

## C. MITIGATION MONITORING, COMPLIANCE AND REPORTING

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This section presents the mitigation measures included in the Final EIR. The section is organized as follows:

- Section C.1 presents a brief discussion of the purpose of the Mitigation, Monitoring, Compliance, and Reporting Program (MMCRP) and the legal obligation the CPUC is under to adopt and oversee such a program;
- Section C.2 presents an overview of the monitoring strategy and a description of the contents of the Mitigation Implementation Plan that would need to be prepared in the event that the Project is approved;
- Section C.3 presents changes in mitigation measure text since issuance of the Draft EIR. Some of those measures were modified in the Supplemental Draft EIR as part of the analysis therein, and others were modified in response to comments on the Draft EIR or Supplemental Draft EIR; and
- Section C.4 presents the final mitigation monitoring tables: separate tables are provided for measures to be implemented before construction, during construction, during operation, and a table for applicant proposed measures.

### C.1 INTRODUCTION

The purpose of the Mitigation, Monitoring, Compliance, and Reporting Program (MMCRP) is to briefly describe the mitigation monitoring process for this Proposed Project and describe the roles and responsibilities of government agencies in implementing and enforcing the adopted mitigation measures. The MMCRP provides the recommended framework for monitoring and reporting on the implementation of mitigation measures as it would be handled by the CEQA Lead Agency: the California Public Utilities Commission (CPUC).

The Public Utilities Code in numerous places confers authority upon the CPUC to regulate the terms of service, as well as safety, practices, and equipment of utilities subject to its jurisdiction. It is the standard practice of the CPUC, pursuant to its statutory responsibility to protect the environment, to require that mitigation measures stipulated as conditions of approval be implemented properly, monitored, and compliance reported. In 1989, this requirement was codified statewide as Section 21081.6 of the Public Resources Code. Section 21081.6 requires a public agency to adopt a MMCRP when it approves a project that is subject to preparation of an EIR and where the EIR for the project identifies significant adverse environmental effects.

The purpose of a MMCRP is to ensure that measures adopted to mitigate or avoid significant impacts are implemented. The CPUC views the MMCRP as a working guide to facilitate not only the implementation of mitigation measures by the project proponent, but also the monitoring, compliance and reporting activities of the CPUC and any monitors it may designate.

The CPUC will address its responsibility under Public Resources Code Section 21081.6 when it takes action in relation to applications made regarding the Proposed Project. If the CPUC approves the application, it will also adopt a MMCRP that includes the mitigation measures ultimately made a condition of approval by the CPUC.

## C.2 THE MONITORING STRATEGY IN OVERVIEW

The monitoring strategy involves:

- The clear articulation of a series of measures designed to mitigate the impacts likely to be induced by the Proposed Project
- The appointment, by the CPUC, of designated field monitors to observe that all construction activities are compliant with specified mitigation measures
- The provision to the CPUC of monitoring reports prepared by appointed field monitors
- The provision to the CPUC of copies of all tests, investigations, evaluations, and analyses carried out in accordance with the prescribed mitigation measures
- The provision to the CPUC of copies of all other documentation pertaining to compliance with the mitigation measures as required in this MMCRP.

The Applicant and/or the Applicant's contractors will be required to comply with the MMCRP in all respects. In all instances where non-compliance occurs, the CPUC's designated environmental monitor shall issue a warning to the construction foreman and PG&E Co.'s project manager. Any decisions to halt work due to non-compliance shall be made by the CPUC. The CPUC's designated environmental monitor shall keep a record of any incidents of non-compliance with mitigation measures. Copies of these documents will be supplied to PG&E Co. and to the CPUC.

If the project is approved, the CPUC will prepare a Mitigation Implementation Plan (MIP) that will serve as a self-contained general reference for the MMCRP adopted by the CPUC for the Northeast San Jose Transmission Reinforcement Project. To accomplish this, the MIP should contain the following elements:

- Introduction: describing the authority and purpose of the MIP
- Monitoring Organization: describing the roles and responsibilities of the key agencies involved in the monitoring effort
- General Monitoring Procedures: describing the general procedures for monitoring the implementation of mitigation measures adopted by the CPUC, including procedures for reporting problems, resolving disputes, and dealing with variances to mitigation requirements
- Project Description: providing a concise description of the project, outlining the physical locations and timetable, including construction spreads
- Agency Jurisdictions: providing a list of agencies with jurisdiction over the project and a description of where their respective jurisdictions exist
- Mitigation Monitoring Procedures: describing in detail the mitigation measures to be implemented for each issue area, along with the party responsible, the schedule, the reporting requirements for carrying out the monitoring activity for each mitigation measure, and effectiveness criteria for evaluating the implementation of the mitigation measure. This section will expand upon the information presented in Section C.4 (following) as needed.

### C.3 CHANGES TO MITIGATION MEASURES CONTAINED IN THE DRAFT EIR

The Draft EIR (in its Section C) included analyses of the 11 environmental issue areas listed below:

Air Quality	Biological Resources	Cultural Resources
Hydrology	Land Use and Public Recreation	Noise
Socioeconomics and Public Services	Transportation and Traffic	Visual Resources
Geology and Soils	Public Health, Safety, and Nuisance	

In the Supplemental Draft EIR, each of the above issue areas was analyzed for potential impacts of the new and revised alternatives. The environmental consequences and potential impacts that the proposed project or alternatives would bring to each issue area were analyzed in the Draft EIR, and then again in the Supplemental Draft EIR for the new/revised alternatives. Numerous mitigation measures were proposed in the Draft EIR, and several new or modified measures were recommended in the Supplemental Draft EIR based on the analyses of the eleven environmental disciplines. Additional measures were modified in response to comments received on both the Draft EIR and Supplemental Draft EIR. The new and modified mitigation measures recommended in the Supplemental Draft EIR are presented below in Table C-1. The text in Table C-1 that is underlined is new text and text that is crossed out is text from the old version of the measure that was eliminated. If the text of the replacement measure is completely different then the original measure, all text of the replacement measure is underlined, with no strike out text.

**Table C-1 New and Modified Mitigation Measures After the Draft EIR**

Impact	New or Modified Measure (underline/strike-out indicates changes from Draft EIR unless otherwise noted)
<p><b>Biological Resources:</b> Construction activities could unearth or kill estivating California tiger salamanders</p>	<p>[This is a new measure that was not presented in the Draft or Supplemental Draft EIR]  <b>B-2a:</b> If the Northern Underground Alternative is approved, for all construction within the Pacific Commons Preserve, PG&amp;E Co. shall install a temporary salamander barrier between the construction area and the rest of the Preserve. Using pitfall traps, salamanders shall be trapped out of the construction area along the barrier and relocated to the Preserve. These efforts shall be conducted by a qualified biologist approved by and working closely with the California Department of Fish and Game (CDFG). Reports shall be provided to the CPUC on a monthly basis documenting coordination with CDFG and the results of the trapping/relocation effort.</p> <p>[This is a new measure that was not presented in the Draft or Supplemental Draft EIR]  <b>B-2b:</b> If the Northern Underground Alternative is approved, for all construction within the Pacific Commons Preserve, PG&amp;E Co. shall employ a biologist approved by the CDFG to evaluate the potential for heat to affect tiger salamander habitat. The biologist shall consult with PG&amp;E Co., the U.S. Fish and Wildlife Service, and CDFG to determine the potential for heat impact. If impacts are determined to be likely, a trapping and relocation program, and installation of a permanent barrier shall be implemented prior to energizing of the line. PG&amp;E Co. shall submit a design for the trapping/relocation program and the barrier to the CPUC for review and approval. Consultation and resulting actions shall be documented to the CPUC.</p>
<p><b>Biological Resources:</b> Increased predation on the Salt Marsh Harvest Mouse and Salt Marsh Wandering Shrew</p>	<p>[This is a new measure that was not presented in the Draft or Supplemental Draft EIR. Mitigation Measure B-8 from the Supplemental Draft EIR has been modified as shown below to incorporate the provisions of Applicant's Proposed Measure 10.25a]  <b>B-8:</b> In order to reduce predation impacts of the transmission line, the specific requirements listed below shall be implemented. Compliance with these requirements shall be documented in a report submitted to the CPUC prior to project operation. In determining detailed compliance requirements for items 2, 3, 5, and 6 (e.g., locations of perch guards, type of habitat enhancement, etc.), PG&amp;E Co. shall consult with CPUC-designated biologists, U.S. Fish and Wildlife Service, and California Department of Fish and Game. (Supercedes Applicant Proposed Measure 10.25a.)</p> <ol style="list-style-type: none"> <li>1. Tubular steel poles shall be used for all portions of the transmission line to minimize perching and predation opportunities.</li> <li>2. Predation opportunities shall be lessened through the use of bird guards to discourage perching at tower locations within the general area of California clapper rail, salt marsh harvest mouse, and salt marsh wandering shrew. Such perch preventers shall be maintained in good condition through the life of the project.</li> <li>3. Pre-construction biological surveys shall be conducted, with a CPUC-approved biologist present, to evaluate species and habitat along the approved transmission line route and substation site. Predation opportunities shall be evaluated based on existing data and on pre-construction surveys.</li> <li>4. PG&amp;E shall contribute to a predator control program in Alameda and Santa Clara Counties to help control feral cat/red fox populations.</li> <li>5. Artificial burrows shall be installed (where property owners concur) to increase escape cover for burrowing owls.</li> <li>6. Habitat enhancement opportunities shall be developed with the resource agencies at all tower locations designated as contributing to the issue of predation. Habitat enhancement shall be developed to increase escape cover for prey.</li> </ol>
<p><b>Biological Resources:</b> Bird collision</p>	<p><b>New measure presented in Supplemental Draft EIR:</b>  <b>B-9:</b> To reduce bird collision impacts along the proposed or alternative transmission line routes, PG&amp;E Co. shall install bird flight diverters in the areas defined below. Prior to installation of conductors on the new 230 kV line, PG&amp;E Co. shall submit its recommendation for the type(s) and spacing of bird flight diverters in the identified areas to the CPUC, the U.S. Fish and Wildlife Service (both the SF Bay National Wildlife Refuge and Sacramento Ecological Services office), and the California Department of Fish and Game for review and approval. Conductors shall not be installed until the CPUC has approved an agreement regarding the type and spacing of bird flight diverters required; diverters shall be installed within 30 days of installation of conductors. Locations of required bird flight diverters (depending on which route is approved):</p> <ul style="list-style-type: none"> <li>▪ <b>Proposed 230 kV Route:</b> Along the following overhead transmission line segments: Mileposts 1.7 to 2.7 (adjacent to salt ponds), Mileposts 2.7 to 4.1 (adjacent to the Bayside Business Park mitigation pond), Mileposts 4.1 to 4.9 (through the Fremont Airport Property and east of Newby Island Landfill), Mileposts 4.9 to 7.0 (the Coyote Creek Flood Control Basin east of the route, past the Santa Clara Valley Water District's mitigation area, and through the Water Pollution Control Plant).</li> <li>▪ <b>I-880-A Alternative (if used with proposed route or Underground Through Business Park Alternative).</b> Between Mileposts 1.7 and 2.7 (south of Cushing Parkway through salt ponds) and between Mileposts 4.1 and 7.2 (Fremont Airport property to substation).</li> <li>▪ <b>Underground Through Business Park Alternative (if used with proposed route):</b> Between Mileposts 1.7 and 2.7 (salt ponds), between Mileposts 4.1 and 7.2 (as described for proposed route)</li> </ul>

Impact	New or Modified Measure ( <u>underline/strike-out indicates changes from Draft EIR unless otherwise noted</u> )
	<ul style="list-style-type: none"> <li>▪ <b>I-880-B Alternative</b> (assuming use of I-880-A Alternative at north end of route): Between Mileposts 4.1 and 7.2 (as described for proposed route)</li> <li>▪ <b>McCarthy Boulevard Alternative Segment.</b> If this alternative segment is selected, bird flight diverters shall be installed along the entire segment.</li> </ul> <p>Following installation of all bird flight diverters (line markers), PG&amp;E Co. shall begin a three-year monitoring program to determine the extent of bird collisions on each identified segment of the approved route. Existing unmarked transmission lines in similar high bird-use areas shall be monitored during the same period to allow comparisons for determining line marking effectiveness. The protocol for the study (including identification of unmarked lines to be monitored) shall be submitted to the resource agencies for review and approval prior to installation of conductors on new towers. <u>As part of the design of this monitoring program, PG&amp;E Co. shall submit to the CPUC and the U.S. Fish and Wildlife Service information regarding types of bird collision detection systems, their potential for improving study results, and their cost and feasibility in this area. Based on this information, the CPUC will decide whether such a system will be required for the monitoring study.</u> Annual reports providing bird strike data for the new marked lines and for the existing unmarked lines shall be provided to the CPUC, the U.S. Fish and Wildlife Service (SF Bay National Wildlife Refuge and Sacramento Ecological Services office), and the California Department of Fish and Game, and a summary report shall be submitted at the end of the three-year monitoring program. <u>The annual reports shall include a discussion of the apparent effectiveness of the line marking techniques selected, and recommendations regarding modification of the type of line markers used if bird collisions are determined to be frequent. PG&amp;E Co. shall implement the findings of the annual reports by modifying line markers as needed to minimize collisions.</u> [This measure supercedes Applicant Proposed Measure 10.27a]</p>
<p><b>Biological Resources:</b> Removal of riparian vegetation</p>	<p><b>[This is a new measure that was not presented in the Draft or Supplemental Draft EIR]</b></p> <p><b>B-10:</b> If a transmission line route is selected that includes an overhead crossing of Coyote Creek south of Dixon Landing Road, PG&amp;E Co. shall work with the Santa Clara Valley Water District (SCVWD) and a biologist approved by the CPUC to complete the following:</p> <ul style="list-style-type: none"> <li>• Identify the specific crossing point and angle of crossing that would minimize impacts on riparian vegetation.</li> <li>• Evaluate the potential for taller towers on either side of the Creek to allow clearance over existing vegetation.</li> <li>• Develop and submit to the CPUC and SCVWD for review and approval a plan for vegetation management during project operation that minimizes removal of riparian vegetation while still complying with the safety regulations. This plan shall be in effect during the life of the project and documentation of compliance shall be submitted annually to the SCVWD.</li> </ul> <p>PG&amp;E shall submit to the CPUC documentation of completion of the first two items prior to start of construction of the line.</p>
<p><b>Hydrology:</b> Construction related surface water contamination</p>	<p><b>H-4:</b> The Applicant shall develop Best Management Practices (BMPs) as part of the requirements for a National Pollutant Discharge Elimination System (NPDES) permit by the State Water Resources Control Board. BMPs shall be approved by the CPUC, Regional Water Quality Control Board, and affected public agencies prior to permit issuance. They will be modified as necessary during construction to minimize the possibility of contaminated discharge into surface waters. Any spill occurring during construction activities shall be contained and immediately cleaned up. <u>PG&amp;E shall notify the RWQCB, City of Fremont Fire Department (when appropriate), and/or Office of Emergency Services in the event of a spill of fuel or other hazardous materials. PG&amp;E should also notify ACWD in a timely manner of any such spills.</u></p>
<p><b>Hydrology:</b> Groundwater Contamination During Construction</p>	<p><b>H-5:</b> Prior to construction of the Newark Substation modification, PG&amp;E Co. <del>will</del> <u>shall</u> perform soil and/or groundwater testing in the former equipment storage area <u>and in the immediate construction location to a depth that represents construction activity.</u> If soil and/or groundwater contamination is found, <u>PG&amp;E shall coordinate with the ACWD and send work plans to the ACWD and RWQCB (when appropriate)</u> and remediate the area as needed to meet requirements of the governing agencies. <u>A report shall be provided to the CPUC prior to the start of substation construction documenting completed tests and results.</u> [This measure supercedes Applicant Proposed Measure 7.16a]</p>
<p><b>Hydrology:</b> Groundwater Contamination During Construction</p>	<p><b>H-6:</b> <u>Prior to construction, PG&amp;E Co. shall provide construction documents, illustrating the exact location of project components, to the Alameda County Water District (ACWD) and the Santa Clara Valley Water District (SCVWD) and adjust tower locations, if feasible, to minimize impacts on water district facilities.</u></p> <p>In addition, PG&amp;E Co. shall research the potential for known or suspected soil or groundwater contamination along the approved transmission line route and on the selected 230kV substation site. In areas of known or suspected contamination where construction activities shall occur, PG&amp;E Co. shall drill pilot borings to test the soil and/or groundwater for contaminants. <u>Prior to the start of construction, a report shall be submitted to the CPUC, the RWQCB, and either the ACWD or the SCVWD (depending on jurisdiction) documenting PG&amp;E Co.'s research and</u></p>

