

---

**PUBLIC UTILITIES COMMISSION**

505 VAN NESS AVENUE

SAN FRANCISCO, CA 94102-3298



**MITIGATED NEGATIVE DECLARATION**  
**SHEPHERD SUBSTATION PROJECT**

**Lead Agency:** California Public Utilities Commission (CPUC)  
Energy Division  
505 Van Ness Avenue, 4<sup>th</sup> Floor  
San Francisco, California 94102

**Contact:** Michael Rosauer, Project Manager  
(415) 703-2579 or Michael.Rosauer@cpuc.ca.gov

**PROJECT INFORMATION**

**Project:** Shepherd Substation Project  
Fresno County, California

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

**DESCRIPTION OF PROJECT**

The proposed project includes constructing a 115/21-kilovolt (kV) electrical substation, Shepherd Substation, with three- 45 megavolt amperes (MVA) transformers. A 115-kV overhead power line would be constructed to link the substation to the existing power grid. The power line would be approximately 1.5 miles long. Three distribution lines would also be constructed to link the substation to existing distribution systems in the area. The project is located in an unincorporated area of Fresno County, California.

**REQUIRED APPROVALS**

State and local permits would be required for construction work and actions required to construct the substation and associated power and distribution lines. Table 1 lists the potential permits and approvals necessary for completing the proposed project.

<b>Table 1: Permits and Approval Potentially Required for the Proposed Project</b>		
<b>Permit, Approval, or Exemption</b>	<b>Purpose</b>	<b>Regulatory Agency</b>
<i>Federal</i>		
Section 10	Federally listed threatened and endangered species	U.S. Fish and Wildlife Service (USFWS)
<i>State</i>		
Permit to Construct (General Order No. 131-D)	Construction of substation and associated power line facilities	CPUC
National Pollutant Discharge Elimination System (NPDES) –General Construction Storm Water Permit	Permit required for all construction projects that disturb more than 1 acre	State Water Resources Control Board (SWRCB)
Section 2081	State listed threatened and endangered species	California Department of Fish and Game (CDFG)
<i>Local</i>		
Encroachment Permit	Ministerial permit to install station access road from public road right-of-way	Fresno County
Grading, and Building Permits	Ministerial permission to conduct welding, grading, and certain building activities	Fresno County
Dust Control Plan	Ministerial permission for construction involving fugitive dust emissions	San Joaquin Valley Air Quality Control Board (SJVQCB)

**ENVIRONMENTAL DETERMINATION**

Based upon an Initial Study (IS), 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), avoidance and minimization measures (AMMs), and mitigation measures. The IS is available for review at the CPUC, 505 Van Ness Avenue, San Francisco, California 94102.

\_\_\_\_\_  
Michael Rosauer\*  
Project Manager

\_\_\_\_\_  
Date

\*To be signed upon completion of the public review period, if appropriate.

## **APPLICANT PROPOSED MEASURES, AVOIDANCE AND MINIMIZATION MEASURES AND MITIGATION MEASURES**

Pursuant to the Public Resource Code and the State California Environmental Quality Act (CEQA) Guidelines, the Lead Agency (CPUC) has prepared an IS 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 IS. The project description included APMs, which would reduce potential impacts. The San Joaquin Valley Operation and Maintenance Habitat Conservation Plan includes avoidance and minimization measures that would be implemented with the proposed project. Mitigation measures would be implemented to reduce potentially significant impacts to less than significant levels.

### **Aesthetics**

**APM Visual-1:** Construct a prefabricated concrete wall on the north and east sides of the substation and replanting as necessary to leave three rows of trees on the east and north sides of the substation to minimize contrast with the existing visual character of the area. As almond trees die, or are impacted by road widening along Sunnyside and Perrin Avenues, the trees will be replaced with compatible vegetation.

**APM Visual-2:** Security lighting will consist of sodium vapor lamps and all exterior lighting will use non-glare light bulbs, designed and positioned to minimize casting light and/or glare to off-site locations. Security lighting will be designed at the substation in a way such that all lighting is directed inwards. In addition, all exterior lighting will be hooded to reduce light pollution.

**Mitigation Measure Aesthetics-1.** The final color of the pre-fabricated concrete walls shall be chosen in consultation with the Fresno County.

**Mitigation Measure Aesthetics-2.** To reduce the contrast and presence of the substation and related facilities:

- Non-reflective finishes shall be used on fencing and all facilities taller than 8 feet.
- Entrance road solid gates shall be a natural wood color.

**Mitigation Measure Aesthetics-3.** To reduce the contrast and presence of the power line and circuits, PG&E shall use non-specular conductors and galvanized steel TSPs.

### **Air Quality**

**APM Air-1:** All disturbed areas that are not being actively used for construction purposes will be stabilized of dust emissions using water or covered with a tarp or other suitable covering.

**APM Air-2:** All unpaved roads utilized for accessing the project will be stabilized by spraying with water.

**APM Air-3:** All ground-disturbing activities will be effectively controlled of fugitive dust emissions by application of water or by presoaking.

**APM Air-4:** When materials are transported off site, all material will be covered or wetted to limit visible dust emissions, and at least 6 inches of freeboard space from the top of the container shall be maintained.

**APM Air-5:** All operations will remove the accumulation of mud or dirt from adjacent public streets at the end of each workday.

**APM Air-6:** Trackout (i.e., dirt and mud transported on vehicle tires and transferred to the pavement upon exiting the work area) will be removed at the end of each workday when it extends 50 or more feet from the site.

