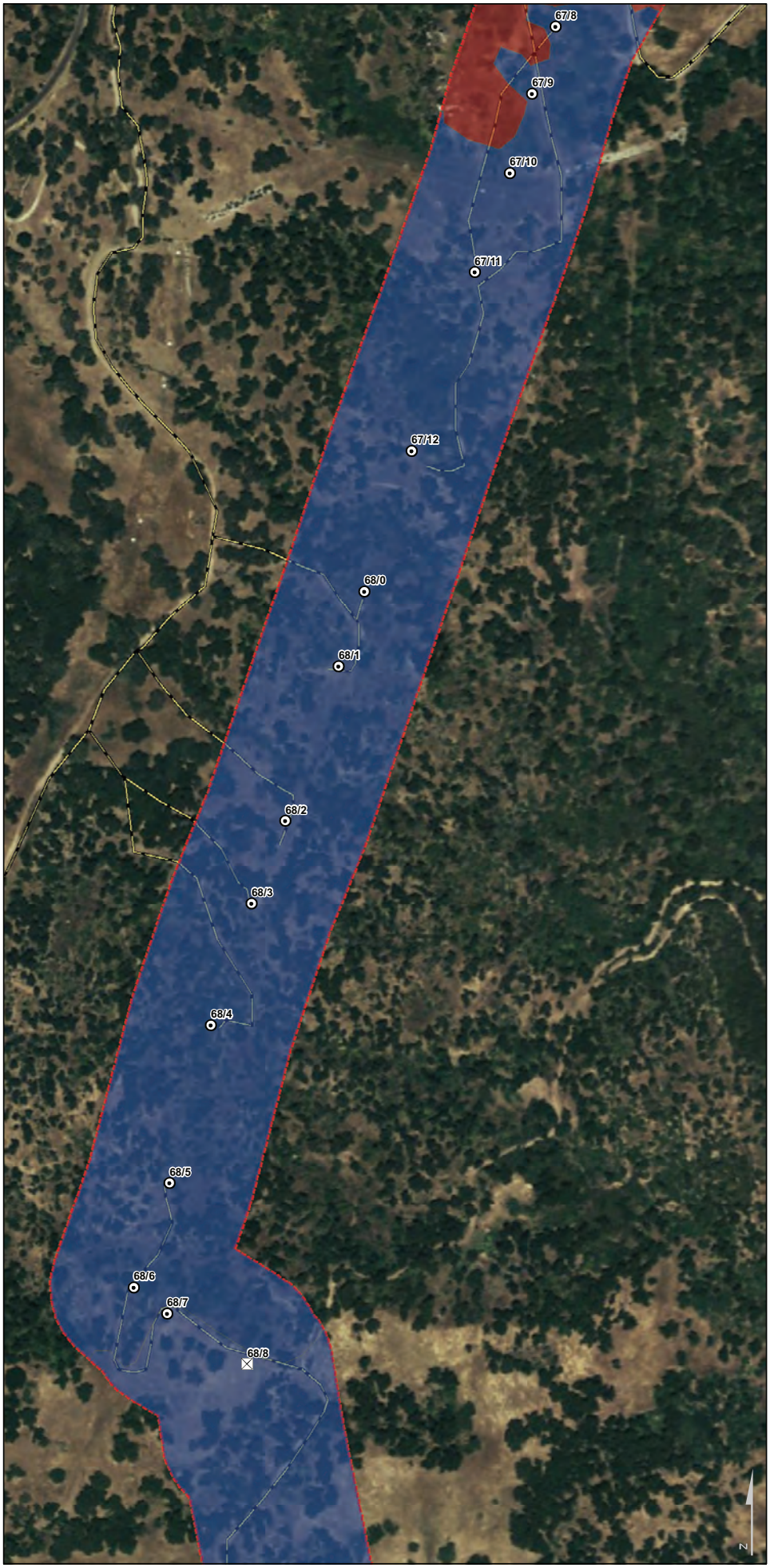

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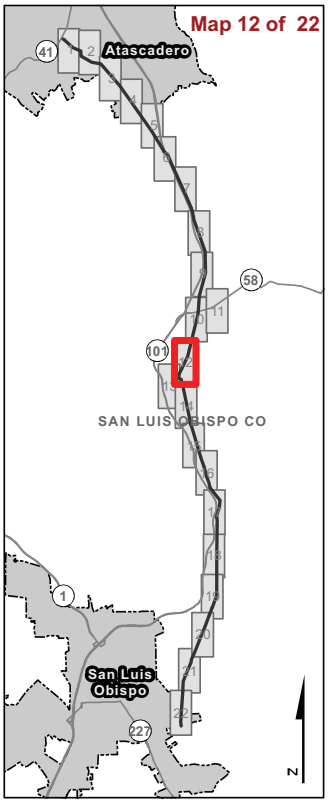

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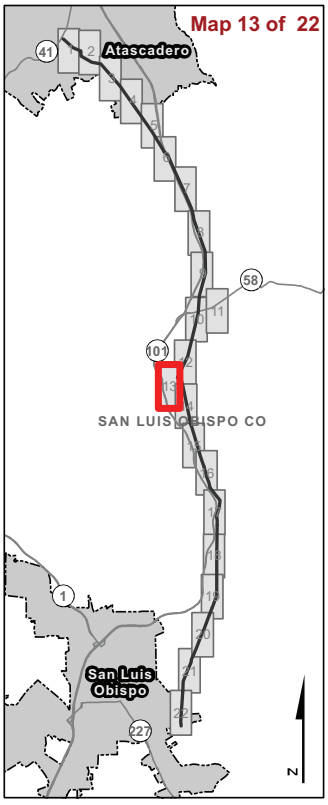

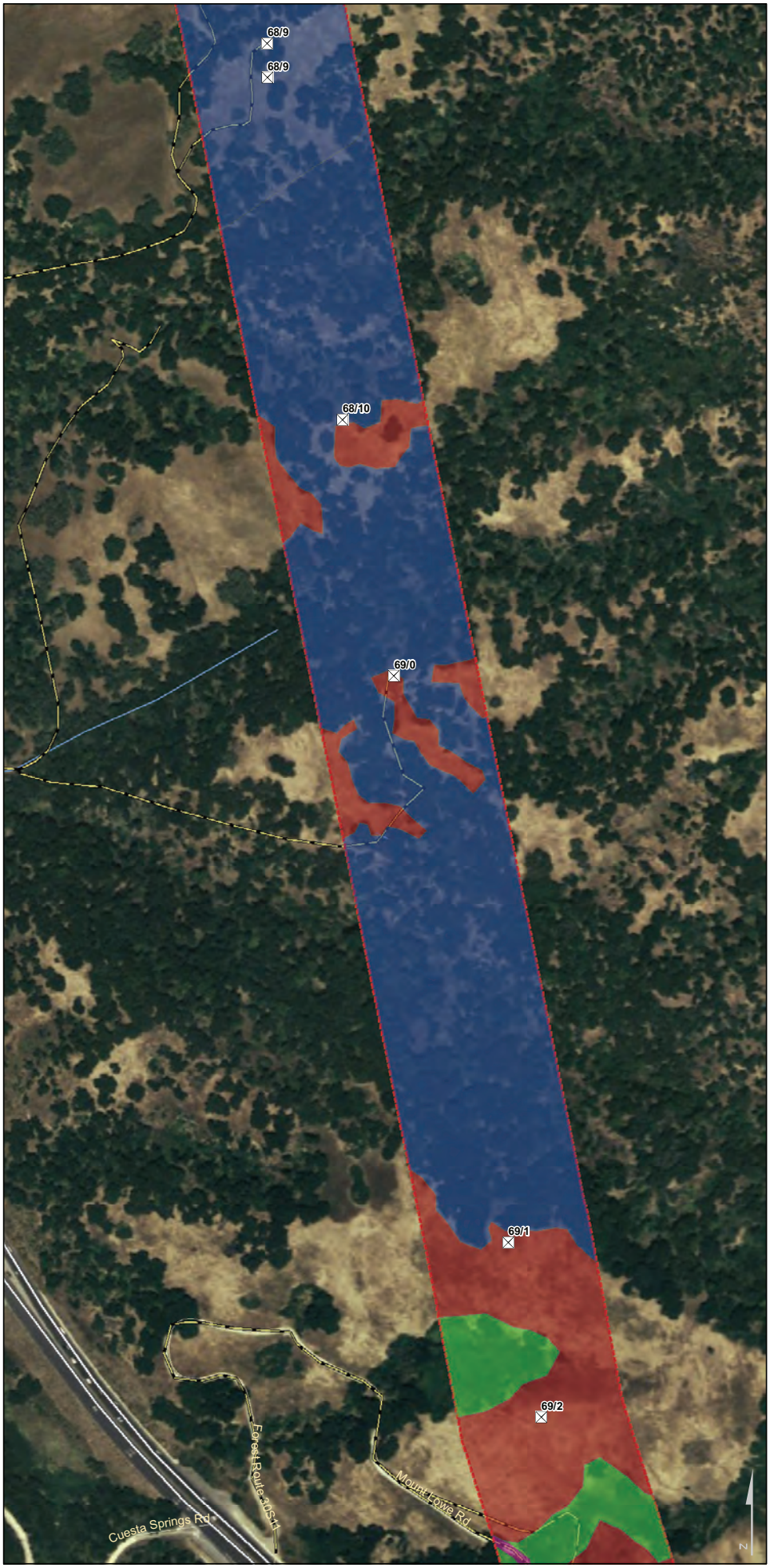

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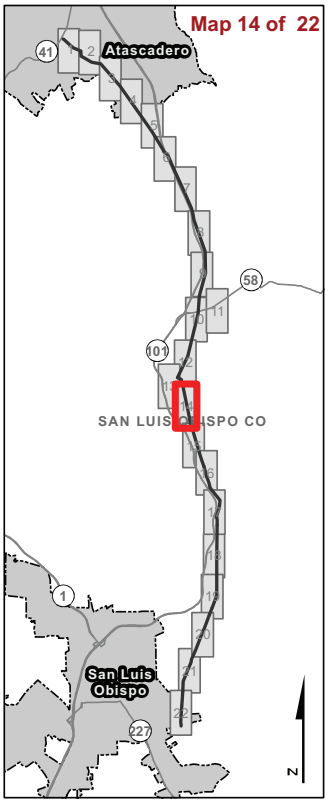

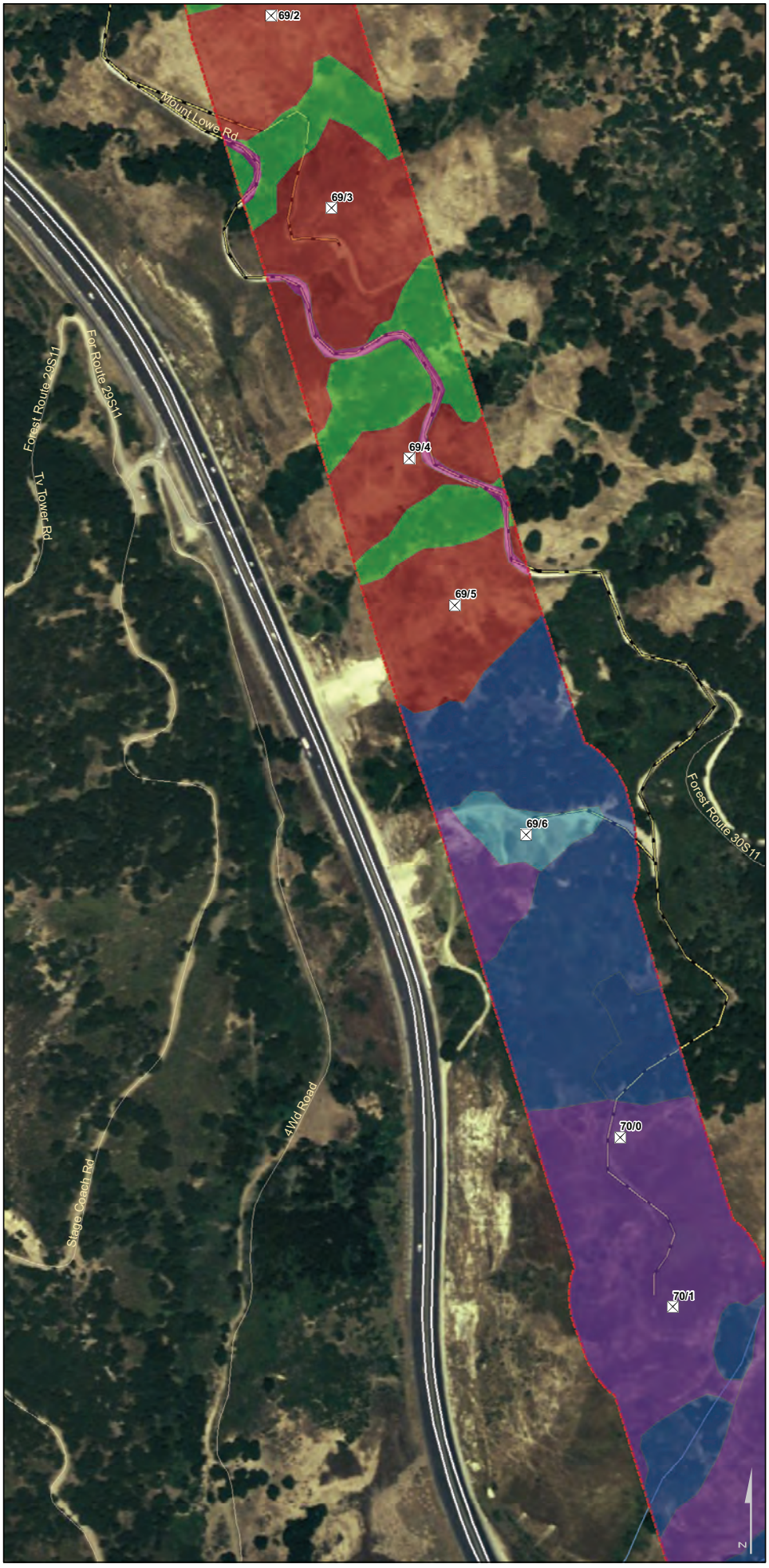

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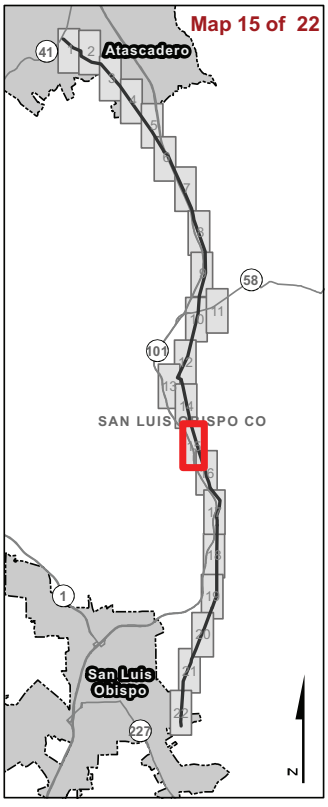

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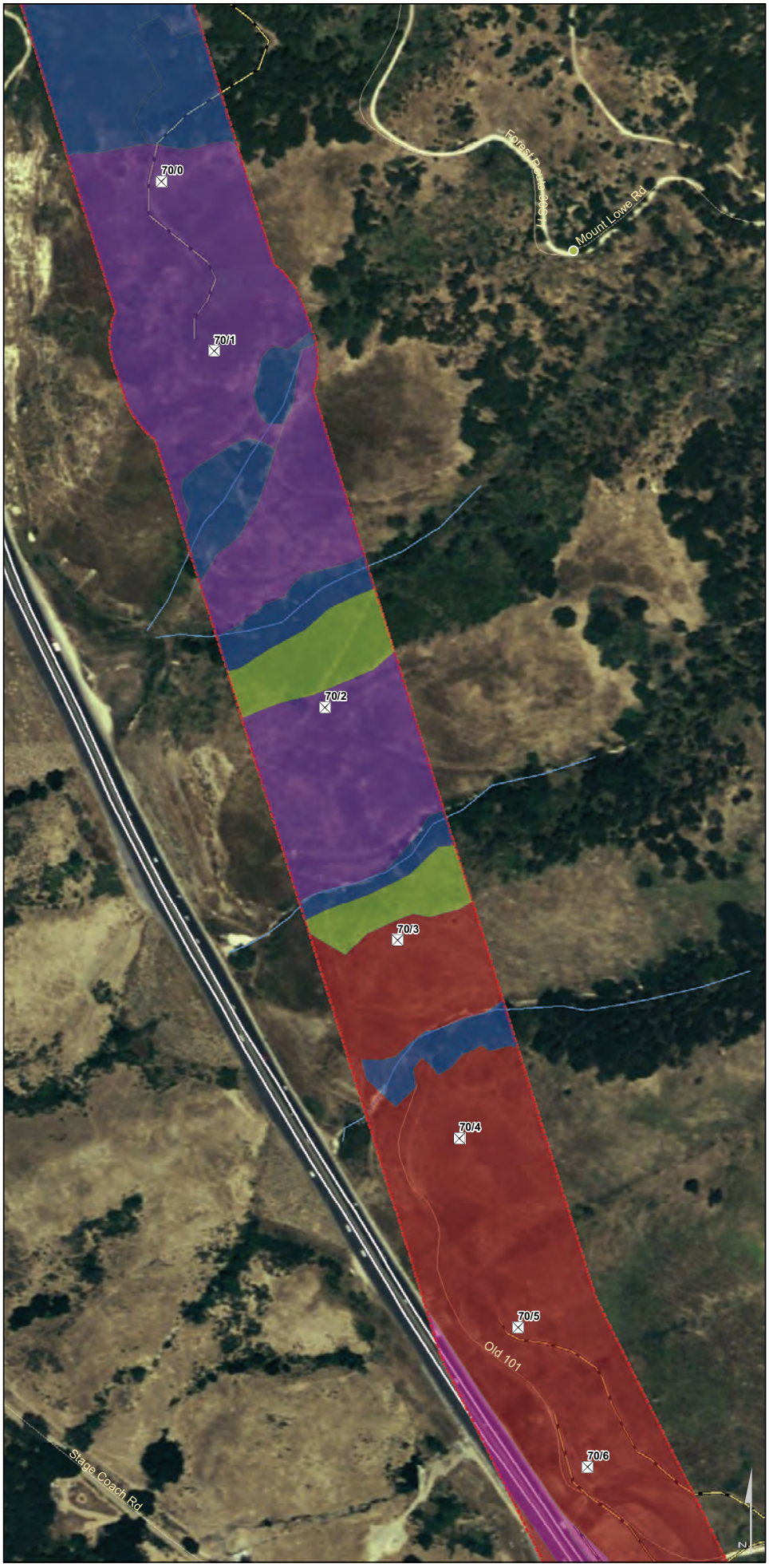

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- Valley Wildrye Grassland
- Project Area
- Access Roads
- Stream
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- Dudleya abramsii ssp. murina
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Feet
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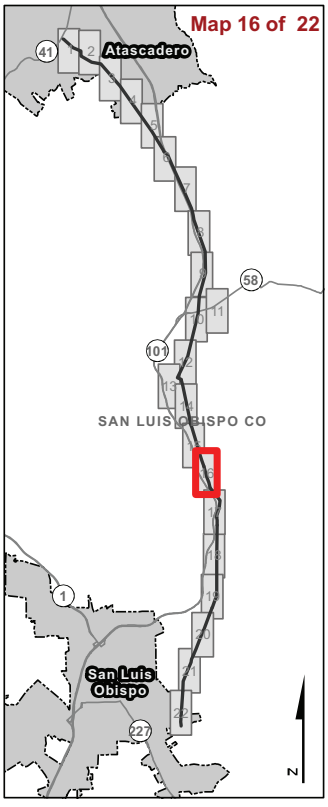

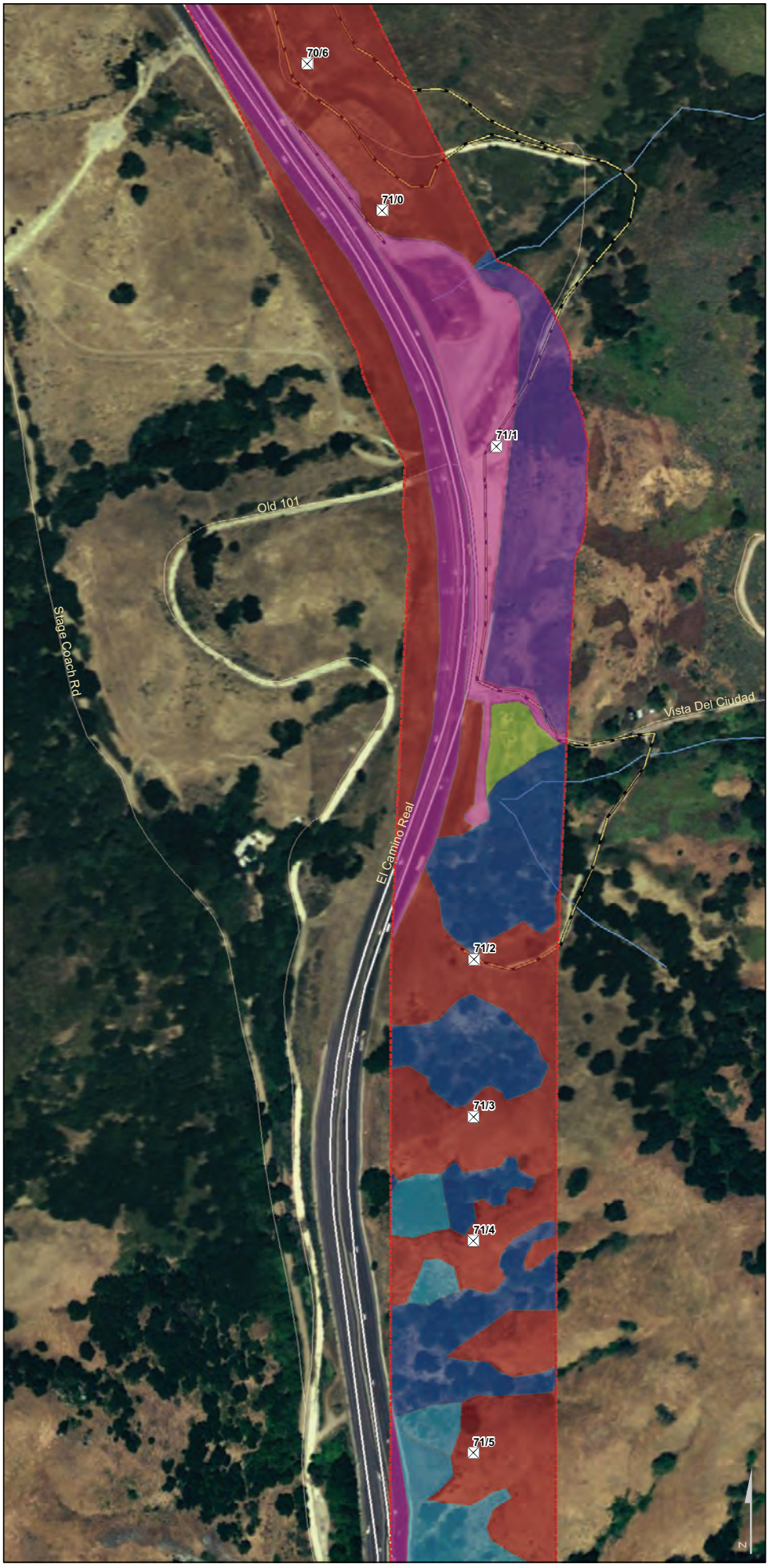

Preliminary and subject to change based on California Public Utilities Commission requirements, final engineering, and other factors

Structure
- Wood pole
- Steel tower
- Interset pole
- Distribution pole

Sensitive Plant
- Arctostaphylus luciana
- Calochortus obispoensis
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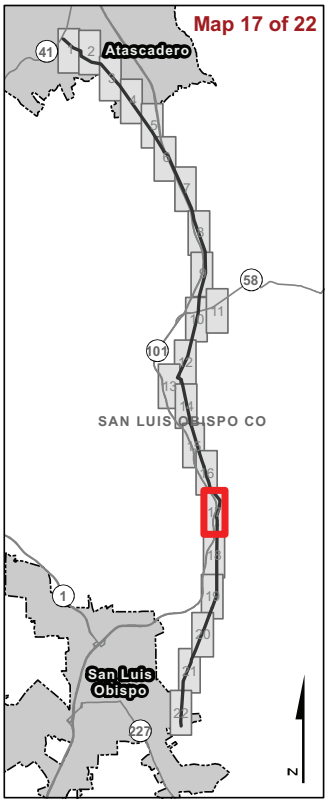

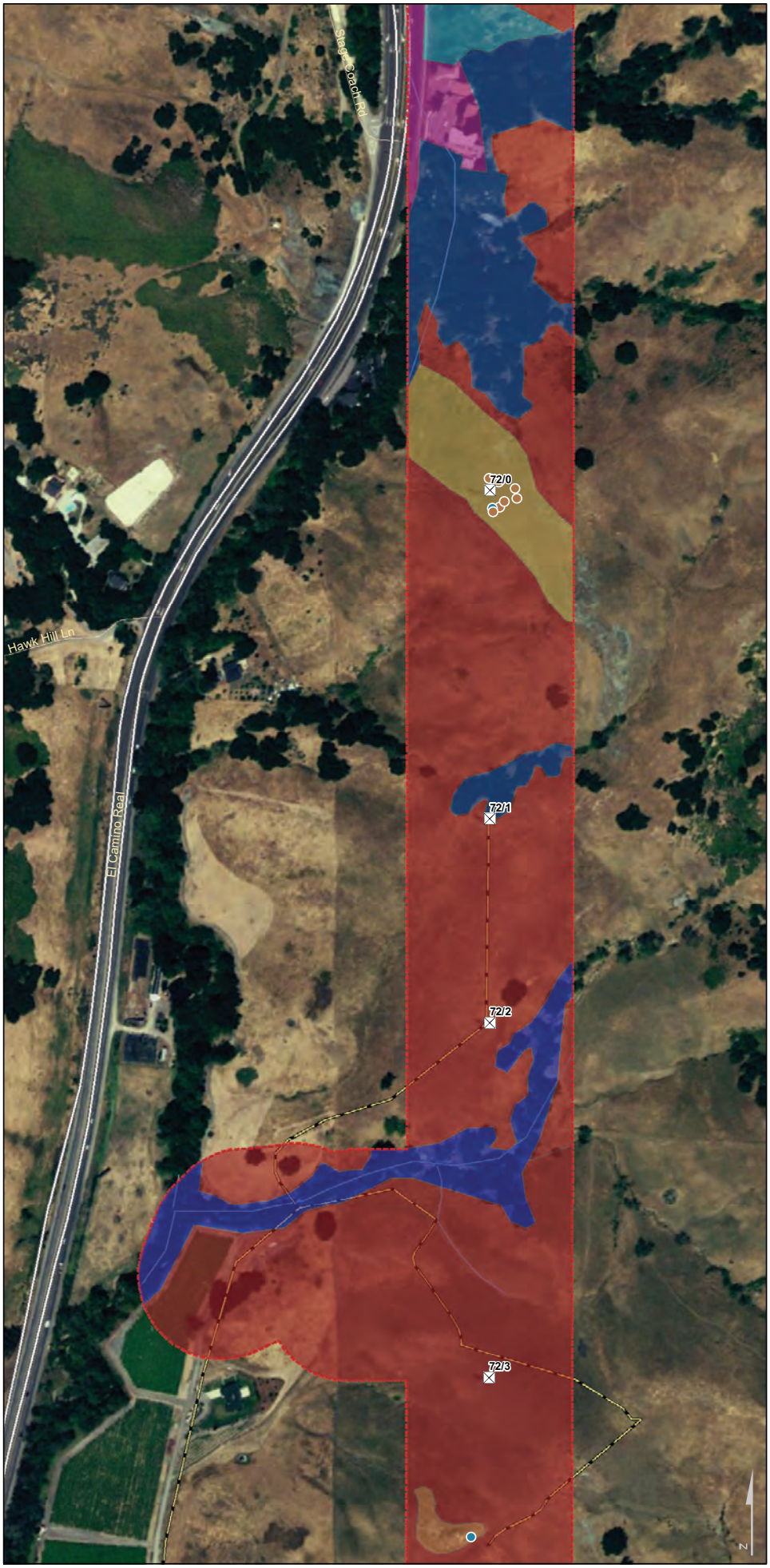

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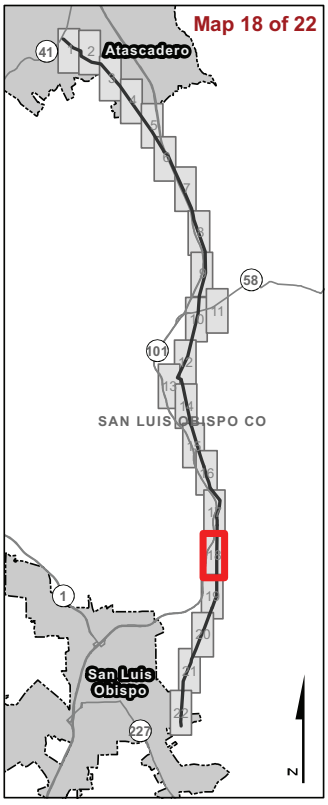

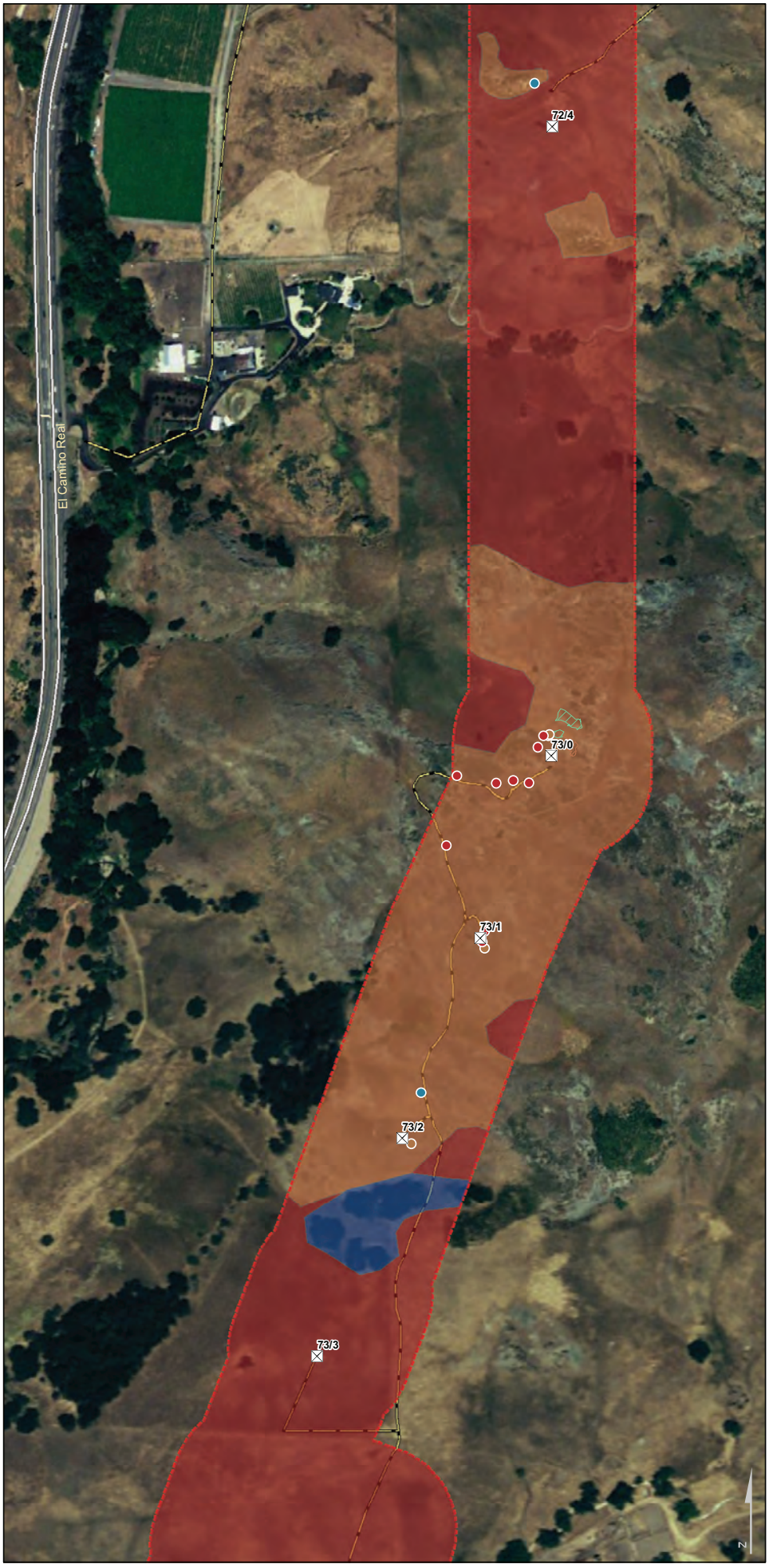

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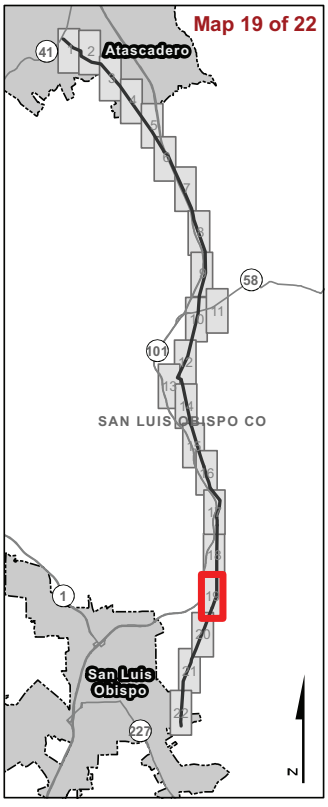

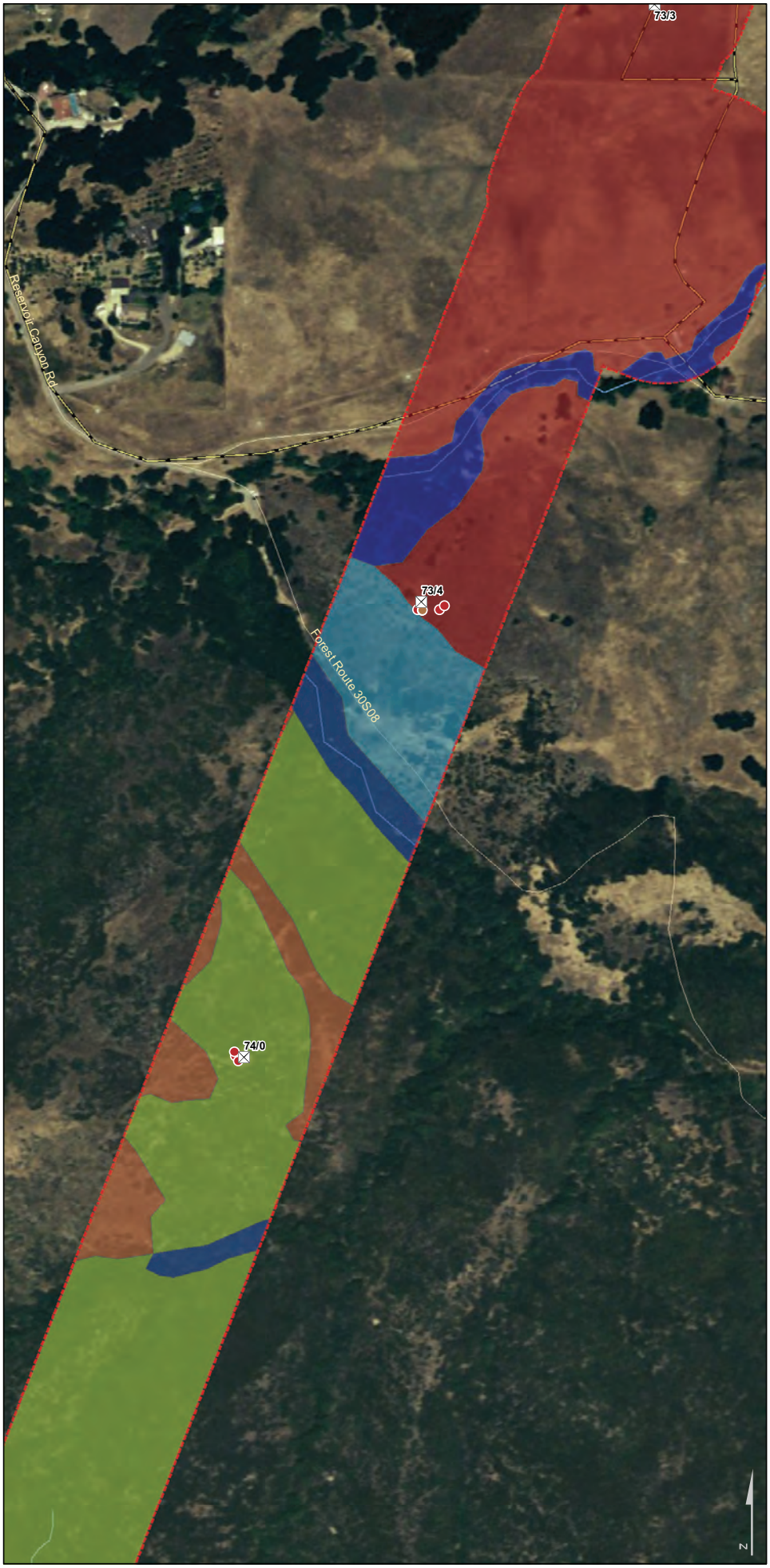

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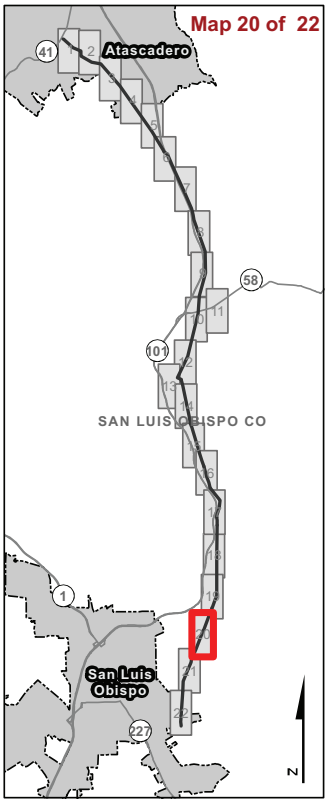