Impact	New or Modified Measure ( <u>underline/strike-out indicates changes from Draft EIR unless otherwise noted</u> )
	<p><u>field testing regarding the locations of potentially contaminated areas (including evaluation of government databases documenting contaminated sites). PG&amp;E Co. shall identify potential sites within 1000 feet of the trench locations and the findings of these tests. PG&amp;E Co. shall notify and coordinate with ACWD or the SCVWD prior to any drilling or boring and send relevant work plans to those agencies for review.</u></p> <p>In the event that PG&amp;E Co. requires completion of any borings, driving piles through landfills, groundwater extraction, excavation dewatering, or remediation of contaminated groundwater as part of construction, PG&amp;E Co. shall <u>obtain necessary permits and follow the guidelines of the RWQCB and the ACWD or SCVWD.</u> Such protective procedures must be approved before the start of construction by RWQCB and the CPUC, and by either the ACWD or SCVWD, for transmission towers <u>or underground transmission lines to be built</u> in areas where shallow contamination is found.</p> <p><u>PG&amp;E Co. shall comply with requirements of the SCVWD and ACWD regarding extraction of groundwater as they apply to construction operations, including excavation dewatering or remediation of contaminated groundwater.</u></p> <p>Protective measures may involve installing a conductor casing outside of the piles to seal off the shallow contaminated zone. If drilled piers are needed in areas with shallow contamination, soil cuttings and dewatering fluids will be tested and disposed of appropriately. Workers shall be required to wear personal protective gear and receive special health and safety training. Public access to the construction area may be temporarily restricted during excavation or drilling activities. Specific protective measures shall be defined in a letter to the CPUC prior to the start of construction and after completion of testing. The applicant will complete this work in compliance with applicable federal, state, and local regulations. [This measure supercedes Applicant Proposed Measure 7.18a]</p>
<p><b>Hydrology:</b> Groundwater Contamination During Construction</p>	<p><b>H-9a:</b> In order to evaluate the depth to groundwater in underground segments, groundwater levels along all underground segments shall be tested by drilling pilot borings performed at 1,000-foot intervals along this route during high water tidal conditions. The location of places where groundwater depth is less than 6 ft shall be identified prior to trenching activities and avoided, where possible, for the underground route. Where avoidance is not possible, PG&amp;E Co. shall consider construction in a shallower trench, depending upon structural requirements of the underground method and other <del>practical concerns</del> <u>regulatory requirements</u>. PG&amp;E Co. shall document results of test drilling in a letter report to the CPUC and shall propose specific means to minimize the impact on groundwater if shallow groundwater is found. These measures must be approved by the CPUC prior to the start of construction of the underground segment.</p> <p>For all underground transmission line segments, PG&amp;E Co. shall research government databases documenting contaminated sites and identify potential sites within 1000 feet of the trench locations. In these areas, and for other areas where contamination is known or suspected, PG&amp;E Co. shall implement Applicant Proposed Measure 7.18a. Prior to the start of construction, PG&amp;E Co. shall provide a report documenting records searches for contaminated sites along underground segments, and shall define its proposed procedures for testing of such sites and for protection of construction workers and the public. These procedures will be reviewed by the CPUC and the Regional Water Quality Control Board, and PG&amp;E Co. may not start construction of an underground segment prior to receiving approval of its proposed testing and protection program. [This measure supercedes Measure H-9a from the Supplemental Draft EIR]</p>
<p><b>Hydrology:</b> Fremont Flood Control Channel</p>	<p>Mitigation Measure H-10 is no longer needed and has been deleted because the I-880-B Alternative has been modified to avoid the flood control channel.</p>
<p><b>Hydrology.</b> Agency Coordination</p>	<p><b>H-13:</b> <u>Prior to the start of construction, PG&amp;E Co. shall provide construction diagrams to the Alameda County and Santa Clara Valley Water Districts and request determination of the location of existing water wells. Based on the information received, PG&amp;E Co. shall not preclude access to an existing water well (whether active or abandoned) during construction or demolition work. Abandoned wells may be required to be destroyed per District requirements. In addition, operational wells within or near the construction area must be protected during construction in accordance with District requirements. Documentation of compliance with this requirement shall be provided to the CPUC before the start of construction.</u></p>
<p><b>Public Safety, Health, and Nuisance</b> Radio and Television Interference</p>	<p><b>PS-2:</b> After energizing the transmission line, PG&amp;E Co. shall respond to all complaints of line interference with electronic equipment (including radios, televisions, computer monitors, and testing equipment) <u>within 10 days.</u> <u>PG&amp;E Co. shall respond by correcting the problems identified, either by providing advice or suggesting equipment that eliminates the interference problem.</u> PG&amp;E Co. shall document all complaints by submitting the following information to the CPUC: name/address of contact, nature of problem, date complaint received, date of PG&amp;E Co. response, and description of the corrective action. These records shall be provided to the CPUC <u>on a monthly basis</u> and to the public upon request. All unresolved disputes shall be referred <u>within 30 days</u> by PG&amp;E Co. to the CPUC <u>Energy Division</u> for resolution. These complaints will be handled according to the procedures defined in General Order 131-D, Section XIV(A).</p>
<p><b>Socioeconomics</b></p>	<p><b>S-1:</b> PG&amp;E Co. shall meet with WPCP management to <del>review</del> define the exact location and height of each tower <del>and</del></p>

Impact	New or Modified Measure ( <u>underline/strike-out indicates changes from Draft EIR unless otherwise noted</u> )
<p><b>and Public Services:</b> Potential disruption of the operations of WPCP</p>	<p><del>shall relocate towers</del> to minimize safety and other impacts to WPCP operations. <u>In addition, PG&amp;E Co. shall present to the WPCP and the CPUC a proposal for replacing all trees required to be removed for the project. The tree replacement decisions shall consider characteristics such as their odor and potential to act as visual barriers. PG&amp;E Co. shall not proceed with tree replacement until the CPUC has <del>and WPCP have</del> approved the replacement plan.</u></p>
<p><b>Socioeconomics and Public Services:</b> Potential disruption of the operations of the Milpitas Sewage Pump Station</p>	<p>[This is a new measure that was not presented in the Draft or Supplemental Draft EIR] <b>S-1a:</b> PG&amp;E Co. shall meet with the Milpitas Public Works and Planning Departments to review and approve the exact location and height of each tower in the City of Milpitas prior to final design, if the McCarthy Boulevard Alternative segment is selected. In order to minimize safety and other impacts to Sewer Lift Plant operations, the specific tower locations (in the general area identified in Figure B-4) shall be defined in coordination with City officials. Documentation of this coordination shall be submitted to the CPUC prior to the start of construction.</p>
<p><b>Visual Impacts:</b> Adverse visual impact to a valued landscape resulting from the placement of new structures adjacent to Coyote Creek and a Bay Trail segment</p>	<p><b>V-1:</b> Reduce structure heights as much as practical between MP 5.6 and 6.7. <u>Prior to determining appropriate structure heights, PG&amp;E Co. shall meet with Santa Clara Valley Water District to determine potential operational conflicts and the City of San Jose's Bay Trail design group to discuss tower location adjustments that could reduce trail visibility impacts. Documentation of this coordination, and PG&amp;E Co.'s ultimate proposed structure heights and placement shall be provided by PG&amp;E Co. to the CPUC at least 30 days before the start of transmission line construction.</u></p>
<p><b>Visual Impacts:</b> Impacts on trail users near the substation site</p>	<p><b>V-2:</b> PG&amp;E Co. shall develop and implement a landscaping plan for the Los Esteros Substation <del>(or Zanker Road Alternative Substation)</del> <u>Prior to implementation of the plan, the Applicant shall submit the plan to the City of San Jose's Department of Planning, Building, and Code Enforcement and to the CPUC for review and approval. or US DataPort Substation Alternative (as appropriate). Vegetation shall be of a density and height necessary to screen views of the lower portion of the substation from Highway 237 to the south, Zanker Road to the west, and the Bay Trail, immediately to the north, to the greatest extent while also complying with safety regulations. Vegetation height and type shall be determined based on consultation with the City of San Jose's Department of Planning, Building, and Code Enforcement and incorporating information from landscaping plans of adjacent developments. Vegetation type and height shall also be consistent with CPUC GO-95 (transmission line safety) and the requirements of the California Department of Forestry. The plan shall be submitted for approval to the CPUC prior to the start of project operation and after the required consultation is concluded; operation may not commence until the plan is approved and planting is complete.</u></p>
<p><b>Visual Impacts:</b> Impacts associated with the poles across the salt ponds</p>	<p><b>V-3:</b> <u>If both the I-880-A and Underground Through Business Park Alternatives are selected, at the point where the I-880-A Alternative intersects the Newark-Montague and Newark-Milpitas/Dixon Landing 115kV Lines, the I-880-A Alternative should turn southeast to parallel the 115 kV lines to the north end of Bayside Business Park. At this point, the 230 kV line would either (a) turn west to re-connect to the Proposed Route just north of MP 2.7, or (b) connect to the Underground Through Business Park Alternative Route, which would begin at the north end of the Bayside Business Park.</u></p>
<p><b>Visual Impacts:</b> EMF Mitigation requiring taller towers</p>	<p>Mitigation Measure V-4 (presented the Supplemental Draft EIR) has been deleted because the visual resources analysis required in this measure has been completed and is described in Section B</p>

#### **C.4 FINAL MITIGATION MONITORING, COMPLIANCE, AND REPORTING PROGRAM: MITIGATION MEASURES AND APPLICANT PROPOSED MEASURES**

##### **C.4.1 MITIGATION MEASURES**

When impacts were identified during the analyses of the Draft and Supplemental EIR's, diligent effort was taken to identify mitigation measures that would reduce the impacts to a level that would be less than significant. Refer to Tables C-2, C-3, and C-4 for complete descriptions of the mitigation measures that the applicant will be responsible for implementing. The three tables are differentiated by the timing (i.e., prior to construction, during construction, during operations) of mitigation measure implementation, as follows:

- Table C-2: Measures to be implemented prior to construction
- Table C-3: Measures to be implemented during construction
- Table C-4: Measures to be implemented during project operation.

Section C.4.2 presents Table C-5, Applicant Proposed Measures. This table presents the measures proposed by PG&E Co. in its Proponent's Environmental Assessment.



**Table C-2 Mitigation Monitoring Compliance and Reporting Program - Measures to be Implemented Prior to Construction**

Impact (Class)	Mitigation Measure	Location/ Affected Segment	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency
Demolition activities could potentially cause asbestos fibers to become airborne. (Class II)	<p><b>A-4:</b> PG&amp;E Co. shall obtain a certified asbestos specialist to investigate whether the buildings that are proposed to be demolished contain asbestos. The findings of the investigation shall be presented to both the BAAQMD and the CPUC prior to construction of the proposed project. If it is found that the buildings do contain asbestos, PG&amp;E Co. shall consult with the District's Enforcement Division prior to commencing demolition to plan demolition practices that would not liberate asbestos fibers.</p>	Proposed Los Esteros Substation	Review findings of the Asbestos Specialist; Review documentation that PG&E Co. has coordinated with the BAAQMD; monitor construction activities	Asbestos fibers are not released to the environment	CPUC and the BAAQMD
<p>Temporary and permanent loss of plant communities (Class II)</p> <p><b>B-1<sup>a</sup>:</b> The initial step for this measure will be completion of a jurisdictional wetlands delineation of the proposed transmission line corridor. Once the delineated wetlands have been verified by the U.S. Army Corps of Engineers (USACE), avoidance measures will be finalized. Avoidance will consist of flagging or fencing allowable travel routes and construction areas to minimize impacts to wetland plant communities. Flagging will be used to designate approved travel routes and work areas in portions of the project route that are far from wetland plant communities. Protective fencing will be installed in those portions of the proposed transmission line route that are immediately adjacent to wetlands. Construction work areas within or immediately adjacent to wetlands will be located and fenced to avoid or minimize wetland impacts.</p> <p>Unavoidable temporary loss of wetland plant communities during construction will be mitigated by restoration of the impacted area to pre-construction conditions. Where restoration of temporary impacts is not feasible and where permanent wetlands impacts occur from tower installation, off-site compensatory mitigation will be provided. Additional off-site compensation will be required if the responsible agencies determine that restoration of temporary impacts has failed.</p> <p>A Restoration Plan will be developed by the applicant and submitted to the USACE, Regional Water Quality Control Board (RWQCB), California Public Utilities Commission, City of Fremont, and City of San Jose at least 60 days prior to the start of any construction. The plan will contain information for wetland mitigation location and wetland type to be created for any proposed off site wetland creation, and details on soil preparation, seed collection, planting, maintenance, and monitoring for on-site restoration efforts and off-site wetland creation. Quantitative success criteria will also be presented in the plan. The mitigation objective for affected wetland plant communities will be restoration to pre-construction conditions as measured by species cover, species composition, and species diversity. Success criteria will be established by comparison with reference sites approved by the USACE and RWQCB.</p> <p>Wetland restoration and creation will be monitored for five years after mitigation site construction to assess progress and identify problems. Remediation actions will be taken during the five-year period if necessary to ensure the success of the restoration effort.</p>	<p><b>BIOLOGICAL RESOURCES</b></p>	All wetland habitats; Proposed Project and all Alternatives	Biological monitor present; photodocumentation; report submitted for review and approval within 30 days of construction	Planting survival rate designated in restoration plan (percent cover, height, species composition)	CDFG and CPUC

<sup>a</sup> During construction (Table C-3) and before construction (Table C-2)

<sup>b</sup> During construction (Table C-3) and during operations (Table C-4)

<sup>c</sup> Prior to construction (Table C-2), during construction (Table C-3), and during operations (Table C-4)

Table C-2 Mitigation Monitoring Compliance and Reporting Program - Measures to be Implemented Prior to Construction

Impact (Class)	Mitigation Measure	Location/ Affected Segment	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency
Construction activities could unearth or kill estivating California tiger salamanders (Class II)	<b>B-2a:</b> If the Northern Underground Alternative is approved, for all construction within the Pacific Commons Preserve, PG&E Co. shall install a temporary salamander barrier between the construction area and the rest of the Preserve. Using pitfall traps, salamanders shall be trapped out of the construction area along the barrier and relocated to the Preserve. These efforts shall be conducted by a qualified biologist approved by and working closely with the California Department of Fish and Game (CDFG). Reports shall be provided to the CPUC on a monthly basis documenting coordination with CDFG and the results of the trapping/relocation effort.	Pacific Commons Preserve; Northern Underground Alternative	Biological monitor present; report to be submitted for review within 30 days of construction.	Limit salamander mortality	CPUC and CDFG
Overland travel disturbance of plant communities (Class II)	<b>B-2b:</b> If the Northern Underground Alternative is approved, for all construction within the Pacific Commons Preserve, PG&E Co. shall employ a biologist approved by the CDFG to evaluate the potential for heat to affect tiger salamander habitat. The biologist shall consult with PG&E Co., the U.S. Fish and Wildlife Service, and CDFG to determine the potential for heat impact. If impacts are determined to be likely, a trapping and relocation program, and installation of a permanent barrier shall be implemented prior to energizing of the line. PG&E Co. shall submit a design for the trapping/relocation program and the barrier to the CPUC for review and approval. Consultation and resulting actions shall be documented to the CPUC.	Pacific Commons Preserve; Northern Underground Alternative	Biological monitor present; report to be submitted for review within 30 days of construction.	Limit salamander mortality	CPUC, U.S. FWS, and CDFG
Indirect impacts to wildlife from increased human presence and access (Class II)	<b>B-3:</b> PG&E Co. shall map and flag overland travel routes prior to construction or periodic maintenance during operation to identify and avoid impacts to sensitive habitats (North Coastal Salt Marsh, North Coastal Brackish Marsh, and Seasonal Wetlands) and minimize total impact area. The mapping/flagging shall be reviewed by a CPUC-approved biologist prior to use of these routes for construction to ensure adequate protection for sensitive plant communities. <b>B-4:</b> Construction and operation activities shall be scheduled to avoid critical seasons. Raptor nests, vernal pools, salt ponds, and other sensitive habitats shall be avoided during specific seasons throughout the construction, operation, and maintenance of the proposed project. Surveys conducted prior to any construction activities shall be performed by qualified biologists to locate raptor nests and other resources in/or adjacent to the ROW and access road areas. Northern harrier is a ground nesting bird known to occur in the project area. To avoid disturbance to ground nests, pre-construction surveys shall be conducted to identify current locations of these resources and to flag allowable travel routes. No travel would be allowed to occur outside these areas. Designated existing roads shall be used; if such roads are not present, flagged routes that have been surveyed by a biologist shall be used. If nests are observed, the avoidance period and buffer distances shown in Table C-3-7 (see Draft EIR) shall be observed. Surveys shall be based on the CDFG survey protocol established for baseline surveys on the proposed project. Specific distances from resources (see Table C-3-7) shall be maintained during construction, maintenance, and overflights. Travel areas shall be flagged prior to construction (see Mitigation Measure B-3), and biological monitors as specified by CPUC shall be present during construction to verify that no vehicular travel occurs outside flagged areas. Biological monitors shall have the authority to terminate construction activities if any significant adverse effect on special status species is observed.	Mileposts 0.0-7.6; Proposed Project and Alternatives	Biological monitor present; photo-documentation; report within 90 days of construction	No activity outside of designated areas	CDFG, CPUC
		Mileposts 0.0-7.6; Proposed Project and Alternatives	Specific monitoring/reporting determined by CDFG; documentation also provided to CPUC for review.	Prevent unauthorized access	CDFG, CPUC