**APM Air-7:** Speeds of vehicles and equipment operating on unpaved surfaces will be limited to no more than 15 miles per hour, and as required in the project dust control permit.

**APM Air-8:** Dust suppressants or watering will be used to ensure that dust is controlled to less than 20 percent opacity when winds exceed 20 miles per hour.

**Mitigation Measure Air-1:** All disturbed surface areas over 1,000 square feet must achieve final stabilization upon the completion of project construction. Final stabilization would be achieved through appropriate means that would provide long-term sediment and dust control. PG&E will be responsible for monitoring and maintaining all disturbed areas until final stabilization is achieved.

### **Greenhouse Gases**

**APM GHG-1/Noise-5:** When not performing construction, operation, or maintenance activities, vehicles will be shut off rather than left idling unnecessarily. Some equipment or vehicles may require extended start-up times. For such equipment, a common sense approach will be used to determine idling times. Normal idling will not exceed five minutes, as required by California law.

**APM GHG-2:** Diesel fueled off-road construction equipment with 50 horsepower or greater engines shall at a minimum meet U.S. Environmental Protection Agency (EPA) and California Air Resources Board (CARB) Tier 1 engine standards. Compliance records will be kept by the general construction contractor. This APM is not applicable to equipment permitted by the local air quality district or certified through CARB's Statewide Portable Equipment Registration Program, or single specialized equipment that will be used for less than five total days.

**APM GHG-3:** PG&E will incorporate the following measures into its construction plans to further reduce greenhouse gas emissions:

- Encourage construction workers to carpool by establishing carpooling to construction sites where feasible to do so.
- Encourage recycling of construction waste.

- Minimize welding and cutting by using compression of mechanical applications where practical and within standards.

**APM GHG-4:** PG&E will continue to be an active member of the SF<sub>6</sub> Emission Reduction Partnership, which focuses on reducing emissions of sulfur hexafluoride (SF<sub>6</sub>) from transmission and distribution sources. PG&E will also continue to institute new rules for more accurately monitoring its equipment for SF<sub>6</sub> leaks and immediately repairing leaks that are discovered. PG&E will ensure that all breakers purchased for this project will have a manufacturer's guaranteed SF<sub>6</sub> leakage rate of 0.5 percent per year or less.

### **Biological Resources**

**APM Bio-2:** To prevent the spread of noxious weeds, only equipment which has been washed and is free of caked on mud, dirt, and other debris which could house plant seeds will be allowed in the project area.

**APM Bio-6:** In accordance with, and in addition to the training requirements in AMM 1 of the PG&E San Joaquin Valley Habitat Conservation Plan (HCP), worker environmental awareness training will be conducted prior to initiating project construction activities and throughout the duration of construction, such that all new site workers have received training. Worker training will detail sensitive species of the project area and those conservation measures which have been identified to minimize impacts to them. In addition, workers will be informed about the presence, life history, and habitat of these species. Training will also include information on federal and state laws protecting migratory birds. Documentation of worker training will be available on-site.

**APM Bio-7:** In accordance with the monitoring requirements in AMMs 15 and 17 of the HCP, a biological monitor will be onsite during ground disturbing activities with the potential to disturb habitat near flagged exclusion and restricted activity zones in order to minimize impacts to salamanders. Before the start of work each morning, the biological monitor will check under all equipment and stored supplies left in the work area overnight within 600 feet of suitable habitat for listed species with a potential to occur in the area. 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 a daily log summarizing construction activities and environmental compliance.

**APM Bio-8:** All work will be done in a manner that minimizes disturbance to wildlife and habitat.

**APM Bio-9:** All food waste and associated containers will be disposed of in closed lid containers.

**APM Bio-11:** Proper spill prevention and cleanup equipment shall be readily available.

**APM Bio-12:** Where work on pavement, existing roads, and existing disturbed areas is not practicable, worker vehicles and construction equipment shall remain on identified access routes and designated areas for construction. If additional areas are required, a biologist will survey the new area, identify any sensitive biological resource, and flag that resource for avoidance.

**APM Bio-13:** No pets or firearms are permitted within the project area.

**APM Bio-14:** Sensitive areas will be clearly flagged or marked. Sensitive areas will be avoided during construction unless the necessary agency permits and/or approvals have been obtained.

**APM Bio-18:** All pole holes will be backfilled or covered at the end of the work day by a method that would restrict any wildlife from entering the hole from the surface, and to prevent human injury.

**APM Bio-19:** PG&E will consider the location of seasonal wetlands in the design of the power line. No power line poles will be placed in seasonal wetlands. Prior to construction the perimeter of the seasonal wetland near project construction will be flagged for avoidance.

**APM Bio-20:** Suitable habitat areas (i.e., seasonal wetlands, ponds, and canals) within the project area will be identified during preconstruction surveys. These areas will be mapped and clearly marked in the field, and will be avoided during construction.

**APM Bio-22:** Additional conservation measures and/or mitigation recommended by the USFWS and CDFG through consultation for the California tiger salamander will be incorporated into the project. Any APMs that conflict with permits issued by the USFWS and/or CDFG will be superseded by those resource agency permit requirements.

**APM Bio-24:** Avian Power Line Interaction Committee Guidelines in accordance with the Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 2006<sup>1</sup> will be incorporated into the power line design to minimize the likelihood of avian electrocutions.

**APM Bio-25:** To the extent that the terms of these APMs conflict with subsequently negotiated terms and conditions of any state and/or federal environmental permit, the subsequent permit conditions will supersede the terms of these APMs.

