

## Comment Set PG, Attachment A

### Biological Resources

#### 1. General Comments

##### 1.1 Underestimation of Impacts to Serpentine Grassland Habitat from Undergrounding Partial Underground Alternative

###### D.4-56 to D4.58 Environmental Impacts and Mitigation

The impacts to serpentine grassland of the underground portion of the Partial Underground Alternative have been underestimated, and the analysis is not consistent with the characterization of impacts for the proposed project as Class 1.

On Page D.4-34, fifth paragraph, the DEIR states that for the Proposed Project, *“Impacts to serpentine grassland would potentially affect the many special status plant and wildlife species that are known to occur within this habitat. Therefore, overall temporary and permanent impacts to these plant communities are considered to be significant (Class I), even with implementation of recommended mitigation.”* This contradicts the DEIR analysis of impacts to serpentine grassland for the Partial Underground Alternative on Page D.4-58, third paragraph, line 6, which states that *“Trenching in serpentine soils may result in significant unmitigable impacts to sensitive serpentine habitat and special status plant and animal species that may occur in these areas. Therefore, Mitigation Measure B-1j is recommended to minimize impacts in this sensitive habitat area. Implementation of this measure would reduce impacts to serpentine plant assemblages to less than significant (Class II).”* (Mitigation Measure B-1j reduces the construction corridor to a width of 40 feet.) In fact, the impacts of undergrounding the line in this area will be greater than the impacts for the proposed project as discussed in detail below.

**Work Area Underestimated.** As stated in PG&E’s response to CPUC data request No. 2, 40 feet is the absolute minimum width necessary for underground construction along the existing 60 kV route. Additionally, PG&E stated that in the vicinity of splice vaults (approximately every 1,600 feet) and where engineering restraints dictate, the corridor would need to expand to beyond 40 feet. Engineering constraints would include construction in the vicinity of the existing gas pipelines, which approximately parallel and are sometimes crossed by the access roads; a minimum separation from the gas line of five feet, plus factors to provide for slope condition, existing gas pipeline depth, new trench width and depth, and soil type, is required. In addition, the existing easement provides the ability to perform maintenance activities, including the replacement of sections of pipe; installation of the 230kV duct bank inside the existing easement could restrict future maintenance of the pipeline.

It is unclear how limiting the disturbance footprint to a 40-foot wide corridor would result in a lesser impact than the Proposed Project, and therefore mitigate an impact that is considered unmitigable for the less invasive Proposed Project. For example, between Bunker Hill Road and the Ralston Substation, a distance of approximately 5,500 feet, the Proposed Project would replace eight towers, resulting in a total potential disturbance of 62,300 sq. ft. (8 x

PG-144

## Comment Set PG, Attachment A, cont.

BIOLOGICAL RESOURCES

7,850 sq. ft., using the maximum estimated per tower disturbance stated in the DEIR, Page B-55, third paragraph, line 4 ). For the Partial Underground Alternative, trenching this distance would result in a minimum 220,000 sq. ft. of disturbance (40-foot construction area x 5500 ft), a significant (greater than 250%) increase in disturbance area compared to the proposed project. Additionally, there is no consideration of the much more invasive nature of underground versus overhead construction. Construction materials, excavated soil stockpiles, concrete, shoring, cable and conduit will be needed for the entire length of construction. The DEIR clearly states, on Page D.4-33, paragraph 3, that “surface disturbance to highly sensitive plant communities (e.g. serpentine grassland) would be considered a Class I impact that is significant even with implementation of mitigation.” Clearly that characterization applies to the partial underground alternative, and its impacts on serpentine grasslands are Class I impacts.

**Intensity of Impact Underestimated.** Trenching, with its attendant topsoil stockpiling, vehicle traffic, and width of construction, is a more serious disturbance in serpentine soils than is the temporary surface disturbance associated with installation of towers and tower footings. It is not clear if fragile serpentine habitats can be restored to preconstruction conditions after undergoing extensive disruption of soil structure, which may affect the critical drainage properties of the serpentine soil. Serpentine soil habitats owe their distinct characteristics to a combination of soil structure, hydrology, and chemical characteristics. The soil chemical and physical characteristics make these habitats very poor in nutrients, somewhat toxic due to the presence of heavy metals, and often have lower soil moisture availability. These soils are low in nitrogen and phosphorus and often high in magnesium, chromium and nickel which can be toxic to many plants. The montmorillonite clays formed by serpentine soils adsorb more water than many other clay surfaces, thus reducing available water to plants. All these factors reduce the ability of plants to adapt to serpentine soil habitats and has led to a highly specialized flora. Trenching through the soil can disrupt the soil’s structure and hydrological properties, and may not be mitigable.

**Underestimation of Affected Habitat Values.** The DEIR predicates its analysis of the Partial Underground Alternative on the assumption that the existing 60kV access road is permanently disturbed, devoid of any significant resources. On Page D.4-58, second paragraph, the DEIR states that “*because the underground segment is designed to be entirely within the already disturbed dirt/gravel road, permanent impacts would be minimal.*” However, as is shown in Figures 1, 2, and 3, the access road in most places consists of a two-track road that when not mowed fades in with the adjacent vegetation. Potential wetlands and serpentine grassland exist within the road bed. Not only does good habitat exist within the access road, but the underground duct bank will not always be in the road, since it must maintain a certain distance from the gas lines, cannot follow the access roads where these deviate to go around small outcrops or swales, or otherwise meander from a reasonably straight line.