<sup>a</sup> During construction (Table C-3) and before construction (Table C-2) <sup>b</sup> During construction (Table C-3) and during operations (Table C-4) <sup>c</sup> Prior to construction (Table C-2), during construction (Table C-3), and during operations (Table C-4)

**Table C-2 Mitigation Monitoring Compliance and Reporting Program - Measures to be Implemented Prior to Construction**

Impact (Class)	Mitigation Measure	Location/ Affected Segment	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency
<p>Temporary and permanent loss of special status plant species and their habitats (Class II)</p>	<p><b>B-5:</b> Prior to construction, comprehensive rare plant surveys shall be conducted by PG&amp;E Co. on the Pacific Commons Preserve and the Newark Substation site (Mileposts 0.0 to 1.7). These surveys shall be appropriately timed to cover the blooming periods of the four special status plant species known to occur in the area (April, May, and July). Maps depicting the results of these surveys shall be prepared and shall include other recently mapped special status plant occurrences in the area (WRA 1999) to ensure that the full scope of rare plant habitat in the project route vicinity is delineated.</p> <p>Information on these special status plant population locations shall be provided to construction personnel in a pre-construction seminar. Any special status plant occurrences located within 200 feet of the proposed project construction corridor shall be fenced prior to the start of any construction. Maps and reports, as well as proposed fence locations, shall be provided to the CPUC's approved biological monitor for review and approval prior to the start of construction.</p>	<p>Milepost 0.0-7.6; Proposed Project and Alternatives</p>	<p>Biological monitor present; photo-documentation; report within 90 days of construction/periodic maintenance</p>	<p>No loss of special status plants</p>	<p>USFWS, CDFG, CPUC</p>
<p>Overland travel disturbance of special status plant species and their habitats (Class II)</p>	<p><b>B-6:</b> Pre-construction and pre-maintenance surveys for special status plants shall be conducted by PG&amp;E Co. in areas susceptible to overland travel disturbance by construction vehicles. Occurrences of special status plants shall be flagged, and overland travel shall be prohibited in these areas. Maps and reports, as well as proposed fence locations, shall be provided to the CPUC's approved biological monitor for review and approval prior to the start of construction.</p>	<p>Milepost 0.0-7.6; Proposed Project and Alternatives</p>	<p>Biological monitor present; photodocumentation; report within 90 days of construction/periodic maintenance</p>	<p>No loss of special status plants</p>	<p>USFWS, CPUC, CDFG</p>

<sup>a</sup> During construction (Table C-3) and before construction (Table C-2) <sup>b</sup> During construction (Table C-3) and during operations (Table C-4) <sup>c</sup> Prior to construction (Table C-2), during construction (Table C-3), and during operations (Table C-4)

Table C-2 Mitigation Monitoring Compliance and Reporting Program - Measures to be Implemented Prior to Construction

Impact (Class)	Mitigation Measure	Location/ Affected Segment	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency
Increased predation on the Salt Marsh Harvest Mouse and Salt Marsh Wandering Shrew (Class II)	<p>B-8: In order to reduce predation impacts of the transmission line, the specific requirements listed below shall be implemented. Compliance with these requirements shall be documented in a report submitted to the CPUC prior to project operation. In determining detailed compliance requirements for items 2, 3, 5, and 6 (e.g., locations of perch guards, type of habitat enhancement, etc.), PG&amp;E Co. shall consult with CPUC-designated biologists, U.S. Fish and Wildlife Service, and California Department of Fish and Game. (Supercedes Applicant Proposed Measure 10.25a.)</p> <ol style="list-style-type: none"> <li>1. Tubular steel poles shall be used for all portions of the transmission line to minimize perching and predation opportunities.</li> <li>2. Predation opportunities shall be lessened through the use of bird guards to discourage perching at tower locations within the general area of California clapper rail, salt marsh harvest mouse, and salt marsh wandering shrew. Such perch preventers shall be maintained in good condition through the life of the project.</li> <li>3. Pre-construction biological surveys shall be conducted, with a CPUC-approved biologist present, to evaluate species and habitat along the approved transmission line route and substation site. Predation opportunities shall be evaluated based on existing data and on pre-construction surveys.</li> <li>4. PG&amp;E shall contribute to a predator control program in Alameda and Santa Clara Counties to help control feral cat/feral fox populations.</li> <li>5. Artificial burrows shall be installed (where property owners concur) to increase escape cover for burrowing owls.</li> <li>6. Habitat enhancement opportunities shall be developed with the resource agencies at all tower locations designated as contributing to the issue of predation. Habitat enhancement shall be developed to increase escape cover for prey.</li> </ol>	MP 4.1 to 5.1; Proposed Project	Confirm project design specifications	Reduce predation on the salt marsh harvest mouse and salt marsh wandering shrew	CPUC
Biological Resources: Bird Collision	<p>B-10: If a transmission line route is selected that includes an overhead crossing of Coyote Creek south of Dixon Landing Road, PG&amp;E Co. shall work with the Santa Clara Valley Water District (SCVWD) and a biologist approved by the CPUC to complete the following:</p> <ul style="list-style-type: none"> <li>• Identify the specific crossing point and angle of crossing that would minimize impacts on riparian vegetation.</li> <li>• Evaluate the potential for taller towers on either side of the Creek to allow clearance over existing vegetation.</li> <li>• Develop and submit to the CPUC and SCVWD for review and approval a plan for vegetation management during project operation that minimizes removal of riparian vegetation while still complying with the safety regulations. This plan shall be in effect during the life of the project and documentation of compliance shall be submitted annually to the SCVWD.</li> </ul> <p>PG&amp;E shall submit to the CPUC documentation of completion of the first two items prior to start of construction of the line.</p>	Coyote Creek crossings	CPUC to review and approve crossing point and design	Reduction of impacts to riparian vegetation	CPUC

a During construction (Table C-3) and before construction (Table C-2) b During construction (Table C-3) and during operations (Table C-4) c Prior to construction (Table C-2), during construction (Table C-3), and during operations (Table C-4)

**Table C-2 Mitigation Monitoring Compliance and Reporting Program - Measures to be Implemented Prior to Construction**

Impact (Class)	Mitigation Measure	Location/ Affected Segment	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency
<b>LAND USE AND RECREATION</b>					
Construction of the substation and 115 KV lines would generate noise and dust that could disturb adjacent receptors. <b>(Class III)</b>	<b>L-1:</b> PG&E Co. or its construction contractor shall provide advance notice, between two and four weeks prior to construction, by mail to all businesses and residences in the following areas: (a) within 1,600 feet of proposed construction areas where pile-driving shall take place, and (b) within 300 feet of construction if no pile-driving shall occur. The announcement shall specifically state where and when construction shall occur in the area. If construction delays of more than 7 days occur, an additional notice shall be made, either in person or by mail. Notices shall provide tips on reducing noise intrusion, for example, by closing windows facing the planned construction. The notice shall also advise the recipient on how to inform the Applicant/contractor if specific noise or vibration sensitive activities are scheduled so that construction can be rescheduled, if necessary, to avoid a conflict. A reasonable deadline for such contact shall be stated. PG&E Co. shall also publish a notice of impending construction in local newspapers, stating when and where construction shall occur.	All Business Park areas: 54-acre parcel that includes substation site; Gold Street, north of Highway 237 in Alviso; Zanker Road, south of Highway 237 in San Jose; Barber 115KV Alternative alignment	Mailing list and copies of notification letters submitted to Lead Agency.	Inclusion of Lead Agency contact on follow-up by Lead Agency in response to complaints.	CPUC
Construction of the substation and 115 KV lines would generate noise and dust that could disturb adjacent receptors. <b>(Class III)</b>	<b>L-2<sup>a</sup>:</b> PG&E Co. shall identify and provide a public liaison person before and during construction to respond to concerns of neighboring businesses and residences about noise, dust, and other construction disturbance. Procedures for reaching the public liaison officer via telephone or in person shall be included in notices distributed to the public in accordance with Mitigation Measure L-1. PG&E Co. shall also establish a toll-free telephone number for receiving questions or complaints during construction and develop procedures for responding to callers (procedures to be approved by the CPUC).	All Business Park areas: 54-acre parcel that includes substation site; Gold Street, north of Highway 237 in Alviso; Zanker Road, south of Highway 237 in San Jose; Barber 115KV Alternative alignment	Mailing list and copies of notification letters submitted to Lead Agency.	Inclusion of Lead Agency contact on follow-up by Lead Agency in response to complaints.	CPUC
Construction adjacent to business parks would temporarily displace parking spaces. <b>(Class III)</b>	<b>L-3:</b> The notices required by Mitigation Measure L-1 shall include notification that parking spaces along the western edge of the business park shall be temporarily unavailable. This notification shall include the exact dates and extent of parking unavailability. If, during the course of construction, it becomes necessary to alter the dates, additional written notification shall be provided to property owners and tenants of the affected properties at the earliest feasible date.	All Business Park areas/ Proposed Project, Underground Through Business Park, I-880-A, I-880-B, Zanker Road Substation, Barber 115 KV, and Underground Trimble-Montague 115 KV Alternatives	Mailing list and copies of notification letters submitted to Lead Agency.	Proof of notification sufficient.	CPUC

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**Table C-2 Mitigation Monitoring Compliance and Reporting Program - Measures to be Implemented Prior to Construction**

Impact (Class)	Mitigation Measure	Location/ Affected Segment	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency
<p>Access to the northern and southern ends of the recreational trail that wraps around the western side of Bayside Business Park would be temporarily blocked during stringing operations. <b>(Class III)</b></p>	<p><b>L-4<sup>a</sup>:</b> The Applicant shall make arrangements with the property owner at the southwest corner of the business park to provide temporary access across the property and through the existing chain-link fence. Proper barricading shall be erected around the construction work area and signs shall direct trail users to the temporary trail access point. Following construction, the Applicant shall repair the property owner's fence and any incidental damage and restore the trail to its original condition.</p> <p><b>L-5<sup>a</sup>:</b> Prior to stringing the conductor cables across the trail at the north end, the Applicant shall erect a temporary clearance structure, similar to the ones proposed for road crossings elsewhere on the alignment, in order to maintain continuous access to the northern end of the recreational trail.</p>	<p>Northwest and southwest corners of Bayside Business Park/ Proposed Project, Underground Through Business Park, I-880-A, I-880-B, Zanker Road Substation, Barber 115 kV, and Underground Trimble-Montague 115 kV Alternatives</p>	<p>Copy of agreement with property owner submitted to Lead Agency. Lead Agency to verify detour and use of clearance structure.</p>	<p>Detour and clearance structure verified.</p>	<p>CPUC</p>
<p>Construction in agricultural fields could interfere with cropland production. <b>(Class II)</b></p>	<p><b>L-6:</b> The Applicant shall include in its easement agreement with the owner of the affected parcel a stipulation that the farmer shall be reimbursed for the value of any crops lost and the cost of any delay or interruption in necessary farming practices resulting from project construction activities on the land. To the extent feasible, the Applicant shall avoid the necessity to compensate the farmer by timing construction activities so as to avoid the prime crop planting, growing, and harvesting seasons.</p>	<p>Agricultural field north of Los Esteros Substation site</p>	<p>Copy of easement agreement submitted to Lead Agency.</p>	<p>Clause in easement agreement with landowner covering avoidance of conflict or reimbursement.</p>	<p>CPUC</p>

<sup>a</sup> During construction (Table C-3) and before construction (Table C-2) <sup>b</sup> During construction (Table C-3) and during operations (Table C-4) <sup>c</sup> Prior to construction (Table C-2), during construction (Table C-3), and during operations (Table C-4)

**Table C-2 Mitigation Monitoring Compliance and Reporting Program - Measures to be Implemented Prior to Construction**

Impact (Class)	Mitigation Measure	Location/ Affected Segment	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency
Presence of the transmission line would degrade the recreational experience along regional and subregional trails. <b>(Class I)</b>	L-7: The Applicant shall coordinate with the affected local planning agencies prior to finalizing project design to ensure that the final location of support towers minimizes impacts on planned trail alignments.	Along planned trail alignments in Fremont and San Jose	Letters submitted by Fremont and San Jose planning departments following review of final alignment plans.	Assertion by cities that alignment doesn't conflict with trails.	CPUC, City of Fremont, City of San Jose
The substation and the 115 kV lines would adversely affect existing residential uses through the introduction of intrusive or unattractive visual elements and exposure to EMFs. <b>(Class II)</b>	L-8: The Applicant shall design the proposed project so that a minimum distance of 300 feet is maintained between the transmission line structure(s) and nearby existing residences, unless PG&E Co. can document that such residences are not occupied and would not be occupied during the project life.	Southwest corner of 54-acre parcel that includes Los Esteros Substation site	Review of final construction plans.	Minimum 300-foot buffer observed.	CPUC
The substation access road could interfere with planned recreational trails, including a Bay Trail segment. <b>(Class II)</b>	L-9: The Applicant shall design the substation access road in coordination with the City of San Jose and Santa Clara County, as appropriate, to ensure recreational use of the road or an adjacent pathway.	Adjacent to southern side of WPCP sludge ponds to north of substation site	Letters submitted by Santa Clara County and San Jose planning departments following review of final alignment plans and easement agreement(s) submitted to Lead Agency.	Clause in easement agreement(s) ensuring recreational access or verification of dedicated trail easement.	CPUC, Santa Clara County, City of San Jose

<sup>a</sup> During construction (Table C-3) and before construction (Table C-2) <sup>b</sup> During construction (Table C-3) and during operations (Table C-4) <sup>c</sup> Prior to construction (Table C-2), during construction (Table C-3), and during operations (Table C-4)

**Table C-2 Mitigation Monitoring Compliance and Reporting Program - Measures to be Implemented Prior to Construction**

Impact (Class)	Mitigation Measure	Location/ Affected Segment	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency
Construction would require temporary displacement of a private half-court outdoor basketball court and possibly a volleyball court located along the alignment in Bayside Plaza. <b>(Class III)</b>	L-10 <sup>a</sup> : The Applicant shall notify the owners of the playing court(s) in writing at least two weeks prior to disruption of the courts, advising them of the impending disruption and furnishing information for contacting the public liaison person identified in Mitigation Measure L-2. Following completion of construction activities, the Applicant shall restore the court(s) to like-new condition.	Underground Through Business Park Alternative	Mailing list and copies of notification letters submitted to Lead Agency.	Proof of notification and field verification of restoration by Lead Agency.	CPUC
Construction would remove some existing landscaping along the underground alignment, including small trees. <b>(Class II)</b>	L-11 <sup>a</sup> : Following the completion of construction, the Applicant shall install replacement landscaping comparable to that removed, in cooperation with the affected property owners. Where the location of landscaping must be altered so as not to interfere with the underground transmission line, the Applicant shall provide landscaping comparable to that lost in locations dictated by the affected property owners, or monetarily compensate the owners.	Alignment of underground line through Bayside Business Park/ Underground Through Business Park Alternative	Copy of easement agreements and letters of concurrence from affected property owners submitted to Lead Agency.	Clause in easement agreement with landowner covering replacement landscaping or compensation. Property owner approval of replacement landscaping.	CPUC
Interference with Mervyn's Distribution Center <b>(Class II)</b>	L-12 <sup>a</sup> : The Applicant shall coordinate with the property owner to identify times, such as weekends or nights, when loading operations do not occur, and shall conduct construction activities on the Mervyn's property during those times.	Mervyn's Distribution Center at south end of Business Park area; Underground Through Business Park Alternative	Signed agreement between Mervyn's and Applicant.	Mutually acceptable construction schedule.	CPUC

<sup>a</sup> During construction (Table C-3) and before construction (Table C-2) <sup>b</sup> During construction (Table C-3) and during operations (Table C-4) <sup>c</sup> Prior to construction (Table C-2), during construction (Table C-3), and during operations (Table C-4)