**AMM 1:** Employees and contractors performing O&M activities will receive ongoing environmental education. Training will include review of environmental laws and guidelines that must be followed by all personnel to reduce or avoid effects on covered species during O&M activities.

---

<sup>1</sup> 1. Avian Power Line Interaction Committee. 2006. Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006. Edison Electric Institute, APLIC, and the California Energy Commission. Washington, D.C., and Sacramento, California.

**AMM 2:** Vehicles and equipment will be parked on pavement, existing roads, and previously disturbed areas to the extent practicable.

**AMM 3:** The development of new access and ROW roads by PG&E will be minimized, and clearing vegetation and blading for temporary vehicle access will be avoided to the extent practicable.

**AMM 4:** Vehicles will not exceed a speed limit of 15 mph in the ROWs or on unpaved roads within sensitive land-cover types.

**AMM 5:** Trash dumping, firearms, open fires (such as barbecues) not required by the O&M activity, hunting, and pets (except for safety in remote locations) will be prohibited in O&M work activity sites.

**AMM 6:** No vehicles will be refueled within 100 feet of a wetland, stream, or other waterway unless a bermed and lined refueling area is constructed.

**AMM 7:** During any reconstruction of existing overhead electric facilities in areas with a high risk of wildlife electrocution (e.g., nut/fruit orchards, riparian corridors, areas along canal or creek banks, PG&E's raptor concentration zone [RCZ]), PG&E will use insulated jumper wires and bird/animal guards for equipment insulator bushings or will construct lines to conform to the latest revision of PG&E's Bird and Wildlife Protection Standards.

**AMM 9:** 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, and habitat occupied by covered animal and plant species when O&M activities are the source of potential erosion problems.

**AMM 10:** If an activity disturbs more than 0.25 acre in a grassland, and the landowner approves or it is within PG&E rights and standard practices, the area should be returned to pre-existing conditions and broadcast-seeded using a commercial seed mix. Seed mixtures/straw used for erosion control on projects of all sizes within grasslands will be certified weed-free. PG&E shall not broadcast (or apply in other manner) any commercial seed or seed-mix to disturbance sites within other natural land-cover types, within any vernal pool community, or within occupied habitat for any plant covered species.

**AMM 12:** If a covered plant species is present, a qualified biologist will stake and flag exclusion zones of 100 feet around plant occupied habitat (both the standing individuals and the seed bank individuals) of the covered species prior to O&M activities<sup>2</sup>. (Note: AMM 11 addresses elderberry plants and valley elderberry longhorn beetle.)

---

<sup>2</sup> If an exclusion zone cannot extend the specified distance from the habitat, the biologist will stake and flag a restricted activity zone of the maximum practicable distance from the exclusion zone around the habitat. This exclusion zone distance is a guideline that may be modified by a qualified biologist, based on site-specific conditions (including habituation by the species to background disturbance levels). Measures are practicable where physically possible and not conflicting with other regulatory obligations or safety considerations; O&M activities will be prohibited or greatly restricted within restricted activity zones. However, vehicle operation on

**AMM 13:** If a covered annual plant species is present, O&M activities will occur after plant senescence and prior to the first significant rain to the extent practicable.

**AMM 14:** If a covered plant species is present, the upper 4 inches of topsoil will be stockpiled separately during excavations. When this topsoil is replaced, compaction will be minimized to the extent consistent with utility standards. (This measure will be used as an AMM for narrow endemic plants only after approval by USFWS and DFG during the Confer Process.)

**AMM 15:** If vernal pools are present, a qualified biologist will stake and flag an exclusion zone prior to O&M activities. The exclusion zone will encompass 250 feet<sup>2</sup>. Work will be avoided after the first significant rain until June 1, or until pools remain dry for 72 hours.

**AMM 17:** If suitable habitat for covered amphibians and reptiles is present and protocol-level surveys have not been conducted, a qualified biologist will conduct preconstruction surveys prior to O&M activities involving excavation. If necessary, barrier fencing will be constructed around the work site to prevent reentry by the covered amphibians and reptiles. A qualified biologist will stake and flag an exclusion zone of 50 feet around the potentially occupied habitat<sup>2</sup>. No monofilament plastic will be used for erosion control in the vicinity of listed amphibians and reptiles. Barrier fencing will be removed upon completion of work. Crews will also inspect trenches left open for more than 24 hours for trapped amphibians and reptiles. A qualified biologist will be contacted before trapped amphibians or reptiles (excluding blunt-nosed leopard lizard and limestone salamander) are moved to nearby suitable habitat.

**AMM 18:** If western burrowing owls are present at the site, a qualified biologist will work with O&M staff to determine whether an exclusion zone of 160 feet during the non-nesting season and 250 feet during the nesting season can be established. If it cannot, an experienced burrowing owl biologist will develop a site-specific plan (i.e., a plan that considers the type and extent of the proposed activity, the duration and timing of the activity, the sensitivity and habituation of the owls, and the dissimilarity of the proposed activity with background activities) to minimize the potential to affect the reproductive success of the owls.

**AMM 21:** If San Joaquin kit fox dens are present, their disturbance and destruction will be avoided where possible. However, if dens are located within the proposed work area and cannot be avoided during construction, qualified biologists will determine if the dens are occupied. If unoccupied, the qualified biologist will remove these dens by hand excavating them in accordance with USFWS procedures (U.S. Fish and Wildlife Service 1999). Exclusion zones will be implemented following USFWS procedures (U.S. Fish and Wildlife Service 1999) or the latest USFWS procedures. The radius of these zones will follow current standards or will be as follows: Potential Den—50 feet; Known Den—100 feet; Natal or

---

existing roads and foot travel will be permitted. A qualified biologist will monitor O&M activities near flagged exclusion and restricted activity zones. Within 60 days after O&M activities have been completed at a given worksite, all staking and flagging will be removed.