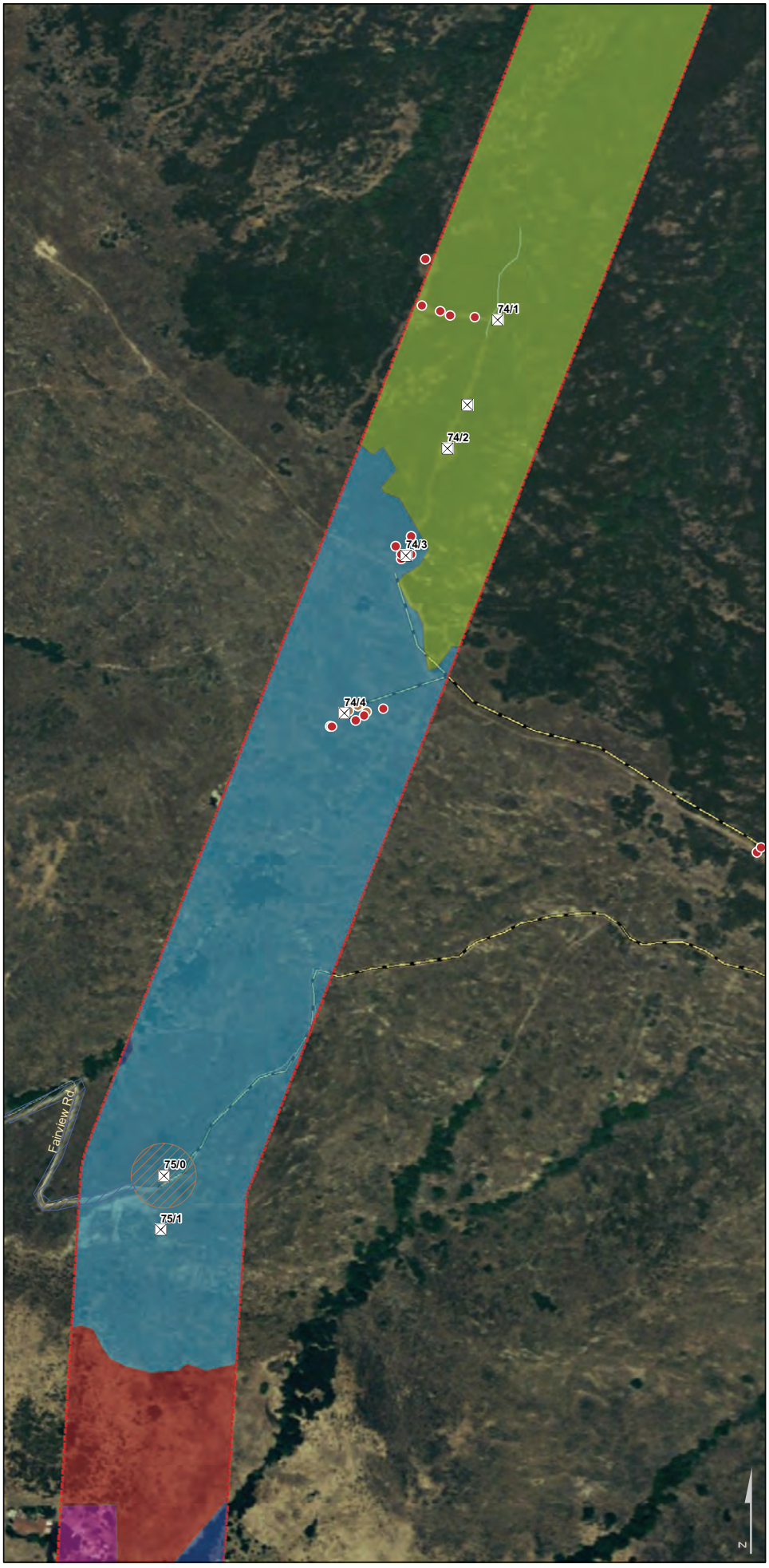

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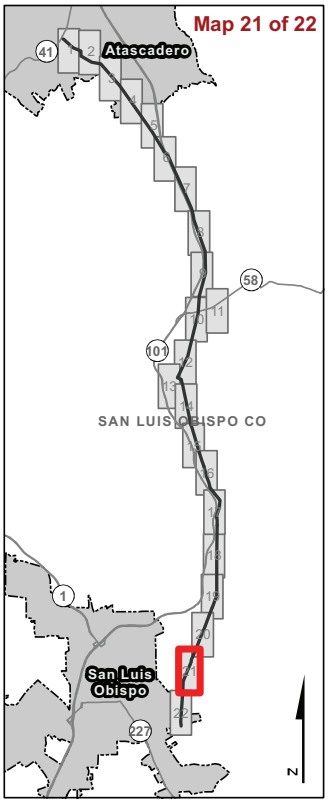

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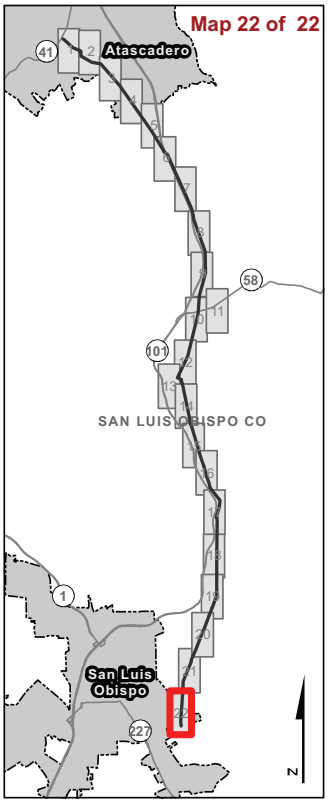

Attachment D: Photographs

Representative Photographs

PHOTOS OF SPECIAL STATUS WILDLIFE/WILDLIFE SIGNS

Coast range newt (*Taricha torosa torosa*) observed approximately 0.3 mile southwest of Tower 68/9

Rodent burrows observed in annual grasslands

PHOTOS OF SPECIAL STATUS WILDLIFE PLANT COMMUNITIES

Tower 72/0 in serpentine grassland, facing north

Tower 72/4 in annual grassland, facing south

Tower 73/0 in serpentine grassland, facing south

Tower 73/1 on serpentine outcrops, facing north

Tower 73/4 in annual grassland, facing north

Tower 74/2 in northern mixed chaparral, facing north

Pole 66/10 in valley wildrye grassland and other poles in mixed oak savannah, facing north

Pole 68/2 in mixed oak woodland, facing northeast

Pole 63/2 in annual grassland, facing south

Tower 74/3 in coastal sage scrub

Tower 74/1 in northern mixed chaparral

Pole 68/4 in mixed oak woodland

Pole 61/7 in open foothill pine woodland

Tower 75/4 a developed area

PHOTOS OF RARE PLANTS

Brewer's spineflower (*Chorizanthe breweri*) within access road to Tower 74/2

San Luis Obispo dudleya (*Dudleya abramsii* ssp. *murina*) on serpentine outcrop at Tower 74/3

Santa Lucia manzanita (*Arctostaphylos luciana*) outside the project action area along Mount Lowe Road

San Luis mariposa lily (*Calochortus obispoensis*) adjacent to access road to Tower 74/2

Straight-awned spineflower (*Chorizanthe rectispina*) at Pole 63/2

Mesa horkelia (*Horkelia cuneata* ssp. *puberula*) near Pole 63/15

Santa Margarita manzanita (*Arctostaphylos pilosula*) between Poles 62/5 and 62/6

Paso Robles navarretia (*Navarretia jaredii*) near Tower 68/2

Club-haired mariposa lily (*Calochortus clavatus* var. *clavatus*) on serpentine outcrop near Tower 74/2

Attachment E: Plant and Wildlife Species Observed

Plant Species Observed

Scientific Name	Common Name	Status
Achillea millefolium	common yarrow	
Adenostoma fasciculatum	chamise	
*Aira caryophyllea**	silver hairgrass	
*Anagallis arvensis**	pimpernel	
*Anthemis cotula**	stinking chamomile	
Arctostaphylos luciana	Santa Lucia manzanita	1B.2
Arctostaphylos pilosula	Santa Margarita manzanita	1B.2
*Artemisia biennis**	biennial sagewort	
*Artemisia californica**	California sagebrush	
Artemisia douglasiana	mugwort	
Asclepias californica	California milkweed	
Asclepias fascicularis	narrow leaf milkweed	
Astragulus curtipes	San Luis Obispo milk-vetch	
*Avena barbata**	slender wild oats	
*Avena fatua**	wild oats	
*Baccharis pilularis**	dwarf chaparral broom	
*Bloomeria crocea**	common goldenstar	
*Brachypodium distachyon**	purple false brome	
*Brassica nigra**	black mustard	
*Briza maxima**	big quaking grass	
*Briza minor**	little quakinggrass	
*Bromus diandrus**	ripgut brome	
*Bromus hordeaceus**	soft chess	
Bromus madritensis ssp. *rubens**	red brome	
*Bromus tectorum**	cheatgrass	
Calochortus clavatus var. *clavatus*	club haired mariposa lily	4.3
Calochortus obispoensis	San Luis Obispo mariposa lily	1B.2
Calystegia sp.	bindweed	
Cardamine oligosperma	bitter cress	
*Carduus pycnocephalus**	Italian thistle	
Carex sp.	sedge	
*Carthamus lanatus**	distaff thistle	
Ceanothus sp.*	ceanothus	
*Centaurea melitensis**	tocalote	
*Centaurea solstitialis**	yellow star-thistle	
Hemizonia pungens ssp. *pungens*	common tarweed	

Chlorogalum pomeridianum var. *pomeridianum*	soap plant	
Chorizanthe breweri	Brewer's spineflower	1B.3
Chorizanthe rectispina	prickly spineflower	1B.3
Chorizanthe staticoides	Turkish rugging	
*Cirsium vulgare**	bull thistle	
Cryptantha sp.	cryptantha	
*Cynosurus echinatus**	hedgehog dogtail grass	
Daucus pusillus	rattlesnake weed	
Hemizonia congesta ssp. *luzulifolia*	hayfield tarweed	
Hemizonia fasciculata	clustered tarweed	
Delphinium sp.	larkspur	
*Dipsacus sativus**	Fuller's teasel	
Dodecatheon sp.	*shooting star*	
Dudleya abramsii ssp. *murina*	San Luis Obispo dudleya	1B.3
*Ehrharta calycina**	perennial veldt grass	
Elymus multisetus	big squirreltail	
*Elytrigia repens**	quackgrass	
Epilobium canum ssp. *canum*	California fuchsia	
Eremocarpus setigerus	Turkey mullein	
Eriastrum pluriflorum	many flowered eriastrum	
Erigeron sp.	erigeron	
Eriogonum fasciculatum var. *polifolium*	California buckwheat	
Eriogonum gracile var. *gracile*	slender buckwheat	
Eriophyllum confertiflorum var. *confertiflorum*	yellow yarrow	
*Erodium botrys**	broad leaf filaree	
Eschscholzia californica	California poppy	
Filago sp.*	herba impia	
*Foeniculum vulgare**	fennel	
Fritillaria sp.	fritillary	
Galium sp.	bedstraw	
Gnaphalium sp.	everlasting	
Grindelia camporum	Great Valley gumweed	
Hazardia squarrosa	saw toothed goldenbush	
Heliotropium curassavicum	heliotrope	
Hordeum brachyantherum	meadow barley	
Hordeum marinum ssp. *gussoneanum**	barley	
*Hordeum murinum**	barley	
Horkelia cuneata ssp. *puberula*	coast horkelia	1B.1
Juncus sp.	rush	

Juncus xiphioides	irisleaf rush	
Lagophylla ramosissima	branched lagophylla	
*Lamarckia aurea**	goldentop	
Leymus triticoides	creeping wild rye	
*Lolium multiflorum**	Italian rye grass	
*Lolium perenne**	English rye grass	
*Lotus corniculatus**	broadleaf birdsfoot trefoi	
Lotus purshianus var. *purshianus*	Spanish clover	
Lupinus bicolor	miniature lupine	
Lupinus sp.	lupine	
*Lythrum hyssopifolia**	hyssop	
Madia sp.	madia	
Malvella leprosa	alkali mallow	
*Melilotus officinalis**	yellow sweetclover	
Mimulus aurantiacus	island monkeyflower	
Navarretia jaredii	Paso Robles navarretia	4.3
Paeonia californica	California peony	
Pellaea andromedifolia	coffee fern	
Phacelia sp.	phacelia	
Phyla nodiflora	common lippia	
Picris echioides	bristly ox tongue	
Plantago sp.	plaintain	
Platanus racemosa	western sycamore	
*Polypogon monspeliensis**	Rabbit's foot	
Populus sp.	cottonwood	
Potentilla glandulosa ssp. *glandulosa*	sticky cinquefoil	
Quercus agrifolia var. *agrifolia*	coast live oak	
Quercus lobata	valley oak	
Quercus douglasii	blue oak	
*Ranunculus arvensis**	corn buttercup	
*Raphanus sativus**	wild radish	
Rhamnus californica ssp. *californica*	California coffeeberry	
*Rumex crispus**	curly dock	
*Rumex pulcher**	fiddle dock	
Salix sp.	willow	
Salvia columbariae	chia	
Salvia mellifera	black sage	
Salvia spathacea	hummingbird sage	
Sambucus mexicana	blue elderberry	

Silene multinervia	fire following campion	
*Silybum marianum**	milkthistle	
Sisyrinchium bellum	blue eyed grass	
Stachys ajugoides	hedge nettle	
Stephanomeria sp.	wire lettuce	
Symphoricarpos sp.	snowberry	
Toxicodendron diversilobum	poison oak	
*Trifolium hirtum**	rose clover	
Verbena bracteata	bracted verbena	
Vicia villosa ssp. *villosa*	wooly vetch	
Yucca whipplei	chaparral yucca	

* Non-native species

Wildlife Species Observed

Scientific Name	Common Name
INVERTEBRATES	
Papilio sp.	swallowtail
Danaus plexippus	Monarch butterfly
Euphydryas sp.	checkerspot butterfly
Okanagana sp.	cicada
Tetraopes sp.	milkweed beetle
AMPHIBIANS	
Taricha taricha torosa	coast range newt
REPTILES	
Crotalus viridis	western rattlesnake
Elgaria multicarinata	southern alligator lizard
Eumeces skiltonianus	western skink
Pituophis catenifer catenifer	Pacific gopher snake
Sceloporus occidentalis	western fence lizard
BIRDS	
Aphelocoma californica	western scrub-jay
Baeolophus inornatus	oak titmouse
Buteo lineatus	red-shouldered hawk
Buteo jamaicensis	red-tailed hawk
Callipepla californica	California quail
Calypte anna	Anna's hummingbird
Carduelis tristis	American goldfinch
Carpodacus mexicanus	house finch

Cathartes aura	turkey vulture
Chamaea fasciata	wrentit
Columba fasciata	band-tailed pigeon
Columba livia	rock dove
Contopus sordidulus	western wood pewee
Corvus brachyrhynchos	American crow
Euphagus cyanocephalus	Brewer's blackbird
Falco sparverius	American kestrel
Hirundo pyrrhonota	cliff swallow
Icterus bullockii	bullock's oriole
Junco hyemalis	dark-eyed junco
Melanerpes formicivorus	acorn woodpecker
Meleagris gallopavo	wild turkey
Myiarchus cinerascens	ash-throated flycatcher
Pica nuttalli	yellow-billed magpie
Pipilo crissalis	California towhee
Psaltriparus minimus	bushtit
Sayornis nigricans	black phoebe
Sialia mexicana	western bluebird
Sitta carolinensis	white-breasted nuthatch
Stunella neglecta	western meadowlark
Sturnus vulgaris	European starling
Tachycineta thalassina	violet-green swallow
Turdus migratorius	American robin
Tyrannus verticalis	western kingbird
Tyto alba	barn owl
Zenaida macroura	mourning dove
MAMMALS	
Canis latrans	coyote
Microtus californicus	California vole
Odocoileus hemionus columbianus	black-tailed deer
Procyon lotor	raccoon
Spermophilus beecheyi	California ground squirrel
Sylvilagus audubonii	Audubon's cottontail
Thomomys bottae	Botta's pocket gopher

Attachment F: Rare Plant Survey Report

Rare Plant Survey Report

for the

Pacific Gas and Electric Company's Atascadero – San Luis Obispo 70 kV Power Line Reconductoring Project, San Luis Obispo County, California

July 2009

Prepared for:
Pacific Gas and Electric Company
245 Market Street, N10A
San Francisco, CA 94105
(415) 973-5698

Prepared by:
TRC
80 Stone Pine Road, Suite 200
Half Moon Bay, CA 94019
(650) 726-8320

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1.0 INTRODUCTION

This document presents the results of a rare plant survey for Pacific Gas and Electric Company's (PG&E) Atascadero – San Luis Obispo 70 kilovolt (kV) Power Line Reconductoring Project (project), which involves replacing wood poles, steel towers, and the conductor of a 15.5-mile segment of an existing power line in San Luis Obispo County, California (Figure 1). This report contains TRC's review of available literature and fieldwork within the project area. A field survey was conducted according to the technical guidelines provided in the California Native Plant Society Botanical Survey Guidelines (CNPS, 2001) from June 17 to 22, 2009.

1.1 STUDY AREA LOCATION

The 15.5-mile alignment runs from the city of Atascadero to the city of San Luis Obispo, within the South Coast Range of San Luis Obispo County, California. The region's climate is hot and dry in the summer, and wet and cool in the winter, however, temperatures stay fairly temperate through the area due to the close proximity of the project site to the Pacific Ocean.

The northern end of the alignment from Atascadero through Santa Margarita runs mainly through low to moderate rolling hills winding through low density residential areas and grazed pastureland. The central portion of the alignment from Santa Margarita through the Cuesta Grade is mainly rolling foothills of mixed oak woodland and native and nonnative grassland. The southern portion of the alignment runs from the Cuesta Grade through San Luis Obispo across much steeper topography with mainly native and nonnative annual grasslands and chaparral/scrub, with sporadic serpentine outcrops. Valleys between steep hills along the southern portion of the alignment are lined with mixed oak woodlands and dense chaparral.

1.2 SURVEY OBJECTIVES

The primary objective of the focused rare plant survey (Survey) was to identify sensitive botanical resources that could be impacted by construction of the proposed project. Within the overall project area the Survey included the proposed tower and pole locations and pull and tension sites within the existing utility Right-of-Way (ROW) for the power lines, proposed and existing access roads extending beyond the ROW, equipment stockpiling areas, and proposed helicopter landing zones (LZ).

2.0 METHODS

2.1 PRE-SURVEY DATA SEARCH AND LITERATURE

The California Department of Fish and Game (CDFG) California Natural Diversity Database (CNDDB) RareFind Program (CDFG, 2009) was used to search for potentially occurring sensitive plant species within five miles of the study area prior to commencement of field work (Figure 2). CNDDB results were used to catalogue sensitive plants (see Attachment A) for the entire project ROW and associated access roads. Attachment A shows the preferred habitats, flowering periods, and known localities of sensitive plants in close proximity to the study area. Attachment A also served as a guide for the appropriate survey windows for the detection of sensitive plant species within the study area. Attachment A integrates sensitive plant information from several sources, including the U.S. Fish and Wildlife Service (USFWS), United States

Forest Service (USFS), CDFG, CNPS, and local and statewide sources (CDFG, 2009; CNPS, 2009; Hickman, 1993; USDA, 2009; and USFWS, 2009).

Specifically, the literature review for the Survey was focused on federal and state listed plant species. However, CNPS List 1 and 2 species occurring in the Atascadero, Santa Margarita, San Luis Obispo, Lopez Mountain USGS 7.5 minute quadrangle and surrounding quadrangles were also included due to their regional sensitivity and potential to be listed by either USFWS and/or CDFG in the future (CNPS, 2009). Aerial photographs (Google Earth, 2009) were also reviewed prior to initiating the Survey. A record review prepared by PG&E Biologist, Rob Knutson (PG&E, 2008) to PG&E's Glen Lubcke and Steve Spielman was also reviewed in preparation for the Survey. A list of federally-listed plant species that may occur within the Atascadero, Santa Margarita, San Luis Obispo, and Lopez Mountain USGS quadrangles was received from the USFWS (2009) on July 23, 2009 and have also been analyzed in Attachment A.

2.2 SURVEY DATES AND PERSONNEL

Rare plant surveys and plant community mapping were conducted by Madeleine van der Heyden, Lead Biologist; Marc Doalson, Lead Biologist; Mark Cassady, Senior Biologist; and Julie Pollack, Staff Biologist from June 17 to 22, 2009.

2.3 FIELD SURVEY METHODS

Special-status plant species identified during the data review as having the potential to occur in the project area were targeted during the Survey. To the extent possible, field surveys for special-status plants followed CDFG-recommended survey methods, as recommended by the CNPS (CNPS 1983, revised 2001). The Survey area for sensitive plant species encompassed 100-foot radius circles around the proposed tower locations, 40-foot radius circles around the proposed pole locations, 10 feet on either side of access roads that may need to be improved, potential pull and tension site locations, and all staging and LZ locations identified prior to or during the Survey. Binoculars were used to assess existing tower locations that could not be accessed during the Survey.

Biologists walked meandering transects throughout all areas that could be impacted by the implementation of the project. Each plant species encountered was identified to determine if it had any sensitivity status and if so to what level (i.e. federal, state and/or CNPS). Each species was recorded for the Survey. Plants were identified using identification keys in The Jepson Manual (Hickman, 1993). Special-status plants observed within the Survey area were mapped using Trimble and Garmin Global Positioning System (GPS) units. Population sizes for special-status plants were recorded where observed by either direct counts of individuals or population estimates. Representative photographs were taken of the rare plant species observed within the Survey area.

Vegetation communities observed within the Survey area were classified according to the Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland, 1986). Individual communities were mapped using a combination of GPS and hard copy aerial photographs.

3.0 EXISTING CONDITIONS

The project ROW is within an existing PG&E power line corridor. Existing access roads, where passable, were driven to access Survey areas. Several access roads were located during the Survey that appeared to not have been maintained in the recent past and were not feasible to drive with a standard four-wheel drive vehicle. These unmaintained access roads were included in the Survey as they are anticipated to be improved during project implementation. Within the central and southern portions of the pole section there were few existing access roads and areas that appeared to provide the easiest access to individual and groups of poles were surveyed.

Drought conditions persisted for the third year in a row in 2009 (CDWR, 2009). As of July, 2009 precipitation in Atascadero was 6.92 inches and 5.51 inches in San Luis Obispo (Wunderground, 2009). Due to these drought conditions germination and establishment (population size) and expression (flowering individuals per year) of sensitive plant species within the Survey area may have been limited when compared with average rainfall years. The average annual precipitation of 17 to 18 inches in Atascadero represents Atascadero's seasonal rainfall pattern for an 87 year period (1915 to 2002) (Atascadero Chamber of Commerce, 2009); and the average annual precipitation of 23.45 inches in San Luis Obispo represents San Luis Obispo's seasonal rainfall pattern for a 57 year period (1948 to 2005) (WRCC, 2009).

A total of 125 plant species were detected during the survey. Of this, 63 species, or approximately 50%, were plant species with an annual life form and 28 (44%) were native to California. Although the rainfall in 2009 technically fell within drought conditions, the number of annual plant species detected during the 2009 survey indicates adequate rainfall for the expression and detection of annual native and nonnative plant species. Therefore, conditions in 2009 should be considered adequate for conducting rare plant surveys.

4.0 RESULTS

Sensitive plant species that were analyzed for this project can be found in Attachment A. Survey timing was considered appropriate to detect most but not all of the target plants that have potential to occur in the project area. For species with identification/blooming periods occurring outside of the survey period, a brief assessment of the potential for these species to occur within the Survey area is also given in Attachment A.

All structures were surveyed, except for Towers 70/2, 75/1, 75/2, and poles located in the yards of residences. Due to steep terrain in the case of Towers 70/2 and 75/1 and the location of Tower 75/2 in a backyard, these three towers were only surveyed with binoculars. Additionally, a short section of access road leading from the east to Tower 75/0 was not surveyed either. Tower 75/0 was accessed from the west. This access road continues east and connects to the access road that leads to Tower 74/3. Attachment B is a list with all plants identified during the Survey and Attachment C provides representative site and plant photographs.

4.1 VEGETATION COMMUNITIES

A total of 11 vegetation communities and one cover type were delineated during the Survey. All descriptions below are based on Holland (1986) or commonly accepted usage for land cover types. A vegetation map is included in Figure 3.

4.1.1 Annual Grassland

Annual grassland is an upland habitat that consists of a dense-to-sparse cover of introduced Mediterranean annual grasses. Most of these species grow to less than 1 meter in height. This type of grassland can include native perennial grasses and a diverse assemblage of native forbs. Annual grassland within the Survey area is dominated almost completely by nonnative grasses and forbs. The most common grasses in these areas include brome grasses (*Bromus hordeaceus*, *B. diandrus, B. madritensis*, and others), common foxtail (*Hordeum murinum*), oat grasses (*Avena* ssp.), Italian ryegrass (*Lolium multiflorum*), and in some areas silver hairgrass (*Aira caryophyllea*). Common forbs include: longbeak stork's bill (*Erodium botrys*), Spanish clover (*Lotus purshianus* var. *purshianus*), various species of vetch (*Vicia* spp.), bindweed (*Calystegia* sp.), miniature lupine (*Lupinus bicolor*), and a variety of clovers (*Trifolium* spp.). Generally, few native plants were observed in annual grasslands. One native bunchgrass, purple needlegrass (*Nessella pulchra*), was observed in isolated clusters throughout the Survey area. In the Survey area annual grasslands occur in a mosaic with central coastal scrub, northern mixed chaparral, and oak woodlands.

4.1.2 Valley Wildrye Grassland

Valley wildrye grassland is found at dry to moist sites, often adjacent to stands of riparian forest or freshwater marsh and is dominated by creeping wildrye (*Leymus triticoides*) The soils of this plant community are frequently subalkaline and/or seasonally overflowed. Plants found in this moist area include perennial emergent and facultative wetland plants including broadleaf birdsfoot trefoil (*Lotus corniculatus*), annual wetland plants including ribgrass (*Plantago lanceolata*), English rye grass (*Lolium perenne*), Mediterranean barley (*Hordeum marinum* ssp. *gussoneanum*), creeping wild rye, rabbit's-foot grass (*Polypogon monspeliensis*), hedge nettle (*Stachys ajugoides*), irisleaf rush (*Juncus xiphioides*), hyssop (*Lythrum hyssopifolia*), and Fuller's teasel (*Dipsacus sativus*) in some areas that get less water. This plant community occurs in a drainage in a topographic depression located in the valley bottom approximately 0.3 mile north of Highway 58 on the Santa Margarita Ranch property and around Pole 66/10.

4.1.3 Serpentine Grassland

Serpentine grassland found within the project region is analogous to Holland's (1986) serpentine bunchgrass vegetation community description, but the primary distinction between the two vegetation communities is that in most areas it includes a higher percentage of nonnative grasses within the Survey area and hence is called grassland instead of bunchgrass for this report. The serpentine bunchgrass plant community is an open grassland dominated by native grasses such as purple needlegrass whereas the serpentine grassland plant community is an open grassland dominated by nonnative grasses. The total cover is low but is markedly dominated by grasses such as oat grasses (*Avena* spp.), soft chess (*Bromus hordeaceus*), and red brome (*Bromus madritensis*). Associated plants include hayfield tarweed (*Hemizonia congesta* ssp. *luzulifolia*), Turkish rugging (*Chorizanthe staticoides*), soap plant (*Chlorogalum pomeridianum*), and frequently sensitive non-listed plant species such as San Luis Obispo mariposa lily (*Calochortus*

obispoensis), club haired mariposa lily (*Calochortus clavatus* var. *calvatus*), San Luis Obispo dudleya (*Dudleya abramsii* ssp. *murina*), and Brewer's spineflower (*Chorizanthe breweri*). These areas occur at locations of serpentine outcrops and are often interspersed with nonnative grasslands. Within the project area, serpentine grasslands can be found from Tower 72/0 south to Tower 75/1.

4.1.4 Central Coast Scrub

This plant community occupies a diversity of habitats from sea bluffs immediately above the ocean to drier hillsides miles from the ocean such as the southern portion of the project. Central coast scrub consists of shrubs that are 1 to 2 meters tall and usually quite dense unless on serpentine outcrops. The plant community is adapted to fire by crown-sprouting. It occurs on exposed, often south-facing slopes with shallow, rocky soils. In the study areas and vicinity, plants that make up this community include California sagebrush (*Artemisia californica*), California broom (*Lotus scoparius*), California buckwheat (*Eriogonum fasciculatum*), coyote bush (*Baccharis pilularis*), yellow yarrow (*Eriophyllum confertiflorum* var. *confertiflorum*), saw toothed goldenbush (*Hazardia squarrosa*), sticky monkey-flowers (*Mimulus auranticus*), and chaparral yucca (*Hesperoyucca whipplei*). The plant community is found frequently within the southern portion of the alignment and intergrades with serpentine grassland around Tower 72/0.

4.1.5 Northern Mixed Chaparral

The northern mixed chaparral plant community consists of broad-leafed sclerophyllous shrubs, 2 to 4 meters tall, forming dense often nearly impenetrable vegetation dominated by chamise (*Adenostema fasciculatum*) and one of several manzanitas (*Arctostaphylos* spp.) and ceanothus (*Ceanothus* sp.). The plants are typically deep-rooted. There is usually little or no understory vegetation present in this plant community but often there is considerable accumulation of leaf litter. The plant community is adapted to fires, to which many species respond by stump sprouting. The community is typically found on dry, rocky, often steep slopes with little soil. The dominant species observed in the area was chamise with lesser components of bigberry manzanita (*Arctostaphylos glauca*), purple sage (*Salvia leucophylla*), black sage (*Salvia mellifera*), buck brush (*Ceanothus cuneatus*), and poison oak (*Toxicodendron diversilobum*). Northern mixed chaparral is the predominant plant community on the north-facing slope just south of Reservoir Canyon between Towers 74/3 and 73/4.

4.1.6 Mixed Oak Woodland

This plant community reaches 10 to 25 meters in height and, in the south, typically occurs on north-facing slopes and shaded ravines while in the north on more exposed sites. Coast live oak (*Quercus agrifolia*) was typically the dominant oak species with varying densities of valley oak (*Quercus lobata*) and blue oak (*Quercus douglasii*). Blue oaks are found on dry ridges and gentle slopes mixed in with the dominant oak species where the oaks are more scattered, although the canopy can be nearly closed on better quality sites. Valley oaks are found on deep, well-drained alluvial soils, usually in valley bottoms, with more moisture in summer than where the blue oaks are located. Associated shrub species include poison oak, California coffeeberry (*Rhamnus californica*), snowberry (*Symphoricarpos* sp.), and Mexican elderberry (*Sambucus mexicana*). Where there are no shrubs, the understory is often dominated by ripgut brome (*Bromus diandrus*) and several other nonnative grasses. In situations where coastal oak woodland intergrades with chaparral or coast scrub, shrub species associated with these plant communities can be observed in the coastal oak woodland understory; but typical understory is composed of annual grasses

and forbs. The largest extent of mixed oak woodland occurs south of Highway 58 to the Cuesta Grade area.

4.1.7 Mixed Oak Savannah

This plant community occurs in drier, more exposed areas where the soils are usually shallower, the oaks are more scattered and form an open woodland, which can intergrade with annual grassland. The understory of this savannah-like coastal oak woodland is composed primarily of annual grasses and forbs with very few shrubs. Valley oak is the dominant tree species. This oak species is found on deep, well-drained alluvial soils, usually in valley bottoms, with more moisture in summer. Coast live oak is sometimes associated in areas where the oaks are denser and the understory consists of annual grassland described above. In situations where mixed oak savannah intergrades with chaparral or coast scrub, shrub species associated with these plant communities can be observed in the savannah oak woodland understory such as on the east side of Highway 101. The largest extent of mixed oak savannah occurs on the Santa Margarita Ranch land north of Highway 58.

4.1.8 Open Foothill Pine Woodland

This plant community is generally an open, savannah-like woodland dominated by foothill pine (*Pinus sabiniana*). The understory of this vegetation community is typically dominated by native and nonnative annuals. It typically occurs on well-drained but not necessarily deep soils. Associated species within this vegetation community include coast live oak, valley oak, California buckeye (*Aesculus californica*), buck brush and California broom (*Lotus scoparius*).This vegetation community is only found in one portion of the Survey area from Poles 61/5 to 61/10.

4.1.9 Central Coast Sycamore Riparian Forest

Central coast sycamore riparian forest occurs in canyons along creeks throughout the South Coast Ranges and consists of moderately closed broadleafed riparian forests dominated by (*Platanus racemosa*) and in some areas with (*Populus fremontii*), and with a lesser amounts of coast live oak and bay laurel (*Umbellularia californica*). Understories are generally dense thickets of shrubbery willows (*Salix* sp.), coyote brush (*Baccharis pilularis*), or nettles (*Urtica* sp.). The plant community is found at Reservoir Canyon adjacent to the proposed staging area and northeast of the Wood Winery between Towers 72/2 and 72/3.

4.1.10 Central Coast Live Oak Riparian Forest

Central coast live oak riparian forest is a low, evergreen sclerophyllous riparian forest, usually with an open appearance, dominated by coast live oak. This type has many species usually associated with coast live oak woodland or chaparral (Holland, 1986) in the open understory. Nonnative grasses usually form a fairly extensive ground layer. Associated shrub species include willows, mugwort (*Artemisia douglasiana*), common lippia (*Lippia nodiflora*), poison oak, California coffeeberry, and Mexican elderberry. The vegetation community typically occurs in drier, outer floodplains and canyon bottoms along perennial streams and is in many respects ecotonal between more mesic riparian forests near streams and more xeric chaparrals (Holland, 1986). This plant community can be found between Towers 96/1 and 96/5 and in the ravines crossed by Mount Lowe Road.

4.1.11 Ruderal

Ruderal vegetation is generally found within areas that have had anthropogenic disturbances that have removed native vegetation. This cover type occurs throughout the project area and is most prominent along Highway 101 and along road edges and where there is relatively frequent disturbance. Within the Survey area this cover type is typically dominated by black mustard (*Brassica nigra*), yellow star thistle (*Centaurea solstitialis*), Italian thistle (*Carduus pynocephalus*), poison hemlock (*Conium maculatum*) and other broadleafed weed species. Nonnative grasses observed include foxtail chess (*Bromus madritensis* ssp. *rubens*), wild oat (*Avena fatua*), ripgut grass, and soft chess. Larger areas that are ruderal are found between Tower 69/6 and the Vista del Ciudad Road south of Tower 71/1.

4.1.12 Developed Areas

Developed areas are the result of modifying pre-settlement vegetation and introducing new, primarily nonnative species. This land cover may include urban vegetation such as tree groves, street strips, shade tree/lawns, lawns, shrubs, and ornamental plants. Developed areas in the Atascadero portion of the project consist primarily of low-density housing, scattered rural residences, and residences associated with horse and cattle grazing. Developed habitat in the San Luis Obispo portion starting at Tower 75/4 consists primarily of high density housing where ornamentals have been planted. The developed areas also include all barren access roads and paved roads defined by the absence of vegetation and the presence of rock, gravel, or soil. This includes the Highway 101 and adjacent barren areas.

4.2 RARE PLANTS

The following six special status plant species were observed during the Survey: Santa Lucia manzanita (*Arctostaphylos luciana*), San Luis mariposa lily (*Calochortus obispoensis*), Brewer's spineflower (*Chorizanthe breweri*), straight-awned spineflower (*Chorizanthe rectispina*), San Luis Obispo dudleya (*Dudleya abramsii* ssp. *murina*), and mesa horkelia (*Horkelia cuneata* ssp. *puberula*). The locations where these species have been found can be seen on Figure 3.

Additional two CNPS List 4 plant species were found during the survey. Several club haired mariposa lily (*Calochortus clavatus* var. *clavatus*) were found near Towers 74/4 and 75/0 as well as in the vicinity of Tower 74/0. Paso Robles navarretia (*Navarretia jaredii*) was found near Tower 68/3. CNPS List 4 species are not analyzed for this project and will not be described in detail below because, although they have a limited distribution, there are over 50 extant occurrences in CA.

Arctostaphylos luciana

Santa Lucia manzanita (*Arctostaphylos luciana*) is listed by the CNPS as a List 1B species (plants rare, threatened or endangered in California and elsewhere).

Santa Lucia manzanita is endemic to San Luis Obispo County, occurring in the southern Santa Lucia Range from the Adelaide and Klau mining district to several locations on the ridges southeast of Cuesta Pass; i.e., the Black Butte, Lopez Mountain and Gay Mountain areas. Santa Lucia manzanita grows on shale substrates (mostly Monterey shale) and outcrops on slopes in chaparral and cismontane woodland at elevations of 350 to 850 meters forming open stands of chaparral that alternate with stands of *Quercus agrifolia* and *Lithocarpus densiflorus* (USDA, 2009).

Santa Lucia manzanita was found during the survey in two locations along Mount Lowe Road approximately 0.25 mile east of Tower 70/0. The CNDDB documents occurrences of Santa Lucia manzanita in several locations in this general area, approximately 1 mile west of Highway 101 and 2 miles west of Tower 68/9, and 4.5 miles southwest of the San Luis Obispo PG&E Substation (CDFG, 2009).

Calochortus obispoensis

San Luis mariposa lily (*Calochortus obispoensis*) is listed by the CNPS as a List 1B species.

San Luis mariposa lily is a narrow, edaphic endemic that is found on an extensive series of ultramafic outcrops in the hills southeast and north of San Luis Valley in San Luis Obispo County extending south a short distance toward Arroyo Grande (USDA, 2009; CDFG, 2009). It grows on open, dry ultramafic soils in chaparral, coastal scrub, and serpentine grassland (CNPS, 2009), but it is also found growing on sandstone at the south end of the taxon's range. Native perennial bunchgrasses and other bulbous perennials are frequent associates (USDA, 2009).

San Luis mariposa lily was found during the Survey between Towers 73/0 and 75/1 mostly where serpentine soils occur and along the road off of Sydney Road near Tower 75/0 and the Reservoir Canyon Road that leads to Tower 74/0. A short section of access road leading from the east to Tower 75/0 was not able to be surveyed, but it is likely that San Luis mariposa lily is located along this section as it was also present in other surveyed parts of the road. Also, Tower 75/1 could not be accessed but suitable habitat is present for this species around this tower. The CNDDB documents occurrences of San Luis mariposa lily in several locations within the 5 mile buffer around the project area from Pole 64/0 south (CDFG, 2009). Associated plant species observed include *Dudleya abramsii* ssp. *murina* and *Chorizanthe breweri*.

Chorizanthe breweri

Brewer's spineflower (*Chorizanthe breweri*) is listed by the CNPS as a List 1B species.

Brewer's spineflower is endemic to the outer South Coast Ranges in southwestern San Luis Obispo County (Hickman, 1993) with numerous collections reported from Camp San Luis Obispo. This species has also been reported from San Carpoforo Creek in northern San Luis Obispo County (USDA, 2009).

Brewer's spineflower was found during the survey near the spur road to Tower 73/1 northeast of Tower 73/2, serpentine outcrops north of Tower 72/4, and south of Tower 72/0. The CNDDB documents occurrences of Brewer's spineflower in several locations in this general area, including near Towers 72/0 and 73/0 and in several other areas within the 5 mile buffer around the project area from Pole 64/0 south (CDFG, 2009).