**Table C-2 Mitigation Monitoring Compliance and Reporting Program - Measures to be Implemented Prior to Construction**

Impact (Class)	Mitigation Measure	Location/ Affected Segment	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency
<p>Previously unrecorded cultural resources could be discovered during ground disturbing construction operations <b>(Class II)</b></p>	<p style="text-align: center;"><b>CULTURAL RESOURCES</b></p> <p>C-1: All construction personnel shall be trained regarding the possibility of encountering buried cultural remains, including prehistoric and historic resources during construction. Prior to the initiation of construction or ground-disturbing activities, PG&amp;E Co. shall complete training for all construction personnel. Training shall inform all construction personnel of the procedures to be followed upon the discovery of archaeological materials including Native American burials. The following issues shall be addressed in training or in preparation for construction:</p> <ul style="list-style-type: none"> <li>Upon discovery of buried cultural materials, work in the immediate area of the find shall be halted. PG&amp;E Co.'s archaeologist and the CPUC shall immediately be notified. Once the find has been identified, PG&amp;E Co.'s archaeologist shall make the necessary plans for treatment of the find(s) and for the evaluation and mitigation of impacts if the finds are found to be important according to CEQA.</li> <li>PG&amp;E Co. shall provide a background briefing for supervisory construction personnel describing the potential for exposing cultural resources, the locations of potential sensitive areas and anticipated procedures to treat unexpected discoveries</li> <li>Any excavation contract (or contacts for other activities that may have subsurface soil impacts) shall include clauses that require construction personnel to attend training so they are aware of the potential for inadvertently exposing buried archaeological deposits. (Supercedes PG&amp;E Co.'s Applicant Proposed Measure 17.2a</li> </ul>	<p>Throughout project area/ Proposed Project and all Alternatives</p>	<p>CPUC to verify that training is acceptable and provided to all construction personnel.</p> <p>CPUC to review and approve contract clauses requiring training for inclusion in excavation contracts.</p> <p>CPUC to verify that PG&amp;E Co. contractors stopped work at a "find" location and initiated appropriate procedures including notification of PG&amp;E Co. archaeologist – PG&amp;E Co. archaeologist to report results of field review and evaluation of any finds in accordance with the procedures in Mitigation Measure C-2</p>	<p>Training results in awareness of potential for presently unknown cultural resources.</p> <p>Background briefing results in increased awareness of potential for unexpected discoveries.</p> <p>Appropriate stop work action and notification results in cultural resources not being destroyed during construction;</p>	<p>CPUC, relevant jurisdictional agencies</p>
<p>Previously unrecorded cultural resources could be discovered during ground disturbing construction operations <b>(Class II)</b></p>	<p>C-2<sup>a</sup>: PG&amp;E Co. shall develop a general cultural resources Treatment Plan for the project including procedures for the evaluation and treatment of the unexpected discovery of cultural resources including Native American burials; detail any reporting requirements by the Project Archaeologist; discuss the curatorial of any cultural materials collected during the project; and, specify that archaeologists and other discipline specialists meet the Professional Qualifications Standards mandated by the California Office of Historic Preservation.</p>	<p>Throughout project area/ Proposed Project and all Alternatives</p>	<p>CPUC to review and approve Treatment Plan.</p> <p>CPUC to verify that PG&amp;E Co.'s archaeologist is certified and is implementing procedures and requirements mandated in Treatment Plan in accordance with parameters and schedules.</p>	<p>Cultural resources are not destroyed during construction; inadvertent discoveries are evaluated and treated in accordance with Treatment Plan parameters</p>	<p>CPUC, relevant jurisdictional agencies</p>

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Impact (Class)	Mitigation Measure	Location/ Affected Segment	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency
<b>Geology, Soils, and Paleontology</b> Expansive Soils, Soft or Loose Soils, and High Water Table (Class II)	<b>G-1:</b> PG&E Co. shall perform design-level geotechnical studies including soil sampling, free-swell tests, density tests, and cone penetrometer tests (CPT) or soil borings to determine the extent of and potential for expansive soils, soft or loose soils, and the presence of a high water table. Where potential problems are found to exist, the near-surface expansive and soft or loose soils shall be over-excavated during construction and replaced with engineered backfill, or other ground treatment shall be performed such as ground densification, installation of piers or piles, or mud mats.	Areas having soils with moderate to high shrink-swell potential, soft or loose soils, or having a high ground water table/ Proposed Project and Alternatives	CPUC approved engineer shall review and approve geotechnical report, grading plans, and foundation designs	Foundation design implementation prevents differential settling to extent feasible	CPUC, local planning agencies
Corrosive Soils (Class II)	<b>G-2:</b> PG&E Co. shall perform corrosivity testing on a site-specific basis for each support structure to be located within areas with high potential for corrosive soils. Remediation measures or soil treatment procedures should be implemented on a site-specific basis based upon the soil test results.	Areas with moderately to highly corrosive soils especially within tidal flats/ Proposed Project and Alternatives	CPUC approved engineer shall review test results and approve remediation plans, and foundation designs	Plan/remediation prevents corrosion of foundations to extent feasible	CPUC, local planning agencies
Liquefaction (Class II)	<b>G-3:</b> PG&E Co. shall perform design-level geotechnical investigations including soil borings and/or cone penetrometer tests (CPT), and grain-size analyses to determine the thickness, extent and lateral continuity of potentially liquefiable deposits, depth to ground water and distance to a free face. A site-specific assessment is necessary for each transmission tower along Coyote Creek and at the proposed substation site because of the high potential of liquefaction and the history of liquefaction at the site. Where potentially liquefiable deposits are found to exist, the data collected during the investigation shall provide input for the engineering design of the foundations. These designs shall incorporate mitigation measures such as soil densification techniques, pile foundations, and over-excavation of shallow zones and replacement with engineered fill.	Areas having high potential for liquefaction, especially along Coyote Creek and constructed levees/ Proposed Project and Alternatives	CPUC approved engineer shall review and approve construction plans	Plan/remediation prevents liquefaction/differential settling to extent feasible	CPUC, local planning agencies
<b>HYDROLOGY AND WATER QUALITY</b>					
Potential for tower construction activities to impact surface water hydrology (Class II)	<b>H-1<sup>a</sup>:</b> During all construction activities in salt ponds A22 and A23 (both proposed and westerly alternative routes) and salt ponds A18 and A19 (westerly alternative only), PG&E Co. shall preserve the integrity of levees, dikes, Cargill's existing dredge locks, and natural drainage patterns. PG&E Co. shall repair any damage to the dikes at dredge locks while accessing the salt ponds using techniques similar to those employed by Cargill during their routine dike maintenance. Construction activities in Salt Ponds A22 and A23, and A18, shall be limited to the dry season (between April 15 and October 15). If PG&E Co. requests deviation from dry season construction for salt pond construction, a request shall be submitted to the CPUC for approval. The request shall include documentation regarding avoidance of potential impacts and justification for the requested deviation. (Supercedes APM 7.2a)	Salt Ponds, Wetland Mitigation Pond, Warm Springs Seasonal Wetland, Creek crossings/ Proposed Project, Westerly Route, Westerly Upgrade, and I-880-A Alternatives	CPUC to review construction, operation, and maintenance plan; monitor construction	Compliance with approved plan. Flow networks of existing streams, drainage channels, and tidal channels are not extensively altered	USACOE CDFG CBDC CPUC

<sup>a</sup> During construction (Table C-3) and before construction (Table C-2) <sup>b</sup> During construction (Table C-3) and during operations (Table C-4) <sup>c</sup> Prior to construction (Table C-2), during construction (Table C-3), and during operations (Table C-4)

**Table C-2 Mitigation Monitoring Compliance and Reporting Program - Measures to be Implemented Prior to Construction**

Impact (Class)	Mitigation Measure	Location/ Affected Segment	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency
Construction related sediment loading (Class II)	<p><b>H-2<sup>a</sup>:</b> Construction-induced sediment and excavated spoils shall be managed in accordance with the requirements of the State Water Resources Control Board General NPDES Permit for storm water runoff associated with construction activities ("general permit"). The State's general permit outlines requirements for filing a Notice of Intent prior to construction, and for developing a SWPPP that outlines "best management practices" to control discharges from the construction area. The Storm Water Pollution Prevention Plan (SWPPP) shall be designed specifically for the hydrologic setting of the proposed project, which includes salt ponds, wetlands, creeks, sloughs, and sludge drying beds.</p> <p>In compliance with this measure and the NPDES Permit, an Erosion Control Plan (ECP) shall be developed to prevent the runoff of construction related and excavated materials into the drainage system. The ECP shall require that:</p> <ul style="list-style-type: none"> <li>Excavated or disturbed soil, silt, or mud shall be temporarily collected and placed in a controlled area surrounded by siltation fencing, hay bales, or a similarly effective erosion control technique that prevents the transport of sediment</li> <li>The staging of construction materials, equipment, and excavation spoils shall be performed outside of drainages</li> <li>Where lower construction activities occur near a creek, channel, or slough crossing, sediment containment methods shall be performed at least 100 feet from the channel</li> <li>Upon completion of construction activities, excavated soil would be replaced and graded to match the surroundings</li> <li>Surplus soil would be transported from the site and disposed of appropriately. (Supercedes APM 7.6a).</li> </ul>	All Proposed and Alternative construction sites	CPUC to review construction plans; monitor construction	Compliance with Best Management Practices, SWPPP, and ECP. Permits issued; inspections during construction show no significant impacts. Construction related sediment is prevented from reaching drainage network.	USACOE CDFG CBDC SWRCB RWOCB CPUC
Construction related surface water contamination (Class II)	<p><b>H-4<sup>a</sup>:</b> The Applicant shall develop Best Management Practices (BMPs) as part of the requirements for a National Pollutant Discharge Elimination System (NPDES) permit by the State Water Resources Control Board. BMPs shall be approved by the CPUC, Regional Water Quality Control Board, and affected public agencies prior to permit issuance. They shall be modified as necessary during construction to minimize the possibility of contaminated discharge into surface waters. Any spill occurring during construction activities shall be contained and immediately cleaned up. PG&amp;E shall notify the RWOCB, City of Fremont Fire Department (when appropriate), and/or Office of Emergency Services in the event of a spill of fuel or other hazardous materials. PG&amp;E should also notify ACWD in a timely manner of any such spills.</p>	All Proposed and Alternative construction sites	CPUC to review construction plans; monitor construction	Compliance with Best Management Practices, Permits issued; inspections during construction show no significant impacts. Spills effectively cleaned up.	USACOE CDFG CBDC SWRCB RWOCB CPUC
Substation modification and groundwater quality (Class II)	<p><b>H-5:</b> Prior to construction of the Newark Substation modification, PG&amp;E Co. shall perform soil and/or groundwater testing in the former equipment storage area and in the immediate construction location to a depth that represents construction activity. If soil and/or groundwater contamination is found, PG&amp;E shall coordinate with the ACWD and send work plans to the ACWD and RWOCB (when appropriate) and remediate the area as needed to meet requirements of the governing agencies. A report shall be provided to the CPUC prior to the start of substation construction documenting completed tests and results. [This measure supercedes Applicant Proposed Measure 7.16a]</p>	Newark Substation and Los Esteros Substation	CPUC to review testing results, review remediation and clean-up if necessary	Compliance with agency determined soil and groundwater quality standards	USACOE CDFG CBDC SWRCB RWOCB CPUC

<sup>a</sup> During construction (Table C-3) and before construction (Table C-2) <sup>b</sup> During construction (Table C-3) and during operations (Table C-4) <sup>c</sup> Prior to construction (Table C-2), during construction (Table C-3), and during operations (Table C-4)

**Table C-2 Mitigation Monitoring Compliance and Reporting Program - Measures to be Implemented Prior to Construction**

Impact (Class)	Mitigation Measure	Location/ Affected Segment	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency
<p>Cross-contamination from construction of transmission tower footings (Class II)</p>	<p><b>H-6:</b> Prior to construction, PG&amp;E Co. shall provide construction documents, illustrating the exact location of project components, to the Alameda County Water District (ACWD) and the Santa Clara Valley Water District (SCVWD) and adjust tower locations, if feasible, to minimize impacts on water district facilities.</p> <p>In addition, PG&amp;E Co. shall research the potential for known or suspected soil or groundwater contamination along the approved transmission line route and on the selected 230kV substation site. In areas of known or suspected contamination where construction activities shall occur, PG&amp;E Co. shall drill pilot borings to test the soil and/or groundwater for contaminants. Prior to the start of construction, a report shall be submitted to the CPUC, the RWQCB, and either the ACWD or the SCVWD (depending on jurisdiction) documenting PG&amp;E Co.'s research and field testing regarding the locations of potentially contaminated areas (including evaluation of government databases documenting contaminated sites). PG&amp;E Co. shall identify potential sites within 1000 feet of the trench locations and the findings of these tests. PG&amp;E Co. shall notify and coordinate with ACWD or the SCVWD prior to any drilling or boring and send relevant work plans to those agencies for review.</p> <p>In the event that PG&amp;E Co. requires completion of any borings, driving piles through landfills, groundwater extraction, excavation dewatering, or remediation of contaminated groundwater as part of construction, PG&amp;E Co. shall obtain necessary permits and follow the guidelines of the RWQCB and the ACWD or SCVWD. Such protective procedures must be approved before the start of construction by RWQCB and the CPUC, and by either the ACWD or SCVWD, for transmission towers or underground transmission lines to be built in areas where shallow contamination is found.</p> <p>PG&amp;E Co. shall comply with requirements of the SCVWD and ACWD regarding extraction of groundwater as they apply to construction operations, including excavation dewatering or remediation of contaminated groundwater.</p> <p>Protective measures may involve installing a conductor casing outside of the piles to seal off the shallow contaminated zone. If drilled piers are needed in areas with shallow contamination, soil cuttings and dewatering fluids will be tested and disposed of appropriately. Workers shall be required to wear personal protective gear and receive special health and safety training. Public access to the construction area may be temporarily restricted during excavation or drilling activities. Specific protective measures shall be defined in a letter to the CPUC prior to the start of construction and after completion of testing. The applicant will complete this work in compliance with applicable federal, state, and local regulations. [This measure supercedes Applicant Proposed Measure 7.18a]</p>	<p>Proposed and Alternative transmission line routes and Los Esteros Substation site</p>	<p>CPUC to review historical research and testing results. Review and approve construction method in contaminated areas. Review disposal plan. Monitor construction activities.</p>	<p>Compliance with agency determined soil and groundwater quality standards. Compliance with approved construction plans and procedures. No cross-contamination between soil and groundwater strata occurs.</p>	<p>USACOE CDFG CBDC SWRCB RWQCB CPUC</p>
<p>Flood impact at Los Esteros Substation (Class III)</p>	<p><b>H-7:</b> Prior to construction, the applicant shall check grading plans and surveys of the proposed site to verify that the ground surface of the proposed substation shall be at least at elevation 10 feet above NGVD (Flood Zone B, 1 ft above the FEMA 100-year floodplain). This research shall be provided to the CPUC in the form of a letter report prior to the start of substation construction. If any portion of the site is below elevation 10 feet, it shall be raised. (Supercedes APM 7.4a.)</p>	<p>Los Esteros Substation site</p>	<p>CPUC to field survey of site</p>	<p>Site is entirely (or partially) above or below elevation 10'</p>	<p>FEMA CPUC</p>

<sup>a</sup> During construction (Table C-3) and before construction (Table C-2) <sup>b</sup> During construction (Table C-3) and during operations (Table C-4) <sup>c</sup> Prior to construction (Table C-2), during construction (Table C-3), and during operations (Table C-4)