Pupping Den—to be determined on a case-by-case basis in coordination with USFWS and DFG. Pipes will be capped and exit ramps will also be installed in these areas to avoid direct mortality.

**AMM 22:** All vegetation management activities will implement the nest protection program to avoid and minimize effects on Swainson’s hawk, white-tailed kite, golden eagle, bald eagle, and other nesting birds. Additionally, trained pre-inspectors will use current data from DFG and CNDDDB and professional judgment to determine whether active Swainson’s hawk, golden eagle, or bald eagle nests are located near proposed work. If pre-inspectors identify an active nest near a proposed work area, they will prescribe measures to avoid nest abandonment and other adverse effects to these species, including working the line another time of year, maintaining a 500-foot setback, or if the line is in need of emergency pruning, contacting the HCP Administrator.

**AMM 29:** No herbicide will be applied within 100 feet of exclusion zones, except when applied to cut stumps or frilled stems or injected into stems.

**AMM 30:** Trees being felled in the vicinity of an exclusion zone will be directionally felled away from the zone, where possible. If this is not feasible, the tree will be removed in sections.

**Mitigation Measure Biology-1:** PG&E shall conduct a pre-activity survey of those portions of the project that occur within native or naturalized areas (the project route from Perrin Avenue to Shepherd Avenue). The survey should be conducted during the appropriate flowering season to identify sensitive plants that have the potential to occur within the project area. The width of the pre-activity survey will be 200 feet on the westerly side of the new power line and to the extent of PG&E’s right-of-way on the easterly side. The survey will consist of walking parallel transects spaced approximately 50 feet apart to provide 100 percent visual coverage of the construction site and adjacent lands. The surveyors will map the location of all sensitive plants identified during the survey on drawings of the project site, noting the distance to construction areas, access roads, and laydown areas. If sensitive plant species are present, AMM-12, AMM-13, and AMM-14, shall be implemented.

**Mitigation Measure Biology-2:** A pre-activity survey for Molestan blister beetle shall be conducted by a qualified biologist within 30 days prior to the start of ground-disturbing construction activities. The width of the pre-activity survey will be to the extent of the power line easement and predetermined access routes that may fall outside of the easement area within suitable habitat (grasslands). If Molestan blister beetles are encountered, the biologist shall flag an exclusion zone of 25 feet around the potentially occupied habitat. If a smaller exclusion zone is required, the exclusion zone diameter will be determined by the project biologist based on field conditions and construction activities. The exclusion zone shall be subject to review by CPUC.

**Mitigation Measure Biology-3:** Within 30 days of construction, a qualified biologist shall conduct a pre-activity survey within the suitable habitat for burrowing owl to determine this species’ presence or absence. The width of the pre-activity survey will be 500 feet on the

westerly side of the new power line, and to the extent of PG&E's right-of-way on the easterly side. The survey will consist of walking parallel transects spaced approximately 100 feet apart to provide 100 percent visual coverage of the construction site and adjacent lands. If western burrowing owls are present at the site, AMM-18 shall be implemented.

**Mitigation Measure Biology-4 (proposed to supersede APM Bio-23):** If construction activities are scheduled to occur during the avian breeding season (February 28 to August 31), a preconstruction survey for migratory birds shall be conducted by a qualified biologist within 30 days prior to the start of ground-disturbing construction activities. The width of the pre-activity survey for raptor nests will be in vegetation within 500 feet on the westerly side of the new power line alignment and up to 500 feet on the easterly side of the alignment, where access is available. At a minimum, the survey will be to the extent of PG&E's right-of-way on the easterly side. For smaller avian species, the maximum width of the survey will be in vegetation 250 feet on the westerly side of the new power line alignment and up to 250 feet on the easterly side of the alignment where access is available. At a minimum, the survey will be to the extent of PG&E's right-of-way on the easterly side. The results of the survey shall be reported to the CPUC prior to construction. If active nests are found, appropriate buffers between construction activities and the nest will be established to ensure nests are not abandoned due to project activities. The buffers shall be 50 feet for passerines and 250 feet for raptors. Work within the buffers shall not proceed until the nestlings have fledged or the nest becomes inactive, unless otherwise agreed to by the resource agency with jurisdiction over the species.

**Mitigation Measure Biology-5:** A preconstruction survey shall be conducted within 30 days of construction to determine the presence or absence of SJKF. This survey shall be conducted within suitable habitat and entail inspection of all burrows within 250 feet of the project site or to the extent of PG&E's right-of-way. If potential dens are detected, these dens shall be monitored using tracking medium and/or remote cameras for three nights to determine if SJKF inhabit them. If SJKF are found to be absent from the site the project can move forward with no further consideration of this species. If SJKF are found inhabiting the site or surrounding lands during the survey the measures identified in AMM 21 shall be implemented.

**Mitigation Measure Biology-6:** A survey for active dens of American badgers shall be performed by a qualified biologist within 30 days prior to construction grading or land clearing. Surveys shall be conducted within suitable habitat. The width of the pre-activity survey will be 250 feet on either side of the construction area or to the extent of PG&E's right-of-way. Construction may proceed once it is determined that there are no active dens in the survey area. If active dens are present, the dens shall be avoided during the breeding season and a 50-foot buffer around the den sites shall be established. Smaller buffers may be established through consultation with CDFG.