Chorizanthe rectispina

Straight-awned spineflower (*Chorizanthe rectispina*) is listed by the CNPS as a List 1B species.

Straight-awned spineflower is endemic to the Santa Lucia Ranges in southern Monterey, Santa Barbara, and San Luis Obispo Counties. It is known from approximately 20 occurrences (CNPS,

2009) and is found from 85 to 1,035 meters in chaparral, cismontane woodland, and coastal scrub.

Straight-awned spineflower was observed in the northern portion of the project area north of Pole 61/6 and south of Pole 61/7, southeast of Pole 62/1, west of and next to Pole 62/12 and north of Pole 63/3 and at Pole 63/6. The CNDDB documents occurrences of straight-awned spineflower in several locations in the northern portion of the project south to about Pole 64/8 (CDFG, 2009).

Dudleya abramsii ssp. *murina*

San Luis Obispo dudleya (*Dudleya abramsii ssp. murina*) is listed by the CNPS as a List 1B species.

San Luis Obispo dudleya is endemic to San Luis Obispo County occurring in the Arroyo Grande NE, Pismo Beach, San Luis Obispo, Lopez Mountain, Morro Bay South USGS 7.5-minute quadrangles. This leaf succulent grows on serpentine outcrops in chaparral, cismontane woodland, and valley and foothill grassland from 80 to 275 meters.

San Luis Obispo dudleya were found during the Survey in many locations of the southern portion of the Survey area where serpentine outcrops exist starting from Tower 72/0 to 75/0 and is likely to occur around Tower 75/1 although the latter could not be surveyed due to the steep terrain. The CNDDB documents occurrences of San Luis Obispo dudleya in several locations, many of which are west of the project area starting from Tower 68/10 but also some around the southern portion of the project area (CDFG, 2009).

Horkelia cuneata ssp. *puberula*

Mesa horkelia (*Horkelia cuneata* ssp. *puberula*) is listed by the CNPS as a List 1B species.

In San Luis Obispo County, the range of this taxon is in the upper Salinas Valley from the vicinity of Atascadero southward and in southern coastal area from Indian Knob ridge (north of Pismo Beach) southward (USDA, 2009). Mesa horkelia occupies sandy or gravelly areas in chaparral, cismontane woodland, and coastal scrub. The elevation range of this subspecies is 70 to 810 meters (CDFG, 2009).

Mesa horkelia was found during the Survey in one location south of Atascadero next to Pole 63/15. The CNDDB documents occurrences of Mesa horkelia in two locations in Atascadero, approximately 1 mile west of Highway 101 and 2 miles west of Tower 68/9, and 4.5 miles southwest of the San Luis Obispo PG&E Substation (CDFG, 2009).

4.3 SENSITIVE VEGETATION COMMUNITIES

Within the 5 mile buffer around the project area, the CNDDB has recorded four sensitive vegetation communities. They are the Northern Interior Cypress Forest, Central Maritime Chaparral, and Serpentine Bunchgrass, and Coastal and Valley Freshwater Marsh (CDFG, 2009). Serpentine soils are interspersed throughout the southern portion of the project site, and the Serpentine Bunchgrass plant community, analogous to the Serpentine Grassland plant community addressed in Section 4.1.3 above, occurs within the project area. The Serpentine Bunchgrass plant community is considered sensitive since rare plants are typically associated

with these communities. Serpentine Bunchgrass is considered a S2.1 vegetation community by CDFG, which means that there are six to twenty known locations, or 2,000 to 10,000 acres of habitat remaining in California. Northern Interior Cypress Forest, Central Maritime Chaparral, and Coastal and Valley Freshwater Marsh were not found within the project area.

4.4 OTHER SPECIES WITH POTENTIAL TO OCCUR

In addition to the plants that were observed and have been described in detail in the results section above, the plants listed below have the potential to occur in the project area because 1) there are occurrences very close to the impact areas and/or 2) because they may have been missed as their blooming periods are outside of June, when the Survey was conducted. These plants are also analyzed in Attachment A.

- *Arctostaphylos pilulosa* (Santa Margarita manzanita)
- *Calochortus simulans* (San Luis Obispo mariposa lily)
- *Camissonia hardhamiae* (Hardham's evening-primrose)
- *Calystegia subacaulis. ssp. episcopalism* (Cambria morning-glory)
- *Castilleja densiflora* ssp. *obispoensis* (San Luis Obispo owl's-clover)
- *Caulanthus coulteri* var. *lemmonii* (Lemmon's jewel flower)
- *Chlorogalum pomeridianum var. minus* (dwarf soaproot)
- *Eriastrum luteum* (yellow-flowered eriastrum)
- *Fritillaria viridea* (San Benito fritillary)
- *Layia jonesii* (Jones' layia)
- *Monardella palmeri* (Palmer's monardella)
- *Senecio aphanactis* (chaparral ragwort)
- *Streptanthus albidus* ssp. *peramoenus* (most beautiful jewel-flower)
- *Tropidocarpum capparideum* (caper-fruited tropidocarpum)

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Figure 1 — Site and Vicinity Map

Refer to Figure 1 in the Biological Assessment.

Figure 2 — CNDDB Map

Refer to Attachment B in the Biological Assessment.

Figure 3 — Plant Community and Rare Plant Map

Refer to Attachment C in the Biological Assessment.

Attachment A — Plant Species Analyzed for the Project

Plant Species Analyzed for the Project

Common Name ***Scientific Name***	**Status**	**Habitat Type and Survey Window**	**Potential in Project Area**
Hoover's bentgrass *Agrostis hooveri*	CNPS 1B.2	Chaparral, cismontane woodland, and valley and foothill grassland; usually grows in sandy substrate and dry soils derived from sandstone or siliceous shale at an elevation. Elevation range is 60 to 610 meters. Blooming period is April to July.	Unlikely to occur within project area. The range of species falls within the lower elevation portions of the project area and three CNDDB records occur within less than 5 miles of the project area. One record occurs along Mount Lowe Road east of Tower 70/0. However, species was not observed during the Survey.
Arroyo de la Cruz manzanita *Arctostaphylos cruzensis*	CNPS 1B.2	Broadleafed upland forest, coastal bluff scrub, closed-cone coniferous forest, chaparral, coastal scrub, valley and foothill grassland; grows in sandy soils. Known from fewer than twenty occurrences. Elevation range is 60 to 310 meters. Blooming period is December to March.	No potential to occur within project area. Range of species is outside of project area. There are no CNDDB records within 5 miles of the project area.
Santa Lucia manzanita *Arctostaphylos luciana*	CNPS 1B.2	Chaparral and cismontane woodland; grows in shale. Elevation range is 350 to 850 meters. Blooming period is December to March.	Observed within project area. Species was observed adjacent to the project area off of Mount Lowe Road east of Tower 70/0 but not within any proposed impact area. CNDDB records occur also along the line near Tower 69/3; additional records occur elsewhere within less than 2 miles east of the project area.
Morro manzanita *Arctostaphylos morroensis*	FT, CNPS 1B.1	Chaparral (maritime), cismontane woodland, coastal dunes (pre-Flandrian), and coastal scrub; grows in sandy loam. Known from fewer than 10 occurrences in the Morro Bay area; estimated to cover less than 350 acres as of 1996. Elevation range is 5 to 205 meters. Blooming period is December to March.	No potential to occur within project area. Elevation range and specific habitat requirements of species are not present within the project area. There are no CNDDB records within 5 miles of the project area.
Oso manzanita *Arctostaphylos osoensis*	CNPS 1B.2	Chaparral, cismontane woodland; grows in dacite porphyry buttes. Elevation range is 300 to 500 meters. Known only from two occurrences in the mountains north of Los Osos Valley. Blooming period is February to March.	No potential to occur within project area. Range of species is outside of project area. There are no CNDDB records within 5 miles of the project area.

Common Name ***Scientific Name***	**Status**	**Habitat Type and Survey Window**	**Potential in Project Area**
Pecho manzanita *Arctostaphylos pechoensis*	CNPS 1B.2	Closed-cone coniferous forest, chaparral, and coastal scrub; grows in siliceous shale. Known only from Pecho Hills area. Elevation range is 125 to 850 meters. Blooming period is November to March.	Unlikely to occur within project area. Range of species is outside of project area. However, there is a historic record mapped along the Cuesta Ridge East Trail about 4 miles southeast of the Cuesta Pass. This site is out of range and needs further confirmation. Species was not observed during the Survey.
Santa Margarita manzanita *Arctostaphylos pilosula*	CNPS 1B.2	Closed-cone coniferous forest, chaparral, and cismontane woodland. Elevation range is 170 to 1,100 meters. Blooming period is December to March.	Observed within the general vicinity of the project but not within any proposed project impact areas. However, the project area is within the range of this species. One CNDDB occurs 1.25 miles west of Pole 63/3 and a second one occurs 5 miles southwest of the San Luis Obispo Substation.
Dacite manzanita *Arctostaphylos tomentosa* ssp. *daciticola*	CNPS 1B.1	Chaparral, cismontane woodland; grows on dacite porphyry buttes. Known only from Hollister Peak. Elevation range is 100 to 300 meters. Blooming period is March.	No potential to occur within project area. Range and elevation range of species are outside of project area. There are no CNDDB records within 5 miles of the project area.
Wells' manzanita *Arctostaphylos wellsii*	CNPS 1B.1	Broadleafed upland forest, closed-cone coniferous forest, and chaparral; grows on sandstone. Elevation range is 30 to 400 meters. Blooming period is December to May.	Unlikely to occur within project area. The nearest CNDDB record is approximately 2.25 miles east of Pole 64/0 and additional records are south of the San Luis Obispo Substation. Species was not observed during the Survey despite its size.
Marsh sandwort *Arenaria paludicola*	FE, SE, CNPS 1B.1	Marshes and swamp that are freshwater or brackish; grows in sandy openings. Known from only two natural occurrences in Black Lake Canyon and at Oso Flaco Lake. Individuals re-introduced in Black Lake Canyon in 1995. Introduced population in Los Osos well established as of 2003. Experimental introduction also underway in Nipomo as of 2004. Collection from Mexico needs confirmation. Elevation range is 3 to 170 meters. Blooming period is May to August.	No potential to occur within project area. Range and elevation range of species are outside of project area and no suitable habitat present. There are no CNDDB records within 5 miles of the project area.
Miles' milk-vetch *Astragalus didymocarpus* var. *milesianus*	CNPS 1B.2	Coastal scrub; grows on clay soils. Elevation range is 20 to 90 meters. Blooming period is March to June.	Unlikely to occur within project area. Elevation range of species is outside of project area; however, the nearest CNDDB records are 2.5 miles northeast of the Atascadero Substation and 2.5 miles west of the southernmost portion of the project.

Common Name ***Scientific Name***	**Status**	**Habitat Type and Survey Window**	**Potential in Project Area**
Coulter's saltbush *Atriplex coulteri*	CNPS 1B.2	Coastal bluff scrub, coastal dunes, coastal scrub, valley and foothill grassland; grows in alkaline or clay. Few recent sightings. Elevation range is 3 to 460 meters. Blooming period is March to October.	Unlikely to occur within project area. Suitable habitat within the project area but was not detected during the Survey. The range of species appears to be further to south and the only CNDDB record in San Luis Obispo County is in the Port San Luis quad at the end of Montara de Oro State Park.
San Joaquin spearscale *Atriplex joaquiniana*	CNPS 1B.2	Chenopod scrub, meadows and seeps, playas, valley and foothill grassland; grows in alkaline soils. Report from San Luis Obispo County needs verification. Elevation range is sea level to 835 meters. Blooming period is April to October.	Unlikely to occur within project area. The range of species appears to be further to the north of the project area and the only CNDDB record in San Luis Obispo County is in the vicinity of Morro Bay. The only source of information for this site is a collection from 1899.
Round-leaved filaree *California macrophylla*	CNPS 1B.1	Cismontane woodland, valley and foothill grassland; grows in clay soils. Elevation range is 15 to 1,200 meters. Most collections historical; need information on current status of occurrences. Blooming period is March to May.	Unlikely to occur within project area. The nearest CNDDB record is approximately 2.5 miles northeast of the Atascadero Substation; however, the range of the species is generally further inland based on the other CNDDB records. Suitable habitat for this species exists within the wood pole portion but the soils did not appear suitable for the species. The species was not observed within the project area, but the Survey was conducted outside of the blooming period of this species.
San Luis mariposa lily *Calochortus obispoensis*	CNPS 1B.2	Chaparral, coastal scrub, valley and foothill grassland; often grows on serpentinite soils. Elevation range is 75 to 730 meters. Blooming period is May to July.	Observed within the project area. The species was observed in many locations starting at Tower 73/0 south to Tower 75/0. Tower 75/1 could not be accessed but suitable habitat is present for this species around this tower.

Common Name ***Scientific Name***	**Status**	**Habitat Type and Survey Window**	**Potential in Project Area**
San Luis Obispo mariposa lily *Calochortus simulans*	CNPS 1B.3	Chaparral, cismontane woodland, lower montane coniferous forest, and valley and foothill grassland; grows on sandy, often granitic, and sometimes on serpentinite substrate. Elevation range is 395 to 1,100 meters. Blooming period is April to May.	Potential to occur within the project area. The Survey was conducted outside blooming season. The project area is within the range of this species and suitable habitat is present. This species was likely observed 250 feet northeast of Pole 67/5 but could not be positively identified because the plants had already gone to fruit. The species was not actually observed within the project area.
dwarf western rosinweed *Calycadenia villosa*	CNPS 1B.1	Chaparral, cismontane woodland, meadows and seeps, and valley and foothill grassland; grows on rocky, fine soils, in open areas where native annual forbs are dominant and appear to be the climax vegetation. Elevation range is 240 to 1,350 meters. Blooming period is May to October.	Unlikely to occur within project area. The project area is within the range of this species but there is no CNDDB record within 5 miles of the project area.
Cambria morning-glory *Calystegia subacaulis.* ssp. *episcopalis*	CNPS 1B.2	Chaparral, cismontane woodland, and coastal prairie. Elevation range is 60 to 500 meters. Blooming period is (March) April to June (July).	Potential to occur within project area. The project area is within the range of the species and suitable habitat is present. The nearest CNDDB record is less than half a miles west of Tower 68/8. Several other CNDDB records are within less than 5 miles of the southern portion of the project area. Species was not observed during the Survey.
Hardham's evening-primrose *Camissonia hardhamiae*	CNPS 1B.2	Chaparral and cismontane woodland; grows on sandy, decomposed carbonate, disturbed or burned areas. Known from fewer than 20 occurrences. Elevation range is 140 to 945 meters. Blooming period is March to May.	Potential to occur within project area. The project area is within the range of the species and suitable habitat is present. The nearest CNDDB record is approximately 2.75 miles east of Pole 65/0. Several other CNDDB records are in this general area northeast of Santa Margarita and are less than 5 miles from the project area. Species was not observed during the Survey, which was conducted outside the blooming period of this species.

Common Name ***Scientific Name***	**Status**	**Habitat Type and Survey Window**	**Potential in Project Area**
San Luis Obispo sedge *Carex obispoensis*	CNPS 1B.2	Closed-cone coniferous forest, chaparral, coastal prairie, coastal scrub, and valley and foothill grassland; often grows on serpentinite seeps and sometimes on gabbro substrate. Elevation range is 10 to 790 meters. Blooming period is April to June.	Unlikely to occur within project area. The project area is within the range of the species and suitable habitat is present. The nearest CNDDB record is within less than 1 mile east of Tower 74/0. Several other CNDDB records are within less than 5 miles of the southern portion of the project area. Species was not observed during the Survey.
San Luis Obispo owl's-clover *Castilleja densiflora* ssp. *obispoensis*	CNPS 1B.2	Meadows and seeps, valley and foothill grassland; sometimes grows on serpentinite soils. Elevation range is 10 to 400 meters. Blooming period is March to May.	Potential to occur within project area. The project area is within the range of the species and suitable habitat is present in parts of the southern portion of the project area. The nearest CNDDB record is within less than 2 miles southeast and southwest of the San Luis Obispo Substation. Several other CNDDB records are less than 5 miles of the southern portion of the project area. Species was not observed during the Survey; however, the Survey was conducted after the blooming period of this species.
Lemmon's jewel flower *Caulanthus coulteri* var. *lemmonii*	CNPS 1B.2	Pinyon and juniper woodland and valley and foothill grassland. Elevation range is 80 to 1,220 meters. Blooming period is March to May.	Unlikely to occur within project area. The range of the species is further inland to the east. The nearest CNDDB records are over 10 miles to the north and east of the northern portion of the project area, and both records are historic. Species was not observed during the Survey; however, the Survey was conducted after the blooming period of this species.
Congdon's tarplant *Centromadia parryi* ssp. *congdonii*	CNPS 1B.2	Valley and foothill grassland; grows in alkaline soils. Elevation range is sea level to 230 meters. Blooming period is May to October (November).	Unlikely to occur within project area. Elevation range of species is outside of project area. Nearest CNDDB records are over 1 mile west and southwest of the southern portion of the Project area. Species was not observed during the Survey.
Dwarf soaproot *Chlorogalum pomeridianum* var. *minus*	CNPS 1B.2	Chaparral; grows on serpentinite substrate. Elevation range is 305 to 1,000 meters. Blooming period is May to August.	Potential to occur within project area. The nearest CNDDB record is approximately 1.25 mile west of Tower 69/1. Another record occurs 2.5 miles east of the San Luis Obispo Substation. Species was not observed during the Survey.

Common Name ***Scientific Name***	**Status**	**Habitat Type and Survey Window**	**Potential in Project Area**
Brewer's spineflower *Chorizanthe breweri*	CNPS 1B.3	Closed-cone coniferous forest, chaparral, cismontane woodland, coastal scrub; grows on serpentinite, rocky or gravelly substrate. Known from approximately twenty occurrences. Elevation range is 45 to 800 meters. Blooming period is April to August.	Observed within the project area. The species was observed on serpentine outcrops north of Tower 72/4, south of Tower 72/0, and north of Tower 73/2. One individual was observed within the existing access road to Tower 71/2.
Monterey spineflower *Chorizanthe pungens var. pungens*	FT CNPS 1B.2	Chaparral (maritime), cismontane woodland, coastal dunes, coastal scrub, valley and foothill grassland; grows in sandy areas. Elevation range is 3 to 450 meters. Blooming period is April to June (July). Collected in San Luis Obispo County only once in 1842.	No potential to occur within project area. Range of species is outside of project area and the species was collected in San Luis Obispo County only once in 1842.
Straight-awned spineflower *Chorizanthe rectispina*	CNPS 1B.3	Chaparral, cismontane woodland, and coastal scrub; most often found in openings in chaparral growing on gravelly soils derived from granitic rock and sometimes diatomaceous shale. Associates at Black Mountain include *Adenostoma fasciculatum*, *Arctostaphylos glauca*, and *Lotus scoparius*. Elevation range is 85 to 1,035 meters. Blooming period is April to July.	Observed within the project area. The species was observed in the northern portion of the project area north of Pole 61/6 and south of Pole 61/7, southeast of Pole 62/1, west of and next to Pole 62/12 and north of Pole 63/3 and at Pole 63/6.
Chorro Creek bog thistle *Cirsium fontinale* var. *obispoense*	FE, SE, CNPS 1B.2	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland; grows in serpentinite seeps and drainages. Elevation range is 35 to 380 meters. Blooming period is February to July (August to September).	Unlikely to occur within project area. The project area is within the range of the species. The nearest CNDDB records are 2.5 miles east of Tower 75/0 and 1.25 miles west of Tower 73/0 and additional records are within 5 miles of the southern portion of the project area. However, the species was not observed during the Survey and should have been easily detected due to its size.
La Graciosa thistle *Cirsium loncholepis*	FE, ST, CNPS 1B.1	Cismontane woodland, coastal dunes, coastal scrub, marshes and swamps (brackish), valley and foothill grassland; grows on mesic, sandy substrate. Elevation range is 4 to 220 meters. Blooming period is May to August.	Unlikely to occur within project area. Elevation range of species is 90 meters below project area. There is no CNDDB record within 5 miles of the project area. Species was not observed during the Survey.
Surf thistle *Cirsium rhothophilum*	ST, CNPS 1B.2	Coastal bluff scrub and coastal dunes. Elevation range is 3 to 60 meters. Blooming period is April to June.	No potential to occur within project area. Range and elevation range of species are outside of project area and no suitable habitat present. There is no CNDDB record within 5 miles of the project area.

Common Name ***Scientific Name***	**Status**	**Habitat Type and Survey Window**	**Potential in Project Area**
Pismo clarkia *Clarkia speciosa* ssp. *immaculata*	FE, SR, CNPS 1B.1	Chaparral (margins, openings), cismontane woodland, valley and foothill grassland; grows in sandy soils. Known from fewer than 20 occurrences. Elevation range is 25 to 185 meters. Blooming period is May to July.	No potential to occur within project area. Range and elevation range of species are outside of project area. Nearest CNDDB record is approximately 5 miles out of the San Luis Obispo Substation.
Salt marsh bird's-beak *Cordylanthus maritimus ssp. maritimus*	FE, SE, CNPS 1B.2	Coastal dunes, marshes and swamps (coastal salt). Elevation range is sea level to 30 meters. Blooming period is May to October.	No potential to occur within project area. Range and elevation range of species are outside of project area and no suitable habitat present. There is no CNDDB record within 5 miles of the project area.
Leafy tarplant *Deinandra increscens* ssp. *foliosa*	CNPS 1B.2	Valley and foothill grassland; grows on sandy soils. Elevation range is 300 to 500 meters. Blooming period is June to September.	Unlikely to occur in the project area. The project area is within the range of the species and suitable habitat is present. There is no CNDDB record within 5 miles of the project area. The species was not observed during the Survey.
Dune larkspur *Delphinium parryi* ssp. *blochmaniae*	CNPS 1B.2	Chaparral (maritime) and coastal dunes. Elevation range is sea level to 200 meters. Blooming period is April to May.	Unlikely to occur within project area. Range and elevation range of species are outside of project area. Nearest CNDDB record is approximately 1.75 miles east of Tower 75/0. However, the only source of information for this site is a collection from 1936, but the Survey was conducted outside of the blooming period.
Umbrella larkspur *Delphinium umbraculorum*	CNPS 1B.3	Cismontane woodland in shaded or sunny slopes. In San Luis Obispo County frequently found on loose soil derived from disintegrating shale. Elevation range is 400 to 1,600 meters. Blooming period is April to June.	Unlikely to occur within project area. Although the project area is within the general range of this species loose soil derived from disintegrating shale has not been observed. There is no CNDDB record within 5 miles of the project area. The species was not observed during the Survey.
Beach spectaclepod *Dithyrea maritima*	ST, CNPS 1B.1	Coastal dunes and coastal scrub; grows on sandy soils. Elevation range is 3 to 50 meters. Extirpated from half of its historical range. Blooming period is March to May.	No potential to occur within project area. Range and elevation range of species are outside of project area. There is no CNDDB record within 5 miles of the project area.

Common Name ***Scientific Name***	**Status**	**Habitat Type and Survey Window**	**Potential in Project Area**
Betty's dudleya *Dudleya abramsii* ssp. *bettinae*	CNPS 1B.2	Chaparral, coastal scrub, valley and foothill grassland; grows in serpentinite and rocky areas. Known from fewer than ten occurrences. Elevation range is 20 to 180 meters. Blooming period is May to July.	Unlikely to occur within project area. Range and elevation range of species are outside of project area. There is no CNDDB record within 5 miles of the project area.
San Luis Obispo dudleya *Dudleya abramsii* ssp. *murina*	CNPS 1B.3	Chaparral, cismontane woodland, valley and foothill grassland; grows in serpentinite soils. Elevation range is 90 to 440 meters. Blooming period is May to June.	Observed within the project area. Species was observed next to Towers 72/0. 73/0, 73/1, 73/2, 73/4, 74/4, and 75/0. Tower 75/1 was too steep to survey but it likely also provides habitat for this species.
Blochman's dudleya *Dudleya blochmaniae* ssp. *blochmaniae*	CNPS 1B.1	Coastal bluff scrub, chaparral, coastal scrub, valley and foothill grassland; grows in rocky, often clay or serpentinite soils. Known from fewer than twenty occurrences in California. Elevation range is 5 to 450 meters. Blooming period is April to June.	Unlikely to occur within project area. The range of this species is further west of the power line, west of Highway 101. Several CNDDB records are approximately 4 miles west of the project area. The species was not observed during the Survey.
Yellow-flowered eriastrum *Eriastrum luteum*	CNPS 1B.2	Found away from the immediate coast in broadleafed upland forest, chaparral, cismontane woodland; grows on dry, sandy, or gravelly substrates. Elevation range is 290 to 1,000 meters. Blooming period is May to June.	Potential to occur within project area. The range of the species falls within the project area. The nearest CNDDB record is less than 2 miles north of the Atascadero Substation. Additional records are within 5 miles on the east side of the project area. Species was not observed during the Survey.
Blochman's leafy daisy *Erigeron blochmaniae*	CNPS 1B.2	Coastal dunes and coastal scrub. Elevation range is 3 to 45 meters. Blooming period is June to August.	No potential to occur within project area. Range and elevation range of species are outside of project area. There is no CNDDB record within 5 miles of the project area.
Indian Knob mountainbalm *Eriodictyon altissimum*	FE, SE, CNPS 1B.1	Chaparral (maritime), cismontane woodland, coastal scrub; grows on sandstone. Known from 6 occurrences in the Irish Hills and Indian Knob. Elevation range is 80 to 270 meters. Blooming period is March to June.	No potential to occur within project area. Range and elevation range of species are outside of project area. Nearest CNDDB record is approximately 4.5 miles southwest of the San Luis Obispo Substation.
Hoover's button-celery *Eryngium aristulatum* var. *hooveri*	CNPS 1B.1	Vernal pools. Almost all collections old; need information on extant occurrences. Elevation range is 3 to 45 meters. Blooming period is July.	Unlikely to occur within project area. Vernal pool habitat was not observed within the project area. The nearest CNDDB record is approximately 1.25 mile southwest of and another record is 3 miles west the San Luis Obispo Substation.

Common Name ***Scientific Name***	**Status**	**Habitat Type and Survey Window**	**Potential in Project Area**
Ojai fritillary *Fritillaria ojaiensis*	CNPS 1B.2	Mesic areas in broadleafed upland forest, chaparral, and lower montane coniferous forest; grows in rocky areas on moist slopes in chaparral, mesic broadleafed upland woodlands, and in lower montane conifer forests. *Acer macrophyllum* and *Umbellularia californica* are common associates. In some areas plants are found in openings in brush and woodland on or near serpentine soil or outcrops whereas in other areas they are found on poorly consolidated soils associated with landslides. Elevation range is 300 to 998 meters. Blooming period is March to May.	Unlikely to occur within project area. The project area is within the range of this species, but there is no CNDDB record within 5 miles of the project area. The nearest record is approximately 8.5 east of the southern portion of the project area. Species was not observed during the Survey, however, the Survey was conducted outside the blooming period of this species.
San Benito fritillary *Fritillaria viridea*	CNPS 1B.2	Grows on slopes within serpentine chaparral in the foothill and lower montane conifer zones. Elevation range is 200 to 1,525 meters. Blooming period is March to May.	Potential to occur within project area. The project area is within the range of this species. The nearest CNDDB record is approximately 1 miles west of Tower 69/3. A dried up fritillary was found on serpentine soils near Tower 73/0, but it was impossible to identify the plant at this stage. The Survey was conducted after the blooming period of this species.
San Francisco gumplant *Grindelia hirsutula* var. *maritima*	CNPS 1B.2	Coastal bluff scrub, coastal scrub, valley and foothill grassland; grow on sandy or serpentinite soils. Can be difficult to identify. Many herbarium specimens need to be checked for correct identification. Elevation range is 15 to 400 meters. Blooming period is June to September.	Unlikely to occur within the project area. The range of the species is closer to the coast. There is no CNDDB record within 5 miles of the project area. Species was not observed during the Survey.
Mesa horkelia *Horkelia cuneata* ssp. *puberula*	CNPS 1B.1	Chaparral, cismontane woodland, and coastal scrub; grows in sandy or gravelly substrate. Elevation range is 70 to 810 meters. Blooming period is February to July and uncommonly to September.	Observed within the project area near Pole 63/15. The project area is within the range of this species and suitable habitat is present.
Kellogg's horkelia *Horkelia cuneata* ssp. *sericea*	CNPS 1B.1	Closed-cone coniferous forest, maritime chaparral, coastal dunes, and coastal scrub in sandy or gravelly openings. Elevation range is 10 to 200 meters. Blooming period is April to September.	No potential to occur within the project area. Range and elevation range of species are outside of project area. There is no CNDDB record within 5 miles of the project area.

Common Name ***Scientific Name***	**Status**	**Habitat Type and Survey Window**	**Potential in Project Area**
Coulter's goldfields *Lasthenia glabrata* ssp. *coulteri*	CNPS 1B.1	Marshes and swamps (coastal salt), playas, and vernal pools. Elevation range is sea level to 1,220 meters. Blooming period is February to June.	No potential to occur within the project area. No suitable habitat present within the project area. Species was not observed during the Survey. There is no CNDDB record within 5 miles of the project area.
Pale-yellow layia *Layia heterotricha*	CNPS 1B.1	Cismontane woodland, pinyon and juniper woodland, and valley and foothill grassland; grows on alkaline or clay substrate. Often occurs on sites with below-average exotic vegetative cover. Elevation range is 300 to 1,705 meters. Blooming period is March to June.	Unlikely to occur within the project area. The range of the species is generally further east. The nearest CNDDB record is approximately 3 miles east of Pole 65/4. Species was not observed during the Survey.
Jones' layia *Layia jonesii*	CNPS 1B.2	Chaparral and valley and foothill grassland; grows on clay or serpentinite substrate. Elevation range is 5 to 400 meters. Blooming period is March to May.	Potential to occur within the project area. The CNDDB documents one occurrence around Tower 73/0. Several others occurrences are within 5 miles of the project area. The species was not observed during the Survey, but this annual herb flowers from March to May which was before the Survey was conducted.
San Luis Obispo lupine *Lupinus ludovicianus*	CNPS 1B.2	Chaparral and foothill oak woodlands; grows on sandy or sandstone-derived soils in chaparral and in open, grassy areas. Plants typically grow in sandy soils associated with the Santa Margarita formation, but one occurrence is found on limestone soil. Elevation range is 50 to 525 meters. Blooming period is April to July.	Unlikely to occur within the project area. The range of the species is within the project area. The nearest CNDDB record is approximately 4 miles east of Tower 68/10 and 4 miles south of the San Luis Obispo Substation. The species was not observed during the Survey.
Carmel Valley bush mallow *Malacothamnus palmeri* var. *involucratus*	CNPS 1B.2	Chaparral, cismontane woodland, and coastal scrub. In Monterey County, habitat is described as "disturbed places." Elevation range is 30 to 1,100 meters. Blooming period is May to August and (uncommonly) to October.	Unlikely to occur within the project area. The project area is close to the range of the species, but the nearest CNDDB record occurs 5 miles west of the northern part of the project area. The species was not observed during the Survey, which was conducted during species' blooming period.

Common Name ***Scientific Name***	**Status**	**Habitat Type and Survey Window**	**Potential in Project Area**
Santa Lucia bush mallow *Malacothamnus palmeri* var. *palmer*i	CNPS 1B.2	Chaparral; occasional on rocky slopes in Santa Lucia Mountains from Atascadero-Morro Bay road northward, mostly near summits but occasionally extending down canyons to near the sea. Elevation range is 60 to 360 meters. Blooming period is May to July.	Unlikely to occur within the project area. The southern boundary of the species range is at Morro Bay Road next to the Atascadero Substation but there is no suitable habitat in the northernmost portion of the project area. The nearest CNDDB record occurs along Morro Road 5 miles west of the northern part of the project area, which was conducted during species' blooming period.
Crisp monardella *Monardella crispa*	CNPS 1B.2	Coastal dunes and coastal scrub. Hybridizes with *M. frutescens.* Elevation range is 10 to 120 meters. Blooming period is April to August.	No potential to occur within the project area. Range and elevation range of species are outside of project area. There is no CNDDB record within 5 miles of the project area.
San Luis Obispo monardella *Monardella frutescens*	CNPS 1B.2	Coastal dunes, coastal scrub; grows in sandy soils. 10 to 200 meters. Blooming period is May to September.	No potential to occur within the project area. Range and elevation range of species are outside of project area. There is no CNDDB record within 5 miles of the project area.
Palmer's monardella *Monardella palmeri*	CNPS 1B.2	Chaparral and cismontane woodland and with Sargent Cypress; usually grows on serpentinite substrates. Habitat at Cuesta Ridge described as "open slopes and in forest understory." Elevation range is 200 to 800 meters. Blooming period is June to August.	Potential to occur within the project area. The nearest CNDDB record is less than 0.5 mile of Tower 74/0 and there are other records within 5 miles of the project area. Suitable habitat is present within the project area. Species was not observed during the Survey.
Moran's navarretia *Navarretia fossalis*	FT, CNPS 1B.1	Chenopod scrub, marshes and swamps (assorted shallow freshwater), playas, vernal pools. Elevation range is 30 to 1,300 meters. Blooming period is April to June.	Unlikely to occur within the project area. The nearest CNDDB record is approximately 10 miles northeast of the Atascadero Substation and suitable habitat is not present in the project area. The species was not observed during the Survey.
Shining navarretia *Navarretia nigelliformis* ssp. *radians*	CNPS 1B.2	Cismontane woodland, valley and foothill grassland, vernal pools. Elevation range is 76 to 1,000 meters. Blooming period is April to July.	Unlikely to occur within the project area. The range of species comes close to the northern portion of the project area. The nearest CNDDB record is approximately 4 miles northeast of Pole 63/0. The species was not observed during the Survey.

Common Name ***Scientific Name***	**Status**	**Habitat Type and Survey Window**	**Potential in Project Area**
Hooked popcornflower *Plagiobothrys uncinatus*	CNPS 1B.2	On sandy soil in chaparral, cismontane woodland, and valley and foothill grassland; grows on sandstone outcrops and canyon slopes, often in burned areas. 300 to 760 meters. Blooming period is April to May.	No potential to occur within the project area. Range of species is outside of project area. Nearest CNDDB record is approximately 2.5 miles west of Pole 67/4. This record is from a 1990 collection but according to CNPS needs field verification. The record appears to be over 20 miles south of the typical range of this species.
Diablo Canyon blue grass *Poa diaboli*	CNPS 1B.2	Closed-cone coniferous forest, chaparral (mesic), cismontane woodland, coastal scrub; grows on shale and sometimes in burned areas. 120 to 400 meters. Blooming period is March to April.	No potential to occur within the project area. Range of species is outside of project area. There is no CNDDB record within 5 miles of the project area.
White rabbit-tobacco *Pseudognaphalium leucocephalum*	CNPS 2.2	Chaparral, cismontane woodland, coastal scrub, riparian woodland; grows in sandy and gravelly substrate. Elevation range is sea level to 2,100 meters. Blooming period is (July) August to November (December).	Unlikely to occur within the project area. The range of this species is generally further to the south. There is only one CNPS record in San Luis Obispo County. The CNDDB does not show any records for this species in San Luis Obispo County. The Survey was conducted outside of the blooming period.
Gambel's watercress *Rorippa gambellii*	FE, SE CNPS 1B.1	Occurs in freshwater or brackish marshes and swamps. Elevation range 5 to 330 meters. Blooming period is April to October. Known in California from only four occurrences. The Black Lake Canyon and Little Oso Flaco Lake populations were not seen in 1998 and are possibly extirpated.	No potential to occur within the project area. No suitable habitat present within the project area. There is no CNDDB record within 5 miles of the project area. Species was not observed during the Survey.
Adobe sanicle *Sanicula maritima*	SR, CNPS 1B.1	Chaparral, coastal prairie, meadows and seeps, and valley and foothill grassland; grows on clay and serpentinite substrate. Elevation range is 30 to 240 meters. Blooming period is February to May.	No potential to occur within the project area. Range and elevation range of species are outside of project area. The nearest CNDDB record is approximately 1.5 miles southwest of the San Luis Obispo Substation.
Black-flowered figwort *Scrophularia atrata*	CNPS 1B.2	Closed-cone coniferous forest, chaparral, coastal dunes, coastal scrub, and riparian scrub. Elevation range is 10 to 500 meters. Blooming period is March to July.	Unlikely to occur within the project area. The range of this species is further to the west and there is no CNDDB record within 5 miles of the project area. Although there is suitable habitat present, the species was not observed during the Survey.

Common Name ***Scientific Name***	**Status**	**Habitat Type and Survey Window**	**Potential in Project Area**
Chaparral ragwort *Senecio aphanactis*	CNPS 2.2	Chaparral, cismontane woodland, and coastal scrub; grows sometimes on alkaline substrate. Elevation range is 15 to 800 meters. Blooming period is January to April.	Potential to occur within the project area. The project area is within the range of this species and suitable habitat is present. The Survey was conducted outside of the blooming period of this species. The nearest CNDDB records are within approximately 1 mile west of Towers 72/2 and 73/2 on the west side of Highway 101. Additional CNDDB records exist within 5 miles of the project area.
Cuesta Pass checkerbloom *Sidalcea hickmanii* ssp. *anomala*	CNPS 1B.2	Grows on rocky serpentine soil associated with Sargent cypress forests and chaparral. Elevation range is 335 to 1,200 meters. Blooming period is May to July.	Unlikely to occur within the project area. This species is endemic to the West Cuesta Ridge in San Luis Obispo County. CNDDB records are close but the project area is outside of the range of this species. The species was not observed during the Survey.
Most beautiful jewel-flower *Streptanthus albidus* ssp. *peramoenus*	CNPS 1B.2	Chaparral, cismontane woodland, and valley and foothill grassland; grows on serpentinite substrate. Elevation range is 94 to 1000 meters. Blooming period is (March) April to September (October).	Potential to occur within the project area. The project area is within the range of this species and suitable habitat is present. The nearest CNDDB record is within 500 feet west of Tower 73/4 and there are 5 additional CNDDB records within 5 miles of the project area.
California seablite *Suaeda californica*	FE, CNPS 1B.1	Marshes and swamps (coastal salt). Formerly known from San Francisco Bay area, where extirpated by development; now extant only in Morro Bay and near Cayucos Point. Remains from adobe bricks indicate plant may once have occurred along the Petaluma River, Sonoma County. Elevation range is sea level to 15 meters. Blooming period is July to October.	No potential to occur within the project area. Elevation range of species is outside of Project area. There is no CNDDB record within 5 miles of the project area.
San Bernardino aster *Symphyotrichum defoliatum*	CNPS 1B.2	Cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, valley and foothill grassland (vernally mesic); grows near ditches, streams, springs. Elevation range is 2 to 2,040 meters. Blooming period is July to November.	Unlikely to occur in the project area. San Luis Obispo County is at the northern boundary of the range of this species. The closest CNDDB record is approximately 10 miles northeast of the project area. The Survey was conducted outside of this species' blooming period which is July to November.