**Table C-2 Mitigation Monitoring Compliance and Reporting Program - Measures to be Implemented Prior to Construction**

Impact (Class)	Mitigation Measure	Location/ Affected Segment	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency
Increased runoff at proposed substation (Class II)  Operation of proposed substation and surface water quality (Class II)	<b>H-8:</b> A spill prevention containment and countermeasure (SPCC) pond shall be designed to collect all runoff from the approved substation. For the proposed Los Esteros Substation, surface drains and subsurface piping shall convey runoff to the lined SPCC pond near the northwest corner of the property. Depending upon the magnitude of the runoff event and climatic conditions, water collected in the SPCC pond would evaporate onsite or be inspected prior to releasing. Draining from the SPCC pond, flow would then pass through an oil/water separator to a pipe and ditch, which leads flow out of the area northwest of the substation. The ditch would convey the water north and west toward Coyote Creek and San Francisco Bay. The ditch would be lined with concrete or riprap at the pipe discharge area to dissipate energy and prevent erosion. Water held in the SPCC pond shall be tested for contaminant levels prior to its release. If contaminated water is allowed to evaporate in the pond, then the pond lining shall be inspected and cleaned according to standard procedure prior to subsequent runoff events.	Los Esteros Substation site	CPUC to review SPCC construction, operation, and maintenance plan; monitor construction.	Compliance with approved plans. On-site runoff detention system and pond shall be sized according to approved Best Management Practices <sup>a</sup>	SWRCB RWQCB CPUC
Subsurface trenching and impacts to groundwater hydrology (Class II)	<b>H-9:</b> Groundwater levels along all underground segments shall be tested by drilling pilot borings performed at 1,000-foot intervals along this route during high water tidal conditions. The location of places where groundwater depth is less than 6 ft shall be identified prior to trenching activities and avoided, where possible, for the underground route. Where avoidance is not possible, PG&E Co. shall consider construction in a shallower trench, depending upon structural requirements of the underground method and other practical concerns. PG&E Co. shall document results of test drilling in a letter report to the CPUC and shall propose specific means to minimize the impact on groundwater if shallow groundwater is found. These measures must be approved by the CPUC prior to the start of construction of the underground segment.	All underground transmission line segments	CPUC to review results of testing	Locations where groundwater depth is shallower than 6' beneath surface shall be indicated and avoided for trenching purposes	SWRCB, RWQCB, CPUC
Groundwater Contamination During Construction (Class II)	<b>H-9a:</b> In order to evaluate the depth to groundwater in underground segments, groundwater levels along all underground segments shall be tested by drilling pilot borings performed at 1,000-foot intervals along this route during high water tidal conditions. The location of places where groundwater depth is less than 6 ft shall be identified prior to trenching activities and avoided, where possible, for the underground route. Where avoidance is not possible, PG&E Co. shall consider construction in a shallower trench, depending upon structural requirements of the underground method and other regulatory requirements. PG&E Co. shall document results of test drilling in a letter report to the CPUC and shall propose specific means to minimize the impact on groundwater if shallow groundwater is found. These measures must be approved by the CPUC prior to the start of construction of the underground segment.  For all underground transmission line segments, PG&E Co. shall research government databases documenting contaminated sites and identify potential sites within 1000 feet of the trench locations. In these areas, and for other areas where contamination is known or suspected, PG&E Co. shall implement Applicant Proposed Measure 7.18a. Prior to the start of construction, PG&E Co. shall provide a report documenting records searches for contaminated sites along underground segments, and shall define its proposed procedures for testing of such sites and for protection of construction workers and the public. These procedures shall be reviewed by the CPUC and the Regional Water Quality Control Board, and PG&E Co. may not start construction of an underground segment prior to receiving approval of its proposed testing and protection program. [This measure supercedes Measure H-9a from the Supplemental Draft EIR]	Along all underground segments/All underground segments	CPUC to review results of testing and database research	Locations where groundwater depth is less than 6' beneath surface and where contaminants are present shall be indicated and avoided for trenching purposes	RWQCB, CPUC

<sup>a</sup> During construction (Table C-3) and before construction (Table C-2) b During construction (Table C-3) and during operations (Table C-4) c Prior to construction (Table C-2), during construction (Table C-3), and during operations (Table C-4)

Table C-2 Mitigation Monitoring Compliance and Reporting Program - Measures to be Implemented Prior to Construction

Impact (Class)	Mitigation Measure	Location/ Affected Segment	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency
Groundwater quality impact of Zanker Road Alternative Site (Class II)	H-11: If the Zanker Road Substation is selected, the history of operations at the SCVTA facility shall be reviewed for the known or suspected contribution of industrial contaminants to the soil and water beneath the facility. The ability for such potential pollutants to migrate to subsurface soil and water bodies beneath the Zanker Road site shall also be assessed, and a report documenting the findings of the pre-construction studies and the proposed remediation shall be submitted to the CPUC prior to the start of substation construction. Specific borings and samples shall be collected to test soil and groundwater quality on the Zanker Road site with particular emphasis along the northern boundary of the property towards the SCVTA facility. If contamination is found, the Applicant shall remediate the area as needed to meet requirements of regulatory agencies.	Zanker Road Substation Site	CPUC to review SCVTA operations, review soil and water testing results, review remediation and clean-up operations if necessary	Compliance with agency determined soil and groundwater quality standards	USAOE CDFG CBDC SWRCB RWOCB CPUC
Potential for stream scour to expose the underground cable (Class II)	H-12: The applicant shall consult with representatives from the Santa Clara Valley Water District (SCVWD) who have conducted the recent flood control project on Coyote Creek and assess potential scour depth on the reach of creek where the underground crossing is planned. This information shall be used by the Applicant to determine an appropriate burial depth for the underground transmission line.	Crossing of Coyote Creek and Montague Expressway/ Underground Trimble-Montague 115 KV Alternative	CPUC to review proof of consultation between PG&E Co. and SCVWD; CPUC to verify that appropriate burial depth is used	Reduced potential of stream scour to expose the underground cable	CPUC
Potential for construction to impact water wells (Class II)	H-13: Prior to the start of construction, PG&E Co. shall provide construction diagrams to the Alameda County and Santa Clara Valley Water Districts and request determination of the location of existing water wells. Based on the information received, PG&E Co. shall not preclude access to an existing water well (whether active or abandoned) during construction or demolition work. Abandoned wells may be required to be destroyed per District requirements. In addition, operational wells within or near the construction area must be protected during construction in accordance with District requirements. Documentation of compliance with this requirement shall be provided to the CPUC before the start of construction.	All routes	CPUC to review documentation of compliance	Wells are not affected	CPUC, SCVWD, ACWD
<b>PUBLIC SAFETY, HEALTH, AND NUISANCE</b>					
Corona and Audible Noise (Class III)	PS-1: As part of the design and construction process for the proposed project and any selected alternatives, the Applicant shall limit the conductor surface electric gradient in accordance with the IEEE Radio Noise Design Guide.	Proposed Project and Alternatives	PG&E Co. to submit engineering report to the CPUC for selected conductor and analysis of surface gradient.	Engineering report shall present analysis of surface gradient and demonstrate compliance to IEEE Radio Noise Guide.	CPUC
Electric and magnetic Fields (Class III)	PG&E Co. would implement "no-cost, low-cost" EMF field reduction measures. based on CPUC requirements.	Proposed Project and Alternatives	CPUC to verify that no-cost, low-cost measures are incorporated in line design.	Report documents amount of field reduction obtained through mitigation measures.	CPUC

a During construction (Table C-3) and before construction (Table C-2) b During construction (Table C-3) and during operations (Table C-4) c Prior to construction (Table C-2), during construction (Table C-3), and during operations (Table C-4)

**Table C-2 Mitigation Monitoring Compliance and Reporting Program - Measures to be Implemented Prior to Construction**

Impact (Class)	Mitigation Measure	Location/ Affected Segment	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency
<b>SOCIOECONOMICS AND PUBLIC SERVICES</b>					
Potential impacts to WPCP (Class II)	<b>S-1:</b> PG&E Co. shall meet with WPCP management to define the exact location and height of each tower to minimize safety and other impacts to WPCP operations. In addition, PG&E Co. shall present to the WPCP and the CPUC a proposal for replacing all trees required to be removed for the project. The tree replacement decisions shall consider characteristics such as their odor and potential to act as visual barriers. PG&E Co. shall not proceed with tree replacement until the CPUC has approved the replacement plan.	Adjacent to WPCP/ Proposed Project	CPUC to review documentation of final pole locations and notes of discussions with PG&E Co. and WPCP	Coordination minimizes operational impacts on WPCP	CPUC, WPCP
Potential impacts to Milpitas Sewer Lift Plant (Class II)	<b>S-1a:</b> If the McCarthy Boulevard Alternative segment is selected, PG&E Co. shall meet with the Milpitas Public Works and Planning Departments to review and approve the exact location and height of each tower in the City of Milpitas prior to final design. In order to minimize safety and other impacts to Sewer Lift Plant operations, the specific tower locations (in the general area identified in Figure B-4) shall be defined in coordination with City officials. Documentation of this coordination shall be submitted to the CPUC prior to the start of construction.	Adjacent to Milpitas Sewer Lift Plant/ McCarthy Boulevard and Southern Underground Alternatives	CPUC to review documentation of final pole locations and notes of discussions with PG&E Co. and Milpitas Sewer Lift Plant	Coordination minimizes operational impacts on Milpitas Sewer Lift Plant	CPUC, Milpitas Sewer Lift Plant
Disruption to parking availability (Class II)	<b>S-2:</b> PG&E Co. shall coordinate with the City of Fremont and local businesses to ensure that access is maintained to all buildings and that street and/or lane closures do not cause safety hazards or contribute to peak period congestion.	All Business Park areas/ Underground Through Business Park	CPUC to review documentation of coordination	Coordination eliminates or reduces parking problems	CPUC, Fremont Police
Adversely affect the use of the Cerone Bus Maintenance Facility and would preclude the potential expansion of the facility (Class II)	<b>S-3:</b> If the Zanker Road Alternative substation site is selected, PG&E Co. shall either (a) utilize only the parcels designated as "excess" by the Valley Transportation Authority, or (b) develop a revised site plan for the Cerone facility consistent with the needs of the Valley Transportation Authority, and fund the facility alterations required to maintain the usability of the site.	VTA property/ Zanker Road Substation Alternative	CPUC to review site plans	VTA Development can occur in coordination with Zanker Road Substation	CPUC
Disruption to parking access (Class II)	<b>S-4:</b> PG&E Co. shall coordinate with the City of San Jose and local businesses to ensure that access is maintained to all buildings and that street and/or lane closures do not cause safety hazards or contribute to peak period congestion.	Trimble Road and Montague Expressway/ Underground Trimble-Montague 115 kV Alternative	CPUC to review documentation of coordination	Coordination eliminates or reduces parking problems	CPUC, San Jose Police

<sup>a</sup> During construction (Table C-3) and before construction (Table C-2) <sup>b</sup> During construction (Table C-3) and during operations (Table C-4) <sup>c</sup> Prior to construction (Table C-2), during construction (Table C-3), and during operations (Table C-4)

Table C-2 Mitigation Monitoring Compliance and Reporting Program - Measures to be Implemented Prior to Construction

Impact (Class)	Mitigation Measure	Location/ Affected Segment	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency
Restricted Access to Properties (Class II)	<b>TRANSPORTATION AND TRAFFIC</b>				
	<p><b>T-2:</b> PG&amp;E Co. shall notify affected parties of potential obstructions and make provisions for alternative access. Alternative access provisions and parking shall be provided by PG&amp;E Co. where feasible, with guide signs to inform the public.</p> <p>PG&amp;E Co. shall give written notification to all landowners, tenants, business operators, and residents along the right-of-way of the construction schedule, and shall explain the exact location and duration of the transmission line and construction activities within each street (e.g., which lane/s will be blocked, at what times of day, and on what dates). PG&amp;E Co. shall identify any potential obstructions to their access, and shall make alternative access provisions. The written notification shall include a toll-free telephone number for PG&amp;E Co.'s Liaison and shall encourage affected parties to discuss their concerns with PG&amp;E Co. prior to the start of construction so individual problems and solutions can be identified. Alternative access provisions shall include PG&amp;E Co.-provided signage and alternate parking as provided and approved by local agencies.</p> <p><b>T-3:</b> PG&amp;E Co. shall schedule construction on or adjacent to sensitive land uses (e.g., hospitals, schools, residences, major employers, recreational areas, etc.) so that at least one access driveway is left unblocked during all business hours or hours of use. This scheduling shall be provided by PG&amp;E Co. to the landowners or tenants so they can inform residents or customers. If access problems can be avoided by scheduling night construction in non-residential areas, this option should be considered.</p>	<p>Along the ROW, and all locations where access to adjacent land use is blocked/ Proposed Project and Alternatives</p>	<p>CPUC to review notification letters and consultation efforts of PG&amp;E Co. with all affected owners and tenants.</p>	<p>If access and parking needs of the adjacent land uses are met.</p>	<p>CPUC and local jurisdictions.</p>
Disruption to Pedestrian/Bicycle (Class III) and Disruption to Traffic and Bicycle/Pedestrian Safety (Class II)	<b>TRANSPORTATION AND TRAFFIC</b>				
	<p><b>T-4<sup>a</sup>:</b> PG&amp;E Co. shall provide alternative pedestrian/bicycle access routes to avoid obstruction to pedestrian/bicycle circulation. PG&amp;E Co. shall maintain a minimum 36 inch sidewalk during construction.<sup>1</sup> Where existing pedestrian circulation routes or bike trails would be obstructed by transmission line construction, alternative access routes shall be developed and signed/marked appropriately, in conjunction with local agencies.</p>	<p>Along the ROW, and all locations where access to adjacent land use is blocked/ Proposed Project and Alternatives</p> <p>All locations where a designated public pedestrian route is obstructed (sidewalks, recreational paths, etc./ Proposed Project and Alternatives</p>	<p>CPUC to review documentation identifying land uses, and consultation efforts of PG&amp;E Co. with all affected owners and tenants.</p> <p>CPUC to review documentation of: PG&amp;E Co. coordination with affected public agencies; and verify that PG&amp;E Co. conforms to all public agency required conditions.</p>	<p>If access and parking needs of the adjacent land uses are met.</p> <p>If construction activities do not totally block or unreasonably impair pedestrian movements or safety, as determined by the affected public agencies.</p>	<p>CPUC and local jurisdictions.</p> <p>CPUC and local jurisdictions.</p>

<sup>1</sup> PG&E Co., Data Request Response to the California Public Utilities Commission, November 18, 1998.

<sup>a</sup> During construction (Table C-3) and before construction (Table C-2) <sup>b</sup> During construction (Table C-3) and during operations (Table C-4) <sup>c</sup> Prior to construction (Table C-2), during construction (Table C-3), and during operations (Table C-4)



**Table C-2 Mitigation Monitoring Compliance and Reporting Program - Measures to be Implemented Prior to Construction**

Impact (Class)	Mitigation Measure	Location/ Affected Segment	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency
Emergency response vehicles could be blocked or impeded by construction activities (Class II)	<p><b>T-5<sup>a</sup>:</b> PG&amp;E Co. shall coordinate in advance with emergency service providers to avoid restricting movements of emergency vehicles. Police departments, fire departments, ambulance services, and paramedic services shall be notified in advance by PG&amp;E Co. of the proposed locations, nature, timing, and duration of any construction activities and advised of any access restrictions that could impact their effectiveness. At locations where access to nearby property is blocked, provision shall be ready at all times to accommodate emergency vehicles, such as plating over excavations, short detours, and alternate routes in conjunction with local agencies. Traffic Control Plans shall include details regarding emergency services coordination and procedures, and copies shall be provided to all relevant service providers. Documentation of coordination with service providers shall be provided to the CPUC prior to the start of construction.</p>	All locations/ Proposed Project and Alternatives	CPUC to review PG&E Co. notification and coordination with emergency service providers. Field monitor to ensure that PG&E Co. has the capability to provide immediate access across excavations, subject to approval by affected police, medical, and fire agencies.	If the construction activities do not preclude access to any area emergency vehicles.	CPUC and affected emergency service providers (fire, police, sheriff, CHP and ambulance services).
<b>VISUAL RESOURCES</b>					
Adverse visual impact to a valued landscape (Class III)	<p><b>V-1<sup>a</sup>:</b> Reduce structure heights as much as practical between MP 5.6 and 6.7. Prior to determining appropriate structure heights, PG&amp;E Co. shall meet with Santa Clara Valley Water District to determine potential operational conflicts and the City of San Jose's Bay Trail design group to discuss tower location adjustments that could reduce trail visibility impacts. Documentation of this coordination, and PG&amp;E Co.'s ultimate proposed structure heights and placement shall be provided by PG&amp;E Co. to the CPUC at least 30 days before the start of transmission line construction.</p>	Coyote Creek and the Bay Trail segment/ Proposed Project from MP 5.6 to MP 6.7	CPUC to verify that reduced structure heights have been achieved	Visibility of transmission structures will be reduced as viewed from the Bay Trail segment east of, and adjacent to, Coyote Creek in the vicinity of MP 5.6 to MP 6.7	CPUC

<sup>a</sup> During construction (Table C-3) and before construction (Table C-2)    <sup>b</sup> During construction (Table C-3) and during operations (Table C-4)    <sup>c</sup> Prior to construction (Table C-2), during construction (Table C-3), and during operations (Table C-4)