## **Cultural Resources**

**APM Cult-2:** If the applicant revises the location of proposed facilities and ground-disturbing activities that affect areas beyond those surveyed for the PEA, those areas will be subjected to a cultural resources inventory to ensure that any newly identified sites are avoided by ground-disturbing activities.

**APM Cult-3:** The applicant will minimize or avoid impacts to any potentially significant prehistoric and historic resources that might be discovered during construction by implementing standard protocols that include ceasing all work within 50 feet of the discovery, protecting the discovery from further impacts, and immediately contacting a PG&E Cultural Resources Specialist.

**APM Cult-4:** If human remains are discovered, work in the immediate vicinity will stop immediately and a PG&E Cultural Resources Specialist will be contacted. The location of the discovery will be secured to prevent further impacts and the location will be kept confidential. The Cultural Resources Specialist will evaluate the discovery and will contact the Fresno County Coroner upon verifying that the remains are human. If the coroner determines the remains are Native American, the Native American Heritage Commission (NAHC) shall be contacted and the remains will be left in situ and protected until a decision is made on their final disposition.

**Mitigation Measure Cultural-1 (proposed to supersede APMs Cult-1 and Pal-1):** A qualified Cultural Resources Specialist shall design and implement a Cultural Resources Awareness Program that shall be provided to all project personnel who may encounter unique archaeological properties, historical resources, or paleontological resources, including construction supervisors and field personnel. No construction worker shall be involved in field operations without having participated in the Cultural Resources Awareness Program. The Cultural Resources Awareness Program shall include, at a minimum:

- A review of archaeology, history, prehistory, and Native American cultures associated with historical resources in California.
- A review of photographs and figures of potential historical resources and unique archaeological properties in California.
- A review of applicable local, state, and federal ordinances, laws, and regulations pertaining to cultural resource preservation.
- A discussion of procedures to be followed in the event that unanticipated paleontological or cultural resources are discovered during implementation of the project.
- A discussion of disciplinary and other actions that could be taken against persons violating historical preservation laws and PG&E policies.
- PG&E will require all workers to comply with the Worker Environmental Awareness Program, PG&E policies, and other applicable laws and regulations as part of their contracts.

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

The Cultural Resources Awareness Program may be conducted in concert with other environmental or safety awareness and education programs for the project. Cultural Resources Awareness Program training materials and/or presentations shall be submitted to CPUC for review and approval prior to the start of training sessions and at least 30 days prior to the start of construction.

**Mitigation Measure Cultural-2:** Prior to construction, a certified paleontologist shall be retained by PG&E to supervise construction excavations and to produce a Paleontological Resource Management Plan (PRMP) for the proposed project. The PRMP shall be prepared and implemented under the direction of the paleontologist, and shall be submitted to CPUC for review and approval at least 30 days prior to construction. Construction activities that require excavation or augering of 5 feet in diameter or greater at depths greater than 5 feet shall be monitored on a part-time or full-time basis by a paleontological construction monitor only in those parts of the project area where these activities will disturb previously undisturbed strata in the Riverbank Formation rock unit. Should monitoring reveal paleontological resources of interest during visual inspection of the exposed rock unit, CPUC shall be immediately notified, and microscopic examination of matrix samples shall be conducted to determine if fossils are present.

**Mitigation Measure Cultural-3 (proposed to supersede APM Pal-1):** In the unlikely event that previously unidentified paleontological resources are uncovered during implementation of the project, CPUC shall be notified immediately and all ground-disturbing work shall be temporarily halted or diverted away from the discovery to another location. PG&E's paleontological resources specialist or his/her designated representative shall inspect the discovery and determine whether further investigation is required. If the discovery is significant, but can be avoided and no further impacts would occur, the resource shall be documented in the appropriate paleontological resource records and no further effort shall be required. If the resource is significant, but cannot be avoided and may be subject to further impact, PG&E shall evaluate the significance of the resources and implement data recovery excavation or other appropriate treatment measures, as approved by the landowner if on third-party property and as verified by CPUC.

These measures may include a report prepared in accordance with PG&E, Society of Vertebrate Paleontology guidelines, and CPUC requirements, and/or curation at a recognized museum repository.

## **Geology and Soils**

**APM Geo-1/WQ-1:** Erosion and Sediment Control Plan (ESCP) implementation. An ESCP will be prepared in association with the Stormwater Pollution Prevention Plan (SWPPP). This plan will be prepared in accordance with the Water Board guidelines and other

applicable best management practices (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, but are not limited to, measures such as:

1. Avoiding excessive disturbance of steep slopes.
2. Using drainage control structures (e.g., straw wattles or silt fencing) to direct surface runoff away from disturbed areas.
3. Strictly controlling vehicular traffic.
4. Implementing a dust-control program during construction.
5. Restricting access to sensitive areas.
6. Using vehicle mats in wet areas.
7. 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 surface water body or drainage channel and drainage from these areas flows towards a water body or wetland, stockpiles will be placed at least 100 feet from the water body or will be properly contained (such as berming or covering to minimize risk of sediment transport to the drainage). Mulching or other suitable stabilization measures will be used to protect exposed areas during and after construction activities. 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 wattles intended to minimize erosion from temporarily disturbed areas, will remain in place until disturbed areas have stabilized.
8. The SWPPP will be designed specifically for the hydrologic setting of the project. BMPs documented in the ESCP may also be included in the SWPPP.

### **Hazards and Hazardous Materials**

**APM Haz-1:** Emergency spill response and cleanup kits will be available on site and readily available for the cleanup of any accidental spill. Construction crews will be trained in safe handling and cleanup responsibilities prior to the initiation of construction.