Common Name ***Scientific Name***	**Status**	**Habitat Type and Survey Window**	**Potential in Project Area**
Saline clover *Trifolium depauperatum* var. *hydrophilum*	CNPS 1B.2	Marshes and swamps, valley and foothill grassland (mesic, alkaline), and vernal pools. Elevation range is sea level to 300 meters. Blooming period is April to June.	No potential to occur within project area. Elevation range of species is outside of project area. There is no CNDDB record within 5 miles of the project area.
Caper-fruited tropidocarpum *Tropidocarpum capparideum*	CNPS 1B.1	Valley and foothill grassland (alkaline hills). Elevation range is sea level to 455 meters. Blooming period is March to April.	Potential to occur within project area. Although the project area is within the range of the species, the nearest CNDDB record is approximately 4.5 miles east of Tower 68/10. This is the only CNDDB record in San Luis Obispo County. Species was not observed during the Survey, which was conducted after the blooming period of this species.

Sources: CDFG, 2009; CNPS, 2009; Hickman, 1993; USDA, 2009; USFWS, 2009 Months in parentheses are uncommon.

STATUS CODES:

U.S. Fish and Wildlife Service
FE = Listed as Endangered by the federal government
FT = Listed as Threatened by the federal government

California Department of Fish and Game
SE = Listed as Endangered by the state government
ST = Listed as Threatened by the state government
SR = Listed as State Rare by the state government

California Natural Plant Society
CNPS 1A = Presumed extinct in California
CNPS 1B = Rare, threatened, or endangered in California
CNPS 2 = Rare, threatened, or endangered in CA, but more common elsewhere
0.1 = Seriously endangered in CA
0.2 = Fairly endangered in CA
0.3 = Not very endangered in CA

Attachment B — Plant List

Plants Observed from June 17 to 22, 2009

Scientific Name	Common Name	Status
Achillea millefolium	common yarrow	
Adenostoma fasciculatum	chamise	
*Aira caryophyllea**	silver hairgrass	
*Anagallis arvensis**	pimpernel	
*Anthemis cotula**	stinking chamomile	
Arctostaphylos luciana	Santa Lucia manzanita	1B.2
Arctostaphylos pilosula	Santa Margarita manzanita	1B.2
*Artemisia biennis**	biennial sagewort	
*Artemisia californica**	California sagebrush	
Artemisia douglasiana	mugwort	
Asclepias californica	California milkweed	
Asclepias fascicularis	narrow leaf milkweed	
Astragulus curtipes	San Luis Obispo milk-vetch	
*Avena barbata**	slender wild oats	
*Avena fatua**	wild oats	
Baccharis pilularis	dwarf chaparral broom	
*Bloomeria crocea**	common goldenstar	
*Brachypodium distachyon**	purple false brome	
*Brassica nigra**	black mustard	
*Briza maxima**	big quaking grass	
*Briza minor**	little quakinggrass	
*Bromus diandrus**	ripgut brome	
*Bromus hordeaceus**	soft chess	
Bromus madritensis ssp. *rubens**	red brome	
*Bromus tectorum**	cheatgrass	
Calochortus clavatus var. *clavatus*	club haired mariposa lily	4.3
Calochortus obispoensis	San Luis Obispo mariposa lily	1B.2
Calystegia sp.	bindweed	
Cardamine oligosperma	bitter cress	
*Carduus pycnocephalus**	Italian thistle	
Carex sp.	sedge	
*Carthamus lanatus**	distaff thistle	
Ceanothus sp.*	ceanothus	
*Centaurea melitensis**	tocalote	
*Centaurea solstitialis**	yellow star-thistle	
Hemizonia pungens ssp. *pungens*	common tarweed	

Scientific Name	Common Name	Status
Chlorogalum pomeridianum var. *pomeridianum*	soap plant	
Chorizanthe breweri	Brewer's spineflower	1B.3
Chorizanthe rectispina	prickly spineflower	1B.3
Chorizanthe staticoides	Turkish rugging	
*Cirsium vulgare**	bull thistle	
Cryptantha sp.	cryptantha	
*Cynosurus echinatus**	hedgehog dogtail grass	
Daucus pusillus	rattlesnake weed	
Hemizonia congesta ssp. *luzulifolia*	hayfield tarweed	
Hemizonia fasciculata	clustered tarweed	
Delphinium sp.	larkspur	
*Dipsacus sativus**	Fuller's teasel	
Dodecatheon sp.	*shooting star*	
Dudleya abramsii ssp. *murina*	San Luis Obispo dudleya	1B.3
*Ehrharta calycina**	perennial veldt grass	
Elymus multisetus	big squirreltail	
*Elytrigia repens**	quackgrass	
Epilobium canum ssp. *canum*	California fuchsia	
Eremocarpus setigerus	Turkey mullein	
Eriastrum pluriflorum	many flowered eriastrum	
Erigeron sp.	erigeron	
Eriogonum fasciculatum var. *polifolium*	California buckwheat	
Eriogonum gracile var. *gracile*	slender buckwheat	
Eriophyllum confertiflorum var. *confertiflorum*	yellow yarrow	
*Erodium botrys**	broad leaf filaree	
Eschscholzia californica	California poppy	
Filago sp.*	herba impia	
*Foeniculum vulgare**	fennel	
Fritillaria sp.	fritillary	
Galium sp.	bedstraw	
Gnaphalium sp.	everlasting	
Grindelia camporum	Great Valley gumweed	
Hazardia squarrosa	saw toothed goldenbush	
Heliotropium curassavicum	heliotrope	
Hesperoyucca whipplei	chaparral yucca	
Hordeum brachyantherum	meadow barley	
Hordeum marinum ssp. *gussoneanum**	barley	

Scientific Name	Common Name	Status
*Hordeum murinum**	barley	
Horkelia cuneata ssp. *puberula*	coast horkelia	1B.1
Juncus sp.	rush	
Juncus xiphioides	irisleaf rush	
Lagophylla ramosissima	branched lagophylla	
*Lamarckia aurea**	goldentop	
Leymus triticoides	creeping wild rye	
*Lolium multiflorum**	Italian rye grass	
*Lolium perenne**	English rye grass	
*Lotus corniculatus**	broadleaf birdsfoot trefoi	
Lotus purshianus var. *purshianus*	Spanish clover	
Lupinus bicolor	miniature lupine	
Lupinus sp.	lupine	
*Lythrum hyssopifolia**	hyssop	
Madia sp.	madia	
Malvella leprosa	alkali mallow	
*Melilotus officinalis**	yellow sweetclover	
Mimulus aurantiacus	island monkeyflower	
Navarretia jaredii	Paso Robles navarretia	4.3
Paeonia californica	California peony	
Pellaea andromedifolia	coffee fern	
Phacelia sp.	phacelia	
Phyla nodiflora	common lippia	
Picris echioides	bristly ox tongue	
Plantago sp.	plaintain	
Platanus racemosa	western sycamore	
*Polypogon monspeliensis**	Rabbit's foot	
Populus sp.	cottonwood	
Potentilla glandulosa ssp. *glandulosa*	sticky cinquefoil	
Quercus agrifolia var. *agrifolia*	coast live oak	
Quercus lobata	valley oak	
Quercus douglasii	blue oak	
*Ranunculus arvensis**	corn buttercup	
*Raphanus sativus**	wild radish	
Rhamnus californica ssp. *californica*	California coffeeberry	
*Rumex crispus**	curly dock	
*Rumex pulcher**	fiddle dock	

Scientific Name	Common Name	Status
Salix sp.	willow	
Salvia columbariae	chia	
Salvia mellifera	black sage	
Salvia spathacea	hummingbird sage	
Sambucus mexicana	blue elderberry	
Silene multinervia	fire following campion	
*Silybum marianum**	milkthistle	
Sisyrinchium bellum	blue eyed grass	
Stachys ajugoides	hedge nettle	
Stephanomeria sp.	wire lettuce	
Symphoricarpos sp.	snowberry	
Toxicodendron diversilobum	poison oak	
*Trifolium hirtum**	rose clover	
Verbena bracteata	bracted verbena	
Vicia villosa ssp. *villosa**	wooly vetch	

Source: Hickman, 1993

* Denotes nonnative species

STATUS CODES:

California Natural Plant Society
CNPS 1A = Presumed extinct in California
CNPS 1B = Rare, threatened, or endangered in California
CNPS 2 = Rare, threatened, or endangered in CA, but more common elsewhere
CNPS 3 = Need more information about this plant (Review List)
CNPS 4 = Limited distribution (Watch List).
0.1 = Seriously endangered in CA
0.2 = Fairly endangered in CA
0.3 = Not very endangered in CA

Attachment C — Representative Site and Rare Plant Photographs

Representative Site and Rare Plant Photographs

Tower 72/0 in serpentine grassland, facing north

San Luis Obispo dudleya (*Dudleya abramsii* ssp. *murina*) east of Tower 72/0

Tower 72/4 in annual grassland, facing south

Brewer's spineflower (*Chorizanthe breweri*) on serpentine outcrop northeast of Tower 72/4

Tower 73/0 in serpentine grassland, facing south

Tower 73/1 on serpentine outcrops, facing north

Tower 73/4 in annual grassland, facing north

San Luis mariposa lily (*Calochortus obispoensis*) on serpentine outcrop near Tower 73/4

Club-haired mariposa lily (*Calochortus clavatus* var. *clavatus*) on serpentine outcrop near Tower 74/2

San Luis mariposa lily (*Calochortus obispoensis*) adjacent to access road to Tower 74/2

Tower 74/2 in northern mixed chaparral, facing north

Brewer's spineflower (*Chorizanthe breweri*) within access road to Tower 74/2

San Luis Obispo dudleya (*Dudleya abramsii* ssp. *murina*) on serpentine outcrop at Tower 74/3

Santa Lucia manzanita (*Arctostaphylos luciana*) outside the project area along Mount Lowe Road

Pole 68/2 in mixed oak woodland, facing northeast

Paso Robles navarretia (*Navarretia jaredii*) near Tower 68/2

Santa Margarita manzanita (*Arctostaphylos pilosula*) between Poles 62/5 and 62/6

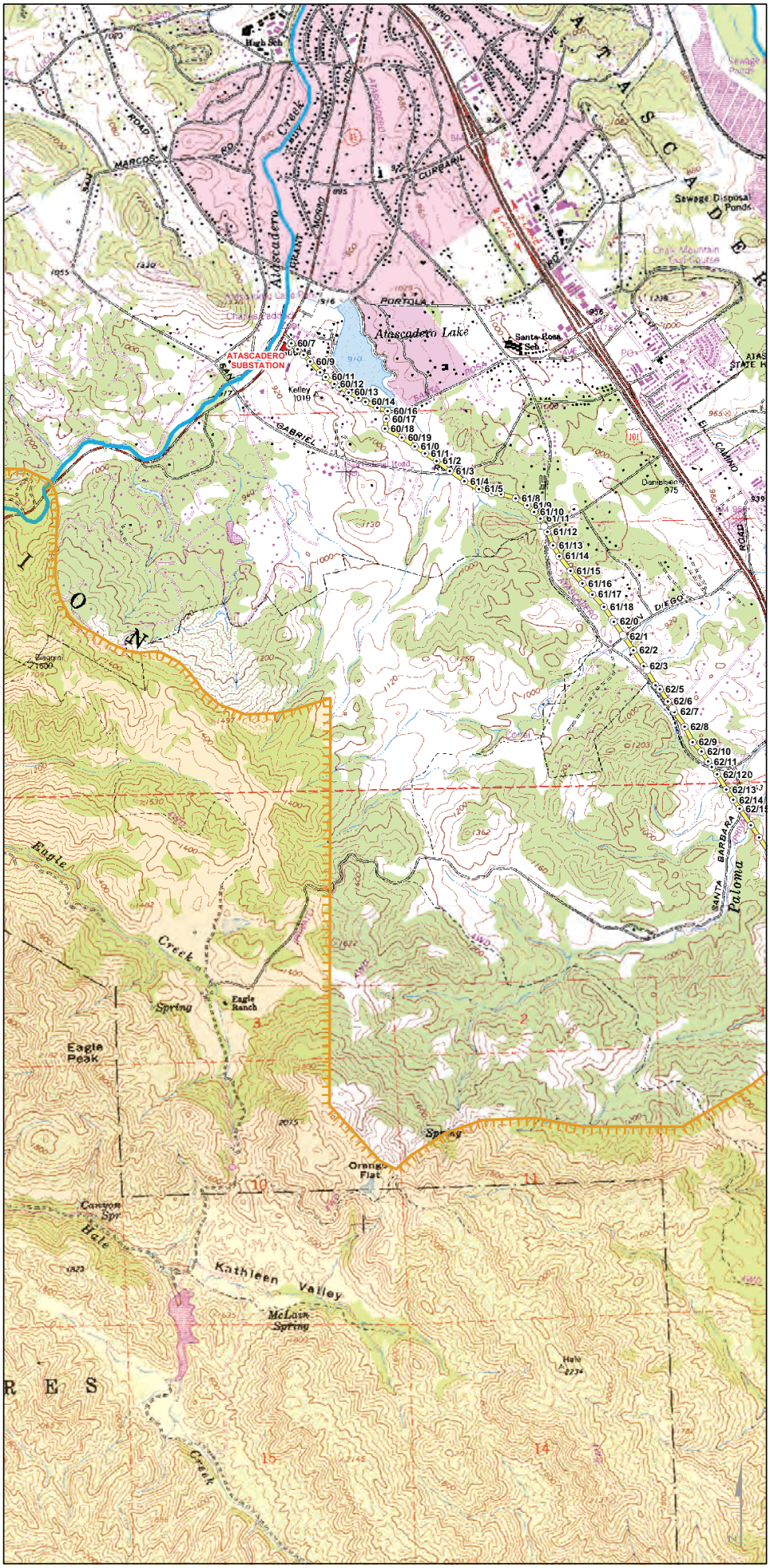
Pole 63/2 in annual grassland, facing south

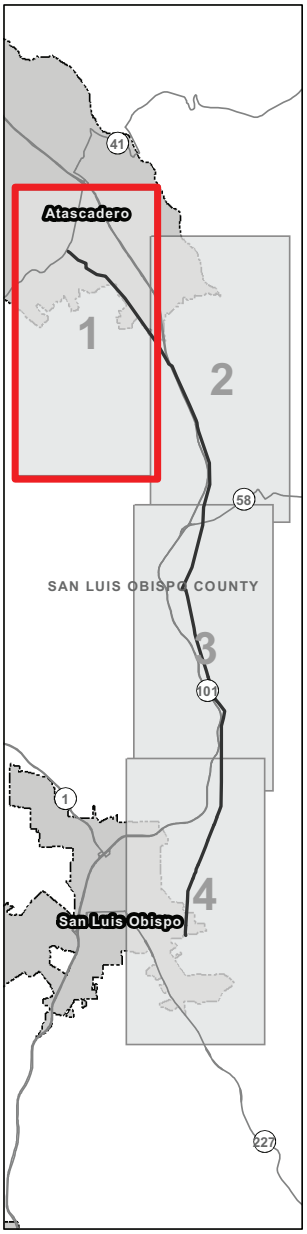
Straight-awned spineflower (*Chorizanthe rectispina*) at Pole 63/2

Mesa horkelia (*Horkelia cuneata* ssp. *puberula*) near Pole 63/15

Attachment G: Critical Habitat Maps

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





Map 1 of 4

Atascadero - San Luis Obispo 70 kV Power Line

Structures

- *Steel tower*
- *Wood pole*
- *Interset pole*
- *Distribution pole*

Steelhead critical habitat

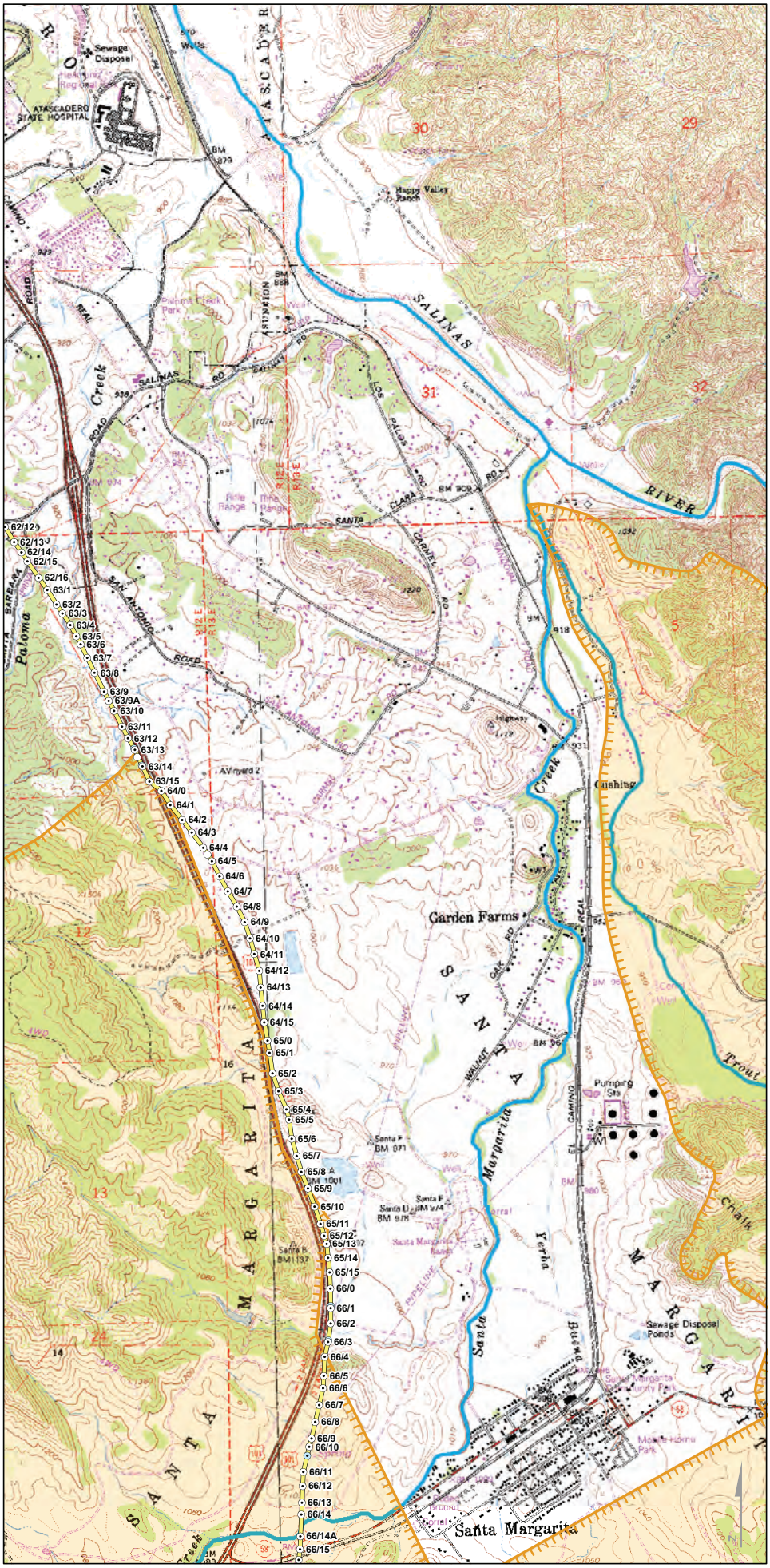
California red-legged frog critical habitat

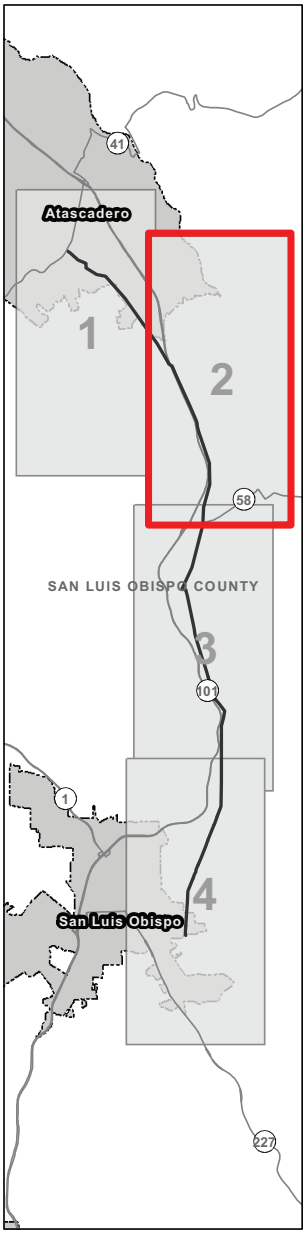
1:24,000

0 1,000 2,000 4,000 Feet

1 inch equals 2,000 feet

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





Map 2 of 4

- *Atascadero - San Luis Obispo 70 kV Power Line*

Structures

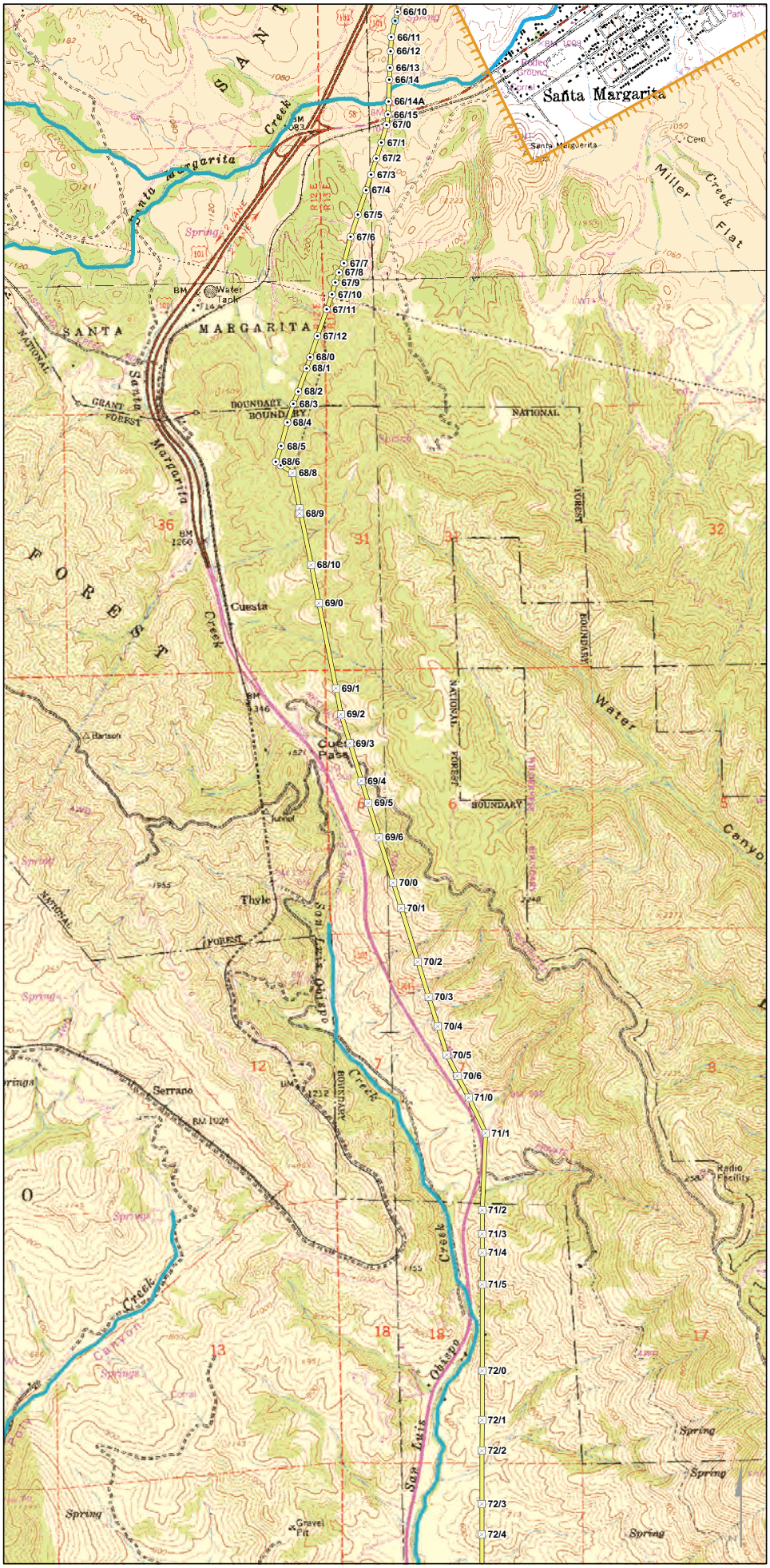
- *Steel tower*
- *Wood pole*
- *Interset pole*
- *Distribution pole*
- *Steelhead critical habitat*
- *California red-legged frog critical habitat*

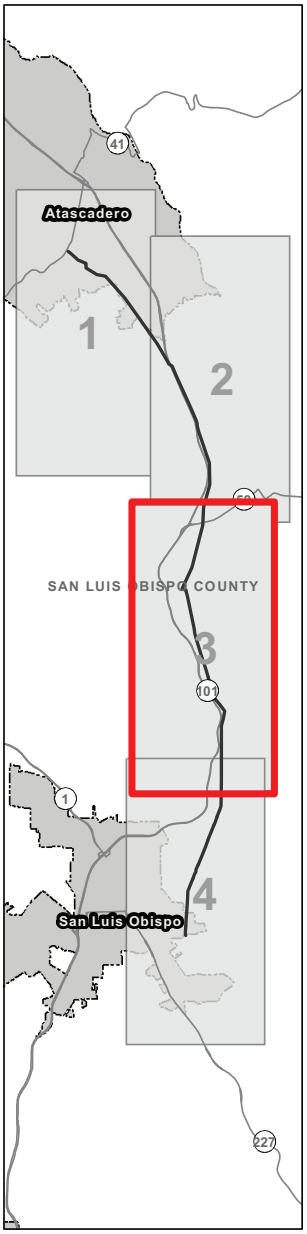
1:24,000

0 1,000 2,000 4,000 Feet

1 inch equals 2,000 feet

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





Map 3 of 4

Atascadero - San Luis Obispo 70 kV Power Line

Structures

- *Steel tower*
- *Wood pole*
- *Interset pole*
- *Distribution pole*

Steelhead critical habitat

California red-legged frog critical habitat

1:24,000

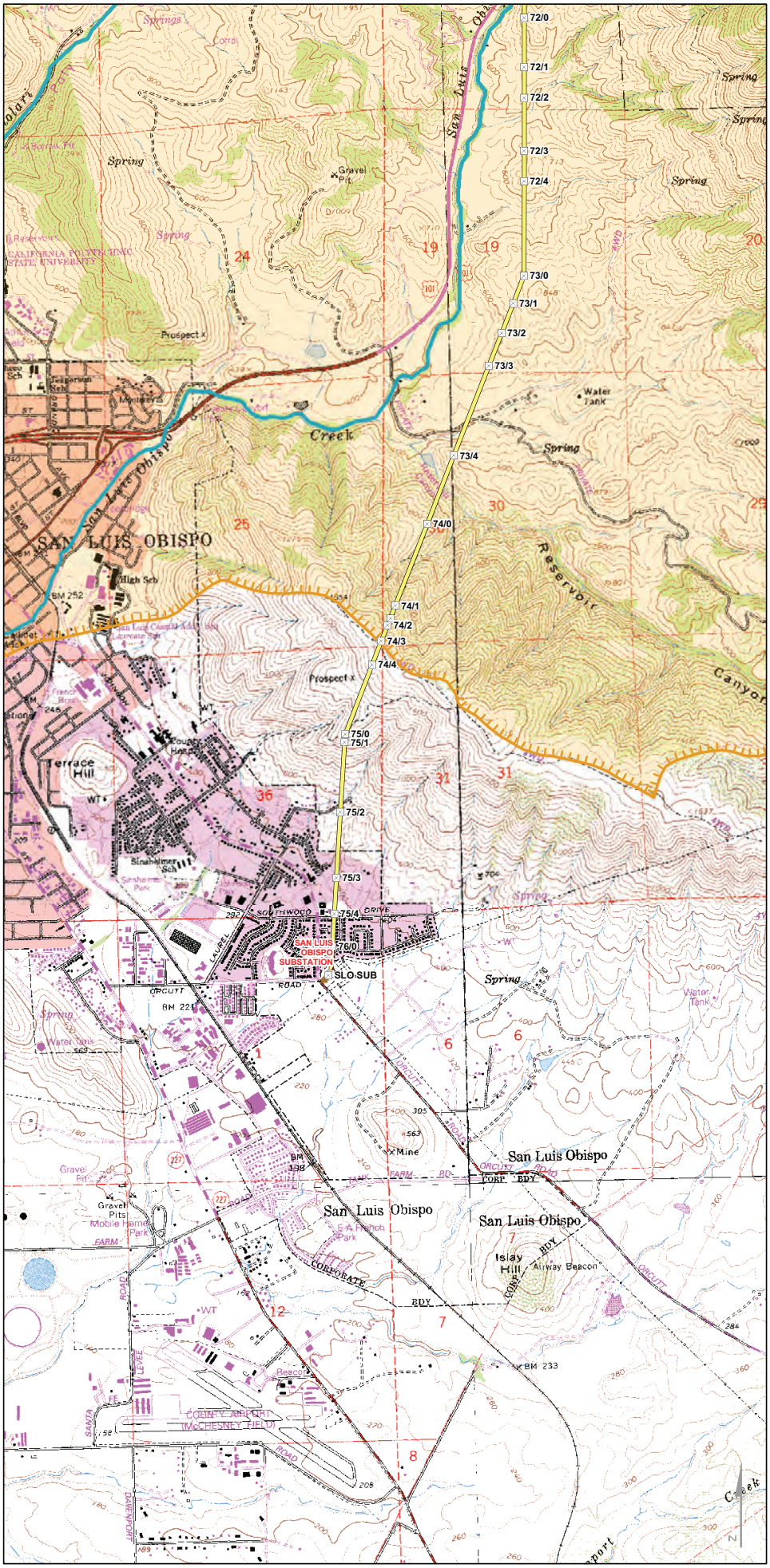
0 1,000 2,000 4,000 Feet

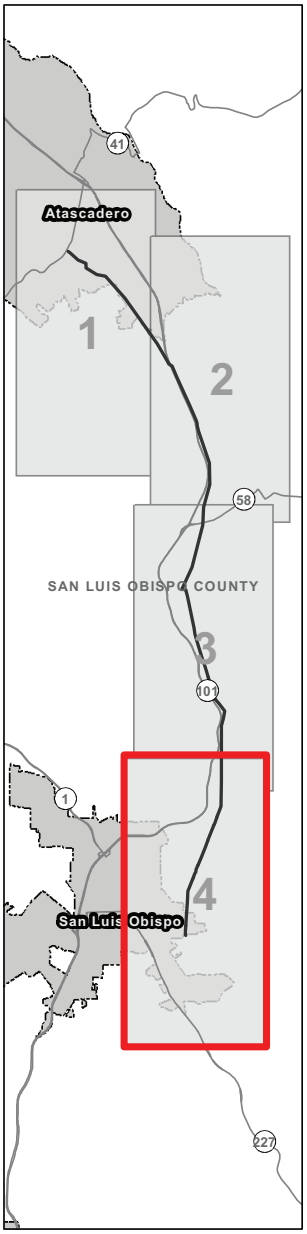
1 inch equals 2,000 feet

Attachment G: Critical Habitat Maps

Atascadero-San Luis Obispo 70 kV Power Line Reconductoring Project

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





Map 4 of 4

Atascadero - San Luis Obispo 70 kV Power Line

Structures

- *Steel tower*
- *Wood pole*
- *Interset pole*
- *Distribution pole*

Steelhead critical habitat

California red-legged frog critical habitat

1:24,000

0 1,000 2,000 4,000 Feet

1 inch equals 2,000 feet

Delineation of Waters of the United States

for

Pacific Gas and Electric Company's Atascadero – San Luis Obispo 70 kV Power Line Reconductoring Project
San Luis Obispo County, California

February 2010

Prepared for
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1.0 INTRODUCTION

The purpose of this document is to present the results of a formal delineation of jurisdictional waters of the U.S., including wetlands, for the Pacific Gas and Electric Company's (PG&E) Atascadero – San Luis Obispo 70 kilovolt (kV) Power Line Reconductoring Project (project), located between the cities of Atascadero and San Luis Obispo in San Luis Obispo County, California (see Attachment A). The project consists of: 1) replacing the existing deteriorating conductor; 2) modifying the existing segment of wood poles, including replacing 132 existing wood poles with light-duty steel (LDS) poles, removing the top section of five existing wooden interset poles (that provide support for existing distribution conductor), and installing five new LDS poles to provide support for existing transmission; 3) replacing the existing lattice steel towers with 36 new lattice steel towers and five Tubular Steel Poles (TSPs); and 4) re-establishing existing access roads and constructing associated temporary work areas, including helicopter landing zones, equipment laydown areas, and pull and tension sites. The conductor and associated structure replacement will occur within the existing alignment. The project is located within two separate U.S. Army Corps of Engineers (Corps) districts: the San Francisco District and the Los Angeles District. The project length totals approximately 40 miles (this number includes associated access roads); with approximately 22.5 miles and 17.5 miles in the San Francisco and Los Angeles Districts, respectively.

This report presents the results of TRC Solutions, Inc's (TRC) review of available literature, aerial photographs, soil surveys, and fieldwork on site. A field survey was conducted according to the technical guidelines provided in the 1987 U.S. Army Corps of Engineers (Corps) Wetlands Delineation Manual and the Regional Supplement to the Corps Wetland Delineation Manual: Arid West Region (Version 2.0) to identify and delineate wetlands that may be subject to regulatory jurisdiction under Section 404 of the Clean Water Act (CWA). Soil survey maps are provided in Attachment B. Detailed delineation maps illustrating features that have been mapped on the alignment are provided in Attachment C. In addition to conducting a formal wetland delineation, the basis for verifying the jurisdictional status of the delineated features on the site was drawn from the guidance provided in the *Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in Rapanos v. United States & Carabell v. United States* (Corps and EPA, 2007). This case law is herein referred to as Rapanos and the revised guidance issued by the agencies on December 2, 2008. This case law is herein referred to as Rapanos.

1.1 JURISDICTIONAL OVERVIEW

The Corps administers and enforces Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the CWA. Under Section 10, a Corps permit is required for work or structures in, over, or under navigable "waters of the United States." Under Section 404 of the CWA, a Corps permit is required for the discharge of dredged and/or fill material into "waters of the United States."

Typical activities requiring Section 10 permits are:

- *Construction of piers, wharves, bulkheads, dolphins, marinas, ramps, floats, intake structures, and cable or pipeline crossings over or under navigable or tidal waters.*
- *Dredging and excavation within navigable or tidal waters or any obstruction or alteration of any "navigable water of the U.S."*

Typical activities requiring Section 404 permits are:

- *Addition of fill material in "waters of the U.S." or adjacent wetlands for residential, commercial, or recreational developments.*
- *Construction of bridges, culverts, revetments, groins, breakwaters, levees, dams, dikes, and weirs in "waters of the U.S." or adjacent wetlands.*

1.1.1 Waters of the United States

The term "waters of the United States" is defined at 33 Code of Federal Regulation (CFR) part 328 to include: (i) all navigable waters (including all waters subject to the ebb and flow of the tide), (ii) all interstate waters and wetlands, (iii) all other waters, such as interstate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce, (iv) all impoundments of waters mentioned above, (v) all tributaries to waters mentioned above, (vi) the territorial seas, and (vii) all wetlands adjacent to waters mentioned above. Section 404 permits are required for discharges of dredged or fill material placed in these waters. Navigable waters of the United States are defined as waters that have been used in the past, are now used, or are susceptible to use as a means to transport interstate or foreign commerce up to the head of navigation. Section 10 and/or Section 404 permits are required for construction activities in these waters.

Wetlands are defined as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" [33 CFR §328.3(b)]. Presently, to be a wetland, the feature must exhibit three wetland criteria: hydrophytic vegetation, hydric soils, and wetland hydrology existing under the "normal circumstances" for the site.

The lateral extent of non-tidal waters is determined by delineating the ordinary high-water mark (OHWM) [33 CFR §328.4(c)(1)]. The ordinary high-water mark is defined by the Corps as "that line on shore established by the fluctuations of water and indicated by physical character of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas" [33 CFR §328.3(e)].

1.1.2 The Solid Waste Agency of Northern Cook County Decision

The definition of "waters of the U.S." was altered by the January 2001 U.S. Supreme Court Decision, *Solid Waste Agency of Northern Cook County vs. U.S. Army Corps of Engineers et al*

(SWANCC). In the SWANCC decision, the Supreme Court held that the Corps exceeded its authority by asserting CWA jurisdiction over an abandoned sand and gravel pit, solely because it provided habitat for migratory birds. The SWANCC rule is limited to waters that are nonnavigable, isolated and intrastate and clarified that the Corps staff should no longer rely on the use of waters by migratory birds as the sole basis for asserting jurisdiction.

1.1.3 The Rapanos Decision

In June 2007, the Supreme Court's decision in the consolidated cases Rapanos vs. United States and Carabell v. United States, 126 S. Ct. 2208 (2006) was implemented, which addresses the jurisdiction over waters of the United States under the CWA. On June 5, 2007 the U.S. Environmental Protection Agency and the Corps issued a memorandum summarizing Rapanos as follows:

The agencies will assert jurisdiction over the following waters:

- *Traditional navigable waters*
- *Wetlands adjacent to traditional navigable waters*
- *Non-navigable tributaries of traditional navigable waters that are relatively permanent where the tributaries typically flow year-round or have continuous flow at least seasonally (e.g., typically three months)*
- *Wetlands that directly abut such tributaries*

The agencies will decide jurisdiction over the following waters based on a fact-specific analysis to determine whether they have a significant nexus with traditional navigable water:

- *Non-navigable tributaries that are not relatively permanent*
- *Wetlands adjacent to non-navigable tributaries that are not relatively permanent*
- *Wetlands adjacent to but that do not directly abut a relatively permanent nonnavigable tributary*

The agencies generally will not assert jurisdiction over the following features:

- *Swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent, or short duration flow)*
- *Ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water*

The agencies will apply the significant nexus standard as follows:

- *A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary to determine if*

they significantly affect the chemical, physical and biological integrity of downstream traditional navigable waters

- *Significant nexus includes consideration of hydrologic and ecologic factors*

2.0 METHODS

2.1 JURISDICTIONAL DELINEATION

This delineation utilized the Corps' 1987 three-parameter (vegetation, hydrology, and soils) methodology to delineate jurisdictional waters of the U.S., focusing specifically on jurisdictional wetlands. The Arid West Supplement was also used in conjunction with the 1987 Corps Manual. Where differences in the two documents occur, the Arid West Supplement took precedence over the Corps Manual. This methodology requires the collection of data on soils, vegetation, and hydrology at several locations to establish the jurisdictional boundary of wetlands. Prior to beginning the field delineation, TRC examined aerial photographs of the project area and U.S. Geological Survey (USGS) 7.5-minute series quadrangle maps to determine the potential locations of jurisdictional waters of the U.S., including wetlands and historical blue-line features. The U.S. Fish and Wildlife Service's (USFWS) National Wetlands Inventory and available Natural Resources Conservation Service (NRCS) soil mapping data for the project area were also reviewed.