**Table C-2 Mitigation Monitoring Compliance and Reporting Program - Measures to be Implemented Prior to Construction**

Impact (Class)	Mitigation Measure	Location/ Affected Segment	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency
Policy inconsistencies with the San Jose General Plan (Class II)	<p><b>V-2<sup>a</sup>:</b> PG&amp;E Co. shall develop and implement a landscaping plan for the Los Esteros Substation or US DataPort Substation Alternative (as appropriate). Vegetation shall be of a density and height necessary to screen views of the lower portion of the substation from Highway 237 to the south, Zanker Road to the west, and the Bay Trail, immediately to the north, to the greatest extent while also complying with safety regulations. Vegetation height and type shall be determined based on consultation with the City of San Jose's Department of Planning, Building, and Code Enforcement and incorporating information from landscaping plans of adjacent developments. Vegetation type and height shall also be consistent with CPUC GO-95 (transmission line safety) and the requirements of the California Department of Forestry. The plan shall be submitted for approval to the CPUC prior to the start of project operation and after the required consultation is concluded; operation may not commence until the plan is approved and planting is complete.</p>	<p>Proposed Los Esteros Substation Zanker Road Substation Alternative</p>	<p>CPUC and City of San Jose Department of Planning, Building, and Code Enforcement to review and approve the Landscaping Plan</p>	<p>The inconsistency with San Jose General Plan policy will be eliminated and the adverse visual impact associated with substation construction will be lessened</p>	<p>CPUC, City of San Jose Department of Planning, Building, and Code Enforcement</p>
Significant visual impact resulting from proliferation of transmission structures associated with the 1-880-A Alternative (Class II)	<p><b>V-3<sup>a</sup>:</b> If both the 1-880-A and Underground Through Business Park Alternatives are selected, at the point where the 1-880-A Alternative intersects the Newark-Montague and Newark-Milpitas/Dixon Landing 115kV Lines, the 1-880-A Alternative should turn southeast to parallel the 115 kV lines to the north end of Bayside Business Park. At this point, the 230 kV line would either (a) turn west to re-connect to the Proposed Route just north of MP 2.7, or (b) connect to the Underground Through Business Park Alternative Route, which would begin at the north end of the Bayside Business Park.</p>	<p>The 1-880-A Alternative between the point where it intersects the Newark-Montague 115kV Line and Bayside Business Park</p>	<p>CPUC to verify design prior to construction and implementation following construction</p>	<p>The establishment of an additional transmission line corridor with additional visual impacts will be avoided and viewer perceptions of structure proliferation will be lessened</p>	<p>CPUC</p>

<sup>a</sup> During construction (Table C-3) and before construction (Table C-2)    <sup>b</sup> During construction (Table C-3) and during operations (Table C-4)    <sup>c</sup> Prior to construction (Table C-2), during construction (Table C-3), and during operations (Table C-4)

**Table C-3 Mitigation Monitoring Compliance and Reporting Program - Measures to be Implemented During Construction**

Impact (Class)	Mitigation Measure	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency
<b>AIR QUALITY</b>					
Construction PM <sub>10</sub> levels would violate BAAQMD significance criteria if all of BAAQMD PM <sub>10</sub> control measures are not implemented. (Class II)	A-1: Sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites.	Along all portions of the Proposed and alternative routes and substation sites	Construction plan; monitor construction activities	PM10 emissions are reduced, Effectiveness can not be determined in the field	CPUC and the BAAQMD
	A-2: Install sandbags or other erosion control measures to prevent silt runoff to public roadways.	Along all portions of the Proposed and alternative routes and substation sites	Construction plan; monitor construction activities	PM10 emissions are reduced, Effectiveness can not be determined in the field	CPUC and the BAAQMD
	A-3: Replant vegetation in disturbed areas within 30 days of completion of construction.	Along all portions of the Proposed and alternative routes and substation sites	Construction plan; monitor construction activities	PM10 emissions are reduced, Effectiveness can not be determined in the field	CPUC and the BAAQMD
<b>BIOLOGICAL RESOURCES</b>					
<b>The following measures must also be implemented during construction and are presented in Table C-2: Mitigation Measures B-1; B-2a and B-2b; B-3; B-4</b>					
Direct Mortality and Direct Disturbance to Wildlife (Class II)	<p>B-2: In order to reduce direct mortality impacts during construction, construction specifications shall include the following conditions:</p> <ul style="list-style-type: none"> <li>• Vehicles shall not exceed 10 mph on designated access roads or in the ROW</li> <li>• Litter or other debris that may attract animals shall be removed from the project area; organic waste shall be stored in enclosed receptacles, removed from the project site daily, and disposed of at a suitable waste facility</li> <li>• No pets shall be allowed in the construction area, including access routes and staging areas</li> <li>• Construction crews shall be monitored by a qualified biologist approved by CPUC.</li> </ul>	Along all portions of the Proposed and alternative routes and substation sites	Biological monitor present; report to be submitted for review within 30 days of construction	No activity outside of designated areas	CDFG; CPUC

<sup>a</sup> During construction (Table C-3) and before construction (Table C-2)    <sup>b</sup> During construction (Table C-3) and during operations (Table C-4)    <sup>c</sup> Prior to construction (Table C-2), during construction (Table C-3), and during operations (Table C-4)

**Table C-3 Mitigation Monitoring Compliance and Reporting Program - Measures to be Implemented During Construction**

Impact (Class)	Mitigation Measure	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency
Bird Collision	<p><b>B-9:</b> To reduce bird collision impacts along the proposed or alternative transmission line routes, PG&amp;E Co. shall install bird flight diverters in the areas defined below. Prior to installation of conductors on the new 230 kV line, PG&amp;E Co. shall submit its recommendation for the type(s) and spacing of bird flight diverters in the identified areas to the CPUC, the U.S. Fish and Wildlife Service (both the SF Bay National Wildlife Refuge and Sacramento Ecological Services office), and the California Department of Fish and Game for review and approval. Conductors shall not be installed until the CPUC has approved an agreement regarding the type and spacing of bird flight diverters required; diverters shall be installed within 30 days of installation of conductors. Locations of required bird flight diverters (depending on which route is approved):</p> <ul style="list-style-type: none"> <li>▪ <b>Proposed 230 kV Route:</b> Along the following overhead transmission line segments: Mileposts 1.7 to 2.7 (adjacent to salt ponds), Mileposts 2.7 to 4.1 (adjacent to the Bayside Business Park mitigation pond), Mileposts 4.1 to 4.9 (through the Fremont Airport Property and east of Newby Island Landfill), Mileposts 4.9 to 7.0 (the Coyote Creek Flood Control Basin east of the route, past the Santa Clara Valley Water District's mitigation area, and through the Water Pollution Control Plant).</li> <li>▪ <b>I-880-A Alternative (if used with proposed route or Underground Through Business Park Alternative).</b> Between Mileposts 1.7 and 2.7 (south of Cushing Parkway through salt ponds) and between Mileposts 4.1 and 7.2 (Fremont Airport property to substation).</li> <li>▪ <b>Underground Through Business Park Alternative (if used with proposed route):</b> Between Mileposts 1.7 and 2.7 (salt ponds), between Mileposts 4.1 and 7.2 (as described for proposed route)</li> <li>▪ <b>I-880-B Alternative</b> (assuming use of I-880-A Alternative at north end of route): Between Mileposts 4.1 and 7.2 (as described for proposed route)</li> <li>▪ <b>McCarthy Boulevard Alternative Segment.</b> If this alternative segment is selected, bird flight diverters shall be installed along the entire segment.</li> </ul> <p>Following installation of all bird flight diverters (line markers), PG&amp;E Co. shall begin a three-year monitoring program to determine the extent of bird collisions on each identified segment of the approved route. Existing unmarked transmission lines in similar high bird-use areas shall be monitored during the same period to allow comparisons for determining line marking effectiveness. The protocol for the study (including identification of unmarked lines to be monitored) shall be submitted to the resource agencies for review and approval prior to installation of conductors on new towers. Annual reports providing bird strike data for the new marked lines and for the existing unmarked lines shall be provided to the CPUC, the U.S. Fish and Wildlife Service (SF Bay National Wildlife Refuge and Sacramento Ecological Services office), and the California Department of Fish and Game, and a summary report shall be submitted at the end of the three-year monitoring program.                      [This measure supercedes Applicant Proposed Measure 10.27a]</p>	Along the Proposed Project and overhead route alternatives	CPUC to review PG&E correspondence with U.S. FWS and CDFG	Reduction of bird collision impacts	CPUC, U.S. FWS, and CDFG

<sup>a</sup> During construction (Table C-3) and before construction (Table C-2) <sup>b</sup> During construction (Table C-3) and during operations (Table C-4) <sup>c</sup> Prior to construction (Table C-2), during construction (Table C-3), and during operations (Table C-4)

**Table C-3 Mitigation Monitoring Compliance and Reporting Program - Measures to be Implemented During Construction**

Impact (Class)	Mitigation Measure	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency
<b>LAND USE AND RECREATION</b>					
The following measures must also be implemented during construction and are presented in Table C-2: Mitigation Measures L-2, L-4, L-10, L-11, and L-12					
<b>CULTURAL RESOURCES</b>					
The following measure must also be implemented during construction and is presented in Table C-2: Mitigation Measure C-1					
Project construction could damage or destroy recorded cultural resources or those in high-potential areas (Class II)	C-3: Implement archaeological monitoring by a Professional Archaeologist approved by the CPUC during subsurface construction disturbance at locations identified as having potential for significant buried cultural materials. Treat any inadvertent discoveries in accordance with project's Treatment Plan	All locations identified as having potential for significant buried cultural materials/ Proposed Project, Trimble-Montague 115kV Up NRS Alternative grade Barber, 115 kV Alternative	CPUC monitor to verify that PG&E Co. archaeologist monitors trenching at designated locations and evaluates and treats any inadvertent discoveries in accordance with the Treatment Plan (see C-2).	Cultural resources within, near and adjacent to construction are not damaged or destroyed during construction.  Cultural resources are not destroyed during subsurface construction; discoveries are treated in accordance with Treatment Plan	CPUC
<b>HYDROLOGY AND WATER QUALITY</b>					
The following measures must also be implemented during construction and are presented in Table C-2: Mitigation Measure H-1, H-2, H-4, H-6, H-8, and H-10					
Construction related surface water contamination (Class II)	H-3: All refueling and lubrication activities shall be performed at least 100 feet from any stream.	All construction along the Proposed Project, Westerly Route, Westerly Upgrade, and I-880-A Alternatives	CPUC to review construction plans; monitor construction	Compliance with Best Management Practices. Permits issued; inspections during construction show no significant impacts. Spills effectively cleaned up.	USACOE CDFG CBDC SWRCB RWOCB CPUC

<sup>a</sup> During construction (Table C-3) and before construction (Table C-2) <sup>b</sup> During construction (Table C-3) and during operations (Table C-4) <sup>c</sup> Prior to construction (Table C-2), during construction (Table C-3), and during operations (Table C-4)

**Table C-3 Mitigation Monitoring Compliance and Reporting Program - Measures to be Implemented During Construction**

Impact (Class)	Mitigation Measure	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency
<b>PUBLIC SAFETY, HEALTH, AND NUISANCE</b>					
Induced currents and shock hazards (Class II)	<p><b>PS-3:</b> As part of the siting and construction process for the proposed project (or any selected alternative), the Applicant shall identify objects (such as fences, conductors, and pipelines) that have the potential for induced voltages and work with the affected parties to determine proper grounding procedures. (CPUC G095 and the NESC do not have specific requirements for grounding.) The Applicant shall install all necessary grounding measures prior to energizing the line. Thirty days prior to energizing the line, the Applicant shall notify in writing, subject to the review and approval of the CPUC, all property owners within and adjacent to the approved transmission line ROW of the date the line is to be energized. The written notice shall provide a contact person and telephone number for answering questions regarding the line and guidelines on what activities should be limited or restricted within the ROW.</p> <p>The written notice shall describe the nature and operation of the line, and the Applicant's responsibilities with respect to grounding all conducting objects. In addition, the notice shall describe the property owner's responsibilities with respect to notification for any new objects requiring grounding and guidelines for maintaining the safety of the ROW.</p> <p>The Applicant shall respond to and document all complaints received and the responsive action taken. These records shall be made available to the CPUC for review upon request. All unresolved disputes shall be referred by PG&amp;E Co. to the CPUC for resolution. These complaints shall be handled according to the procedures defined in General Order 131-D, Section XIV(A).</p>	Proposed Project and Alternatives	PG&E Co. to document criteria for installing grounding and tabulate locations where grounding installed.	Design prevents electric shocks to public.	CPUC
<b>TRANSPORTATION AND TRAFFIC</b>					
<p><b>The following measures must also be implemented during construction and are presented in Table C-2: Mitigation Measures T-4 and T-5.</b></p>					
Physical damage to roads and sidewalks (Class II)	<p><b>T-1:</b> If damage to roads and sidewalks occurs, PG&amp;E Co. shall coordinate repairs with the affected public agencies to ensure that any impacts to area roads are adequately repaired. Roads disturbed by construction activities or construction vehicles shall be properly restored to ensure long-term protection of road surfaces. Care shall be taken to prevent damage to roadside drainage structures. Roadside drainage structures and road drainage features (e.g., rolling dips) shall be protected by regrading and reconstructing roads to drain properly. Said measures shall be incorporated into an access agreement/easement with the applicable governing agency prior to construction.</p>	Construction access roads & roads in which the transmission line is buried/ Proposed Project and alternatives	CPUC to review documentation that PG&E Co. obtained permits for construction within each road ROW prior to construction; and that each affected roadway has been satisfactorily restored and/or constructed within 30 days of roadway damage.	Restoration/maintenance of roads to pre-construction conditions as determined by the affected public agency.	CPUC, affected local jurisdictions, and Caltrans
<b>VISUAL RESOURCES</b>					
<p><b>The following measures must also be implemented during construction and are presented in Table C-2: Mitigation Measures V-1, V-2, and V-3.</b></p>					

<sup>a</sup> During construction (Table C-3) and before construction (Table C-2) <sup>b</sup> During construction (Table C-3) and during operations (Table C-4) <sup>c</sup> Prior to construction (Table C-3), during construction (Table C-2), and during operations (Table C-4)

**Table C-4 Mitigation Monitoring Compliance and Reporting Program - Measures to be Implemented During Operation**

Impact (Class)	Mitigation Measure	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency
<b>BIOLOGICAL RESOURCES</b>					
The following measures must also be implemented during construction and are presented in previous tables: Mitigation Measures B-3 and B-4 in Table C-2; Mitigation Measure B-9 in Table C-3					
<b>HYDROLOGY AND WATER QUALITY</b>					
The following measures must also be implemented during construction and are presented in Table C-2: Mitigation Measure H-8					
<b>PUBLIC SAFETY, HEALTH, AND NUISANCE</b>					
Radio and Television Interference (Class II)	<p><b>PS-2:</b> After energizing the transmission line, PG&amp;E Co. shall respond to all complaints of line interference with electronic equipment (including radios, televisions, computer monitors, and testing equipment) within 10 days. PG&amp;E Co. shall respond by correcting the problems identified, either by providing advice or suggesting equipment that eliminates the interference problem. PG&amp;E Co. shall document all complaints by submitting the following information to the CPUC: name/address of contact, nature of problem, date complaint received, date of PG&amp;E Co. response, and description of the corrective action. These records shall be provided to the CPUC on a monthly basis and to the public upon request. All unresolved disputes shall be referred within 30 days by PG&amp;E Co. to the CPUC Energy Division for resolution. These complaints will be handled according to the procedures defined in General Order 131-D, Section XIV(A).</p>	Along the Proposed Project and Alternatives	<p>CPUC to review PG&amp;E Co.'s documented complaints and action taken. This report should be submitted to CPUC at the end of each year for first two years of operation.</p> <p>PG&amp;E Co. to submit Unresolved complaints to CPUC.</p>	Complaint summary demonstrates a lack of interference complaints, or documents the remedies utilized to resolve interference.	CPUC

<sup>a</sup> During construction (Table C-3) and before construction (Table C-2)    <sup>b</sup> During construction (Table C-3) and during operations (Table C-4)    <sup>c</sup> Prior to construction (Table C-2), during construction (Table C-3), and during operations (Table C-4)

**C.4.2 APPLICANT PROPOSED MEASURES**

The Applicant has incorporated a significant number of measures and procedures into the description of the proposed project that would avoid or reduce impacts. In the assessment of the impacts, these measures have been assumed to be part of the proposed project and are therefore not included as mitigation measures. The Applicant Proposed Measures that could reduce the potential impacts in an issue area (such as air quality, biology, etc.) are listed in Table C-5.