**APM Haz-2:** In the event of an accidental spill, the substation is equipped with a retention basin that meets SPCC Guidelines (40 CFR 112). The SPCC basin will be sufficiently sized to accommodate the accidental spill of all mineral oil from the largest transformer located at the substation. The substation will also be equipped with lead-acid batteries to provide backup power for monitoring, alarm, protective relaying, instrumentation and control, and emergency lighting during power outages. Containment will be constructed around and under the battery racks with neutralizing pads.

**APM Haz-3:** A water truck will be available on site during dry conditions, as assessed by the construction foreman, to prevent the ignition or spread of a wildfire. The work site will be sprayed a minimum of three times per day during dry conditions.

**Mitigation Measure Hazards-1:** PG&E will submit a Site Safety Plan to the CPUC at least 30 days prior to project construction. The plan will identify ways to minimize the exposure of the public to potentially hazardous materials during all phases of project construction through operation and maintenance. The plan will require appropriate control methods and approved containment and spill-control practices for construction and materials stored on-site. All hazardous materials and hazardous wastes will be handled, stored, and disposed of by personnel qualified to handle hazardous materials and in accordance with all applicable regulations. If it is necessary to store any chemicals on-site, they will be managed in accordance with all applicable regulations. Materials Safety Data Sheets will be maintained and kept available on-site, as applicable.

**Mitigation Measure Hazards-2:** An Environmental Training and Monitoring Program (ETMP) shall be established to communicate any environmental concerns to all field personnel, in addition to appropriate work practices, including:

- Spill prevention and response measures (including BMPs),
- Site-specific physical conditions to improve hazard prevention (e.g., identification of flow paths to nearest water bodies),
- Review of all site-specific plans, including, but not limited to, the project's SWPPP and Site Safety Plan.

A copy of the ETMP shall be submitted to the CPUC at least 30 days prior to construction. Training records shall be kept on site and submitted to the CPUC upon request. A PG&E representative shall be designated to ensure that the plans are followed throughout the construction period.

BMPs identified in the project SWPPP shall be implemented during project construction to minimize the risk of an accidental release of hazardous materials and to provide the necessary information for emergency response.

**Mitigation Measure Hazards-3:** PG&E will coordinate with local emergency personnel in the event that project activities may impact an access point or route during an emergency. PG&E will notify local law enforcement and fire protection services before beginning construction activities that require road closures so that the project will not result in inadequate emergency access.

**Mitigation Measure Hazards-4:** Smoking will not be permitted during fire season, except in a barren area that is paved or cleared to bare soil at least 10 feet in diameter, or within vehicles and enclosed equipment cabs. Under no circumstances will smoking be permitted during fire season while employees are operating light or heavy equipment, or while walking or working in grasslands.

## **Hydrology and Water Quality**

**APM WQ-2:** PG&E will avoid working within seasonal wetlands, ponds, or other water bodies. No poles will be placed within seasonal wetlands. The limits of seasonal wetlands adjacent to the work areas will be flagged in the field for avoidance. Underground canal and creek crossings will be drilled or bored underneath the water body.

**APM WQ-3:** PG&E will engineer a permanent infiltration basin within the substation perimeter to capture on-site stormwater, clean it of potential pollutants, and infiltrate it into the local groundwater table. Sizing and design of the facility will follow industry best practices, including Fresno County and California Stormwater General Permit guidelines.

**Mitigation Measure Hydrology-1:** PG&E will be responsible for contacting property owners to help in identifying underground waterlines prior to construction. PG&E will design construction activities to avoid impacts to a known waterline to the extent that sufficient information is available to identify the precise location of the line. Should PG&E cause damage to an irrigation ditch or waterline during construction, PG&E will be responsible for contacting the owner to shut off the water supply, repairing the water line or irrigation ditch, and containing released water to the extent feasible.

**Mitigation Measure Hydrology-2:** In the case of a leak or other damage to the irrigation system utilized for the almond trees on the proposed substation site, PG&E will be responsible for repairing the irrigation system and employing BMPs as necessary to contain water released from the irrigation system.

**Mitigation Measure Hydrology-3:** Workers will not conduct construction activities in flooded areas during area flooding except as necessary to help alleviate the flooding or address emergency safety issues at the project site. Should flooding of the proposed substation or project area result in damage to substation structures or power poles, non-emergency repairs to these structures and/or pole replacement as necessary would be conducted when floodwaters subside and the area is safe for worker access. PG&E will inform CPUC of any flood damage to the project site that could change or require changes to the proposed project or affect the construction schedule.

## **Land Use and Planning**

**Mitigation Measure Land Use-1:** PG&E will notify property owners within 300 feet of the project area at least 30 days prior to construction to alert them of project activities.

## **Noise**

**APM Noise-1:** Construction will not occur before 6:00 a.m. or after 9:00 p.m. on any day except Saturday or Sunday, when construction will not occur before 7:00 a.m. or after 5:00 p.m. Work will only be conducted outside of these hours as required for project safety or to take advantage of the limited times when the power line can be taken out of service.

**APM Noise-3:** Where feasible, construction traffic will be routed to avoid sensitive noise receptors such as residences, schools, religious facilities, hospitals, and parks.

**APM Noise-4:** Stationary equipment used during construction will be located as far as practical from sensitive noise receptors.

**APM Noise-6:** Where feasible, equipment will be used that is specifically designed for low noise emissions and equipment powered by electric or natural gas as opposed to diesel or gasoline.