The initial fieldwork for the delineation was conducted from June 17 to June 22, 2009 by the following TRC Biologists: Madeleine van der Heyden, Lead Biologist; Marc Doalson, Lead Biologist; Mark Cassady, Senior Biologist; and Julie Pollack, Staff Biologist. The Review Area encompassed a minimum of 100-foot radius circles around the proposed tower locations, 40-foot radius circles around the proposed pole locations, a 10-foot buffer on either side of some access roads that may need to be improved, potential pull and tension site locations, and all staging and helicopter landing zones identified prior to or during the survey. The wetland delineation maps illustrate the features that have been mapped within this Review Area (Attachment C).

2.2 GPS DATA INTEGRATION

Linear boundaries for wetlands and other waters of the U.S. and point locations for soil samples were surveyed and mapped using a combination of Global Positioning System (GPS), Google Earth, and Environmental Systems Research Institute's (ESRI) ArcGIS (Geographic Information System). Field data was collected using a Trimble GeoXT GPS hand-held unit. This mapping grade GPS unit is capable of sub-meter accuracy. The GPS data was differentially corrected using Trimble Pathfinder Office software and appropriate base station data, and then converted to an ESRI shape file format. The data was then evaluated for accuracy by field staff using Google Earth and then edited by GIS staff in ESRI ArcGIS 9.3. Wetlands were clipped at the Review Area Boundary edges and acreage impacts were calculated within ArcGIS.

3.0 RESULTS

3.1 SITE LOCATION AND LAND USE

The project area includes approximately 40 miles of electric power line and associated access roads and runs from the City of Atascadero to the City of San Luis Obispo, within the South Coast Range of San Luis Obispo County, California. Approximately 9.2 miles of the project alignment and 13.3 miles of access roads lie within the San Francisco Corps District, while approximately 10.9 miles of the project alignment and 6.3 miles of access roads lie within the Los Angeles Corps District (see Attachment A). The portion of the project within the San Francisco Corps District runs from southern Atascadero, south, roughly paralleling Highway 101, past the western end of Santa Margarita, to approximately the intersection of Cuesta Springs Road and Highway 101. Approximately 140 poles and 6 towers are located within the San Francisco Corps District. The portion of the project within the Los Angeles Corps District begins near the intersection of Cuesta Springs Road and Highway 101 and continues south, roughly paralleling Highway 101 until the bottom of the Cuesta Grade where the power line then heads southwest, terminating in the City of San Luis Obispo. Approximately 39 towers are currently within the Los Angeles Corps District.

The northern half of the project, within the San Francisco Corps district, runs mainly through low density residential areas and grazed pastureland, as well as rolling foothills of mixed oak woodland and native and nonnative grassland. The southern portion of the alignment, in the Los Angeles Corps District, runs through mainly native and nonnative annual grasslands and chaparral/scrub, with sporadic serpentine outcrops, as well as some areas of mixed oak woodlands and dense chaparral.

Table 1 outlines project locations within the following portions of the Atascadero, Santa Margarita, San Luis Obispo, and Lopez Mountain California USGS quadrangle maps.

Table 1: Section, Township, and Range of Project by Corps District

Section(s)	Township	Range
San Francisco Corps District		
26, 27, 35	28 S	12 E
1, 12, 25, 36	29 S	12 E
7, 18, 19, 30	29 S	13 E
1	30 S	12 E
6, 7	30 S	13 E

Section(s)	Township	Range
Los Angeles Corps District		
1, 25, 36	30 S	12 E
6, 7, 18, 19, 29, 30, 31, 32, 33	30 S	13 E
1	31 S	12 E

3.2 TOPOGRAPHY AND HYDROLOGY

The northern end of the alignment (within the San Francisco Corps District), from Atascadero through Santa Margarita, runs through low to moderate rolling hills between Atascadero, Santa Margarita, and the Cuesta Grade. Elevations along this portion of the project range from approximately 915 to 1,850 feet. The southern portion of the alignment (within the Los Angeles District) crosses much steeper topography, with several peaks and valleys from the Cuesta Grade through San Luis Obispo, with elevations ranging from approximately 312 to 1,817 feet.

Surface water runoff flows in several directions due to the variable topography along the project alignment and associated access roads. In general, within the San Francisco Corps District the project area drains in an overall northerly direction toward the Salinas River. Tributaries of the Santa Margarita Creek and Paloma Creek cross the project in this District. Within the Los Angeles Corps District the project areas drains in an overall southwest direction, toward San Luis Obispo Creek. The project is crossed by several tributaries of San Luis Obispo Creek in this District.

3.3 SOILS

The Natural Resources Conservation Service (NRCS) has mapped 22 soil types within the San Francisco Corps District of the Review Area, and 15 soil types within the Los Angeles Corps District of the Review Area (see Attachment B). The following tables summarize the soils data of the project within each district. Table 2 and Table 3 below list the soil types for the Atascadero – San Luis Obispo 70 kV Power Line Reconductoring Project, in the San Francisco and Los Angeles Corps districts, respectively.

Table 2: NRCS Soil Types within the Review Area (San Francisco Corps District)

Map Unit	Soil Type	Slope (percent)	Elevation (feet)	Associated Landform(s)	Hydric Soils	Structures and Features within Unit
22	Los Osos-Modesto-Chualar families association	20 to 70	800 to 3,700	Mountains	No	68/4-69/2, **S9**
29	Millsholm-Exchequer-Stonyford families complex	30 to 75	2,100 to 5,000	Mountains	No	**S7, S8**
101	Arbuckle fine sandy loam	2 to 9	600 to 1,500	Terraces	Yes	Staging area
131	Diablo and Cibo clays	15 to 30	200 to 3,000	Mountains, Hills	No	63/13-15, 64/5-7
134	Dibble clay loam	9 to 15	1,000 to 2,500	Hills	Yes	65/10-11, 66/13, 67/2-4, 68/2, **S41**
144	Gazos-Lodo clay loams	30 to 50	300 to 2,000	Mountains, Hills	No	60/17-19, 61/1, 62/2-4, 62/13-15, 63/1-2
147	Hanford and Greenfield soils	0 to 2	600 to 1,500 feet	Terraces	No	66/2-3, **W1**
152	Lompico-McMullin complex	50 to 75	1,000 to 3,400	Mountains	No	60/8-16
162	Lompico-McMullin complex	50 to 75	1,000 to 3,400	Mountains	No	67/3-68/1, 68/3
169	Millsholm-Dibble complex	15 to 30	1,000 to 2,500	Hills	Yes	60/7, 66/6-8, 66/11-12, 6/116, 67/0-1, **W2**
170	Millsholm-Dibble complex	30 to 50	1,000 to 2,500	Hills	No	65/3-4, 65/12-66/1
188	Rincon clay loam	2 to 9	600 to 1,500	Alluvial fans	No	65/5-65/9
190	Rock outcrop-Gaviota complex	30 to 75	1,000 to 3,400	Mountains	No	

Map Unit	Soil Type	Slope (percent)	Elevation (feet)	Associated Landform(s)	Hydric Soils	Structures and Features within Unit
193	San Andreas-Arujo complex	9 to 15	1,000 to 2,500	Hills	Yes	63/4-6, 63/9-12, 64/0-4, 64/8-11, 64/14-65/2, **S5, S40**
198	Santa Lucia-Lopez complex	15 to 50	600 to 1,500	Hills	No	61/5-19A, 62/5-12
203	Shimmon-Dibble association	30 to 50	1,000 to 2,500	Mountains	No	67/5-7
204	Santa Lucia shaly clay loam	50 to 75	100 to 2,500	Mountains	No	66/4-5
208	Still clay loam	0 to 2	600 to 1,500	Alluvial flats	Yes	62/1, 62/16, 63/3, 63/7-9, 64/12-13, **S1, S2a, S2b, S2c, S3, S4, S30**
209	Still clay loam	2 to 9	600 to 1,500	Alluvial fans	Yes	61/0, 61/2-4, 66/9-10, **W2**
212	Xerofluvents-Riverwash association	0 to 2	600 to 1,500	Floodplains, channels	Yes	66/14

If no structure or feature is shown in the *Structures and Features within Unit* column, there is either an access road on it or the soil layer is close to a structure or access road.

Table 3: NRCS Soil Types within the Review Area (Los Angeles Corps District)

Map Unit	Soil Type	Slope (percent)	Elevation (feet)	Associated Landform(s)	Hydric Soils	Towers and Features within Unit
22	Los Osos-Modesto-Chualar families association	20 to 70	800 to 3,700	Mountains	No	69/3-71/1
115	Chamise shaly loam	9 to 15	100 to 1,500	Terraces, Hills	No	72/1-2
131	Diablo and Cibo clays	15 to 30	200 to 3,000	Mountains, Hills	No	
144	Gazos-Lodo clay loams	30 to 50	300 to 2,000	Mountains, Hills	No	**S11**
158	Los Osos loam	5 to 9	100 to 2,000	Hills	Yes	75/4-76/1
161	Los Osos loam	30 to 50	100 to 3,000	Hills, Ridges	No	71/2-5
162	Lompico-McMullin complex	50 to 75	1,000 to 3,400	Mountains	No	
163	Los Osos-Diablo complex	9 to 15	200 to 1,500	Hills, Ridges, Mountains	No	73/2-3, **W3,** Staging area
164	Los Osos-Diablo complex	15 to 30	200 to 3,000	Hills, Mountains	No	75/3
165	Los Osos-Diablo complex	30 to 50	200 to 3,000	Hills, Mountains	No	75/2
183	Obispo-Rock outcrop complex	15 to 75	200 to 4,000	Mountains, Slopes, Ridges	No	72/0, 72/3-73/1, 73/4-75/1, **S12, S31,** Staging area
194	Riverwash	0 to 2	N/A	Channels	Yes	Staging area
197	Salinas silty clay loam	0 to 2	0 to 40	Alluvial fans, Alluvial flats	Yes	
203	Shimmon-Dibble association	30 to 50	1,000 to 2,500	Mountains	No	

If no structure or feature is shown in the *Structures and Features within Unit* column, there is either an access road on it or the soil layer is close to a structure or access road.

3.4 VEGETATION

Vegetation communities along the approximately 15.5-mile long alignment include annual grassland, valley wildrye grassland, serpentine grassland, central coast scrub, northern mixed chaparral, mixed oak woodland, mixed oak savannah, open foothill pine woodland, central coast sycamore riparian forest, central coast live oak riparian forest, and ruderal vegetation. These vegetation communities are classified according to the Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland, 1986). Vegetation communities are located within the project area at the following locations:

- Annual grassland in the project area occurs in a mosaic with central coastal scrub, northern mixed chaparral, and oak woodlands.
- Valley wildrye grassland occurs in a drainage in a topographic depression located in the valley bottom, approximately 0.3 mile north of Highway 58 on the Santa Margarita Ranch property and around Pole 66/10.
- Serpentine grasslands can be found within the project area from Tower 72/0 south to Tower 75/1.
- Central coast scrub is found frequently within the southern portion of the alignment and intergrades with serpentine grassland around Tower 72/0.
- Northern mixed chaparral is the predominant plant community on the north-facing slope just south of Reservoir Canyon between Towers 74/3 and 73/4.
- The largest extent of mixed oak woodland occurs south of Highway 58 to the Cuesta Grade area whereas the largest extent of mixed oak savannah occurs on the Santa Margarita Ranch land north of Highway 58.
- Open foothill pine woodland is only found from Poles 61/5 to 61/11.
- Central coast sycamore riparian forest is found near an access road at Reservoir Canyon and northeast of the Wood Winery between Towers 72/2 and 72/3.
- Central coast live oak riparian forest can be found between Towers 69/1 and 69/5 and in the ravines crossed by Mount Lowe Road.
- Ruderal vegetation occurs throughout the project area and is most prominent along Highway 101 and along road edges and where there is relatively frequent disturbance. Larger areas that are ruderal are found between Tower 69/6 and the Vista del Ciudad Road south of Tower 71/1.
- Developed areas also occur in the project area and consist of low-density housing, scattered rural residences, and residences associated with horse and cattle grazing, as well as high density housing where ornamentals have been planted, near San Luis Obispo, starting at Tower 75/2 going south. The developed areas also include all barren access roads and paved roads defined by the absence of vegetation and the presence of rock, gravel, or soil. This includes the Highway 101 and adjacent barren areas.

A complete list of plant species recorded from the properties during the field surveys is included as Attachment D.

3.5 CLASSIFICATION OF DELINEATED FEATURES

Depending on characteristics, such as topography, vegetation, soils, and hydrologic regime, jurisdictional and non-jurisdictional features are classified into a variety of types. In order to conduct a jurisdictional determination, the delineated features within the project area were classified based on agency guidance developed in response to the Rapanos decision. Table 4 and Table 5 below list the classification of the features for the Atascadero – San Luis Obispo 70 kV Power Line Reconductoring Project, in the San Francisco and Los Angeles Corps districts, respectively.

Table 4: Classification of Features on the Atascadero – San Luis Obispo 70 kV Power Line Reconductoring Project (San Francisco Corps District)

Type	Acres
Waters of the U.S.	
Relatively Permanent Water (RPW) (S7)	±0.0061
Non-Relatively Permanent Waters (NRPW) (drainages, washes, ditches) (S1-S5, S8, S9, S17, S30, S41, and S41)	±0.0586
Seasonal Wetlands (W1 and W2, the latter is adjacent to NRPWs, S17)	±0.6610

Table 5: Classification of Features on the Atascadero – San Luis Obispo 70 kV Power Line Reconductoring Project (Los Angeles Corps District)

Type	Acres
Waters of the U.S.	
Non-Relatively Permanent Waters (NRPW) (Unnamed tributaries to San Luis Obispo Creek) (S11, S12, and S31)	±0.0205
Seasonal Wetland (adjacent to NRPW) (W3)	±0.1070

The features mapped within the Review Areas include relatively permanent waters, non-relatively permanent waters, seasonal wetlands, and an agricultural ditch. The acreages for each feature can be found in Attachment E and Attachment C. Representative photographs of these features are included in Attachment F. Wetland determination forms have been completed in the field to help determine the limits of the seasonal wetlands and are included in Attachment G.

3.5.1 Paloma Creek (S1) [San Francisco Corps District]

S1 (Paloma Creek) is a dry wash that occurs northeast of Pole 62/13. The portion of this feature within the Review Area is approximately ±0.0185 acre in size (Attachment C). Bed and banks of this feature are earthen and rocky. During the survey in June, no flows were observed. The feature is believed to have a continuous flow for less than three months; therefore, it is classified as a non-relatively permanent water. This tributary is identified on the *USGS Atascadero* quadrangle as a dotted blue-line feature and is also shown on the USFWS National Wetlands Inventory. S1 has a hydrologic connection to the Salinas River, which is a relatively permanent non-navigable tributary of a traditional navigable water, the Pacific Ocean.

3.5.2 South Fork Paloma Creek (S2a, S2b, S2c, and S30) [San Francisco Corps District]

S2a, S2b, S2c, and S30 are all part of the same dry wash feature called South Fork Paloma Creek, which is a tributary to Paloma Creek. The three crossings are located west of and between Poles 63/4 and 63/10. The portion of these features within the Review Area is approximately ±0.0187 acre in size (Attachment C). Bed and banks of these features are earthen and rocky. During the survey in June, no flow was observed. South Fork Paloma Creek is believed to have a continuous flow for less than three months; therefore, it is classified as non-relatively permanent water. South Fork Paloma Creek is identified on the *USGS Atascadero* quadrangle as a dotted blue-line feature and is also shown on the USFWS National Wetlands Inventory. This feature has a hydrologic connection to the Salinas River, which is a relatively permanent non-navigable tributary of a traditional navigable water, the Pacific Ocean.

3.5.3 Agricultural Ditch (S3) [San Francisco Corps District]

S3 is a non-relatively permanent water and a tributary to Santa Margarita Creek. The portion of this feature within the Review Area is approximately ±0.0024 acre in size (Attachment C). Bed and banks of S3 are earthen and, in the Review Area, this feature is confined to an agricultural ditch just south of Pole 64/12. During the survey in June, no flows were observed. S3 is not identified on either the *USGS Atascadero* quadrangle or on the USFWS National Wetlands Inventory. The feature does have a hydrologic connection to Santa Margarita Creek, a tributary of the Salinas River, which is a relatively permanent non-navigable tributary of a traditional navigable water, the Pacific Ocean.

3.5.4 Tributaries to Santa Margarita Creek (S4, S5, and S40) [San Francisco Corps District]

S4, S5, and S40 are all tributaries to Santa Margarita Creek. S4 and S5 are both the same feature upstream but split up before flowing across the Review Area. S4 occurs 20 feet north of Pole 63/14 and S5 occurs approximately 65 feet north of Pole 63/15. Like with S4 and S5, the headwaters of S40 are located on the west side of Hwy. 101 and water is conveyed through a culvert under Hwy. 101 in an easterly direction towards Santa Margarita Creek. Pole 65/2 is located within approximately 100 feet south of S40. The portions of all three features within the

Review Area are approximately ±0.0073 acre in size (Attachment C). S4, S5, and S40 have a weak earthen bed and bank. These features are believed to have a continuous flow for less than three months; therefore, they are classified as non-relatively permanent waters. During the survey in June, no flows were observed. S5 is identified on the *USGS Atascadero* quadrangle as a dotted blue-line feature and is also shown on the USFWS National Wetlands Inventory. S4 is not shown on the *USGS Atascadero* quadrangle, but it is shown on the USFWS National Wetlands Inventory. S40 is identified on the *USGS Santa Margarita* quadrangle as a dotted blue line and is also shown on the USFWS National Wetlands Inventory. All three features have a hydrologic connection to Santa Margarita Creek, a tributary of the Salinas River, which is a relatively permanent non-navigable tributary of a traditional navigable water, the Pacific Ocean.

3.5.5 Seasonal Wetlands (W1 and W2) [San Francisco Corps District]

W1 is located approximately 65 feet northeast of Pole 66/2 in a topographic depression located in the valley bottom approximately 0.8 mile north of Highway 58 on the Santa Margarita Ranch property. The size of this wetland is approximately ±0.109 acre. The dominant plant in bloom within this feature at the time of the survey was *Lotus corniculatus*, a designated facultative plant equally likely to occur in wetlands or non-wetlands (estimated probability 34%-66%) (FAC). This wetland is adjacent to a tributary to Santa Margarita Creek, which is located approximately 168 feet south of W1.

W2 is a seasonal wetland (approximately ±0.552 acre) that was identified around Pole 66/10 in a drainageway in a topographic depression located in the valley bottom approximately 0.3 mile north of Highway 58 on the Santa Margarita Ranch property (Attachment C). This seasonal wetland is adjacent to S17, a tributary to Santa Margarita Creek, a tributary of the Salinas River, which is a relatively permanent non-navigable tributary of a traditional navigable water, the Pacific Ocean.

Seasonal wetlands lack a restrictive layer, such as a hardpan or claypan. Therefore, the hydrologic regime in these features is dominated by a short period of inundation followed by long periods of saturated soil conditions. The plant species found growing in these features are adapted to withstand long periods of saturation, but not prolonged periods of inundation. These features were dominated by perennial emergent and facultative wetland plants, including broadleaf birdsfoot trefoil (*Lotus corniculatus*) (FAC) growing on the edge, annual wetland plants, including ribgrass (*Plantago lanceolata*) (FAC-[1]), English rye grass (*Lolium perenne*) (FAC*[2]), Mediterranean barley (*Hordeum marinum ssp. gussoneanum*) (FAC+), creeping wild rye (*Leymus triticoides*) (FAC+), rabbit's-foot grass (*Polypogon monspeliensis*) (a designated facultative wetland plant usually occurring in wetlands (estimated probability 67%-99%), but occasionally found in non-wetlands (FACW+)), hedge nettle (*Stachys ajugoides*) (a designated obligate wetland plant occurring almost always (estimated probability 99%) under natural conditions in wetlands (OBL)), and irisleaf rush (*Juncus xiphioides*) (OBL), hyssop (*Lythrum hyssopifolia*) (OBL), and Fuller's teasel (*Dipsacus sativus*) (a designated obligate upland plant

[1] A positive sign (+) indicates a frequency toward the higher end of a category, and a negative sign (-) indicates a frequency towards = the lower end of a category)
[2] An asterisk (*) indicates limited ecological information

occuring in wetlands in another region, but occurs almost always (estimated probability 99%) under natural conditions in non-wetlands in the regions specified (UPL)) in some areas that get less water.

3.5.6 Tributary to Santa Margarita Creek (S7) [San Francisco Corps District]

S7 is a tributary to Santa Margarita Creek and occurs west of Tower 68/10. The access road to Tower 69/0 crosses this drainage. The portion of this feature within the Review Area is approximately ±0.0061 acre in size (Attachment C). Bed and banks of this feature are earthen and riparian vegetation grows along this feature. S7 is believed to have a continuous flow for at least three months; therefore, it is classified as a relatively permanent water. During the survey in June, low flows were observed in S7. This tributary is identified on the *USGS San Luis Obispo* quadrangle as a dotted blue-line feature and is also shown on the USFWS National Wetlands Inventory. S7 has a hydrologic connection to Santa Margarita Creek, a tributary of the Salinas River, which is a relatively permanent non-navigable tributary of a traditional navigable water, the Pacific Ocean.

3.5.7 Tributaries to Santa Margarita Creek (S8 and S9) [San Francisco Corps District]

S8 and S9 are tributaries to Santa Margarita Creek and occur west of Tower 69/0 and convey water in a westerly and northwesterly direction, respectively. These drainages are crossed by the access road to Tower 69/0. The portions of these features within the Review Area are approximately ±0.0065 acre in size (Attachment C). The bed and banks of these features are earthen and riparian vegetation grows along these tributaries. The features are believed to have a continuous flow for less than three months; therefore, they are classified as non-relatively permanent waters. During the survey in June, no flows were observed in S8 and S9. S8, but not S9, is identified on the *USGS San Luis Obispo* quadrangle as a dotted blue-line feature. Both features are shown on the USFWS National Wetlands Inventory. S8 and S9 have a hydrologic connection to Santa Margarita Creek, a tributary of the Salinas River, which is a relatively permanent non-navigable tributary of a traditional navigable water, the Pacific Ocean.

3.5.8 Tributary to Santa Margarita Creek (S17 and S41) [San Francisco Corps District]

S17 and S41 are the same feature that make up a tributary to Santa Margarita Creek. This tributary drains seasonal wetland, W2, north of Tower 66/10 and conveys water in a southeasterly direction. The portions of these features within the Review Area are approximately ±0.0052 acre in size (Attachment C). The bed and banks of these features are earthen, and hydrophytic obligate wetland indicator plants, including irisleaf rush (*Juncus xiphioides*) and rabbit's-foot grass (*Polypogon monspeliensis*) (FACW+) grow in this drainage particularly at S17 where the soil was saturated during the survey. The feature is believed to have a continuous flow for less than three months; therefore, it is classified as non-relatively permanent water. During the survey in June, no surface flows were observed in S17 and S41. The tributary is identified on the *USGS Santa Margarita* quadrangle as a dotted blue-line feature and has a

hydrologic connection to Santa Margarita Creek, a tributary of the Salinas River, which is a relatively permanent non-navigable tributary of a traditional navigable water, the Pacific Ocean.

3.5.9 Tributary to San Luis Obispo Creek (S11) [Los Angeles Corps District]

S11 is a tributary to San Luis Obispo Creek and conveys water in a southwesterly direction. This drainage is crossed by the access road to Tower 72/2. The portion of this feature within the Review Area is approximately ±0.0139 acre in size (Attachment C). The feature with a rocky bottom and wetland indicator species contains evidence of an OHWM and a defined bed and bank. The tributary is believed to have a continuous flow for less than three months; therefore, it is classified as non-relatively permanent water. During the survey in June, no flows were observed. The tributary is identified on the *USGS Lopez Mountain* quadrangle and on the USFWS National Wetlands Inventory. The feature has a hydrologic connection to San Luis Obispo Creek, which is a relatively permanent non-navigable tributary of a traditional navigable water, the Pacific Ocean.

3.5.10 Tributary to San Luis Obispo Creek (S12) [Los Angeles Corps District]

S12 is a tributary to S11, and S11 is a tributary to the San Luis Obispo Creek. S12 conveys water in a northwesterly direction. In the Review Area this feature is shown south of S11 and north of Tower 72/3. The portions of this feature within the Review Area are approximately ±0.0004 acre in size (Attachment C). The feature contains some evidence of an OHWM and a bed and bank, but it loses bed and bank before connecting to S11. The tributary is believed to have a continuous flow for less than three months; therefore, it is classified as non-relatively permanent water. During the survey in June, this drainage was completely dry. The tributary is not identified on the *USGS Lopez Mountain* quadrangle or on the USFWS National Wetlands Inventory. The feature has a hydrologic connection to San Luis Obispo Creek, which is a relatively permanent non-navigable tributary of a traditional navigable water, the Pacific Ocean.

3.5.11 Tributary to San Luis Obispo Creek (S31) [Los Angeles Corps District]

S31 is a tributary to an unnamed stream (a relatively permanent water) in Reservoir Canyon, which is a tributary to San Luis Obispo Creek. S31 conveys water in a northerly direction. The portions of this feature within the Review Area are approximately ±0.0062 acre in size (Attachment C). The feature contains evidence of bed and bank. The bed is very rocky. The tributary is on steep terrain and is believed to have a continuous flow for less than three months; therefore, it is classified as non-relatively permanent water. During the survey in June, this drainage was completely dry. The tributary is not identified on the *USGS San Luis Obispo* quadrangle but it is shown on the USFWS National Wetlands Inventory as starting approximately 500 feet downstream from Tower 74/1. The feature has a hydrologic connection to San Luis Obispo Creek, which is a relatively permanent non-navigable tributary of a traditional navigable water, the Pacific Ocean.

3.5.12 Seasonal Wetland (W3) [Los Angeles Corps District]

W3 is a seasonal wetland located approximately 30 feet west of the access road between Towers 73/0 and 73/1 and is located 0.32 mile north of Reservoir Canyon Road in a topographic depression in a hillside. Hydrophytic plants within this feature included rushes (*Juncus* sp). The size of W3 is approximately ±0.107 acre (Attachment C). This wetland is adjacent to a non-relatively permanent water that is outside of the Review Area. W3 is beyond 10 feet from this access road, but because it relatively close to this road, it was included in the Review Area as shown on maps in Attachment C. The feature has a hydrologic connection to San Luis Obispo Creek, which is a relatively permanent non-navigable tributary of a traditional navigable water, the Pacific Ocean.

4.0 CONCLUSIONS

The features mapped within the San Francisco District Review Area include the Paloma Creek (S1), South Fork Paloma Creek (S2a-c and S30), an agricultural ditch (S3), tributaries to Santa Margarita Creek (S4, S5, S8, S9, S30, S40, S41, and S17), and two seasonal wetlands (W1 and W2). The features mapped within the Los Angeles District Review Area include two tributaries to San Luis Obispo Creek (S11, S12, and S31), and one seasonal wetlands (W3).

Preliminary Jurisdictional Determination forms for the delineated features are included in Attachment H. By submitting these forms to the Corps, the project essentially acknowledges that all features are subject to Corps jurisdiction for permit authorization purposes, even though the Preliminary Jurisdictional Determination forms do not result in an official determination of jurisdictional waters by the Corps.

The total acreages of jurisdictional waters of the U.S. for each feature class are provided in Tables 6 and 7 for the San Francisco and Los Angeles Corps District, respectively, and are depicted on maps found in Attachment C.

Table 6: Waters of the U.S. Acreages (San Francisco Corps District)

Type	Acres
Waters of the U.S.	
Relatively Permanent Water (RPW) (stream) (S7)	±0.0061
Non-Relatively Permanent Waters (NRPW) (drainages, washes, ditches) (S1-S5, S8, S9, S17, S30, S40, and S41)	±0.0586
Seasonal Wetlands (W1 and W2, the latter is adjacent to NRPW S17)	±0.6610
Total Waters of the U.S.	±0.7257

Table 7: Waters of the U.S. Acreages (Los Angeles Corps District)

Type	Acres
Waters of the U.S.	
Non-Relatively Permanent Waters (NRPW) (drainages, washes, ditches) (S11, S12, and S31)	±0.0205
Seasonal Wetland (adjacent to NRPW) (W3)	±0.1070
Total Waters of the U.S.	±0.1275

The contact information for the client and the people who have conducted the wetland delineation can be found in Attachment I.

5.0 REFERENCES

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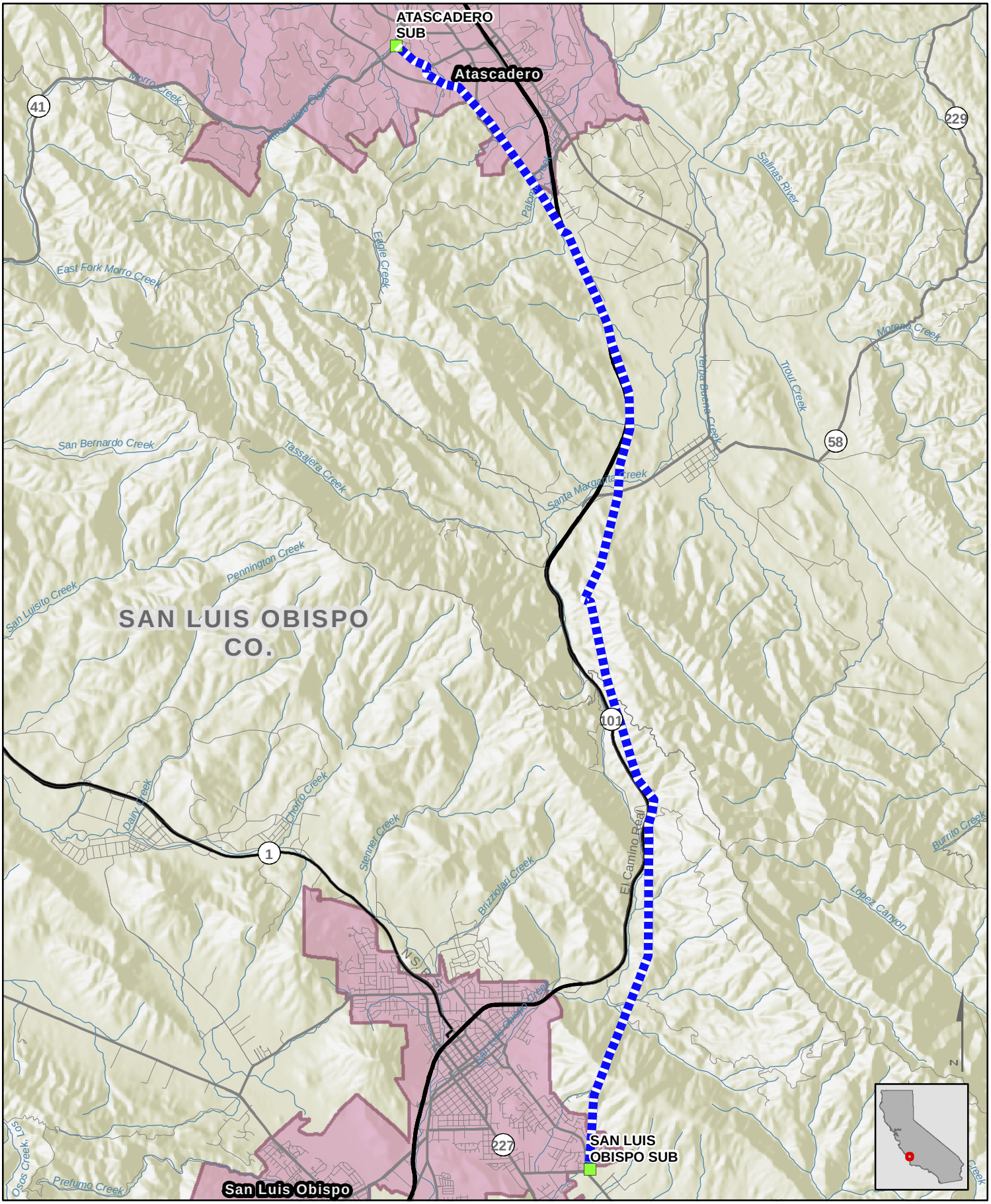
Attachment A: Project Vicinity and Overview Map



Substation

Power Line

Creeks

City Boundary

PG&E

Rev.:11/30/09

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

Project Vicinity and Overview Map

Atascadero - San Luis Obispo 70 kV Power Line Reconductoring Project

0 0.5 1 2 Miles

Scale: 1:100,000

Attachment B: Soil Survey Maps

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

PG&E

Soil Survey

- 101
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- Review Area Boundary

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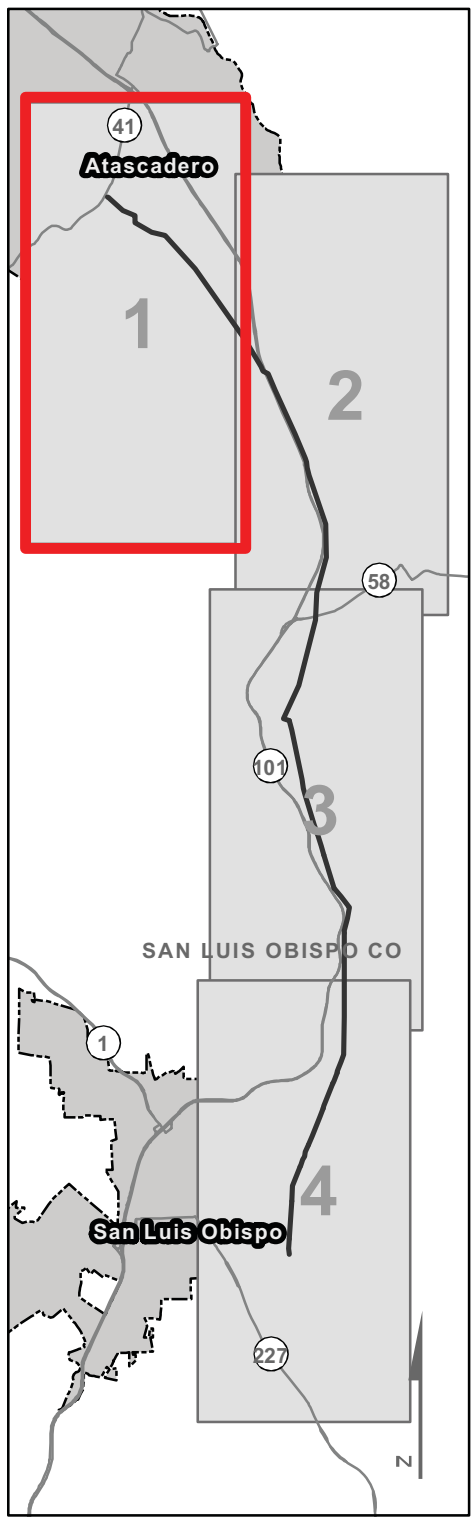

Preliminary and subject to change based on California Public Utilities Commission requirements, final engineering, and other factors

PG&E

Soil Survey

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- Review Area Boundary

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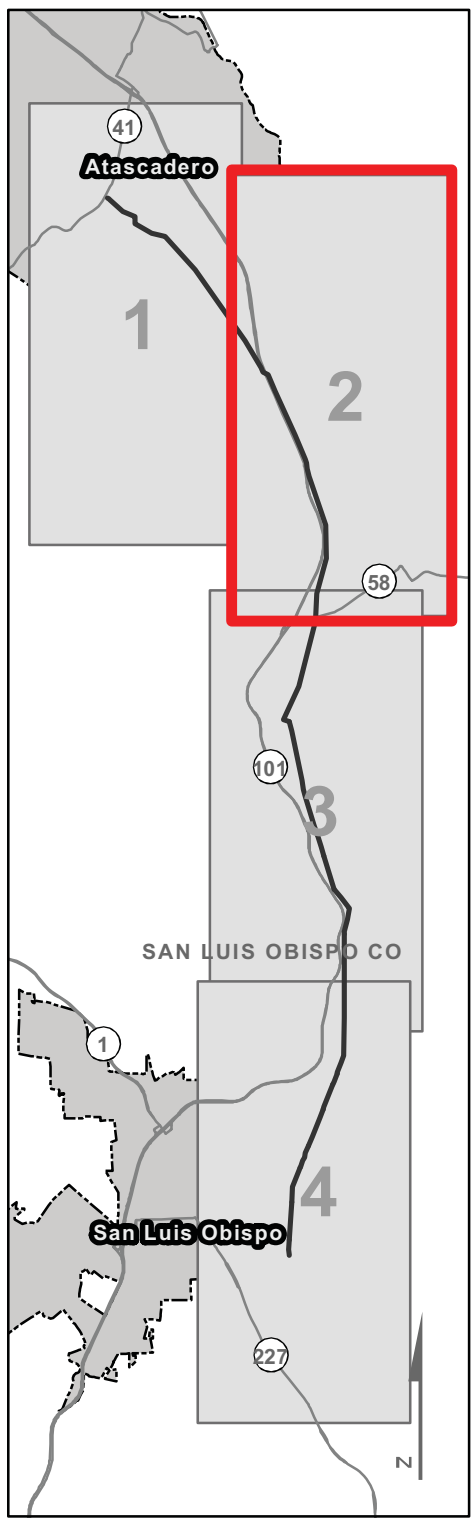

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PG&E

Soil Survey

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- Review Area Boundary

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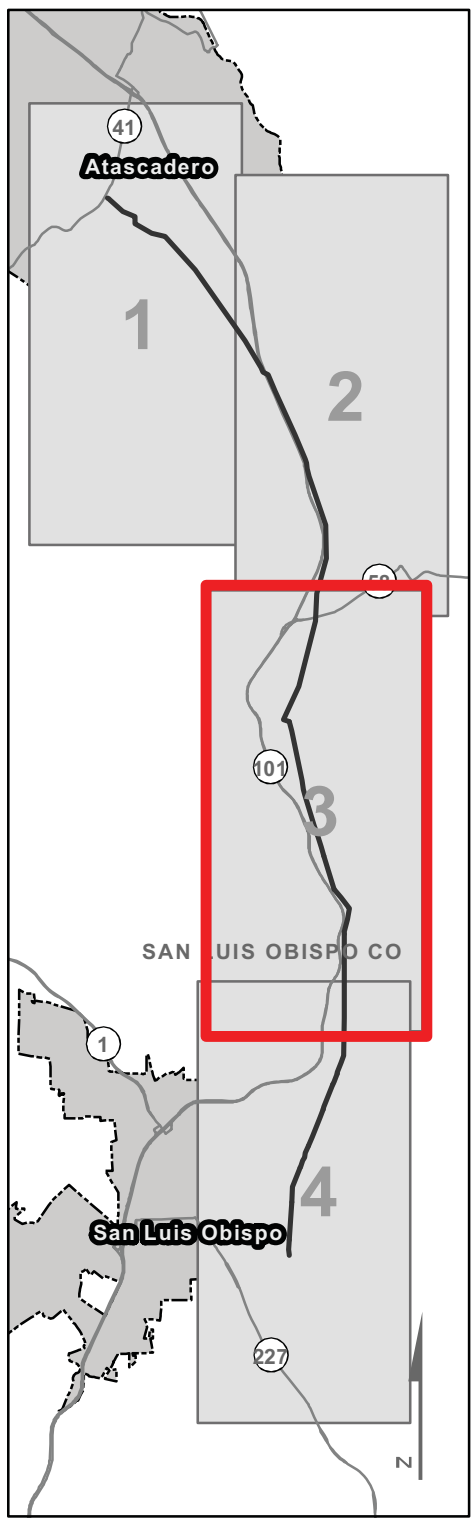