**Table C-5 Applicant Proposed Mitigation Measures (presented by time of implementation)**

Impact	Applicant Proposed Measure
<b>MEASURES IMPLEMENTATED PRIOR TO CONSTRUCTION</b>	
<b>Geology:</b> Ground Subsidence	<b>6.1a:</b> PG&E will evaluate the potential for subsidence due to compaction from strong ground motions during design-level geotechnical investigations. The need to place additional fill or construct berms to reduce potential flooding because of past subsidence will also be evaluated. PG&E shall remove or rework near-surface deposits likely to experience settlement prior to placing new fill.
<b>Geology:</b> Expansive Soils, Soft or Loose Soils, and High Water Table	<b>6.2a:</b> PG&E will evaluate the effects of expansive soils, soft or loose soils, and high water table on the facilities during design-level geotechnical studies. Where potential problems are known to exist, the near-surface expansive, soft and loose soils shall be over-excavated during construction and replaced with engineered backfill, or other ground treatment shall be performed. PG&E will determine appropriate engineering and construction measures, such as ground improvement, piers, piling, and mud mats for implementation by the design-level geotechnical studies.
<b>Geology:</b> Erosion	<b>6.3a:</b> PG&E will utilize comprehensive erosion-control measures to reduce short-term erosion and sedimentation, as well as to restore vegetation to pre-construction conditions. Such measures shall include using drainage control structures to direct surface runoff downslope of disturbed areas, strictly controlling vehicular traffic, and minimizing the time between excavation and backfilling.
<b>Geology:</b> Ground Shaking	<b>6.5a:</b> Some types of substation equipment are very susceptible to damage from earthquakes. To address this problem, PG&E, in conjunction with other utilities throughout the United States and Canada, and equipment vendors and consultants, have revised IEEE 693, "Recommended Practices for Seismic Design of Substations." Within this document are equipment and voltage-specific seismic qualification requirements. These requirements are much more stringent than those in the Uniform Building Code. Qualification includes shake table testing and dynamic analysis. PG&E will purchase equipment for the substation using the seismic qualification requirements in IEEE 693. When these requirements are followed, very little structural damage from levels approaching 1.0 g peak ground acceleration are anticipated. PG&E shall design the substation control building in accordance with the Uniform Building Code.
<b>Geology:</b> Liquefaction	<b>6.6a:</b> Liquefaction-related hazards to the project include lateral spreading and ground settlement. The extent and magnitude of these hazards depend on the thickness and lateral continuity of potentially liquefiable deposits, depth of groundwater, slope, and distance to a free face. PG&E will perform an assessment to determine the presence or absence of liquefiable deposits beneath transmission towers and the Preferred Substation Site. A site-specific assessment is required to determine the presence or absence of liquefiable deposits beneath the substation site and, if present, whether liquefaction shall lead to unacceptable levels of permanent ground deformation. PG&E will perform design-level geotechnical investigations, including test borings and analysis of existing data to analyze the possibility of liquefaction and to provide input for engineering design to mitigate the effects where needed. Possible mitigation, if required, might include pile foundations or ground improvement of liquefiable zones, flexible bus connections, and extra slack in underground cables to allow ground deformations without damage.
<b>Water:</b> Surface Water Hydrology	<b>7.4a:</b> The elevation of the Preferred Substation Site is between 10 and 14 feet above NGVD, according to existing maps. Prior to construction, grading plans will verify the site elevation and, if necessary, raise any low portions of the site to 10 feet above NGVD (1 foot above FEMA 100-year floodplain).
<b>Water:</b> Surface Water Quality	<b>7.6a:</b> Because the project will cover an area greater than 5 acres, PG&E will comply with the requirements of the State Water Resources Control Board General NPDES Permit for storm water runoff associated with construction activities ("general permit"). The State's general permit outlines requirements for filing a Notice of Intent prior to construction, and for developing a SWPPP that outlines "best management practices" to control discharges from the construction area. The SWPPP for this project will be prepared following guidance of the State Water Resources Control Board and will cover all construction areas. It will present practices used routinely by PG&E to prevent sediment generated during grading and drilling activities from entering storm drains. The SWPPP will outline a variety of procedures accepted by regulatory agencies as successful for minimizing the impact of construction on surface water quality. PG&E will prepare and submit an NPDES Erosion Control Plan to provide construction protocols that minimize the



**Table C-5 Applicant Proposed Mitigation Measures (presented by time of implementation)**

Impact	Applicant Proposed Measure
	<p>effects (e.g., erosion, turbidity, and water quality) of any discharges generated during construction activities associated with this project. Anticipated provisions of the plan include the following:</p> <ul style="list-style-type: none"> <li>• Water displaced during construction activities will be handled to minimize erosion and turbidity effects on surface water. This may include the use of hay bales, siltation fences, and other measures.</li> <li>• Temporary staging of construction materials, equipment, and excavation spoils will be performed outside of drainages.</li> </ul>
<p><b>Water:</b> Groundwater</p>	<p><b>7.16a:</b> This measure is superceded by Mitigation Measure H-5 (see Table C-1). <b>7.17a:</b> Prior to construction of the Preferred Substation, PG&amp;E will test soil and/or groundwater on the property to identify the potential presence of hazardous materials. If chemical or petroleum residues are found to be present, PG&amp;E will remediate the site under the direction of the RWQCB and SCVWD prior to construction of the substation. <b>7.18a:</b> This measure is superceded by Mitigation Measure H-6 (see Table C-1).</p>
<p><b>Air Quality:</b> Construction-Related Impacts</p>	<p><b>8.1a:</b> Mitigation of fugitive dust PM<sub>10</sub>, hydrocarbons, and NO<sub>x</sub> emissions will occur via education of the construction crews regarding measures that can reduce or minimize emissions. These include operating motor vehicles to minimize emissions and suppress dust. Control measures 8.1b through 8.1h for construction emissions of PM<sub>10</sub> are listed in this table under MEASURES TO BE IMPLEMENTED DURING CONSTRUCTION</p>
<p><b>Biological Resources:</b> Aquatic Resources</p>	<p><b>10.1a:</b> The angle tower near Milepost 2.8 of the Preferred Route is located inside the Bayside Business Park wetland mitigation pond, which was developed as a mitigation requirement for the business park development. Any loss of this wetland, which is part of the San Francisco Bay National Wildlife Refuge, will be unacceptable to resource agencies. Mitigation under federal “no net loss” policy will involve creating new intertidal habitat. PG&amp;E proposes to mitigate for the loss of mudflat near Milepost 2.8 by enlarging the existing mudflat within the Bayside Business Park wetland mitigation pond at a replacement ratio of 3:1. There are several potential locations along the perimeter of the mitigation pond that are currently upland habitat that may be appropriate sites for this expansion. The exact location of the mudflat expansion would be determined in cooperation with USFWS, which manages the mitigation pond.</p>
<p><b>Biological Resources:</b> Vernal Pool Tadpole Shrimp</p>	<p><b>10.5a:</b> Field surveys endangered vernal pool tadpole shrimp within the project area. A qualified biologist is conducting the survey according to CDFG guidelines and federal requirements. If tadpole shrimp and/or habitat are located within the project area, every attempt will be made to avoid the area. If avoidance is not possible, a Section 7 consultation may be entered into with USFWS. PG&amp;E proposes to mitigate for any direct or indirect impacts to the tadpole shrimp, or its habitat, by employing a combination of measures that may be appropriate to offset construction impacts. Mitigation could include two or more of the following measures currently being conducted to determine the presence of: 1:1 onsite creation of habitat; 1:1 offsite preservation of extant habitat; and 1:2 vernal pool restoration at a publicly owned location. The combination of measures would equal an overall compensation ratio of 2:1. These mitigation measures are similar to those required in a 1995 biological opinion for the Morrison Creek Mining Project, which impacted vernal pool habitat on a 290-acre site in Sacramento County (Arnold, 1998). Exact mitigation requirements for this project would be negotiated with the USFWS. It may also be possible to negotiate with Catellus Corporation on a shared mitigation solution for vernal pool tadpole shrimp, since Catellus is currently developing a mitigation package for the Pacific Commons site. Any such agreement would have to be proportional to the amount of vernal pool tadpole shrimp habitat disturbed by this project in relation to that impacted by the Catellus Corporation project.</p>
<p><b>Biological Resources:</b> California Tiger Salamander</p>	<p><b>10.6a:</b> Field surveys are currently being conducted to determine the presence of California tiger salamanders within the project area. A qualified biologist is conducting the survey according to CDFG guidelines and federal requirements. If tiger salamander breeding and/or aestivation habitat is located within the project area, every attempt will be made to avoid these areas. If avoidance is not possible, PG&amp;E proposes to mitigate for any impacts to tiger salamander breeding and/or aestivation habitat at a ratio of 1:1, in accordance with current CDFG guidelines. Specifically, for each acre of breeding/aestivation habitat that is impacted, 1 acre of extant California tiger salamander breeding and/or aestivation habitat would be preserved. The preserved acreage could include habitat located at offsite locations in combination with preservation of California tiger salamander habitat on the project site. The actual ratio of onsite to offsite preserve acres would be determined by agreement with CDFG. It may also be possible to negotiate with Catellus Corporation on a shared mitigation solution as described for the vernal pool tadpole shrimp.</p>
<p><b>Biological Resources:</b> Special-Status Plants</p>	<p><b>10.12a:</b> In consultation with CDFG (Hilliard, 1998), mitigation measures have been developed to ensure the protection and conservation of special-status plant species within the project area. No special-status plant species have been identified from the project area during surveys conducted in April 1998. Final surveys are scheduled for July 1998. Following the completion of all surveys, if it is determined that special-status plant species occur within the project area, PG&amp;E will modify the project to avoid impacts to the identified species. If identified special-status plant species cannot be avoided, PG&amp;E will:</p> <ul style="list-style-type: none"> <li>• Modify the project to minimize impacts to identified species</li> <li>• Acquire suitable habitat for identified species within the vicinity of the project</li> <li>• Develop a long-term habitat enhancement plan for identified species.</li> </ul>

**Table C-5 Applicant Proposed Mitigation Measures (presented by time of implementation)**

Impact	Applicant Proposed Measure
<p><b>Biological Resources:</b> Salt Marsh Harvest Mouse</p>	<p><b>10.13a<sup>a</sup>:</b> Avoidance of coastal brackish and salt marsh habitat is possible by spanning these areas along the Preferred Route; therefore, no mitigation is required. If the Easterly Route Alternative was selected, PG&amp;E would consult with USFWS and CDFG to coordinate avoidance and/or mitigation measures. These measures could include, but would not be limited to the following:</p> <ul style="list-style-type: none"> <li>• At Milepost 4.1 of the Easterly Route Alternative, an enclosure will be constructed to preclude the mouse from construction areas</li> <li>• A qualified biologist will remove all mice from within the enclosure in accordance with CDFG guidelines and federal requirements</li> <li>• A biological monitor will ensure the integrity of the enclosure by checking it daily</li> <li>• In any area where workers must walk through sensitive habitat to access construction areas, appropriate routes will be selected under the supervision of a biological monitor to minimize or avoid contact with pickleweed, even if such routes are less direct</li> <li>• Where several trips must be made through sensitive vegetation, the biological monitor will ensure that workers use multiple routes to avoid wearing a path into the vegetation</li> <li>• Upon reaching the construction area, workers will limit their daily trips to a minimum</li> <li>• Any temporary impacts to salt marsh habitat will be mitigated by implementation of a restoration/revegetation plan approved by resource agency personnel</li> <li>• Any permanent impacts will be mitigated through purchase of habitat credits or mitigation land</li> <li>• If necessary, a Section 7 consultation will be entered into with USFWS.</li> </ul>
<p><b>Biological Resources:</b> California Clapper Rail</p>	<p><b>10.14a<sup>a</sup>:</b> Field surveys began too late to include the California clapper rail during 1998. Areas along the route with suitable foraging and/or nesting habitat will be surveyed by a qualified biologist. PG&amp;E will coordinate avoidance and/or mitigation measures developed with the resource agencies. Mitigation will include, but not be limited to the following:</p> <ul style="list-style-type: none"> <li>• Habitat will be avoided by spanning all suitable habitat.</li> <li>• No construction will occur within 250 feet of known clapper rail breeding habitat during the period February 1 through August 31. No access to the construction site through clapper rail habitat will occur during the same period.</li> <li>• A biological monitor will be present at all times while construction occurs near the 250-foot buffer area for clapper rail habitat. The monitor will be onsite from February 1 through August 31.</li> <li>• In construction zones that occur close to the 250-foot buffer where workers must access, the number of daily trips made by the crew will be minimized.</li> <li>• Any temporary impact to salt marsh habitat will be mitigated by implementing a revegetation/restoration plan approved by the resource agencies.</li> <li>• Any permanent impact to suitable habitat will be mitigated with a purchase of habitat credits or purchase of offsite mitigation land.</li> </ul>
<p><b>Biological Resources:</b> Western Snowy Plover</p>	<p><b>10.15a:</b> Field surveys will include those for the western snowy plover. Areas along the route with suitable habitat will be surveyed by a qualified biologist. This species is known to nest along both the Preferred Route and Easterly Route Alternative. PG&amp;E will coordinate avoidance and/or mitigation measures as appropriate with the USFWS and CDFG. If this species is found in the project area:</p> <ul style="list-style-type: none"> <li>• Construction in the vicinity of Salt Ponds A22 and A23 will be avoided from early March through August.</li> </ul>
<p><b>Biological Resources:</b> California Least Tern</p>	<p><b>10.16a:</b> Field surveys will include those for the California least tern. This species is not known to nest within the project area; however, there might be suitable foraging habitat near the project area. PG&amp;E will coordinate avoidance and/or mitigation measures as appropriate with the USFWS and CDFG and will implement one of the following:</p> <ul style="list-style-type: none"> <li>• Avoidance in known foraging areas from April through August</li> <li>• If necessary, a Section 7 consultation will be entered into with the USFWS.</li> </ul>
<p><b>Biological Resources:</b> Burrowing Owl</p>	<p><b>10.17a:</b> Field surveys for the burrowing owl are being conducted by qualified biologists during 1998. A pre-construction survey for burrowing owls will occur no more than 30 days prior to construction, and before February 1, to identify any nesting location on or near the construction zone. These surveys are in accordance with CDFG guidelines and federal requirements. Areas along the route where nesting or foraging burrowing owls have been observed, or areas with mounds, berms, or other suitable ground nesting locations will be surveyed. If owls are located within the project area, CDFG will be notified, and PG&amp;E will coordinate avoidance and/or mitigation measures as appropriate, such as relocation of tower locations, or if permitted, passive relocation of owls to alternate natural or artificial burrows. In consultation with CDFG (Bean, 1998), the following mitigation measures will be implemented:</p> <ul style="list-style-type: none"> <li>• If construction activities occur during the owl breeding season and if burrowing owls are observed on or within 250 feet of a project site during preconstruction surveys, a 250-foot protective buffer will be established with the placement of a barrier fence. The fence will remain in place for the duration of the breeding season. The fence integrity will be monitored by a qualified biologist.</li> </ul>