**APM Noise-7:** Residents in areas of heavy construction noise will be notified prior to commencing construction activities. Notification should include written notice and the posting of signs in appropriate locations with a contact number that residents can call with questions and concerns.

### **Transportation and Traffic**

**APM Tran-1:** Deliveries will be made during normal construction hours.

**APM Tran-2:** PG&E shall prepare and implement a Traffic Management Plan or plans as required by, and in accordance with County requirements. The plan or plans shall be submitted to the CPUC when submitted to the County, and shall be distributed to all construction supervisors prior to commencement of construction activities.



## **FINDINGS**

The IS was prepared to identify the potential impacts on the environment from the construction of the Shepherd Substation, power line, and distribution lines, and to evaluate the significance of these impacts. Based on the IS 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, AMMs 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 impacts 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 is insignificant.
- Based on the IS, there is no evidence that implementing the proposed project would have significant impacts on people.

---

Mary Jo Borak, Program and Project Supervisor\*  
Energy Division  
California Public Utilities Commission

---

Date

\*To be signed upon completion of the public review period, if appropriate.

This page is intentionally left blank

# INITIAL STUDY ENVIRONMENTAL CHECKLIST FORM

---

## 1. PROJECT TITLE

Shepherd Substation Project  
Pacific Gas and Electric Company (PG&E) Application No. A.10-12-003

## 2. LEAD AGENCY NAME AND ADDRESS

California Public Utilities Commission (CPUC)  
Energy Division  
505 Van Ness Avenue, 4<sup>th</sup> Floor  
San Francisco, California 94102

## 3. CONTACT PERSON AND PHONE NUMBER

Michael Rosauer, Project Manager  
Energy Division  
Phone: (415) 703-2579  
E-mail: Michael.Rosauer@cpuc.ca.gov

## 4. PROJECT LOCATION

The project is located in unincorporated Fresno County, California, north of the City of Clovis. The proposed substation would be located at the southwest corner of Sunnyside Avenue and Perrin Avenue in Fresno County. The proposed power line interconnection would be approximately 1.5 miles in length extending from the north side of the substation to E. Copper Avenue to interconnect with the existing Kerckhoff-Clovis-Sanger #1 115-kV Power Line. The three proposed distribution alignments will extend south from the substation along Sunnyside Avenue. At Shepherd Avenue two distribution lines would extend east and west along Shepherd Avenue and one would extend south along Sunnyside Avenue to Nees Avenue.

## 5. PROJECT SPONSOR'S NAME AND ADDRESS

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

## 6. GENERAL PLAN DESIGNATION

The entire project area is located on land classified as agricultural lands by the Fresno County General Plan.

## 7. ZONING

The Fresno County zoning designations for the project area include Exclusive Agricultural District (AE) and Rural Residential lands.

## 8. DESCRIPTION OF THE PROJECT

The proposed project includes constructing a 115/21-kV electrical substation, Shepherd Substation, with three- 45 MVA transformers at full build out. A 115-kV overhead power line interconnection would be constructed as part of the project to link the substation to the existing power grid. The power line would be approximately 1.5 miles long and over half of the new power line would occur within an existing distribution line ROW. One 12-kV and two 21-kV distribution lines would be constructed south of the substation as a part of the proposed project.

## 9. SURROUNDING LAND USES AND SETTING

The substation would be located on land that is currently used for agriculture. The southern end of the power line would be located within existing PG&E ROW. The northern end of the power line, the remaining 0.5 mile, would be located in new PG&E ROW. The three distribution lines would be located within Fresno County road ROW. Existing land uses along the power line include undeveloped areas, the Fresno Metropolitan Flood Control District water basins, low density residents, and agricultural.

## 10. OTHER PUBLIC AGENCIES WHOSE APPROVAL IS REQUIRED

PG&E may be required to obtain the permits listed in Table-1 of the Mitigated Negative Declaration (MND).

## 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.

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Aesthetics                    | <input type="checkbox"/> Agricultural Resources             | <input type="checkbox"/> Air Quality                           |
| <input type="checkbox"/> Greenhouse Gases              | <input type="checkbox"/> Biological Resources               | <input type="checkbox"/> Cultural Resources                    |
| <input type="checkbox"/> Geology and Soils             | <input type="checkbox"/> Hazards and<br>Hazardous Materials | <input type="checkbox"/> Hydrology and<br>Water Quality        |
| <input type="checkbox"/> Land Use                      | <input type="checkbox"/> Mineral Resources                  | <input type="checkbox"/> Noise                                 |
| <input type="checkbox"/> Population and Housing        | <input type="checkbox"/> Public Services                    | <input type="checkbox"/> Recreation                            |
| <input type="checkbox"/> Transportation and<br>Traffic | <input type="checkbox"/> Utilities and Service<br>Systems   | <input type="checkbox"/> Mandatory Findings<br>of Significance |

## ENVIRONMENTAL DETERMINATION

<p>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.</p>	<input type="checkbox"/>
<p>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.</p>	<input checked="" type="checkbox"/>
<p>I find that the Proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT (EIR) is required.</p>	<input type="checkbox"/>
<p>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 impact unless mitigated.” An EIR is required, but it must analyze only the effects that remain to be addressed.</p>	<input type="checkbox"/>
<p>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.</p>	<input type="checkbox"/>
<p>_____</p> <p>Michael Rosauer, Project Manager Energy Division California Public Utilities Commission</p>	<p>_____</p> <p>Date</p>