Preliminary and subject to change based on California Public Utilities Commission requirements, final engineering, and other factors

PG&E

Soil Survey

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- Review Area Boundary

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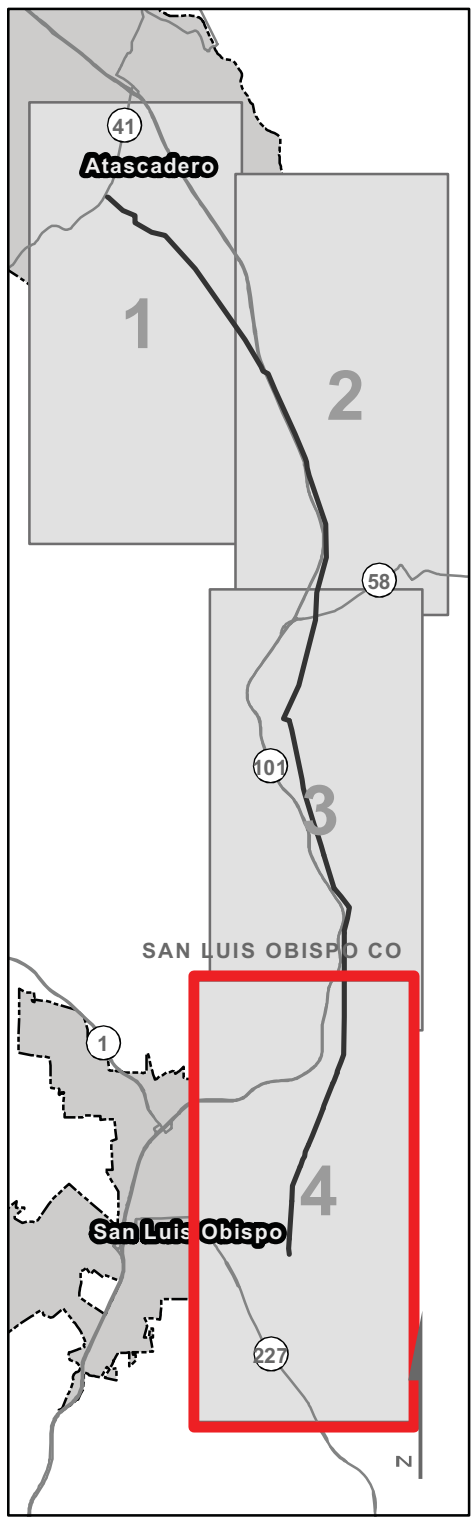

Attachment B: Soil Survey Maps Atascadero-San Luis Obispo 70 kV Power Line Reconductoring Project Map 4 of 4

Attachment C: Wetland Delineation Maps

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

ID	Acres
JURISDICTIONAL FEATURES	
SAN FRANCISCO CORPS DISTRICT	
Seasonal Wetland	
W1	0.1090
W2	0.5520
Subtotal	**0.6610**
Relatively Permanent Water (RPW)	
S7	0.0061
Non-Relatively Permanent Water (NRPW)	
S1	0.0185
S2a	0.0132
S2b	0.0021
S2c	0.0019
S3	0.0024
S4	0.0011
S5	0.0005
S8	0.0046
S9	0.0019
S17	0.0025
S30	0.0015
S40	0.0057
S41	0.0027
Subtotal	**0.0586**
Total Acres Jurisdictional Features	**0.7257**

ID	Acres
JURISDICTIONAL FEATURES	
LOS ANGELES CORPS DISTRICT	
Seasonal Wetland	
W3	0.1070
Non-Relatively Permanent Water (NRPW)	
S11	0.0139
S12	0.0004
S31	0.0062
Subtotal	**0.0205**
Total Acres Jurisdictional Features	**0.1275**

Soil Sample

Structure

- Steel tower
- Wood pole
- Interset pole
- Distribution pole
- Review Area Boundary

Streams

- NRPW
- RPW
- Wetlands
- Access Road

0 150 300 600 Feet

1:3,600

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

ID	Acres
JURISDICTIONAL FEATURES	
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S5	0.0005
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S9	0.0019
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Soil Sample

Structure

Steel tower

Wood pole

Interset pole

Distribution pole

Review Area Boundary

Streams

NRPW

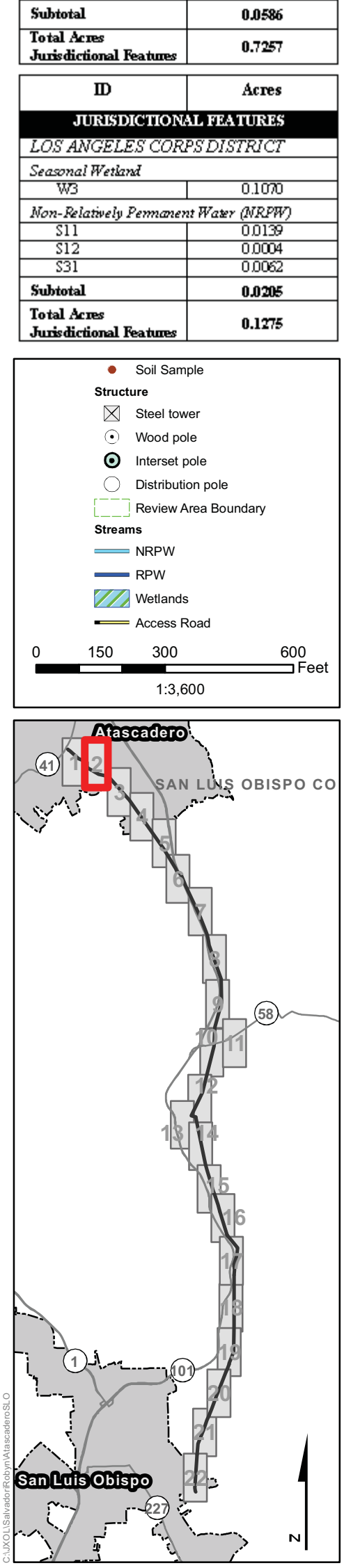
RPW

Wetlands

Access Road

0 150 300 600 Feet

1:3,600



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

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S17	0.0025
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Subtotal	**0.0205**
Total Acres Jurisdictional Features	**0.1275**

Soil Sample

Structure

- Steel tower
- Wood pole
- Interset pole
- Distribution pole
- Review Area Boundary

Streams

- NRPW
- RPW
- Wetlands
- Access Road

0 150 300 600 Feet

1:3,600

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

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S2b	0.0021
S2c	0.0019
S3	0.0024
S4	0.0011
S5	0.0005
S8	0.0046
S9	0.0019
S17	0.0025
S30	0.0015
S40	0.0057
S41	0.0027
Subtotal	**0.0586**
Total Acres Jurisdictional Features	**0.7257**

ID	Acres
JURISDICTIONAL FEATURES	
LOS ANGELES CORPS DISTRICT	
Seasonal Wetland	
W3	0.1070
Non-Relatively Permanent Water (NRPW)	
S11	0.0139
S12	0.0004
S31	0.0062
Subtotal	**0.0205**
Total Acres Jurisdictional Features	**0.1275**

Soil Sample

Structure

Steel tower

Wood pole

Interset pole

Distribution pole

Review Area Boundary

Streams

NRPW

RPW

Wetlands

Access Road

0 150 300 600 Feet

1:3,600

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

ID	Acres
JURISDICTIONAL FEATURES	
SAN FRANCISCO CORPS DISTRICT	
Seasonal Wetland	
W1	0.1090
W2	0.5520
Subtotal	**0.6610**
Relatively Permanent Water (RPW)	
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S2b	0.0021
S2c	0.0019
S3	0.0024
S4	0.0011
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S8	0.0046
S9	0.0019
S17	0.0025
S30	0.0015
S40	0.0057
S41	0.0027
Subtotal	**0.0586**
Total Acres Jurisdictional Features	**0.7257**

ID	Acres
JURISDICTIONAL FEATURES	
LOS ANGELES CORPS DISTRICT	
Seasonal Wetland	
W3	0.1070
Non-Relatively Permanent Water (NRPW)	
S11	0.0139
S12	0.0004
S31	0.0062
Subtotal	**0.0205**
Total Acres Jurisdictional Features	**0.1275**

Soil Sample

Structure

Steel tower

Wood pole

Interset pole

Distribution pole

Review Area Boundary

Streams

NRPW

RPW

Wetlands

Access Road

0 150 300 600 Feet

1:3,600

Atascadero

SAN LUIS OBISPO CO

San Luis Obispo

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Attachment C: Wetland Delineation Maps

Atascadero - San Luis Obispo 70 kV Power Line Reconductoring Project

Map 5 of 22

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

ID	Acres
JURISDICTIONAL FEATURES	
SAN FRANCISCO CORPS DISTRICT	
Seasonal Wetland	
W1	0.1090
W2	0.5520
Subtotal	**0.6610**
Relatively Permanent Water (RPW)	
S7	0.0061
Non-Relatively Permanent Water (NRPW)	
S1	0.0185
S2a	0.0132
S2b	0.0021
S2c	0.0019
S3	0.0024
S4	0.0011
S5	0.0005
S8	0.0046
S9	0.0019
S17	0.0025
S30	0.0015
S40	0.0057
S41	0.0027
Subtotal	**0.0586**
Total Acres Jurisdictional Features	**0.7257**

ID	Acres
JURISDICTIONAL FEATURES	
LOS ANGELES CORPS DISTRICT	
Seasonal Wetland	
W3	0.1070
Non-Relatively Permanent Water (NRPW)	
S11	0.0139
S12	0.0004
S31	0.0062
Subtotal	**0.0205**
Total Acres Jurisdictional Features	**0.1275**

Soil Sample

Structure

Steel tower

Wood pole

Interset pole

Distribution pole

Review Area Boundary

Streams

NRPW

RPW

Wetlands

Access Road

0 150 300 600 Feet

1:3,600

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

ID	Acres
JURISDICTIONAL FEATURES	
SAN FRANCISCO CORPS DISTRICT	
Seasonal Wetland	
W1	0.1090
W2	0.5520
Subtotal	**0.6610**
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S7	0.0061
Non-Relatively Permanent Water (NRPW)	
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S2a	0.0132
S2b	0.0021
S2c	0.0019
S3	0.0024
S4	0.0011
S5	0.0005
S8	0.0046
S9	0.0019
S17	0.0025
S30	0.0015
S40	0.0057
S41	0.0027
Subtotal	**0.0586**
Total Acres Jurisdictional Features	**0.7257**

ID	Acres
JURISDICTIONAL FEATURES	
LOS ANGELES CORPS DISTRICT	
Seasonal Wetland	
W3	0.1070
Non-Relatively Permanent Water (NRPW)	
S11	0.0139
S12	0.0004
S31	0.0062
Subtotal	**0.0205**
Total Acres Jurisdictional Features	**0.1275**

Soil Sample

Structure

Steel tower

Wood pole

Interset pole

Distribution pole

Review Area Boundary

Streams

NRPW

RPW

Wetlands

Access Road

0 150 300 600 Feet

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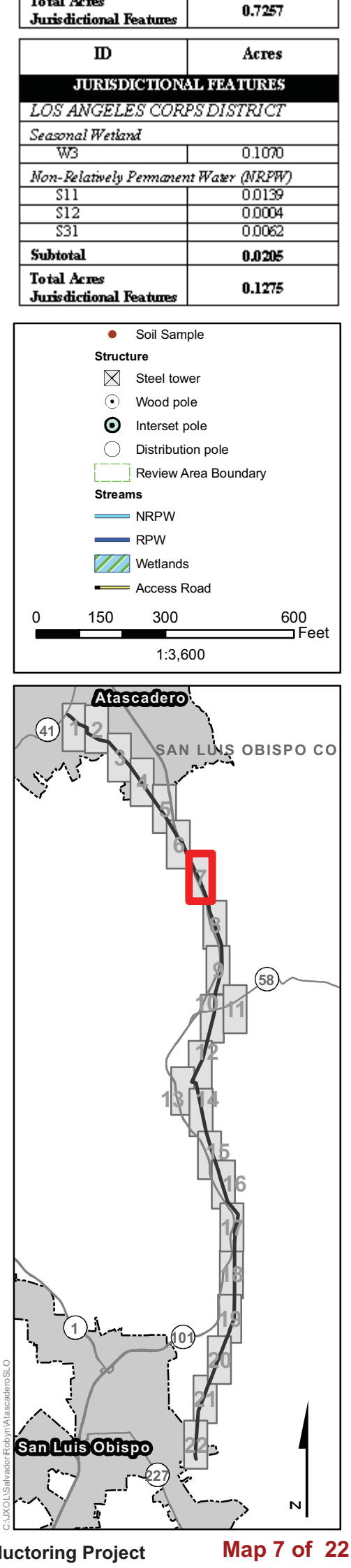

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Preliminary and subject to change based on California Public Utilities Commission requirements, final engineering, and other factors

ID	Acres
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Non-Relatively Permanent Water (NRPW)	
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S31	0.0062
Subtotal	**0.0205**
Total Acres Jurisdictional Features	**0.1275**

Soil Sample

Structure

- Steel tower
- Wood pole
- Interset pole
- Distribution pole
- Review Area Boundary

Streams

- NRPW
- RPW
- Wetlands
- Access Road

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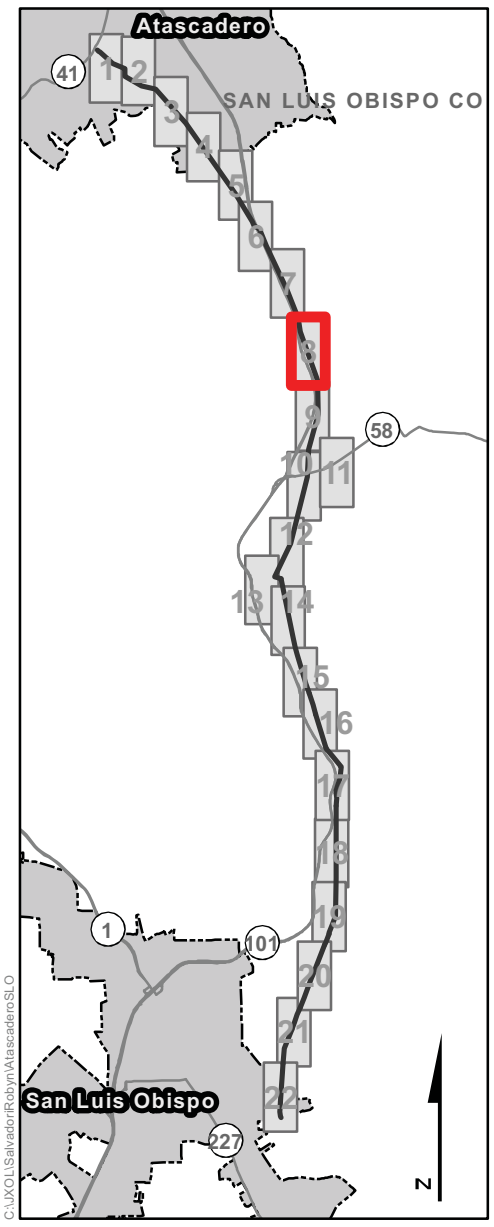

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Subtotal	**0.0586**
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ID	Acres
JURISDICTIONAL FEATURES	
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Seasonal Wetland	
W3	0.1070
Non-Relatively Permanent Water (NRPW)	
S11	0.0139
S12	0.0004
S31	0.0062
Subtotal	**0.0205**
Total Acres Jurisdictional Features	**0.1275**

Soil Sample

Structure

- Steel tower
- Wood pole
- Interset pole
- Distribution pole
- Review Area Boundary

Streams

- NRPW
- RPW
- Wetlands
- Access Road

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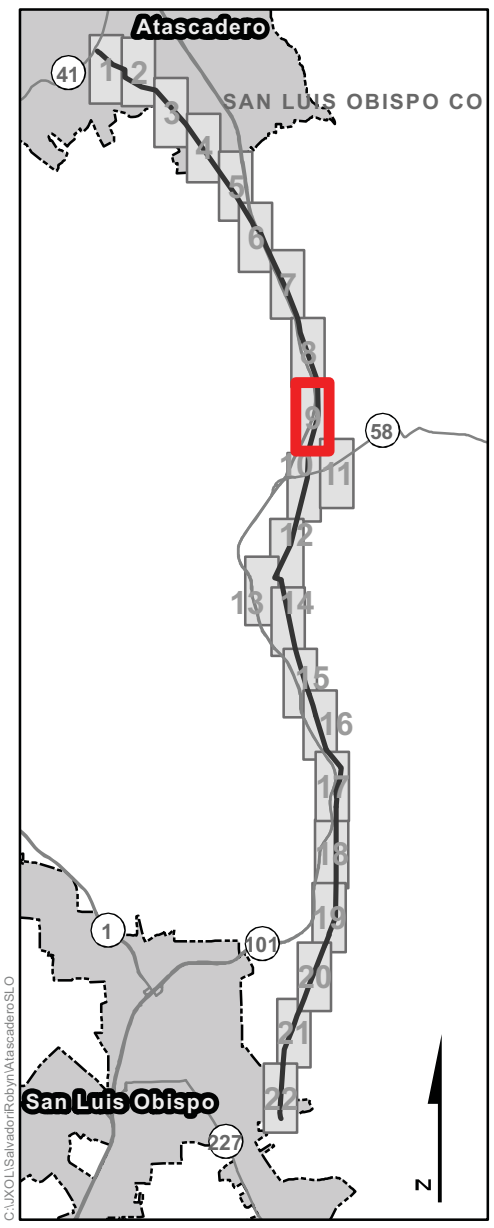
1:3,600



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ID	Acres
JURISDICTIONAL FEATURES	
SAN FRANCISCO CORPS DISTRICT	
Seasonal Wetland	
W1	0.1090
W2	0.5520
Subtotal	**0.6610**
Relatively Permanent Water (RPW)	
S7	0.0061
Non-Relatively Permanent Water (NRPW)	
S1	0.0185
S2a	0.0132
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S2c	0.0019
S3	0.0024
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S5	0.0005
S8	0.0046
S9	0.0019
S17	0.0025
S30	0.0015
S40	0.0057
S41	0.0027
Subtotal	**0.0586**
Total Acres Jurisdictional Features	**0.7257**

ID	Acres
JURISDICTIONAL FEATURES	
LOS ANGELES CORPS DISTRICT	
Seasonal Wetland	
W3	0.1070
Non-Relatively Permanent Water (NRPW)	
S11	0.0139
S12	0.0004
S31	0.0062
Subtotal	**0.0205**
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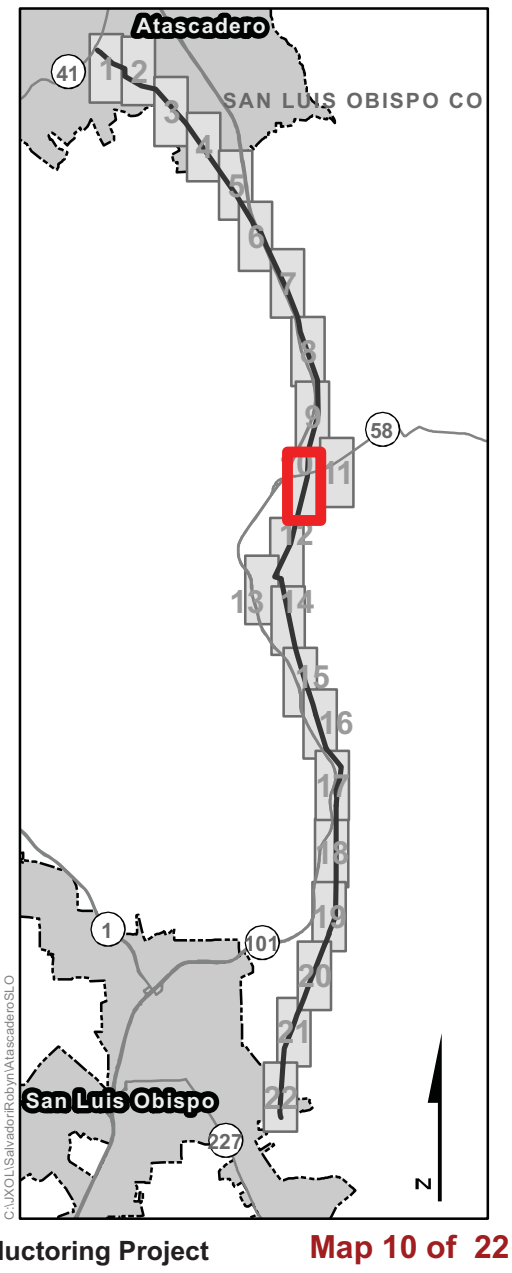

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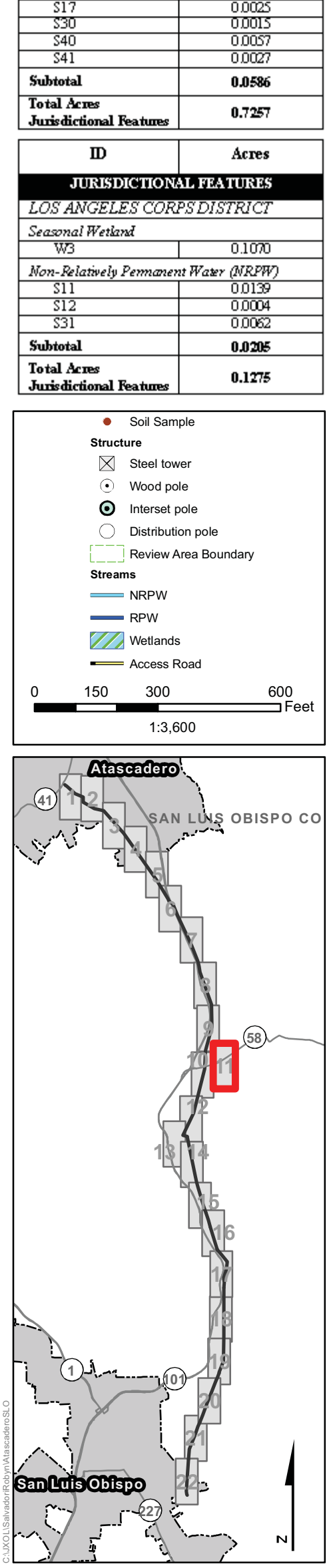

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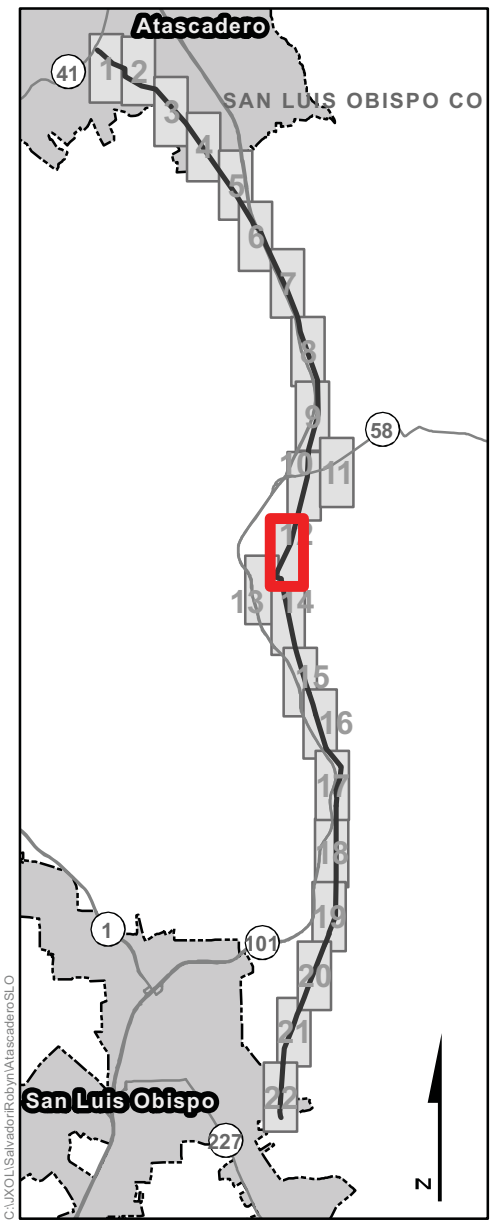

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Atascadero

SAN LUIS OBISPO CO

San Luis Obispo

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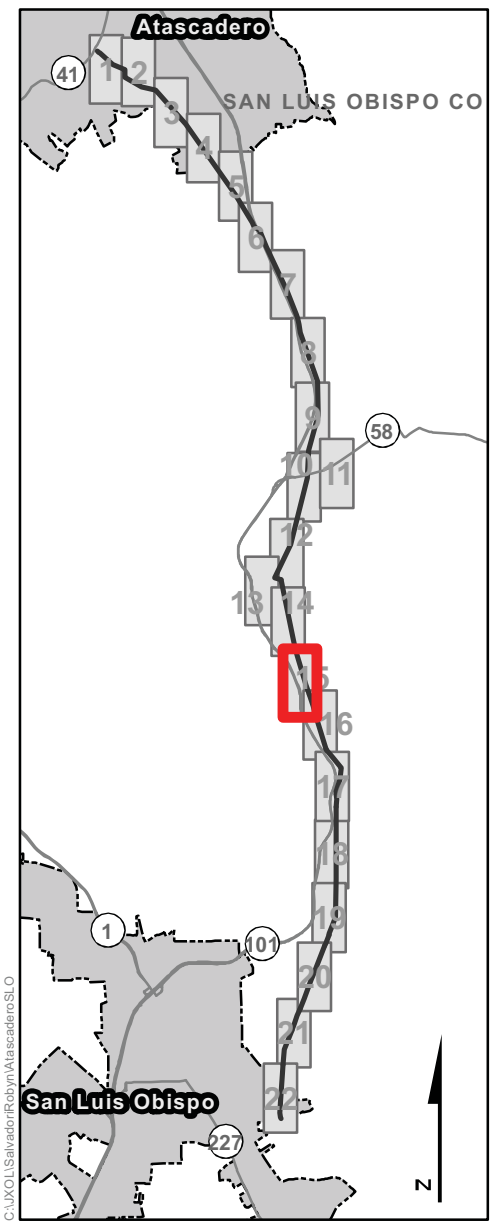

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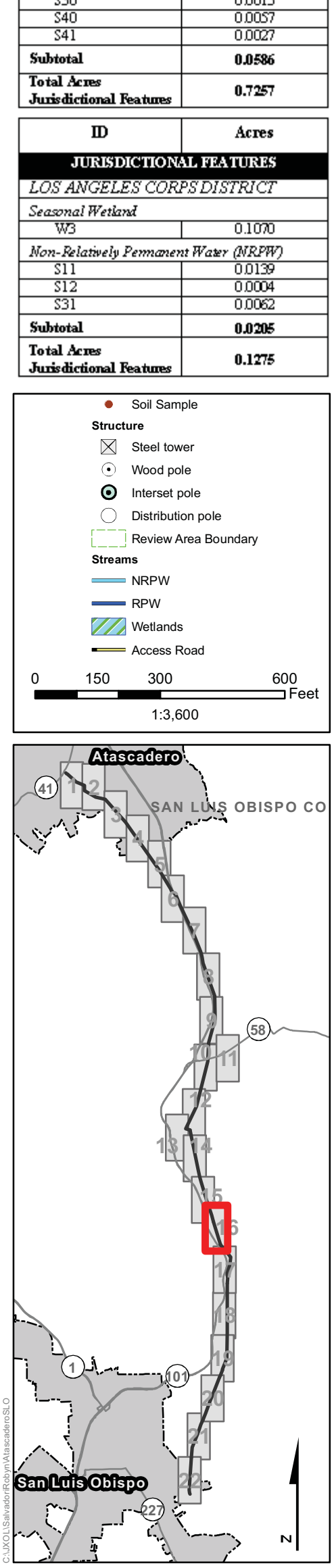

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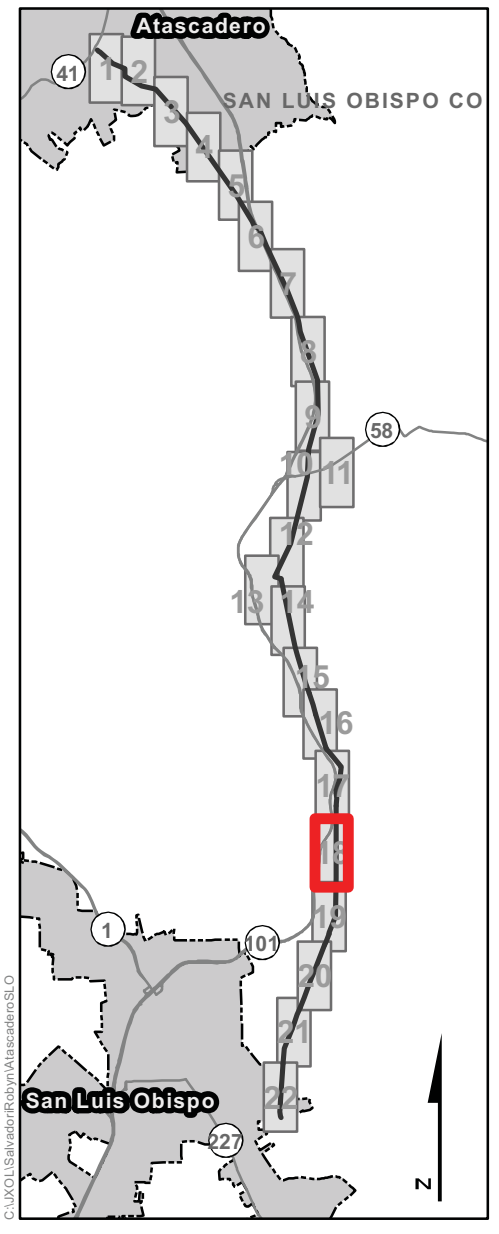

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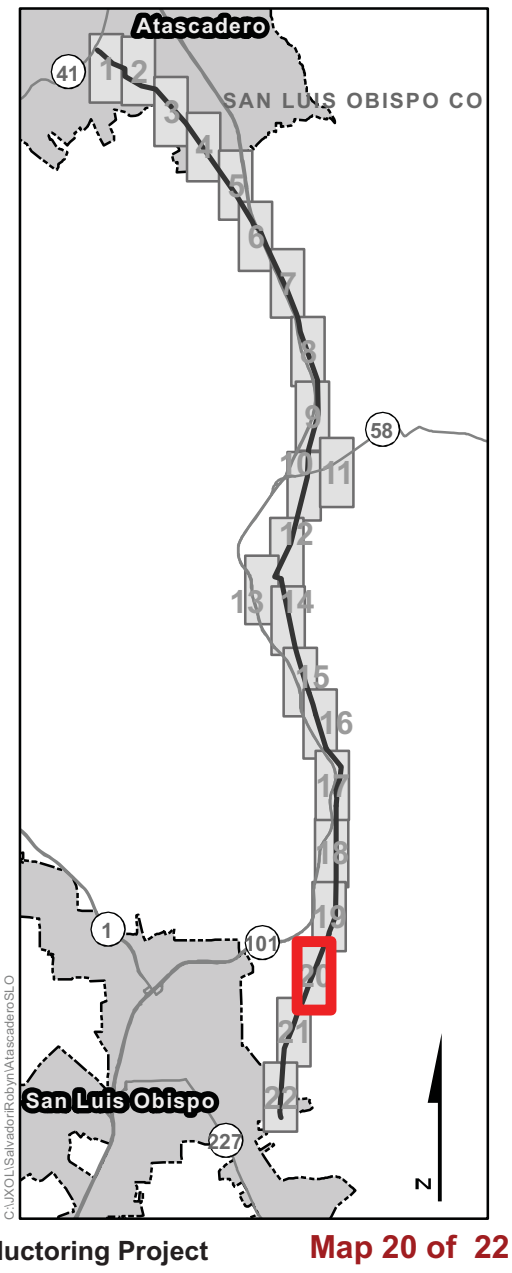

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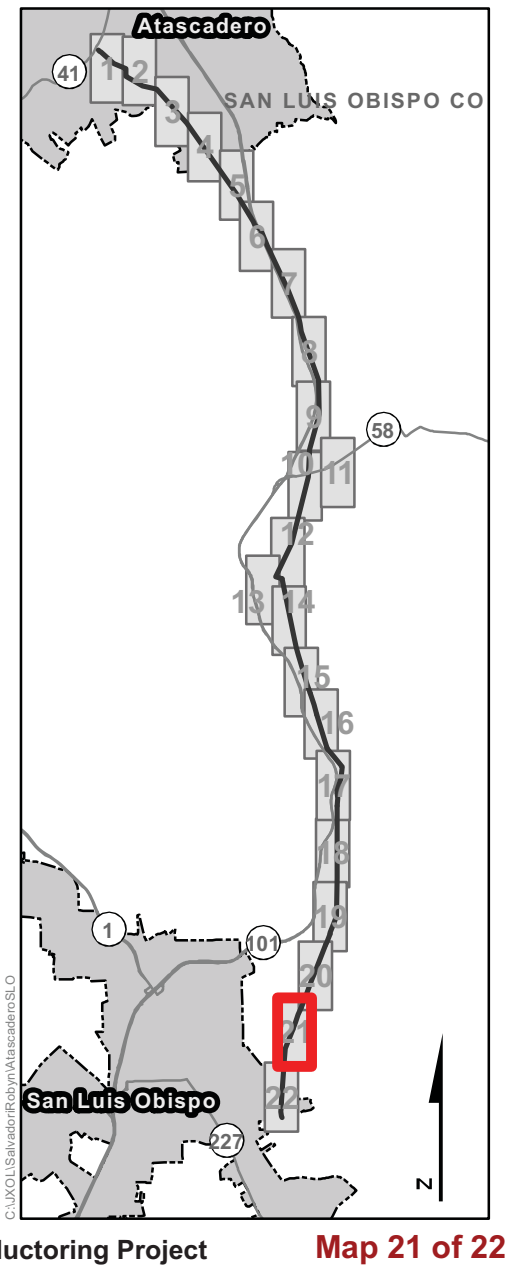

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Attachment D: Plant List

Plants Observed from June 17th to 22nd, 2009

Scientific Name	Common Name	Wetland Indicator Status
Achillea millefolium	common yarrow	FACU
Adenostoma fasciculatum	chamise	UPL
Aira caryophyllea	silver hairgrass	UPL
Anagallis arvensis	pimpernel	FAC
Anthemis cotula	stinking chamomile	FACU
Arctostaphylos luciana	Santa Lucia manzanita	UPL
Arctostaphylos pilosula	Santa Margarita manzanita	UPL
Artemisia biennis	biennial sagewort	FAC
Artemisia californica	California sagebrush	UPL
Artemisia douglasiana	mugwort	FACW
Asclepias californica	California milkweed	UPL
Asclepias fascicularis	narrow leaf milkweed	FAC
Astragulus curtipes	San Luis Obispo milk-vetch	UPL
Avena barbata	slender wild oats	UPL
Avena fatua	wild oats	UPL
Baccharis pilularis	dwarf chaparral broom	UPL
Bloomeria crocea	common goldenstar	UPL
Brachypodium distachyon	purple false brome	UPL
Brassica nigra	black mustard	UPL
Briza maxima	big quaking grass	UPL
Briza minor	little quakinggrass	FACW-
Bromus diandrus	ripgut brome	UPL
Bromus hordeaceus	soft chess	UPL
Bromus madritensis ssp. *rubens*	red brome	UPL
Bromus tectorum	cheatgrass	UPL
Calochortus clavatus var. *clavatus*	club haired mariposa lily	UPL
Calochortus obispoensis	San Luis Obispo mariposa lily	UPL
Calystegia sp.	bindweed	UPL
Cardamine oligosperma	bitter cress	FACW
Carduus pycnocephalus	Italian thistle	UPL
Carex sp.	sedge	Unknown (wetland sp.)
Carthamus lanatus	distaff thistle	UPL

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Ceanothus sp.	ceanothus	UPL
Centaurea melitensis	tocalote	UPL
Centaurea solstitialis	yellow star-thistle	UPL
Chlorogalum pomeridianum var. *pomeridianum*	soap plant	UPL
Chorizanthe breweri	Brewer's spineflower	UPL
Chorizanthe rectispina	prickly spineflower	UPL
Chorizanthe staticoides	Turkish rugging	UPL
Cirsium vulgare	bull thistle	FACU
Cryptantha sp.	cryptantha	UPL
Cynosurus echinatus	hedgehog dogtail grass	UPL
Daucus pusillus	rattlesnake weed	UPL
Delphinium sp.	larkspur	UPL
Dipsacus sativus	Fuller's teasel	UPL
Dodecatheon sp.	shooting star	UPL
Dudleya abramsii ssp. *murina*	San Luis Obispo dudleya	UPL
Ehrharta calycina	perennial veldt grass	UPL
Elymus multisetus	big squirreltail	UPL
Elytrigia repens	quackgrass	UPL
Epilobium canum ssp. *canum*	California fuchsia	UPL
Eremocarpus setigerus	Turkey mullein	UPL
Eriastrum pluriflorum	many flowered eriastrum	UPL
Erigeron sp.	erigeron	UPL
Eriogonum fasciculatum var. *polifolium*	California buckwheat	UPL
Eriogonum gracile var. *gracile*	slender buckwheat	UPL
Eriophyllum confertiflorum var. *confertiflorum*	yellow yarrow	UPL
Erodium botrys	broad leaf filaree	UPL
Eschscholzia californica	California poppy	UPL
Filago sp.	herba impia	UPL
Foeniculum vulgare	fennel	FACU
Fritillaria sp.	fritillary	UPL
Galium sp.	bedstraw	Unknown
Gnaphalium sp.	everlasting	Unknown
Grindelia camporum	Great Valley gumweed	FACU
Hazardia squarrosa	saw toothed goldenbush	UPL