**Table C-5 Applicant Proposed Mitigation Measures (presented by time of implementation)**

Impact	Applicant Proposed Measure
	<ul style="list-style-type: none"> <li>All foraging and nesting habitat that could be lost due to construction activities will be calculated and reported to CDFG. This acreage will be mitigated at a 1:1 ratio with the purchase of habitat credits or the purchase of offsite mitigation land.</li> </ul>
<p><b>Biological Resources:</b> Salt Marsh Wandering Shrew</p>	<p><b>10.18a<sup>a</sup>:</b> Avoidance of coastal brackish and salt marsh habitat is possible by spanning these areas along the Preferred Route; therefore, no mitigation is required. If the Easterly Route Alternative is selected, PG&amp;E will consult with USFWS and CDFG to coordinate avoidance and/or mitigation measures. These measures could include, but would not be limited to the following:</p> <ul style="list-style-type: none"> <li>At Milepost 4.1 of the Easterly Route Alternative, an enclosure will be constructed to preclude the shrew from construction activity or construction areas</li> <li>A qualified biologist will remove any salt marsh wandering shrew from within the enclosure in accordance with CDFG guidelines and federal requirements</li> <li>A biological monitor will ensure the integrity of the enclosure by checking it daily</li> <li>In any area where workers must walk through sensitive habitat to access construction areas, appropriate routes will be selected under the supervision of a biological monitor to minimize or avoid contact with pickleweed, even if such routes are less direct</li> <li>Where several trips must be made through sensitive vegetation, the biological monitor will ensure that workers use multiple routes to avoid wearing a path into the vegetation</li> <li>Upon reaching the construction area, workers will keep their trips to a minimum</li> <li>Any temporary impacts to salt marsh habitat will be mitigated by implementing a revegetation/restoration plan approved by the resource agencies</li> <li>Any permanent impacts will be mitigated through purchase of habitat credits or offsite mitigation land. If necessary, a Section 7 consultation will be entered into with USFWS.</li> </ul>
<p><b>Biological Resources:</b> Tri-colored Blackbird</p>	<p><b>10.19a<sup>a</sup>:</b> Field surveys for the tri-colored blackbird will occur in 1998. Areas along the route with suitable breeding habitat will be surveyed by a qualified biologist. Preconstruction surveys will also occur. If this species is located prior to construction, PG&amp;E will consult with the USFWS and CDFG to coordinate avoidance and/or mitigation measures. Avoidance is possible by spanning suitable habitat:</p> <ul style="list-style-type: none"> <li>If construction is scheduled during the breeding season, a buffer of 250 feet will be observed to protect breeding tri-colored blackbirds</li> <li>A biological monitor will be present to ensure that construction activity would not result in nest abandonment.</li> </ul>
<p><b>Biological Resources:</b> Saltmarsh Yellowthroat</p>	<p><b>10.20a<sup>a</sup>:</b> Field surveys for the saltmarsh yellowthroat will be conducted by a qualified biologist. If this species is located prior to construction, PG&amp;E will consult with the USFWS and CDFG to coordinate avoidance and/or mitigation measures:</p> <ul style="list-style-type: none"> <li>If construction is scheduled during the breeding season, a buffer of 250 feet will be observed to protect breeding saltmarsh yellowthroat</li> <li>A biological monitor will be present to ensure no construction activity would result in nest abandonment.</li> </ul>
<p><b>Biological Resources:</b> California Yellow Warbler</p>	<p><b>10.21a<sup>a</sup>:</b> Field surveys will include the California yellow warbler. Areas along the route with suitable habitat will be surveyed by a qualified biologist. If this species is located prior to construction, PG&amp;E will consult with the USFWS and CDFG to coordinate avoidance and/or mitigation measures. Avoidance is possible by spanning suitable habitat:</p> <ul style="list-style-type: none"> <li>If construction is scheduled during the breeding season, a buffer of 250 feet will be observed to protect breeding California yellow warblers</li> <li>A biological monitor will be present to ensure no construction activity would result in nest abandonment.</li> </ul>
<p><b>Biological Resources:</b> Alameda Song Sparrow</p>	<p><b>10.22a<sup>a</sup>:</b> Field surveys will include the Alameda song sparrow. Areas along the route with suitable habitat will be surveyed by a qualified biologist. If the Alameda song sparrow is located within the project area, PG&amp;E will consult with USFWS and CDFG to coordinate avoidance and/or mitigation measures. Avoidance is possible by spanning suitable habitat:</p> <ul style="list-style-type: none"> <li>If construction is scheduled during the breeding season, a buffer of 250 feet will be observed to protect the Alameda song sparrow</li> <li>A biological monitor will be present to ensure no construction activity would result in nest abandonment.</li> </ul>

**Table C-5 Applicant Proposed Mitigation Measures (presented by time of implementation)**

Impact	Applicant Proposed Measure
<p><b>Biological Resources:</b> Raptors (Northern Harrier, White-tailed Kite, Golden Eagle, Short-eared Owl, and Others)</p>	<p><b>10.23a<sup>a</sup>.</b> In consultation with the CDFG (Bean, 1998), mitigation measures have been developed to ensure the protection and conservation of raptors within the project area. Protective measures that will be implemented include:</p> <ul style="list-style-type: none"> <li>• Before the spring breeding season (and prior to start of construction), a survey of the construction area for potential sensitive raptor habitat will be performed by a qualified biologist. The CDFG will review and approve the survey findings. It is expected that if construction occurs in suitable habitat before the onset of breeding season, the construction disturbance would cause the raptors to seek alternate sites for breeding and nest construction.</li> <li>• If avoidance of active nests is not practicable (March to September) a buffer of 250 feet will be maintained around any nesting raptor.</li> <li>• In the event of a nesting raptor, a qualified biological monitor will be provided by PG&amp;E, and remain onsite during construction activities to ensure there is no nest abandonment.</li> <li>• In the event of a nesting raptor, CDFG will provide authorization for nest removal after the young has been observed foraging.</li> </ul> <p><b>10.24a<sup>a</sup>:</b> Field surveys for protected avian species will be conducted by a qualified biologist. If these species are located prior to construction, PG&amp;E will consult with the USFWS and CDFG to coordinate avoidance and/or mitigation measures:</p> <ul style="list-style-type: none"> <li>• If construction is scheduled during the breeding season, a buffer of 250 feet will be observed</li> <li>• A biological monitor will be present to ensure that no construction activity would result in nest abandonment.</li> </ul>
<p><b>Biological Resources:</b> Predation</p>	<p><b>10.25a<sup>a</sup>:</b> The following mitigation measure will be implemented to reduce predation impacts:</p> <ul style="list-style-type: none"> <li>• Steel tubular poles will be used within the Bay portion of the project to minimize perching and predation opportunities.</li> <li>• Predation opportunities can be lessened through the use of bird guards to discourage perching at tower locations within the general area of California clapper rail.</li> <li>• Predation opportunities will be evaluated following the 1998 field surveys and during preconstruction surveys. PG&amp;E will contribute to a predator control program in Santa Clara County to help control feral cat/red fox populations.</li> <li>• Artificial burrows will be installed (where property owners concur) to increase escape cover for burrowing owls.</li> <li>• Habitat enhancement opportunities will be developed with the resource agencies at all tower locations designated as contributing to the issue of predation. Habitat enhancement will be developed to increase escape cover for prey.</li> </ul>
<p><b>Biological Resources:</b> Bird Electrocutions</p>	<p><b>10.26a:</b> PG&amp;E will construct the 115 kV power lines to raptor-protection guidelines (APLIC, 1996). No impacts are expected from the 230 kV transmission line, therefore no mitigation is necessary. Final engineering drawings for the 115 kV towers will be reviewed by a qualified biologist to ensure all birds are protected from electrocution.</p>
<p><b>Public Health and Safety:</b> Fire</p>	<p><b>12.1a:</b> In accordance with the 1994 Uniform Fire Code Section 1109.5, PG&amp;E will inform its construction and maintenance workforce that, "lighted matches, cigarettes, cigars or other burning objects shall not be discarded in such a manner that could cause ignition of other combustible material."</p>
<p><b>Noise and Vibration:</b> Vibration impacts during construction</p>	<p><b>13.3a:</b> A detailed survey of the microelectronics companies will be conducted within 1,400 feet of the transmission line route, noting which vibration-sensitive equipment is in operation.</p> <p><b>13.3b:</b> Ambient ground/floor vibration levels at sensitive equipment sites will be measured to determine the construction vibration criterion for each sensitive site.</p>
<p><b>Noise and Vibration:</b> Operational Impacts</p>	<p><b>13.7a:</b> Design specifications for the substation transformers will meet or exceed the following:</p> <ul style="list-style-type: none"> <li>• 420 MVA 230/120 kV transformers will meet 76 dBA, at 252MVA (60 percent) OA rating (without fans operating) and 79 dBA at 420 MVA (full capacity) FA rating (all fans operating 45 MVA , 230-21 kV transformers will meet 69 dBA, OA rating and 72 dBA, FA rating.</li> </ul> <p><b>13.7b<sup>c</sup>:</b> Design of the substation to maintain a minimum of 500 feet of distance between the three 420 MVA transformers and the nearest fence line will maintain noise levels below the 55 dBA ordinance during daytime full load operation. The four 45 MVA transformers will be positioned optimally at 200 or more feet away from the fence line to maintain daytime noise levels below 55 dBA.</p> <p><b>13.7d:</b> For more sensitive site locations, quiet transformers will be purchased to result in 55 dBA or less of expected noise at the fence line. Installation of such a transformer would achieve the noise requirements.</p>
<p><b>Utilities and Service Systems:</b> Construction Impacts</p>	<p><b>15.1a:</b> Prior to construction, surveys will be conducted to locate all underground and overhead utilities in the project area. Before any ground disturbance occurs, PG&amp;E will contact Underground Service Alert to verify the location of existing underground utilities to ensure that they are avoided.</p>
<b>MEASURES IMPLEMENTATED DURING CONSTRUCTION</b>	
<p><b>Water:</b></p>	<p><b>7.2a:</b> During ingress and egress of equipment and materials in Salt Ponds A18, A19, A22, and A23, PG&amp;E will</p>

**Table C-5 Applicant Proposed Mitigation Measures (presented by time of implementation)**

Impact	Applicant Proposed Measure
Surface Water Hydrology	take care to preserve the integrity of levees, dikes, Cargill's existing dredge locks, and natural drainage patterns. PG&E will repair any damage to the dikes at dredge locks while accessing the salt ponds using techniques similar to those employed by Cargill during their routine dike maintenance. Construction activities in Salt Ponds A22 and A23, and possibly A18, will be limited to the dry season (between April 15 and October 15).
Air Quality: Construction-Related Impacts	<p>8.1b: Water all active construction areas at least twice daily.</p> <p>8.1c: Cover all trucks hauling soil and other loose material, or require at least two feet of freeboard.</p> <p>8.1d: Pave, apply water three times daily, or apply soil stabilizers on all unpaved access roads and staging areas at construction sites.</p> <p>8.1e: Sweep streets daily with water sweepers if visible soil material is carried onto adjacent public streets.</p> <p>8.1f: Apply soil stabilizers, as needed, to inactive construction areas.</p> <p>8.1g: Enclose, cover, water twice daily, and add soil binders to exposed stockpiles of soil and other backfill materials.</p> <p>8.1h: Limit traffic speeds on unpaved roads to 15 mph.</p>
Biological Resources: Vegetation	10.11a: Trees requiring removal to provide conductor clearance will be replaced onsite with low-growing species at a ratio of 1:1.
Biological Resources: Salt Marsh Harvest Mouse	See 10.13a <sup>a</sup> under MEASURES IMPLEMENTED PRIOR TO CONSTRUCTION
Biological Resources: California Clapper Rail	See 10.14a <sup>a</sup> under MEASURES IMPLEMENTED PRIOR TO CONSTRUCTION
Biological Resources: Salt Marsh Wandering Shrew	See 10.18a <sup>a</sup> under MEASURES IMPLEMENTED PRIOR TO CONSTRUCTION
Biological Resources: Tri-colored Blackbird	See 10.19a <sup>a</sup> under MEASURES IMPLEMENTED PRIOR TO CONSTRUCTION
Biological Resources: Saltmarsh Yellowthroat	See 10.20a <sup>a</sup> under MEASURES IMPLEMENTED PRIOR TO CONSTRUCTION
Biological Resources: California Yellow Warbler	See 10.21a <sup>a</sup> under MEASURES IMPLEMENTED PRIOR TO CONSTRUCTION
Biological Resources: Alameda Song Sparrow	See 10.22a <sup>a</sup> under MEASURES IMPLEMENTED PRIOR TO CONSTRUCTION
Biological Resources: Raptors (Northern Harrier, White-tailed Kite, Golden Eagle, Short-eared Owl, and Others)	<p>See 10.23a<sup>a</sup> under MEASURES IMPLEMENTED PRIOR TO CONSTRUCTION</p> <p>See 10.24a<sup>a</sup> under MEASURES IMPLEMENTED PRIOR TO CONSTRUCTION</p>
Biological Resources: Predation	See 10.25a <sup>a</sup> under MEASURES IMPLEMENTED PRIOR TO CONSTRUCTION
Noise and Vibration: Temporary Construction Noise on Nearby Sensitive Receptors.	<p>13.1a: Compressors and other small stationary equipment will be shielded with portable barriers.</p> <p>13.1b: "Quiet" equipment (i.e., equipment that incorporates noise control elements into the design; compressors and jackhammers have "quiet" models) will be used during construction.</p> <p>13.1c: Equipment exhaust stacks/vents will be directed away from buildings.</p> <p>13.1d: Truck traffic will be routed away from noise-sensitive areas where feasible.</p> <p>13.1e: Temporary sound barriers or sound curtains will be employed, if necessary, under the following conditions:</p> <ul style="list-style-type: none"> <li>• Other noise reduction methods are not effective or possible</li> <li>• Construction will occur within 100 feet of businesses</li> <li>• Sensitive receptors will be exposed to construction noise for more than 1 day</li> </ul> <p>13.1f: Construction techniques, including, but not limited to, non-vibratory means of compressing the soil, will be used where possible to reduce noise and vibration levels to the extent possible.</p>
Noise and Vibration: Vibration impacts during construction	<p>13.3c: Pre-drilled piles and/or other methods will be used, where possible, to reduce duration of impact pile driving and reduce the noise and vibration impacts.</p> <p>13.3d: Vibration levels will be monitored at the beginning of the project and when construction is occurring near sensitive equipment. This will document the vibration propagation through the local soils for different construction activities and ensure that vibration criteria are not being exceeded at sensitive locations.</p> <p>13.3e: Construction techniques, including, but not limited to, the use of non-vibratory means of compressing the soil, will be used where possible to ensure that the determined construction criteria are not exceeded.</p>
Noise and Vibration: Operational Impacts	See 13.7b <sup>c</sup> under MEASURES IMPLEMENTED PRIOR TO CONSTRUCTION
Aesthetics: Visual Impacts	16.2a: As mitigation for visual impacts from development of the Preferred Route within the wildlife refuge, PG&E proposes to remove 5.7 miles of an existing 115 kV power line (Sierra 1 and 2) that crosses 2.8 miles of the refuge

**Table C-5 Applicant Proposed Mitigation Measures (presented by time of implementation)**

Impact	Applicant Proposed Measure
	between Newark Substation and Guadalupe Slough. This measure will reduce the number of transmission lines in the Bay and refuge area. PG&E will remove approximately 42 lattice steel towers.
<b>Cultural Resources:</b>	<p><b>17.1a:</b> In the event that ground-disturbing activities would need to take place in or near CA-ALA-528, further historical background research and field documentation will be required to formally record and evaluate the significance of the prehistoric site. The purpose would be to define a course of action to satisfy CEQA requirements for an Assessment of Effects.</p> <p><b>17.2a:</b> Prior to the initiation of construction or ground-disturbing activities, PG&amp;E will alert all construction personnel to the possibility of buried cultural remains, including prehistoric and historic resources. Personnel should be instructed that, upon discovery of buried cultural materials, work in the immediate area of the find shall be halted and PG&amp;E's archaeologist notified. Once the find has been identified, PG&amp;E's archaeologist will make the necessary plans for treatment of the find(s) and for the evaluation and mitigation of impacts if the finds are found to be important according to CEQA.</p> <p><b>17.2b:</b> If buried human remains are encountered during construction, work in that area must be halted, and both PG&amp;E's archaeologist and the coroner must be immediately notified. If the remains are determined to be Native American, then the Native American Heritage Commission will be notified within 24 hours as required by Public Resources Code 5097. The Native American Heritage Commission will notify designated Most Likely Descendants, who will provide recommendations for the treatment of the remains within 24 hours. The Native American Heritage Commission will mediate any disputes regarding treatment of remains.</p> <p><b>17.2c<sup>b</sup>:</b> During construction and operation, personnel and equipment will be restricted to the corridor surveyed for archaeological resources.</p>
<b>MEASURE IMPLEMENTATED DURING OPERATIONS</b>	
<b>Biological Resources:</b> Bird Collisions	<p><b>10.27a:</b> Bird flight patterns and collision mortality will be monitored on portions of the line where the potential for mortality is moderate to high. Study design and significance criteria will be developed in consultation with the appropriate agencies. If significant additional mortality results from construction of the transmission line, mitigation measures such as line marking or compensation will be developed with the appropriate agencies.</p> <p>If the Preferred Route is selected, PG&amp;E will remove 5.7 miles of the Sierra 1 and 2 Transmission Line as mitigation for the possible increase in bird collisions (see Figure 3-10). The length of the Preferred Route crossing wetlands and salt ponds is 3.7 miles. It is not possible at this time to determine whether the number of birds affected would be reduced. However, monitoring studies could be initiated before the Sierra 1 and 2 Transmission Line is removed to determine the frequency of bird strikes and where the bird strikes have occurred.</p>
<b>Noise and Vibration:</b> Operational Impacts	<p>See 13.7b<sup>c</sup> under MEASURES IMPLEMENTED PRIOR TO CONSTRUCTION</p> <p><b>13.7c:</b> To achieve the 55 dBA L<sub>dn</sub> long-term goal, all transformers at all locations will be operated at reduced loading and without fan cooling between the hours of 10:00 p.m. and 7:00 a.m. In addition, 900 feet of separation is required between the transformers and the nearest residences to be below 45 dBA at night to compensate for the 10-dBA penalty.</p>
<b>Cultural Resources:</b>	See 17.2c <sup>c</sup> under MEASURES IMPLEMENTED DURING CONSTRUCTION