This page is intentionally left blank

---

## LIST OF ACRONYMS

AB	Assembly Bill
AE	Exclusive Agricultural District
AES	Analytical Environmental Services
AMM	Avoidance and Minimization Measures
A-P Act	Alquist-Priolo Earthquake Fault Zoning Act
APMs	applicant proposed measures
BGEPA	Bald and Golden Eagle Protection Act
bgs	below ground surface
BMPs	Best Management Practices
BP	before present
CAAQS	California Ambient Air Quality Standard
Cal/EPA	California Environmental Protection Agency
Cal/OSHA	California Occupational Safety and Health Administration
CalFire	California Department of Forestry and Fire Protection
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Code
CCMC	Clovis Community Medical Center
CDC	California Department of Conservation
CDF	California Department of Forestry
CDFA	California Department of Food and Agriculture
CDFG	California Department of Fish and Game
CDOF	California Department of Finance
CDMG	California Department of Mines and Geology
CDWR	California Department of Water Resources
CEE	Customer Energy Efficiency
CESA	California Endangered Species Act

CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFA	Code of Federal Regulations
CGS	California Geological Survey
CH <sub>4</sub>	methane
CNDDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CNPS	California Native Plant Society
CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
CO <sub>2e</sub>	carbon dioxide equivalent
CRHR	California Register of Historical Resources
CPUC	California Public Utilities Commission
CTS	California tiger salamander
CWA	Clean Water Act
CWC	California Water Code
dB	decibel
dBA	A-weighted decibel
DPA	Distribution Planning Area
DPS	distinct population segment
DWQ	Department of Water Quality
DTSC	Department of Toxic Substances Control
ECSTP	Erosion Control and Sediment Transport Plan
EIR	Environmental Impact Report
EMF	electric and magnetic field
EMFAC	Emission Factors
EO S-3-05	Executive Order S-3-05
EPA	U.S. Environmental Protection Agency



ESA	Endangered Species Act
ESRI	Environmental Systems Research Institute
ESU	Evolutionary Significant Unit
ETMP	Environmental Training and Monitoring Program
FAA	Federal Aviation Administration
FCFPD	Fresno County Fire Protection District
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FMMP	Farmland Mapping and Monitoring Program
frac-out	fracturing-out
FSZ	Farmland Security Zone
g	gravity
GHG	greenhouse gas
GIS	Geographic Information Systems
GO	General Order
H <sub>2</sub> S	hydrogen sulfide
HAPs	hazardous air pollutants
HCP	Habitat Conservation Plan
HDD	horizontal directional drilling
HWCL	Hazardous Waste and Control Law
IESNA	Illuminating Engineering Society of North America
in/sec	inch per second
IPCC	Intergovernmental Panel on Climate Change
IS	Initial Study
KOP	key observations point
kV	kilovolt
LAFCO	Local Agency Formation Commission
L <sub>dn</sub>	day-night sound level
L <sub>eq</sub>	equivalent sound level

L <sub>max</sub>	maximum noise level
LOP	limited operating period
LOS	levels of service
LUST	leaking underground storage tank
MBTA	Migratory Bird Treaty Act
MCL	Maximum Contaminant Levels
MEER	Mechanical and Electrical Equipment Room
MND	Mitigated Negative Declaration
mph	miles per hour
MRZ	Mineral Resource Zone
MSL	mean sea level
MTCO <sub>2</sub> e/yr	metric tons of CO <sub>2</sub> equivalent per year
MVA	megavolt amperes
MW	megawatt
NAHC	Native American Heritage Commission
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act
NEPA	National Environmental Policy Act
NRHP	National Register of Historic Places
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent
NO <sub>2</sub>	Nitrogen dioxide
NO <sub>x</sub>	mono-nitrogen oxides
NPDES	National Pollution Discharge Elimination System
NPDWR	National Primary Drinking Water Regulations
NRCS	Natural Resources Conservation Service
NSDWR	National Secondary Drinking Water Regulations
O&M	operations and maintenance
O <sub>3</sub>	ozone

OHWB	ordinary high water mark
OMR	Office of Mine Reclamation
PEA	Proponent's Environmental Assessment
PGA	peak ground acceleration
PG&E	Pacific Gas and Electric Company
PM <sub>2.5</sub>	particulate less than 2.5 micrometers in aerodynamic diameter
PM <sub>10</sub>	particulate matter 10 micrometers or less
PRMP	Paleontological Resource Management Plan
PTC	Permit to Construct
R&T Park	Research and Technology Park
RCZ	raptor concentration zone
ROW	right-of-way
RWQCB	Regional Water Quality Control Board
Sa	spectral acceleration
SB	Senate Bill
SF <sub>6</sub>	sulfur hexafluoride
SFHA	Special Flood Hazard Area
SHPO	California State Historic Preservation Office
SIPs	State Implementation Plans
SJKF	San Joaquin kit fox
SJVAB	San Joaquin Valley Air Basin
SJVAPCD	San Joaquin Valley Air Pollution Control Board
SMARA	California Surface Mining and Reclamation Act of 1975
SMGB	State Mining and Geology Board
SO <sub>2</sub>	sulfur dioxide
SO <sub>x</sub>	mono-sulfur oxides
SPAL	Small Project Analysis Level
SPCC	Spill Prevention Control Countermeasure
SR	State Route

SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TSP	tubular steel pole
U.S.	United States
U.S.C	U.S. Code
USACE	U.S. Army Corps of Engineers
USBOR	U.S. Bureau of Reclamation
USDA	U.S. Department of Agriculture
USDOT	U.S. Department of Transportation
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
v/c	traffic volume-to-road capacity
VOCs	volatile organic compounds