Scientific Name	Common Name	Wetland Indicator Status
Heliotropium curassavicum	heliotrope	OBL
Hemizonia congesta ssp. *luzulifolia*	hayfield tarweed	UPL
Hemizonia fasciculata	clustered tarweed	UPL
Hemizonia pungens ssp. *pungens*	common tarweed	FAC
Hesperoyucca whipplei	chaparral yucca	UPL
Hordeum brachyantherum	meadow barley	FACW
Hordeum marinum ssp. *gussoneanum*	Mediterranean barley	FAC
Hordeum murinum	barley	UPL
Horkelia cuneata ssp. *puberula*	coast horkelia	UPL
Juncus sp.	rush	Unknown (wetland sp.)
Juncus xiphioides	irisleaf rush	OBL
Lagophylla ramosissima	branched lagophylla	UPL
Lamarckia aurea	goldentop	UPL
Leymus triticoides	creeping wild rye	FAC+
Lolium multiflorum	Italian rye grass	UPL
Lolium perenne	English rye grass	FAC*
Lotus corniculatus	broadleaf birdsfoot trefoil	FAC
Lotus purshianus var. *purshianus*	Spanish clover	UPL
Lupinus bicolor	miniature lupine	UPL
Lupinus sp.	lupine	UPL
Lythrum hyssopifolia	hyssop	FACW
Madia sp.	madia	UPL
Malvella leprosa	alkali mallow	FAC*
Melilotus officinalis	yellow sweetclover	FACU
Mimulus aurantiacus	island monkeyflower	UPL
Navarretia jaredii	Paso Robles navarretia	UPL
Paeonia californica	California peony	UPL
Pellaea andromedifolia	coffee fern	UPL
Phacelia sp.	phacelia	Unknown
Phyla nodiflora	common lippia	FACW
Picris echioides	bristly ox tongue	FAC*
Plantago sp.	plaintain	Unknown
Platanus racemosa	western sycamore	FACW
Polypogon monspeliensis	Rabbit's foot	FACW+*
Populus sp.	cottonwood	FACW
Potentilla glandulosa ssp. *glandulosa*	sticky cinquefoil	FAC

Scientific Name	Common Name	Wetland Indicator Status
Quercus agrifolia var. *agrifolia*	coast live oak	UPL
Quercus lobata	valley oak	FAC*
Quercus douglasii	blue oak	UPL
Ranunculus arvensis	corn buttercup	UPL
Raphanus sativus	wild radish	UPL
Rhamnus californica ssp. *californica*	California coffeeberry	UPL
Rumex crispus	curly dock	FACW-
Rumex pulcher	fiddle dock	FAC+
Salix sp.	willow	Unknown (wetland sp.)
Salvia columbariae	chia	UPL
Salvia mellifera	black sage	UPL
Salvia spathacea	hummingbird sage	UPL
Sambucus mexicana	blue elderberry	FAC
Silene multinervia	fire following campion	UPL
Silybum marianum	milkthistle	UPL
Sisyrinchium bellum	blue eyed grass	FAC
Stachys ajugoides	hedge nettle	OBL
Stephanomeria sp.	wire lettuce	UPL
Symphoricarpos sp.	snowberry	Unknown
Toxicodendron diversilobum	poison oak	UPL
Trifolium hirtum	rose clover	UPL
Verbena bracteata	bracted verbena	FACW
Vicia villosa ssp. *villosa*	wooly vetch	UPL

Sources: Hickman, 1993; Reed, 1988

INDICATOR STATUS CODES:

FAC = Facultative; equally likely to occur in wetlands or non-wetlands (estimated probability 34%-66%).
FACW- = Facultative wetland; usually occurs in wetlands (estimated probability 67%-99%), but occasionally found in non-wetlands.
OBL = Obligate wetland; occurs almost always (estimated probability 99%) under natural conditions in wetlands.
UPL = Obligate upland; occurs in wetlands in another region, but occurs almost always (estimated probability 99%) under natural conditions in non-wetlands in the regions specified. If a species does not occur in wetlands in any region, it is not on the National List.
+/- = A positive sign (+) indicates a frequency toward the higher end of a category, and a negative sign (-) indicates a frequency towards the lower end of a category)
* = Limited ecological information

Attachment E: Delineation Acreages for Each Feature

Delineation Acreages for Each Feature in the San Francisco District

Type	Designation	Label	Acres	Linear Feet	Width (Feet)	Flow
Waters of the U.S.						
Paloma Creek	NPRW	S1	0.0185	115	7.00	NE
South Fork Paloma Creek	NRPW	S2a	0.0132	44	13.00	N
South Fork Paloma Creek	NRPW	S2b	0.0021	45	2.00	N
South Fork Paloma Creek	NRPW	S2c	0.0019	41	2.00	N
Agricultural ditch (Tributary to Santa Margarita Creek)	NRPW	S3	0.0024	138	0.75	SE
Unnamed tributary to Santa Margarita Creek	NRPW	S4	0.0011	96	0.50	E
Unnamed tributary to Santa Margarita Creek	NRPW	S5	0.0005	47	0.50	SE
Unnamed tributary to Santa Margarita Creek	RPW	S7	0.0061	89	3.00	W
Unnamed tributary to Santa Margarita Creek	NRPW	S8	0.0046	50	4.00	W
Unnamed tributary to Santa Margarita Creek	NRPW	S9	0.0019	41	2.00	NW
Unnamed tributary to Santa Margarita Creek	NRPW	S17	0.0025	72	1.50	SE
Unnamed tributary to Paloma Creek	NRPW	S30	0.0015	67	1.00	S
Unnamed tributary to Santa Margarita Creek	NRPW	S40	0.0057	125	2.00	E
Unnamed tributary to Santa Margarita Creek	NRPW	S41	0.0027	59	2.00	SE
Seasonal wetland	Adjacent	W1	0.1090	N/A	N/A	N/A
Seasonal wetland (connects to tributary to Santa Margarita Creek)	Adjacent	W2	0.5520	N/A	N/A	N/A

Delineation Acreages for Each Feature in the Los Angeles District

Type	Designation	Label	Acres	Linear Feet	Width (ft)	Flow
Waters of the U.S.						
Unnamed tributary to San Luis Obispo Creek	NRPW	S11	0.0139	40	15.00	W
Unnamed tributary to San Luis Obispo Creek	NRPW	S12	0.0004	31	0.50	NW
Unnamed tributary to San Luis Obispo Creek	NRPW	S31	0.0062	181	1.50	N
Seasonal wetland (connects to tributary to San Luis Obispo Creek)	Adjacent	W3	0.1070	N/A	N/A	N/A

Attachment F: Representative Site Photographs

San Francisco ACOE District

S1 (Paloma Creek): NRPW north of Pole 62/16, facing north June, 2009

S1: NRPW north of Pole 62/16, facing northwest June, 2009

S2a (South Fork Paloma Creek): NRPW northwest of Pole 63/5, facing southeast June, 2009

S2a: NRPW northwest of Pole 63/5, facing southwest June, 2009

S2b (South Fork Paloma Creek): NRPW southwest of Pole 63/7, facing north June, 2009

S2b: NRPW southwest of Pole 63/7, facing west June, 2009

S30 (South Fork Paloma Creek): NRPW east of Pole 63/8, facing south

June, 2009

S2c (South Fork Paloma Creek): NRPW southwest of Pole 63/9, facing north

S2c: NRPW southwest of Pole 63/9, facing south


S2c: NRPW SW of Pole 63/9, facing northeast June, 2009

S2c: NRPW SW of Pole 63/9, facing southeast June, 2009

S3 (Agricultural ditch): NRPW just south of Pole 64/12, facing southeast

June, 2009

S4 (Tributary to Santa Margarita Creek): NRPW just north of Pole 64/13, facing Southeast June, 2009

S5 (Tributary to Santa Margarita Creek): NRPW just north of Pole 64/14, facing southeast June, 2009

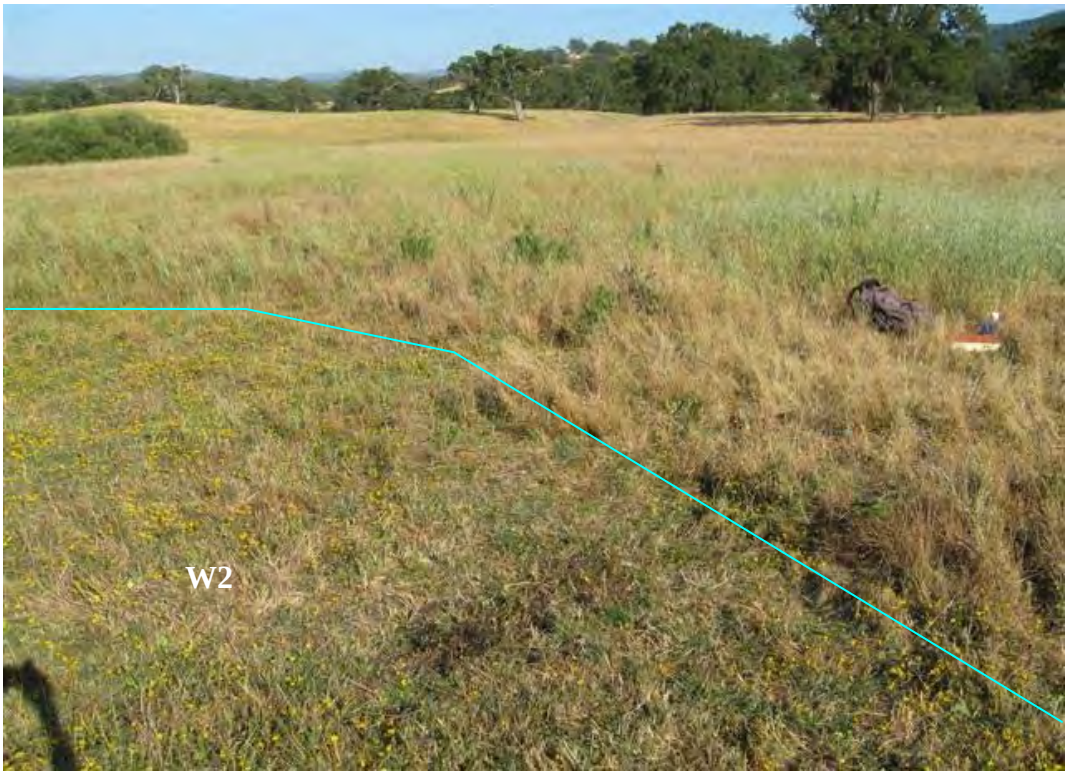
S40 (Tributary to Santa Margarita Creek): NRPW approximately 100 feet north of Pole 65/2, facing southeast June, 2009

S40: NRPW approximately 100 feet north of Pole 65/2, facing west June, 2009

W1 (Isolated wetland): North of Pole 66/2, wetland will not be impacted, facing north June, 2009

W1: Wetland north of Pole 66/2, facing west June, 2009

W2: Seasonal wetland around Pole 66/10 June 20, 2009



W2: Wetland boundary on south side, facing southeast June 18, 2009

W2: Upland soil sample UPL 1-1 June 20, 2009

W2: Wetland soil sample WET 1-1 June 20, 2009

W2: Wetland soil sample WET 1-2 June 20, 2009

W2: Wetland soil sample WET 1-3 June 20, 2009

W2: Wetland soil sample WET 1-4 June 20, 2009

W2: Wetland soil sample WET 1-5 June 20, 2009

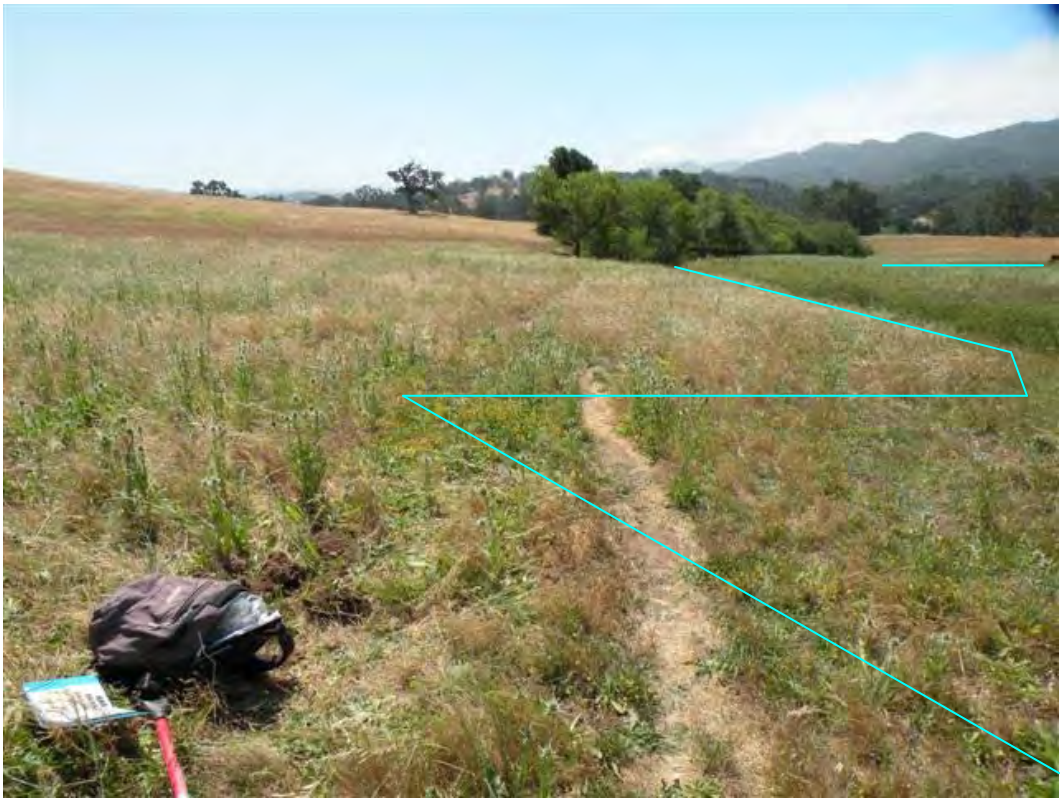
W2: Wetland soil sample WET 1-6 June 20, 2009

W2 near S17: Wetland soil sample WET 1-7 June 20, 2009

S17 (Tributary to Santa Margarita Creek): NRPW next to W2, facing southeast June 20, 2009

S17 (Tributary to Santa Margarita Creek): NRPW next to W2 June 20, 2009

W2: Upland soil sample UPL 1-8 June 20, 2009



W2: Wetland boundary on north side, facing southeast June 18, 2009

S41: Tributary to Santa Margarita Creek, facing north June, 2009

S41: Tributary to Santa Margarita Creek, facing southeast June, 2009

S7: Tributary to Santa Margarita Creek (RPW), facing south June, 2009

S7: Tributary to Santa Margarita Creek (RPW), facing north June, 2009

S7: Tributary to Santa Margarita Creek (RPW), facing west June, 2009

S7: Tributary to Santa Margarita Creek (RPW), facing north. June, 2009
Note: project has been modified to avoid use of this road.

S7: Tributary to Santa Margarita Creek (RPW), facing south June, 2009

S8: Tributary to Santa Margarita Creek (NRPW), crossing along access road to Tower 69/0, looking downstream June, 2009

S8: Tributary to Santa Margarita Creek (NRPW), crossing along access road to Tower 69/0, looking downstream

S8: Tributary to Santa Margarita Creek (NRPW), crossing access road to Tower 69/0, looking upstream

S8: Tributary to Santa Margarita Creek (NRPW), crossing along access road to Tower 69/0, looking upstream June, 2009

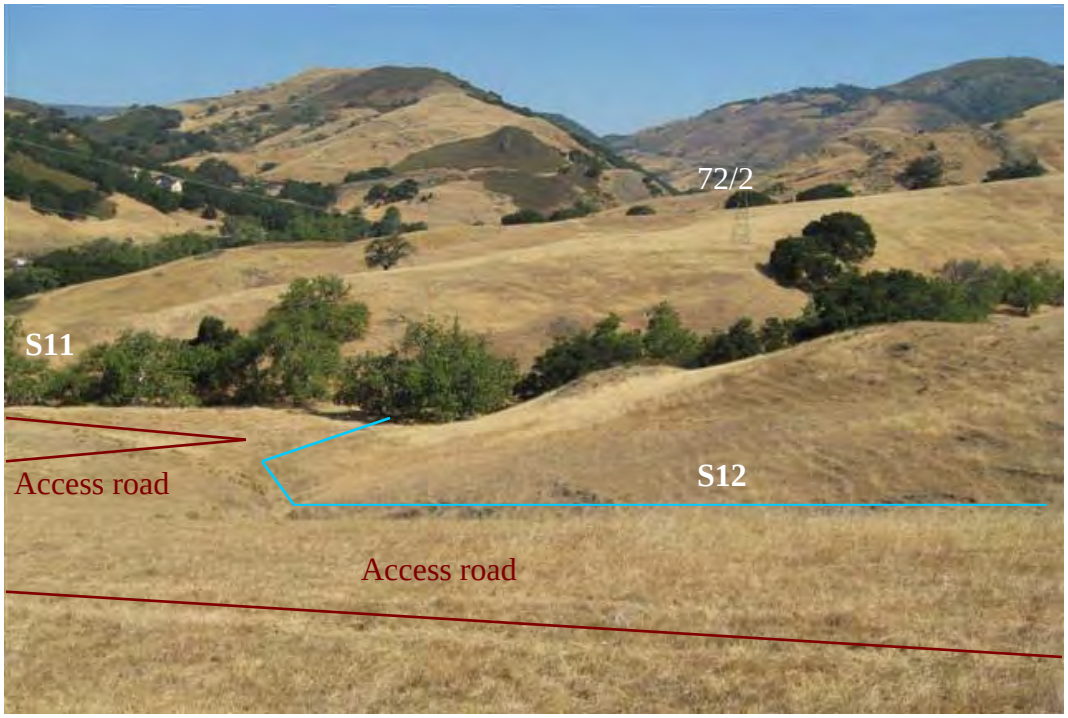
S9: Tributary to Santa Margarita Creek (NRPW), crossing along access road to Tower 69/0, culvert inlet

S9: Tributary to Santa Margarita Creek (NRPW), crossing along access road to Tower 69/0, culvert outlet

Los Angeles ACOE District

S11: Tributary to San Luis Obispo Creek (NRPW) with two culverts (3 and 4 foot wide), facing southeast June, 2009

S11: NRPW, facing southeast June, 2009



S11 and S12 (two NRPWs): S12 is a tributary to S11, and S11 is a tributary to San Luis Obispo Creek; S11 with sycamores and S12 only with an OHWM June, 2009

S12: NRPW connecting to S12 downstream, facing upstream June, 2009

W3: Seasonal wetland adjacent to spur road to Tower 73/1; wetland will not be impacted, facing south June 18, 2009

S31: NRPW west Tower 74/1, facing upstream June, 2009

S31: NRPW west Tower 74/1, facing downstream June, 2009

Attachment G: Wetland Determination Data Forms

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Atascadero-SLO 70 kV Power Line Reconductori City/County: Santa Margarita/SLO Sampling Date: 06/19/09

Applicant/Owner: Pacific Gas & Electric Company State: CA Sampling Point: UPL 1-1

Investigator(s): Madeleine van der Heyden & Marc Doalson Section, Township, Range: Section 19, T29S, R13E, MDBM

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): concave Slope (%): 3

Subregion (LRR): C – Mediterranean California Lat: 35.388975 W Long: -120.624181 N Datum: WGS84

Soil Map Unit Name: Still clay loam, 2 to 9 % NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✓	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks:

Upland soil sample taken

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 4 square m.)			
1. Bromus hordeaceus	60	Yes	UPL
2. Hordeum marinum	30	Yes	FAC+
3. Lotus corniculatus	10	No	FAC
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

SOIL

Sampling Point: UPL 1-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
8	7.5YR 2.5/2	100						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

U.S. Department of Agriculture, National Agriculture Imagery Program, 2005

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Atascadero-SLO 70 kV Power Line Reconductori City/County: Santa Margarita/SLO Sampling Date: 06/19/09

Applicant/Owner: Pacific Gas & Electric Company State: CA Sampling Point: WET 1-1

Investigator(s): Madeleine van der Heyden & Marc Doalson Section, Township, Range: Section 19, T29S, R13E, MDBM

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): concave Slope (%): 3

Subregion (LRR): C – Mediterranean California Lat: 35.388975 W Long: -120.624181 N Datum: WGS84

Soil Map Unit Name: Still clay loam, 2 to 9 % NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓	No _____	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks:

Wetland soil sample taken

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 4 square m.)			
1. Lotus corniculatus	75	Yes	FAC
2. Juncus xiphioides	15	No	OBL
3. Lolium perenne	7	No	FAC
4. Picris echioides	3	No	UPL
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: WET 1-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
8	7.5YR 2.5/1	90	7.5YR 4/6	10	C	M	Silty clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ **No** _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ✓ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ✓ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

U.S. Department of Agriculture, National Agriculture Imagery Program, 2005

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Atascadero-SLO 70 kV Power Line Reconductori City/County: Santa Margarita/SLO Sampling Date: 06/19/09

Applicant/Owner: Pacific Gas & Electric Company State: CA Sampling Point: WET 1-2

Investigator(s): Madeleine van der Heyden & Marc Doalson Section, Township, Range: Section 19, T29S, R13E, MDBM

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): concave Slope (%): 3

Subregion (LRR): C – Mediterranean California Lat: 35.388975 W Long: -120.624181 N Datum: WGS84

Soil Map Unit Name: Still clay loam, 2 to 9 % NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓	No _____	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks:

Wetland soil sample taken

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 4 square m.)			
1. Leymus triticoides	90	Yes	FAC+
2. Lotus corniculatus	5	No	FAC
3. Plantago lanceolata	5	No	FAC-
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: WET 1-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
8	7.5YR 2.5/1	95	7.5YR 4/6	5	C	M	Silty clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ✓ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ✓ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): _____

Water Table Present? Yes ___ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes ✓ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

U.S. Department of Agriculture, National Agriculture Imagery Program, 2005

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Atascadero-SLO 70 kV Power Line Reconductori City/County: Santa Margarita/SLO Sampling Date: 06/19/09

Applicant/Owner: Pacific Gas & Electric Company State: CA Sampling Point: WET 1-3

Investigator(s): Madeleine van der Heyden & Marc Doalson Section, Township, Range: Section 19, T29S, R13E, MDBM

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): concave Slope (%): 3

Subregion (LRR): C – Mediterranean California Lat: 35.388975 W Long: -120.624181 N Datum: WGS84

Soil Map Unit Name: Still clay loam, 2 to 9 % NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓	No _____	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks:

Wetland soil sample taken

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 4 square m.)			
1. Lotus corniculatus	55	Yes	FAC
2. Plantago lanceolata	35	Yes	FAC-
3. Leymus triticoides	3	No	FAC+
4. Juncus xiphioides	2	No	OBL
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: WET 1-3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
9	7.5YR 2.5/1	90	7.5YR 4/6	10	C	M	Silty clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ✓ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ✓ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): _____

Water Table Present? Yes ___ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes ✓ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

U.S. Department of Agriculture, National Agriculture Imagery Program, 2005

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Atascadero-SLO 70 kV Power Line Reconductori City/County: Santa Margarita/SLO Sampling Date: 06/19/09

Applicant/Owner: Pacific Gas & Electric Company State: CA Sampling Point: WET 1-4

Investigator(s): Madeleine van der Heyden & Marc Doalson Section, Township, Range: Section 19, T29S, R13E, MDBM

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): concave Slope (%): 3

Subregion (LRR): C – Mediterranean California Lat: 35.388975 W Long: -120.624181 N Datum: WGS84

Soil Map Unit Name: Still clay loam, 2 to 9 % NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✓	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓	No _____	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks:

Upland soil sample taken

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 4 square m.)			
1. Unknown rosette (possibly Dipsacus sativus)	75	Yes	UPL
2. Dipsacus sativus	20	No	UPL
3. Avena sp.	2	No	UPL
4. Bromus hordeaceus	1	No	UPL
5. Cichorium intybus	1	No	UPL
6. Unknown grass but not (Leymus triticoides)	1	No	UPL
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

Unknown rosette could not be identified, but it possibly Dipsacus sativus, an upland plant.

SOIL

Sampling Point: WET 1-4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
7	7.5YR 2.5/1	90	7.5YR 4/6	10	C	M	Silty clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ✓ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ✓ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): _____

Water Table Present? Yes ___ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes ✓ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

U.S. Department of Agriculture, National Agriculture Imagery Program, 2005

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Atascadero-SLO 70 kV Power Line Reconductori City/County: Santa Margarita/SLO Sampling Date: 06/19/09

Applicant/Owner: Pacific Gas & Electric Company State: CA Sampling Point: WET 1-5

Investigator(s): Madeleine van der Heyden & Marc Doalson Section, Township, Range: Section 19, T29S, R13E, MDBM

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): concave Slope (%): 3

Subregion (LRR): C – Mediterranean California Lat: 35.388975 W Long: -120.624181 N Datum: WGS84

Soil Map Unit Name: Still clay loam, 2 to 9 % NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓	No _____	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks:

Wetland soil sample taken

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 4 square m.)			
1. Leymus triticoides	75	Yes	FAC+
2. Lotus corniculatus	15	No	FAC
3. Plantago lanceolata	5	No	FAC-
4. Lolium perenne	5	No	FAC*
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: WET 1-5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
8	7.5YR 2.5/1	90	7.5YR 4/6	10	C	M	Silty clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ✓ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ✓ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

U.S. Department of Agriculture, National Agriculture Imagery Program, 2005

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Atascadero-SLO 70 kV Power Line Reconductori City/County: Santa Margarita/SLO Sampling Date: 06/19/09

Applicant/Owner: Pacific Gas & Electric Company State: CA Sampling Point: WET 1-6

Investigator(s): Madeleine van der Heyden & Marc Doalson Section, Township, Range: Section 19, T29S, R13E, MDBM

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): concave Slope (%): 3

Subregion (LRR): C – Mediterranean California Lat: 35.388975 W Long: -120.624181 N Datum: WGS84

Soil Map Unit Name: Still clay loam, 2 to 9 % NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓	No _____	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks:

Wetland sample taken

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 4 square m.)			
1. Leymus triticoides	39	Yes	FAC+
2. Lotus corniculatus	35	Yes	FAC
3. Plantago lanceolata	25	Yes	FAC-
4. Lolium perenne	1	No	FAC*
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: WET 1-6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
8	7.5YR 2.5/1	90	7.5YR 4/6	10	C	M	Silty clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ✓ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ✓ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

U.S. Department of Agriculture, National Agriculture Imagery Program, 2005

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Atascadero-SLO 70 kV Power Line Reconductori City/County: Santa Margarita/SLO Sampling Date: 06/19/09

Applicant/Owner: Pacific Gas & Electric Company State: CA Sampling Point: WET 1-7

Investigator(s): Madeleine van der Heyden & Marc Doalson Section, Township, Range: Section 19, T29S, R13E, MDBM

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): concave Slope (%): 3

Subregion (LRR): C – Mediterranean California Lat: 35.388975 W Long: -120.624181 N Datum: WGS84

Soil Map Unit Name: Still clay loam, 2 to 9 % NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓	No _____	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks:

Wetland soil sample taken

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 4 square m.)			
1. Juncus xiphioides	60	Yes	OBL
2. Leymus triticoides	35	Yes	FAC+
3. Carex sp.	3	No	Unkn.
4. Polypogon monspeliensis	1	No	FACW+
5. Picris echioides	1	No	FAC
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: WET 1-7

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
8	7.5YR 2.5/1	85	7.5YR 4/6	15	C	M	Sandy cla	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ✓ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ✓ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ✓ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): _____

Water Table Present? Yes ___ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ✓ No ___ Depth (inches): _____

Wetland Hydrology Present? Yes ✓ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

U.S. Department of Agriculture, National Agriculture Imagery Program, 2005

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Atascadero-SLO 70 kV Power Line Reconductori City/County: Santa Margarita/SLO Sampling Date: 06/19/09

Applicant/Owner: Pacific Gas & Electric Company State: CA Sampling Point: WET 1-8

Investigator(s): Madeleine van der Heyden & Marc Doalson Section, Township, Range: Section 19, T29S, R13E, MDBM

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): concave Slope (%): 3

Subregion (LRR): C – Mediterranean California Lat: 35.388975 W Long: -120.624181 N Datum: WGS84

Soil Map Unit Name: Still clay loam, 2 to 9 % NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓	No _____	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks:

Wetland soil sample taken

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 4 square m.)			
1. Plantago lanceolata	60	Yes	FAC-
2. Lotus corniculatus	30	Yes	FAC
3. Bromus hordeaceus	9	No	UPL
4. Dipsacus sativus	1	No	UPL
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: WET 1-8

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
7	7.5YR 2.5/1	90	7.5YR 4/6	10	C	M	Silty clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ✓ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ✓ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

U.S. Department of Agriculture, National Agriculture Imagery Program, 2005

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Atascadero-SLO 70 kV Power Line Reconductori City/County: Santa Margarita/SLO Sampling Date: 06/19/09

Applicant/Owner: Pacific Gas & Electric Company State: CA Sampling Point: UPL 1-8

Investigator(s): Madeleine van der Heyden & Marc Doalson Section, Township, Range: Section 19, T29S, R13E, MDBM

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): concave Slope (%): 3

Subregion (LRR): C – Mediterranean California Lat: 35.388975 W Long: -120.624181 N Datum: WGS84

Soil Map Unit Name: Still clay loam, 2 to 9 % NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✓	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks:

Upland soil sample taken

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 4 square m.)			
1. Avena sp.	30	Yes	UPL
2. Bromus hordeaceus	30	Yes	UPL
3. Dipsacus sativus	23	Yes	UPL
4. Plantago lanceolota	3	No	FAC-
5. Centaurea solstitialis	2	No	UPL
6. Carduus pycnocephalus	1	No	UPL
7. Hordeum marinum	1	No	FAC+
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

SOIL

Sampling Point: UPL 1-8

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
8	7.5YR 2.5/2	100						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

U.S. Department of Agriculture, National Agriculture Imagery Program, 2005

Remarks:

Attachment H: Preliminary Jurisdictional Determination Forms

PRELIMINARY JURISDICTIONAL DETERMINATION FORM

This preliminary JD finds that there *"may be"* waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

District Office: San Francisco District | File/ORM #: | PJD Date: Oct 27, 2009

State: CA | City/County: San Luis Obispo County

Nearest Waterbody: Paloma Creek and South Fork Paloma Creek

Location: TRS, LatLong or UTM: T29S,R12E, S1; 35.43888789300, -120.64011595500

Name/ Address of Person Requesting PJD: Robyn Salvadori
Pacific Gas and Electric Company
245 Market Street, N10A
San Francisco, CA 94105

Identify (Estimate) Amount of Waters in the Review Area:

Non-Wetland Waters: 312 linear ft | 25 width | 0.0372 acres | Stream Flow: Intermittent

Wetlands: acre(s) | Cowardin Class: Palustrine, emergent

Name of Any Water Bodies on the Site Identified as Section 10 Waters: Tidal: | Non-Tidal:

☐ Office (Desk) Determination
☑ Field Determination: Date of Field Trip: 6/17/09 - 6/22/09

SUPPORTING DATA: Data reviewed for preliminary JD (check all that apply - checked items should be included in case file and, where checked and requested, appropriately reference sources below):

- ☑ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Attachment C - Wetland Delineation Map
- ☐ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - ☐ Office concurs with data sheets/delineation report.
  - ☐ Office does not concur with data sheets/delineation report.
- ☐ Data sheets prepared by the Corps
- ☐ Corps navigable waters' study:
- ☐ U.S. Geological Survey Hydrologic Atlas:
  - ☐ USGS NHD data.
  - ☐ USGS 8 and 12 digit HUC maps.
- ☑ U.S. Geological Survey map(s). Cite quad name: Atascadero
- ☐ USDA Natural Resources Conservation Service Soil Survey. Citation:
- ☐ National wetlands inventory map(s). Cite name:
- ☐ State/Local wetland inventory map(s):
- ☐ FEMA/FIRM maps:
- ☐ 100-year Floodplain Elevation is:
- ☑ Photographs: ☑ Aerial (Name & Date): Attachments C (Wetland Map) and F (Photos)
  - ☐ Other (Name & Date):
- ☐ Previous determination(s). File no. and date of response letter:
- ☐ Other information (please specify):

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

Signature and Date of Regulatory Project Manager (REQUIRED)

Signature and Date of Person Requesting Preliminary JD (REQUIRED, unless obtaining the signature is impracticable)

EXPLANATION OF PRELIMINARY AND APPROVED JURISDICTIONAL DETERMINATIONS:

1. The Corps of Engineers believes that there may be jurisdictional waters of the United States on the subject site, and the permit applicant or other affected party who requested this preliminary JD is hereby advised of his or her option to request and obtain an approved jurisdictional determination (JD) for that site. Nevertheless, the permit applicant or other person who requested this preliminary JD has declined to exercise the option to obtain an approved JD in this instance and at this time.

2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "preconstruction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an approved JD for the activity, the permit applicant is hereby made aware of the following: (1) the permit applicant has elected to seek a permit authorization based on a preliminary JD, which does not make an official determination of jurisdictional waters; (2) that the applicant has the option to request an approved JD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an approved JD could possibly result in less compensatory mitigation being required or different special conditions; (3) that the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) that the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) that undertaking any activity in reliance upon the subject permit authorization without requesting an approved JD constitutes the applicant's acceptance of the use of the preliminary JD, but that either form of JD will be processed as soon as is practicable; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a preliminary JD constitutes agreement that all wetlands and other water bodies on the site affected in any way by that activity are jurisdictional waters of the United States, and precludes any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an approved JD or a preliminary JD, that JD will be processed as soon as is practicable. Further, an approved JD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331, and that in any administrative appeal, jurisdictional issues can be raised (see 33 C.F.R. 331.5(a)(2)). If, during that administrative appeal, it becomes necessary to make an official determination whether CWA jurisdiction exists over a site, or to provide an official delineation of jurisdictional waters on the site, the Corps will provide an approved JD to accomplish that result, as soon as is practicable.

PRELIMINARY JURISDICTIONAL DETERMINATION FORM

This preliminary JD finds that there *"may be"* waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

Appendix A - Sites

District Office	San Francisco District	File/ORM #		PJD Date:	Oct 27, 2009
State	CA	City/County	San Luis Obispo County	Person Requestinq PJD	Robyn Salvadori (PG&E)

Site Number	Latitude	Longitude	Cowardin Class	Est. Amount of Aquatic Resource in Review Area	Class of Aquatic Resource
S1	35.4388878930	-120.64011595	Palustrine, emergent	0.0185	Non-Section 10 non-wetlanc
S2a	35.4351255290	-120.63924195	Palustrine, emergent	0.0132	Non-Section 10 non-wetlanc
S2b	35.4332341412	-120.63769627	Palustrine, emergent	0.0021	Non-Section 10 non-wetlanc
S2c	35.4316620216	-120.63695699	Palustrine, emergent	0.0019	Non-Section 10 non-wetlanc
S30	35.4328474695	-120.63714794	Palustrine, emergent	0.0015	Non-Section 10 non-wetlanc

Notes:

See the Wetland Delineation Report for more information about the features S1, S2a, S2b, S2c, and S30.

PRELIMINARY JURISDICTIONAL DETERMINATION FORM

This preliminary JD finds that there *"may be"* waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

District Office: San Francisco District | File/ORM #: | PJD Date: Oct 27, 2009

State: CA | City/County: San Luis Obispo County

Nearest Waterbody: Santa Margarita Creek

Location: TRS, LatLong or UTM: T29S,R13E, S7; 35.41528973880, -120.62637140300

Name/ Address of Person Requesting PJD:
Robyn Salvadori
Pacific Gas and Electric Company
245 Market Street, N10A
San Francisco, CA 94105

Identify (Estimate) Amount of Waters in the Review Area:

Non-Wetland Waters: 406 linear ft | 3. width | 0.0097 acres | Stream Flow: Intermittent

Wetlands: acre(s) | Cowardin Class: Palustrine, emergent

Name of Any Water Bodies on the Site Identified as Section 10 Waters: Tidal: | Non-Tidal:

☐ Office (Desk) Determination
☑ Field Determination: Date of Field Trip: 6/17/09 - 6/22/09

SUPPORTING DATA: Data reviewed for preliminary JD (check all that apply - checked items should be included in case file and, where checked and requested, appropriately reference sources below):

- ☑ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Attachment C - Wetland Delineation Map
- ☐ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - ☐ Office concurs with data sheets/delineation report.
  - ☐ Office does not concur with data sheets/delineation report.
- ☐ Data sheets prepared by the Corps
- ☐ Corps navigable waters' study:
- ☐ U.S. Geological Survey Hydrologic Atlas:
  - ☐ USGS NHD data.
  - ☐ USGS 8 and 12 digit HUC maps.
- ☑ U.S. Geological Survey map(s). Cite quad name: Atascadero and Santa Margarita
- ☐ USDA Natural Resources Conservation Service Soil Survey. Citation:
- ☐ National wetlands inventory map(s). Cite name:
- ☐ State/Local wetland inventory map(s):
- ☐ FEMA/FIRM maps:
- ☐ 100-year Floodplain Elevation is:
- ☑ Photographs: ☑ Aerial (Name & Date): Attachments C (Wetland Map) and F (Photos)
  - ☐ Other (Name & Date):
- ☐ Previous determination(s). File no. and date of response letter:
- ☐ Other information (please specify):

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

Signature and Date of Regulatory Project Manager (REQUIRED)

Signature and Date of Person Requesting Preliminary JD (REQUIRED, unless obtaining the signature is impracticable)

EXPLANATION OF PRELIMINARY AND APPROVED JURISDICTIONAL DETERMINATIONS:

1. The Corps of Engineers believes that there may be jurisdictional waters of the United States on the subject site, and the permit applicant or other affected party who requested this preliminary JD is hereby advised of his or her option to request and obtain an approved jurisdictional determination (JD) for that site. Nevertheless, the permit applicant or other person who requested this preliminary JD has declined to exercise the option to obtain an approved JD in this instance and at this time.

2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "preconstruction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an approved JD for the activity, the permit applicant is hereby made aware of the following: (1) the permit applicant has elected to seek a permit authorization based on a preliminary JD, which does not make an official determination of jurisdictional waters; (2) that the applicant has the option to request an approved JD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an approved JD could possibly result in less compensatory mitigation being required or different special conditions; (3) that the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) that the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) that undertaking any activity in reliance upon the subject permit authorization without requesting an approved JD constitutes the applicant's acceptance of the use of the preliminary JD, but that either form of JD will be processed as soon as is practicable; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a preliminary JD constitutes agreement that all wetlands and other water bodies on the site affected in any way by that activity are jurisdictional waters of the United States, and precludes any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an approved JD or a preliminary JD, that JD will be processed as soon as is practicable. Further, an approved JD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331, and that in any administrative appeal, jurisdictional issues can be raised (see 33 C.F.R. 331.5(a)(2)). If, during that administrative appeal, it becomes necessary to make an official determination whether CWA jurisdiction exists over a site, or to provide an official delineation of jurisdictional waters on the site, the Corps will provide an approved JD to accomplish that result, as soon as is practicable.

PRELIMINARY JURISDICTIONAL DETERMINATION FORM

This preliminary JD finds that there *"may be"* waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

Appendix A - Sites

District Office	San Francisco District	File/ORM #		PJD Date:	Oct 27, 2009
State	CA	City/County	San Luis Obispo County	Person Requestinq PJD	Robyn Salvadori (PG&E)

Site Number	Latitude	Longitude	Cowardin Class	Est. Amount of Aquatic Resource in Review Area	Class of Aquatic Resource
S3	35.4160117194	-120.62637583	Palustrine, emergent	0.0024	Non-Section 10 non-wetlanc
S4	35.4152897388	-120.62637140	Palustrine, emergent	0.0011	Non-Section 10 non-wetlanc
S5	35.4143618649	-120.62637289	Palustrine, emergent	0.0005	Non-Section 10 non-wetlanc
S40	35.4106111677	-120.62560442	Palustrine, emergent	0.0057	Non-Section 10 non-wetlanc

Notes:

See the Wetland Delineation Report for more information about the features S3, S4, S5, and S40.

PRELIMINARY JURISDICTIONAL DETERMINATION FORM

This preliminary JD finds that there *"may be"* waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

District Office: San Francisco District | File/ORM #: | PJD Date: Oct 27, 2009

State: CA | City/County: San Luis Obispo County

Nearest Waterbody: Santa Margarita Creek

Location: TRS, LatLong or UTM: T29S,R13E,S19; 35.38922799120, -120.62409255200

Name/ Address of Person Requesting PJD:
Robyn Salvadori
Pacific Gas and Electric Company
245 Market Street, N10A
San Francisco, CA 94105

Identify (Estimate) Amount of Waters in the Review Area:

Non-Wetland Waters: 131 linear ft | 3.5 width | 0.0052 acres | Stream Flow: Intermittent

Wetlands: 0.661 acre(s) | Cowardin Class: Palustrine, emergent

Name of Any Water Bodies on the Site Identified as Section 10 Waters: Tidal: | Non-Tidal:

☐ Office (Desk) Determination
☑ Field Determination: | Date of Field Trip: 6/17/09 - 6/22/09

SUPPORTING DATA: Data reviewed for preliminary JD (check all that apply - checked items should be included in case file and, where checked and requested, appropriately reference sources below):

- ☑ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Attachment C - Wetland Delineation Map
- ☐ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - ☐ Office concurs with data sheets/delineation report.
  - ☐ Office does not concur with data sheets/delineation report.
- ☐ Data sheets prepared by the Corps
- ☐ Corps navigable waters' study:
- ☐ U.S. Geological Survey Hydrologic Atlas:
  - ☐ USGS NHD data.
  - ☐ USGS 8 and 12 digit HUC maps.
- ☑ U.S. Geological Survey map(s). Cite quad name: Santa Margarita
- ☐ USDA Natural Resources Conservation Service Soil Survey. Citation:
- ☐ National wetlands inventory map(s). Cite name:
- ☐ State/Local wetland inventory map(s):
- ☐ FEMA/FIRM maps:
- ☐ 100-year Floodplain Elevation is:
- ☑ Photographs: ☑ Aerial (Name & Date): Attachments C (Wetland Map) and F (Photos)
  - ☐ Other (Name & Date):
- ☐ Previous determination(s). File no. and date of response letter:
- ☐ Other information (please specify):

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

Signature and Date of Regulatory Project Manager (REQUIRED)

Signature and Date of Person Requesting Preliminary JD (REQUIRED, unless obtaining the signature is impracticable)

EXPLANATION OF PRELIMINARY AND APPROVED JURISDICTIONAL DETERMINATIONS:

1. The Corps of Engineers believes that there may be jurisdictional waters of the United States on the subject site, and the permit applicant or other affected party who requested this preliminary JD is hereby advised of his or her option to request and obtain an approved jurisdictional determination (JD) for that site. Nevertheless, the permit applicant or other person who requested this preliminary JD has declined to exercise the option to obtain an approved JD in this instance and at this time.

2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "preconstruction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an approved JD for the activity, the permit applicant is hereby made aware of the following: (1) the permit applicant has elected to seek a permit authorization based on a preliminary JD, which does not make an official determination of jurisdictional waters; (2) that the applicant has the option to request an approved JD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an approved JD could possibly result in less compensatory mitigation being required or different special conditions; (3) that the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) that the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) that undertaking any activity in reliance upon the subject permit authorization without requesting an approved JD constitutes the applicant's acceptance of the use of the preliminary JD, but that either form of JD will be processed as soon as is practicable; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a preliminary JD constitutes agreement that all wetlands and other water bodies on the site affected in any way by that activity are jurisdictional waters of the United States, and precludes any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an approved JD or a preliminary JD, that JD will be processed as soon as is practicable. Further, an approved JD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331, and that in any administrative appeal, jurisdictional issues can be raised (see 33 C.F.R. 331.5(a)(2)). If, during that administrative appeal, it becomes necessary to make an official determination whether CWA jurisdiction exists over a site, or to provide an official delineation of jurisdictional waters on the site, the Corps will provide an approved JD to accomplish that result, as soon as is practicable.

PRELIMINARY JURISDICTIONAL DETERMINATION FORM

This preliminary JD finds that there *"may be"* waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

Appendix A - Sites

District Office	San Francisco District	File/ORM #		PJD Date:	Oct 27, 2009
State	CA	City/County	San Luis Obispo County	Person Requestinq PJD	Robyn Salvadori (PG&E)

Site Number	Latitude	Longitude	Cowardin Class	Est. Amount of Aquatic Resource in Review Area	Class of Aquatic Resource
S17	35.3895066321	-120.62399387	Palustrine, emergent	0.0025	Non-Section 10 non-wetlanc
W1	35.3968410174	-120.62219842	Palustrine, emergent	0.109	Non-Section 10 wetland
W2	35.3892279912	-120.62409255	Palustrine, emergent	0.552	Non-Section 10 wetland
S41	35.3862529141	-120.62230925	Palustrine, emergent	0.0027	Non-Section 10 non-wetlanc

Notes:

See the Wetland Delineation Report for more information about the features S17, W1, W2, and S41.

PRELIMINARY JURISDICTIONAL DETERMINATION FORM

This preliminary JD finds that there *"may be"* waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

District Office: San Francisco District | File/ORM #: | PJD Date: Oct 27, 2009

State: CA | City/County: San Luis Obispo County

Nearest Waterbody: Santa Margarita Creek

Location: TRS, LatLong or UTM: T29S, R12E, S36; 35.3563591105, -120.6340194830

Name/ Address of Person Requesting PJD:
Robyn Salvadori
Pacific Gas and Electric Company
245 Market Street, N10A
San Francisco, CA 94105

Identify (Estimate) Amount of Waters in the Review Area:

Non-Wetland Waters: 180 linear ft | 9.0 width | 0.0126 acres | Stream Flow: Intermittent

Wetlands: acre(s) | Cowardin Class: Palustrine, forested

Name of Any Water Bodies on the Site Identified as Section 10 Waters: Tidal: | Non-Tidal:

☐ Office (Desk) Determination
☑ Field Determination: Date of Field Trip: 6/17/09 - 6/22/09

SUPPORTING DATA: Data reviewed for preliminary JD (check all that apply - checked items should be included in case file and, where checked and requested, appropriately reference sources below):

- ☑ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Attachment C - Wetland Delineation Map
- ☐ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - ☐ Office concurs with data sheets/delineation report.
  - ☐ Office does not concur with data sheets/delineation report.
- ☐ Data sheets prepared by the Corps
- ☐ Corps navigable waters' study:
- ☐ U.S. Geological Survey Hydrologic Atlas:
  - ☐ USGS NHD data.
  - ☐ USGS 8 and 12 digit HUC maps.
- ☑ U.S. Geological Survey map(s). Cite quad name: San Luis Obispo
- ☐ USDA Natural Resources Conservation Service Soil Survey. Citation:
- ☐ National wetlands inventory map(s). Cite name:
- ☐ State/Local wetland inventory map(s):
- ☐ FEMA/FIRM maps:
- ☐ 100-year Floodplain Elevation is:
- ☑ Photographs: ☑ Aerial (Name & Date): Attachments C (Wetland Map) and F (Photos)
  - ☐ Other (Name & Date):
- ☐ Previous determination(s). File no. and date of response letter:
- ☐ Other information (please specify):

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

Signature and Date of Regulatory Project Manager (REQUIRED)

Signature and Date of Person Requesting Preliminary JD (REQUIRED, unless obtaining the signature is impracticable)

EXPLANATION OF PRELIMINARY AND APPROVED JURISDICTIONAL DETERMINATIONS:

1. The Corps of Engineers believes that there may be jurisdictional waters of the United States on the subject site, and the permit applicant or other affected party who requested this preliminary JD is hereby advised of his or her option to request and obtain an approved jurisdictional determination (JD) for that site. Nevertheless, the permit applicant or other person who requested this preliminary JD has declined to exercise the option to obtain an approved JD in this instance and at this time.

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PRELIMINARY JURISDICTIONAL DETERMINATION FORM

This preliminary JD finds that there *"may be"* waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

Appendix A - Sites

District Office	San Francisco District	File/ORM #		PJD Date:	Oct 27, 2009
State	CA	City/County	San Luis Obispo County	Person Requestinq PJD	Robyn Salvadori (PG&E)

Site Number	Latitude	Longitude	Cowardin Class	Est. Amount of Aquatic Resource in Review Area	Class of Aquatic Resource
S7	35.3592592491	-120.63655651	Palustrine, forested	0.0061	Non-Section 10 non-wetlanc
S8	35.3563591105	-120.63401948	Palustrine, forested	0.0046	Non-Section 10 non-wetlanc
S9	35.3557625856	-120.63036207	Palustrine, forested	0.0019	Non-Section 10 non-wetlanc

Notes:

See the Wetland Delineation Report for more information about the features S7, S8, and S9.

PRELIMINARY JURISDICTIONAL DETERMINATION FORM

This preliminary JD finds that there *"may be"* waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

District Office: Los Angeles District | File/ORM #: | PJD Date: Oct 27, 2009

State: CA | City/County: San Luis Obispo County

Nearest Waterbody: San Luis Obispo Creek

Location: TRS, LatLong or UTM: T30S, R13E, S19; 35.3085040000, -120.622486000

Name/ Address of Person Requesting PJD:
Robyn Salvadori
Pacific Gas and Electric Company
245 Market Street, N10A
San Francisco, CA 94105

Identify (Estimate) Amount of Waters in the Review Area:

Non-Wetland Waters: 212 linear ft | 17 width | 0.0205 acres | Stream Flow: Intermittent

Wetlands: 0.107 acre(s) | Cowardin Class: Palustrine, emergent

Name of Any Water Bodies on the Site Identified as Section 10 Waters: Tidal: | Non-Tidal:

☐ Office (Desk) Determination
☑ Field Determination: Date of Field Trip: 6/17/09 - 6/22/09

SUPPORTING DATA: Data reviewed for preliminary JD (check all that apply - checked items should be included in case file and, where checked and requested, appropriately reference sources below):

- ☑ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Attachment C - Wetland Delineation Map
- ☐ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - ☐ Office concurs with data sheets/delineation report.
  - ☐ Office does not concur with data sheets/delineation report.
- ☐ Data sheets prepared by the Corps
- ☐ Corps navigable waters' study:
- ☐ U.S. Geological Survey Hydrologic Atlas:
  - ☐ USGS NHD data.
  - ☐ USGS 8 and 12 digit HUC maps.
- ☑ U.S. Geological Survey map(s). Cite quad name: Lopez Mountain and San Luis Obispo
- ☐ USDA Natural Resources Conservation Service Soil Survey. Citation:
- ☐ National wetlands inventory map(s). Cite name:
- ☐ State/Local wetland inventory map(s):
- ☐ FEMA/FIRM maps:
- ☐ 100-year Floodplain Elevation is:
- ☑ Photographs: ☑ Aerial (Name & Date): Attachments C (Wetland Map) and F (Photos)
  - ☐ Other (Name & Date):
- ☐ Previous determination(s). File no. and date of response letter:
- ☐ Other information (please specify):

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

Signature and Date of Regulatory Project Manager (REQUIRED)

Signature and Date of Person Requesting Preliminary JD (REQUIRED, unless obtaining the signature is impracticable)

EXPLANATION OF PRELIMINARY AND APPROVED JURISDICTIONAL DETERMINATIONS:

1. The Corps of Engineers believes that there may be jurisdictional waters of the United States on the subject site, and the permit applicant or other affected party who requested this preliminary JD is hereby advised of his or her option to request and obtain an approved jurisdictional determination (JD) for that site. Nevertheless, the permit applicant or other person who requested this preliminary JD has declined to exercise the option to obtain an approved JD in this instance and at this time.

2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "preconstruction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an approved JD for the activity, the permit applicant is hereby made aware of the following: (1) the permit applicant has elected to seek a permit authorization based on a preliminary JD, which does not make an official determination of jurisdictional waters; (2) that the applicant has the option to request an approved JD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an approved JD could possibly result in less compensatory mitigation being required or different special conditions; (3) that the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) that the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) that undertaking any activity in reliance upon the subject permit authorization without requesting an approved JD constitutes the applicant's acceptance of the use of the preliminary JD, but that either form of JD will be processed as soon as is practicable; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a preliminary JD constitutes agreement that all wetlands and other water bodies on the site affected in any way by that activity are jurisdictional waters of the United States, and precludes any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an approved JD or a preliminary JD, that JD will be processed as soon as is practicable. Further, an approved JD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331, and that in any administrative appeal, jurisdictional issues can be raised (see 33 C.F.R. 331.5(a)(2)). If, during that administrative appeal, it becomes necessary to make an official determination whether CWA jurisdiction exists over a site, or to provide an official delineation of jurisdictional waters on the site, the Corps will provide an approved JD to accomplish that result, as soon as is practicable.

PRELIMINARY JURISDICTIONAL DETERMINATION FORM

This preliminary JD finds that there *"may be"* waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

Appendix A - Sites

District Office	Los Angeles District	File/ORM #		PJD Date:	Oct 27, 2009
State	CA	City/County	San Luis Obispo County	Person Requestinq PJD	Robyn Salvadori (PG&E)

Site Number	Latitude	Longitude	Cowardin Class	Est. Amount of Aquatic Resource in Review Area	Class of Aquatic Resource
S11	35.3085040000	-120.62248600	Palustrine, forested	0.0139	Non-Section 10 non-wetland
S12	35.3082970000	-120.62116100	Palustrine, emergent	0.0004	Non-Section 10 non-wetland
W3	35.2978824656	-120.62207538	Palustrine, emergent	0.107	Non-Section 10 wetland
S31	35.2820495113	-120.63013327	Palustrine, scrub-shrub	0.0062	Non-Section 10 non-wetland

Notes:

See the Wetland Delineation Report for more information about the features S11, S12, W3, and S31.

Attachment I: Contact Information

CONTACT INFORMATION

Client Contact Information:

Robyn Salvadori
Pacific Gas and Electric Company
245 Market Street, N10A
San Francisco, CA 94105

Delineation Conducted by:

Marc Doalson
TRC
1903 Wright Place, Suite 190
Carlsbad, CA 92008

Madeleine van der Heyden
TRC
80 Stone Pine Road, Suite 200
Half Moon Bay, CA 94019

APPENDIX C:
Geologic Reference Tables

Table D-1: Geologic Units Along the Project Alignment

Symbol	Formation Name	Age	Description
Qg	Stream Channel Deposits	Holocene	Surficial stream channel sediments: alluvial gravel and sand
Ols	Landslide Deposits	Holocene	Unconsolidated silt and sand
Qa	Alluvial Deposits	Holocene	Surficial valley sediments: alluvial gravel and sand
Qoa	Older Alluvial Deposits	Middle Miocene	Older surficial sediments: dissected terrace remnants of older alluvial gravel and sand
Tsm	Santa Margarita	Tertiary	Fine to coarse, light gray, arkosic sandstone, conglomerate, siliceous mudstone and porcelanite, shell lenses, some diatomite, strong/hard, white sandstone
Tml	Monterey	Middle Miocene	Shale: thin-bedded, platy, siliceous to soft, fissile, phosphatic, cream white weathered, contains thin hard layers and concretions of yellow-gray dolomite; well-bedded sequences of marine upper siliceous and lower carbonate beds, including calcareous, foraminiferal, bituminous mudstone, siltstone with dolomite, shale, arkosic sandstone, and limestone
Tvs	Vaqueros	Early Miocene	Light brown, massive arkosic sandstone, conglomerate, and limestone
Kas	Atascadero	Late Cretaceous	Hard, tan sandstone, minor micaceous shale, shattered, undifferentiated sequences of massive biotitic sandstone with interbedded sandstone-mudstone turbidites and sparse marine fossils
KJsh	Toro	Jurassic-Cretaceous	Marine, dark gray, arkosic, micaceous shale, minor thin layers of dark brown sandstone, shale-mudstone with lithic graywacke and pebble conglomerate, contains marine fossils
Ob	Coast Range Ophiolite Complex	Jurassic-Cretaceous	Black fine-grained basalt-diabase, greenstone and related altered lava and tuff breccia
Sp	Serpentinite	Jurassic-Cretaceous	Blue-green slickensided, metamorphosed from peridotite (may be part of the Coast Range Ophiolite Complex)
Fm	Franciscan Assemblage	Jurassic-Cretaceous	Melange of claystone, greywacke ,altered volcanic rocks (greenstone); lesser amounts of thin-bedded chert, serpentinite, diabase-gabbro, conglomerate, and blue schist facies metamorphic rocks; other blocks of pervasively sheared, slightly metamorphosed marine sedimentary and mafic volcanic rocks

SOURCES: Kleinfelder 2008, 2010; Hart 1976.

Table D-2: Soil Type Along the Project Alignment

Map Unit Symbol1	Soil Name	USCS2	Texture	Percent Slope	Shrink-Swell Potential/ Erosion Hazard	Landform and Parent Material
115 [c]	Chamise shaly loam	GC-GM, SC	Channery[3] loam, very channery clay, channery sandy clay loam	9-15	Moderate/Low	Terraces and hills, alluvium derived from sedimentary rocks
143 [c] 144 [c] 145 [c]	Gazos-Lodo clay loams	CL	Clay loam	15-30 30-50 50-75	Moderate/Low Moderate/Low Moderate/Low	Mountains and hills, weathered from sandstone and shale
147 [c]	Lodo clay loam	CL	Clay loam	5-15	Moderate/Low	Mountains and hills, weathered from sandstone and shale
158 [c] 160 [c] 161 [c]	Los Osos loam	ML, CL	Loam, clay, clay loam, silty clay, sandy loam	5-9 15-30 30-50	Moderate-High/Moderate Moderate-High/Moderate Moderate-High/Moderate	Hills and ridges, weathered from sandstone and shale
162 [c] 163 [c] 164 [c] 165 [c]	Los Osos-Diablo complex	ML, CL	Loam, clay loam, silty clay, sandy loam	5-9 9-15 15-30 30-50	Moderate-High/Moderate Moderate-High/Moderate Moderate-High/Moderate Moderate-High/Moderate	Hills and ridges, weathered from sandstone and shale
183 [c]	Obispo-Rock outcrop complex	CL	Clay, weathered bedrock	15-75	Moderate/Low	Mountain slopes and ridges, weathered from serpentinite
194 [c]	Riverwash	SP, SM	Sand, stratified coarse sand to sandy loam	0-2	Low/Low	Channels

Table D-2 *(Continued)*: Soil Type Along the Project Alignment

Map Unit Symbol1	Soil Name	USCS2	Texture	Percent Slope	Shrink-Swell Potential/ Erosion Hazard	Landform and Parent Material
197 [c]	Salinas silty clay loam	CL, ML	Silty clay loam	0-2	Moderate/Moderate	Alluvial fans and alluvial flats, alluvium derived from sedimentary rocks
131 *	Concepcion sandy loam	SM, SC	Sandy loam, clay, sandy clay loam	2-9	Low-Moderate/Moderate	Terraces, alluvium derived from mixed rocks
134 * 135 *	Dibble clay loam	CL	Clay loam, clay	9-15 15-30	Moderate-High/Moderate Moderate-High/Moderate	Hills, weathered from sandstone and shale
144 *	Gazos shaly clay loam	GC	Channery[1] clay loam, unweathered bedrock	9-30	Moderate/Low	Hills, weathered from shale
147 * 148 *	Hanford and Greenfield soils	SM	Fine sandy loam	0-2 2-9	Low/Moderate Low/Moderate	Terraces, alluvium from mixed rock sources
152 *	Linne-Calodo complex	GC	Channery[1] clay loam, clay loam, weathered bedrock	9-30	Moderate/Low	Hills, weathered from calcareous shale and/or calcareous sandstone
169 * 170 *	Millsholm-Dibble complex	CL	Clay loam, clay, unweathered and weathered bedrock	15-30 30-50	High/Moderate High/Moderate	Hills, weathered from shale and/or sandstone
188 *	Rincon clay loam	CL	Clay loam, clay, sandy clay	2-9	Moderate-High/Moderate	Alluvial fans, alluvium derived from sedimentary rock

Table D-2 *(Continued)*: Soil Type Along the Project Alignment

Map Unit Symbol1	Soil Name	USCS2	Texture	Percent Slope	Shrink-Swell Potential/ Erosion Hazard	Landform and Parent Material
190 *	Rock outcrop-Gaviota complex	--	Sandy loam, unweathered bedrock	30-75	Low/Moderate	Mountains, weathered from sandstone
193 *	San Andreas-Arujo complex	SM-SC	Sandy loam, sandy clay loam, weathered bedrock	9-15	Low-Moderate/Moderate	Hills, weathered from sandstone
198 *	Santa Lucia-Lopez complex	GC	Channery[1] clay loam, very channery clay loam, unweathered bedrock	15-50	Low/Low	Hills, weathered from shale
203 * 204 *	Shimmon-Dibble association	ML, CL	Loam, clay loam, sandy clay loam, silty clay loam	30-50 50-75	Moderate/High Moderate-High/Moderate	Mountains, weathered from sandstone
208 * 209 *	Still clay loam	CL, ML	Clay loam	0-2 2-9	Moderate/Slight Moderate/Moderate	Alluvial fans, alluvium derived from sedimentary rock
212 *	Xerofluvents-Riverwash Association	--	Sand, stratified gravel to sand to sandy loam	--	--/Very High	Flood plains and channels
22 +	Los Osos-Modesto-Chualar families association	CL	Clay loam, cobbly clay loam, clay, silty clay, weathered bedrock	20-70	Moderate-High/Moderate	Mountains, weathered from sandstone

Table D-2 *(Continued)*: Soil Type Along the Project Alignment

Map Unit Symbol1	Soil Name	USCS2	Texture	Percent Slope	Shrink-Swell Potential/ Erosion Hazard	Landform and Parent Material
29 +	Millsholm-Excheguer-Sonyford families complex	SC, SM	Gravelly sandy loam, unweathered bedrock, sandy loam, sandy clay loam	30-75	Low/Moderate	Mountains, weathered from sandstone and siltstone

Notes:

[1] The project route traverses portions of three NRCS soil survey reports: the Soil Survey of San Luis Obispo County, California, Coastal Part (c); the Soil Survey of San Luis Obispo County, California, Paso Robles Area (*); and the Soil Survey of Los Padres National Forest Area (+), California.

[2] USCS = Unified Soil Classification System.

[3] Channery soil contains 15-35 percent thin, flat fragments of sandstone, shale, slate, limestone, or schist by volume; very channery soil has 35-60 percent by volume.

SOURCES: Kleinfelder 2008, 2010; CDC 2006; Web Soil Survey 2010; Rincon 2008; SLOCDBP 2009

Table D-3: Regional Fault in the Project Vicinity

Fault Group Name	Length (mi)	Proximity to Alignment (mi)	Fault Type	Slip Rate (mm/year)	Maximum Earthquake Magnitude[1]
Hosgri fault zone	105	15.5	RLSS	2.5	7.3
Rinconada fault zone	76	0.5	RLSS	1.0	7.5
San Andreas fault zone	673	30	RLSS	34	7.8
San Juan fault zone	47	23	RLSS	1.0	7.1
La Panza fault zone	44	9	R	0.3-0.6	5.0-7.5
Oceanic-West Huasna fault zone	48	Crosses alignment just north of Pole 72/0	R, O	6	6.9
Cambria fault zone	38	Crosses alignment at two points between Poles 73/3 and 73/4	R	9.0	7.0
Los Osos fault zone	32	2	R	0.5	6.8
East Huasna fault zone	46	7	R	N/A	N/A
South Cuyama fault zone	65	16	R		

Table D-3 *(Continued)*: Regional Fault in the Project Vicinity

Fault Group Name	Length (mi)	Proximity to Alignment (mi)	Fault Type	Slip Rate (mm/year)	Maximum Earthquake Magnitude[1]
San Luis Range fault system	54	7.5	R	0.2	7.2
Lompoc structure	21	30			
Casmalia fault zone	44	20	R	0.3	6.5
Lions Head fault zone	33	25	R	0.02	6.6

Notes:
Fault Types: R = reverse; SS = strike-slip; RL = right-lateral; O = oblique

N/A = data not available

[1] Maximum moment magnitude with a 90 percent probability of not being exceeded in 50 years.

SOURCES: SLO County 1999; Kleinfelder 2009

REFERENCES

CDC (California Department of Conservation). 2006. Soil Candidate Listing for Prime Farmland and Farmland of Statewide Importance. San Luis Obispo County.

Hart, E.W. 1976. Basic Geology of the Santa Margarita Area, San Luis Obispo County, California. California Division of Mines and Geology. Bulletin 199.

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_____. 2009. *Engineering Geologic and Geotechnical Observations and Recommendations Pertaining to Several Steel Lattice Towers along the Atascadero-SLO 70KV Transmission Line Corridor, San Luis Obispo, California.* Letter report to Mr. Joseph Sun at PG&E. November 23, 2009.

_____. 2008. Geologic Hazard and Foundation Evaluation, PG&E Atascadero-SLO 70 kV Transmission-Line Corridor, San Luis Obispo, California.

Rincon. 2008. Environmental Impact Report for Santa Margarita Ranch, Agricultural Residential Cluster Subdivision Project and Future Development Program. Volume 1 of 2: EIR Analysis.

SLO County (San Luis Obispo County). 2010. Conservation and Open Space Element of the San Luis Obispo County General Plan. Website: http://www.slocounty.ca.gov/Assets/PL/Conservation+and+Open+Space+Element/COSE+Planning+Commission+Draft+11-20-09/cose112009.pdf . Last accessed August 6, 2010.

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APPENDIX D:
Agency Communication

CITY OF ATASCADERO

COMMUNITY DEVELOPMENT DEPARTMENT

June 2, 2010

Cory Pereira
Pacific Gas & Electric

RE: Tree Removals for PG&E

Dear Cory Pereira:

This letter is in response to your inquiry about tree removals and mitigation requirements within the City of Atascadero. The City of Atascadero has adopted a Native Tree Ordinance which requires permits to be obtained for native tree removals during construction, on vacant sites, and on all commercial and multi-family residential sites.

California State law requires utility companies to maintain specific clearances between electric power lines and all vegetation. Due to the need for constant maintenance and hazard reduction around power lines, the City does not require PG&E to obtain permits for trees being removed for public utilities. Native trees should be saved and protected whenever possible; however, they may be removed by PG&E without permits if necessary. Mitigation (fees or replanting) is not required for these tree removals because permits are not required and individual trees removed by PG&E for maintenance are not tracked by the City. PG&E should maintain annual management plan permits through the City; however, individual permits and mitigation are not required for each removal.

Please contact me at 470-3448 if I can be of assistance or if you have questions regarding this letter.

Sincerely,

Callie Taylor
Associate Planner

6907 EL CAMINO REAL ▪ ATASCADERO, CA 93422 ▪ (805) 461-5000 ▪ FAX 461-7612

The applicant has received Determination of No Hazard to Air Navigation letters for 13 proposed structures of the project that qualify under Federal Aviation Administration (FAA) Notice Criteria. The letters state that the FAA conducted an aeronautical study, which concluded that the structure would have no substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on the operation of air navigation facilities. The letters require the applicant to file a Notice of Actual Construction or Alteration with the FAA within five days after the construction of the structure reaches its greatest height. Letters for the 13 structures at the locations listed in Table E-1 have been filed with the California Public Utilities Commission. One letter is attached for reference.

Table E-1: Location of Proposed Structures

Structure	Latitude	Longitude
1	35-15-42.00N NAD 83	120-38-06.00W
2	35-15-48.00N NAD 83	120-38-06.00W
3	35-15-54.00N NAD 83	120-38-05.00W
4	35-16-02.00N NAD 83	120-38-04.00W
5	35-16-15.00N NAD 83	120-38-03.00W
6	35-16-28.00N NAD 83	120-38-01.00W
7	35-16-30.00N NAD 83	120-38-01.00W
8	35-16-44.00N NAD 83	120-37-54.00W
9	35-16-48.00N NAD 83	120-37-52.00W
10	35-16-53.00N NAD 83	120-37-50.00W
11	35-16-55.00N NAD 83	120-37-48.00W
12	35-17-12.00N NAD 83	120-37-40.00W
13	35-17-25.00N NAD 83	120-37-33.00W

Federal Aviation Administration
Air Traffic Airspace Branch, ASW-520
2601 Meacham Blvd.
Fort Worth, TX 76137-0520

Aeronautical Study No.
2010-AWP-4017-OE

Issued Date: 07/09/2010

Greg Davis
Greg Davis
1919 Webster St
Oakland, CA 94520

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Transmission Line Atascadero-San Luis Obispo 70 kV Power Line
Location:	San Luis Obispo, CA
Latitude:	35-15-42.00N NAD 83
Longitude:	120-38-06.00W
Heights:	85 feet above ground level (AGL)
	385 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure would have no substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on the operation of air navigation facilities. Therefore, pursuant to the authority delegated to me, it is hereby determined that the structure would not be a hazard to air navigation provided the following condition(s) is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be completed and returned to this office any time the project is abandoned or:

_____ At least 10 days prior to start of construction (7460-2, Part I)
__X__ Within 5 days after the construction reaches its greatest height (7460-2, Part II)

See attachment for additional condition(s) or information.

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking and/or lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

Any height exceeding 85 feet above ground level (385 feet above mean sea level), will result in a substantial adverse effect and would warrant a Determination of Hazard to Air Navigation.

This determination expires on 01/09/2012 unless:

(a) extended, revised or terminated by the issuing office.
(b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within

6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is subject to review if an interested party files a petition that is received by the FAA on or before August 08, 2010. In the event a petition for review is filed, it must contain a full statement of the basis upon which it is made and be submitted in triplicate to the Manager, Airspace and Rules Division - Room 423, Federal Aviation Administration, 800 Independence Ave., Washington, D.C. 20591.

This determination becomes final on August 18, 2010 unless a petition is timely filed. In which case, this determination will not become final pending disposition of the petition. Interested parties will be notified of the grant of any review. For any questions regarding your petition, please contact Office of Airspace and Rules via telephone -- 202-267-8783 - or facsimile 202-267-9328.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

This aeronautical study considered and analyzed the impact on existing and proposed arrival, departure, and en route procedures for aircraft operating under both visual flight rules and instrument flight rules; the impact on all existing and planned public-use airports, military airports and aeronautical facilities; and the cumulative impact resulting from the studied structure when combined with the impact of other existing or proposed structures. The study disclosed that the described structure would have no substantial adverse effect on air navigation.

An account of the study findings, aeronautical objections received by the FAA during the study (if any), and the basis for the FAA's decision in this matter can be found on the following page(s).

If we can be of further assistance, please contact Karen McDonald, at (310)725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2010-AWP-4017-OE.

Signature Control No: 708837-128129201 (DNH)
Sheri Edgett-Baron
Manager, Obstruction Evaluation Service

Attachment(s)
Additional Information
Case Description
Map(s)

The proposal is one of 13 replacement utility pole towers for Pacific Gas & Electric (PG&E), on terrain that continues to rise significantly to the north, near San Luis Obispo, California. The replacement poles are approximately 10 feet taller than the existing structures. The utility line is sited north of the San Luis County Regional (SBP) airport reference point, the closest civilian public-use landing area. This specific replacement utility pole tower support structure is located 1.51 nautical miles (nm) north of the SBP airport reference point. The SBP Field Elevation is 212 feet above mean sea level (amsl). The site elevation of this specific utility pole is 300 feet amsl.

The structure height exceeds the obstruction standards of Title 14 of the Code of Federal Regulations, Part 77 as follows:

Section 77.25(a) by 23 feet -- a height exceeding the SBP Horizontal Surface.

The proposal was not circularized for public aeronautical comment as internal FAA evaluation has found no substantial adverse effect on aeronautical operations. The adverse effect of this proposed structure is known, and there is no significant adverse effect on aeronautical operations or on the utility of the navigable airspace overlying the site. Similarly situated structures exist in the area. This does not affect the public's right to petition for review determinations regarding structures which exceed the subject obstruction standard.

AERONAUTICAL STUDY FOR POSSIBLE EFFECT UPON THE OPERATION OF AN AIR NAVIGATION AID:

- None.

AERONAUTICAL STUDY FOR POSSIBLE INSTRUMENT FLIGHT RULES (IFR) EFFECT DISCLOSED THE FOLLOWING:

- The proposal would have no effect on any existing or proposed IFR arrival/departure routes, operations, or procedures.

- The proposal would have no effect on any existing or proposed IFR en route routes, operations, or procedures.

- The proposal would have no effect on any existing or proposed IFR minimum flight altitudes.

AERONAUTICAL STUDY FOR POSSIBLE VISUAL FLIGHT RULES (VFR) EFFECT DISCLOSED THE FOLLOWING:

- The proposal would have no effect on any existing or proposed VFR arrival or departure routes, operations or procedures.

- The proposal would not conflict with airspace required to conduct normal VFR traffic pattern operations at any known civilian public use or military airports.

- The proposal would not penetrate those altitudes normally considered available to airmen for VFR en route flight.

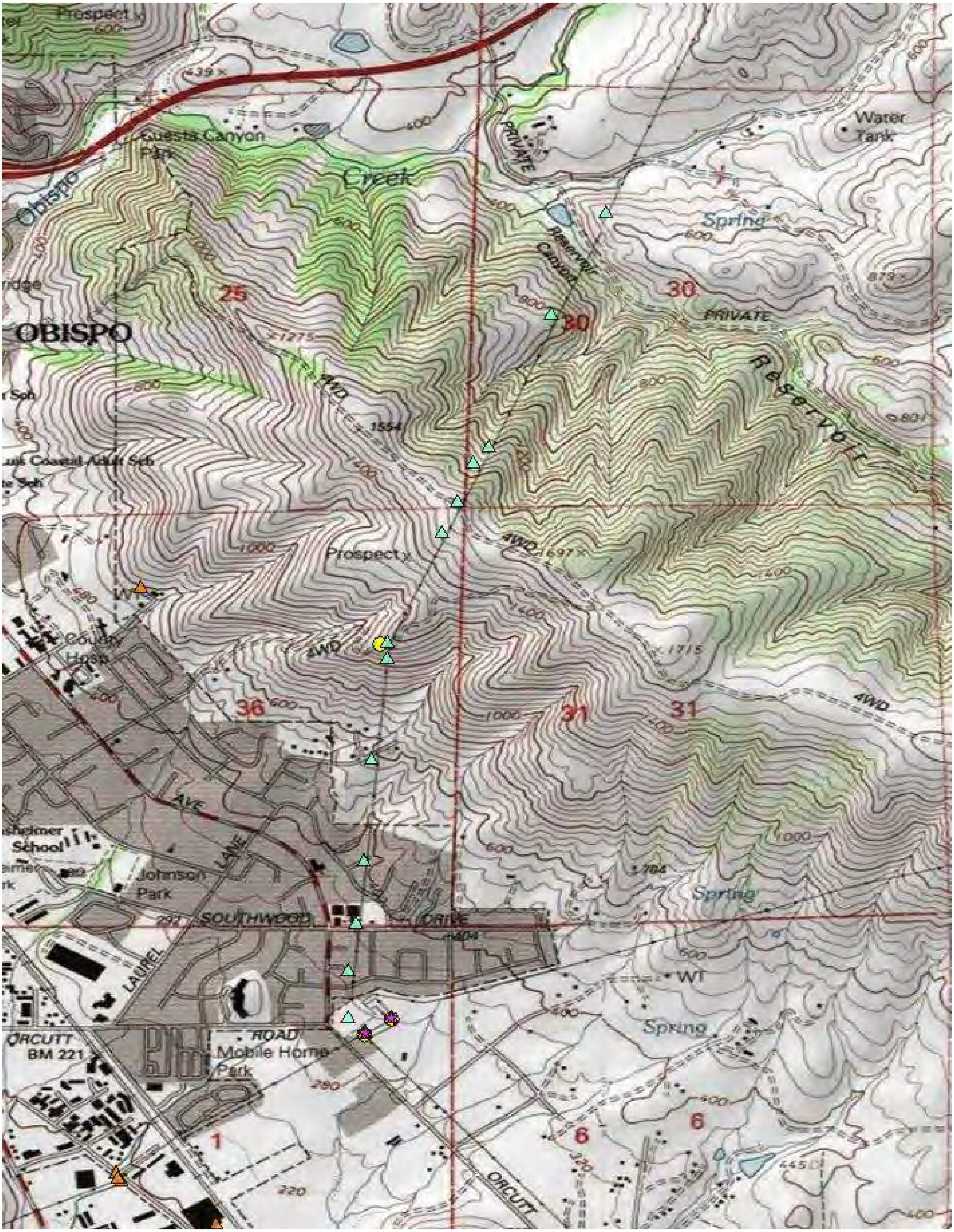
The cumulative impact of the proposed structure, when combined with other existing structures is not considered significant. Study did not disclose any adverse effect on existing or proposed public-use or military airports or navigational facilities. Nor would the proposal affect the capacity of any known existing or planned civilian public-use or military airport.

Therefore, it is determined that the proposed construction would not have a substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on any air navigation facility and would not be a hazard to air navigation.

This determination, issued in accordance with Part 77, concerns the effect of the proposal on the safe and efficient use of the navigable airspace by aircraft and does not relieve the sponsor of any compliance responsibilities relating to laws, ordinances, or regulations of any Federal, state, or local governmental bodies.

Determinations, which are issued in accordance with Part 77, do not supersede or override any state, county, or local laws, avigation easements, or ordinances, or local zoning maximum heights.

Replacement of existing utility lattice steel tower with new light duty steel pole approximately 5 to 10 foot taller.


Prospect
Cuesta Canyon Park
Creek
Obispo
OBISPO
PRIVATE
Reservoir Canyon
Spring
Water Tank
PRIVATE
Reservoir
4WD
1554
Prospect
4WD
1697
1715
4WD
Johnson Park
SOUTHWOOD
DRIVE
LAUREL
LANE
AVE
ROAD
Mobile Home Park
ORCUTT
BM 221
ORCUTT
Spring
Spring
WT
25
30
30
36
31
31
1
6
6

Sectional Map for ASN 2010-AWP-4017-OE