The Pulgas Ridge area is identified by Toni Corelli (author of the Rare and Endangered Plants of San Mateo and Santa Clara County and curator of the Carl W. Sharsmith Herbarium at San Jose State University), as encompassing 300 acres, and as the largest intact serpentine grassland in San Mateo County. Trenching through this area would disrupt excellent serpentine bunchgrass and wildflowers (see Fig. 3), would destroy acres of *Plantago erecta*, the larval food plant for the Bay Checkerspot butterfly, and would destroy individuals of

PG-144

## Comment Set PG, Attachment A, cont.

BIOLOGICAL RESOURCES

Marin dwarf flax, located directly under the centerline and beside the access road south of Tower 32, and reported as part of the surveys for potential helicopter site surveys to the CPUC.

Furthermore, vegetation in the disced firebreak and the access roads consists of early successional grasslands, with a larger component of forbs and annual grasses than the surrounding serpentine grasslands. Foodplants of several sensitive butterfly species are noticeably more prevalent in the disced areas, and in the access roads (see Figure 3) including creamcups and *Plantago erecta*. As illustrated in the maps attached to the Habitat Assessment and Focused Surveys for Special-Status Invertebrates (2002, Entomological Consulting Services, Ltd.), and reported in PG&E's March 7 scoping letter response to CPUC, many of the larval and adult food plants for the Bay Checkerspot grow in this road bed. Indeed, some of the highest densities of *Plantago erecta*, the butterfly's larval food plant, were noted within the road bed, where the competition from annual grasses is less. Even though the butterfly was not observed at these northern locations during surveys, habitat still exists there and the butterfly is known to periodically recolonize peripheral areas of habitat in good years.

**Disturbance of Undisturbed Grassland West of ROW.** Another consideration is that the existing gas pipelines are generally located to the east of the access road and towers, in the firebreak area (note the gas line marker to the east of the towers north of Ralston Substation in Figure 3). Undergrounding could utilize the existing right-of-way and portions of existing access roads/fire breaks. However, the access road is narrow, and additional habitat would have to be disturbed for construction. The gas lines are primarily in the firebreak area between the ROW and the eastern edge of the Watershed property, requiring the underground line be placed west of the existing access road and firebreak, further into undisturbed serpentine grassland. Undergrounding this portion will directly impact the overall vegetation composition far more than the Proposed Project and Alternative 1B. In general, we are concerned that the DEIR has severely underestimated the impacts to serpentine grassland resulting from construction of the Partial Underground Alternative and disagree with the statement in the DEIR (Ap.1-55 Alternative Conclusion) that this alternative "has the potential to avoid serious biological concerns in the vicinity of Edgewood Park..." (3rd paragraph from bottom).

**Infeasibility of Proper Revegetation of Increased Impact Area.** Lastly, insufficient locally-collected native seed would be available at the time of construction to properly revegetate the anticipated Partial Underground Alternative disturbance area. Based on its experience with similar projects, PG&E anticipates that the landowner (San Francisco Water Dept.), as well as federal and state resource agencies will require temporary work areas outside the future access roads to be revegetated using native grasses grown from locally collected seed. This is to preserve the specific adaptations and genetic makeup of these local populations. Double-ditching would be used in excavating the trench. Topsoils in these primarily serpentine areas would be stockpiled in a row along the trench, and subsoil stockpiled in a separate row. Soil would be replaced in the proper order after construction. A significant issue discussed in PG&E's March 7 scoping letter response to CPUC for this large a disturbance and revegetation area would be satisfying the likely requirement for a locally-collected seed source, since that much seed cannot be collected without having impacts on the local resource. An important feature of the revegetation plan PG&E proposes in the PEA

PG-144

## Comment Set PG, Attachment A, cont.

BIOLOGICAL RESOURCES

is using local seed sources so that the genetic characteristics of the local serpentine species are maintained. Some of the important native grasses in the revegetation plan (*Nasella* spp.) require two years to propagate. Seed was collected last spring, and is now being grown in a nursery in the Delta. The crop from this first planting will be used to plant several fields of these local native species in order to get the hundreds of pounds of seed needed for revegetating approximately ten acres, the area anticipated to be impacted in the Proposed Project. Undergrounding would create the need for many acres worth of additional revegetation, for which there would not be enough seed. To cultivate the additional amount of seed required to revegetate such a large area would require at least one additional year, if not two, using the seed planned for revegetation in 2004. If the Project is allowed to proceed before sufficient seed is available, revegetation would likely be less successful and cause secondary, potentially significant, impacts to native habitats through introduction of non-local seed or inappropriate species. These impacts would be further exacerbated if rare plants are discovered in surveys of the new underground right-of-way.

Trenching through this serpentine habitat may also require off-site mitigation in the form of restoration or enhancement of serpentine habitat to compensate for the temporary disturbance of the serpentine habitat, and the permanent deterioration of the habitat caused by the disruption of the underlying, controlling geologic layers.

### 1.2 Inadequate Analysis of Biological Impacts Resulting from the New Overhead Portions of Partial Underground Alternative

#### Partial Underground Alternative

The DEIR presents only a general analysis of biological resources along the new overhead routes that are part of this alternative, yet states that relocating the towers out of Edgewood County Park (into the Triangle Area) is a biological benefit. This analysis fails to identify the presence of high-quality serpentine habitat and several endangered species along the new proposed routes. There is no basis for concluding that impacts would be less than significant without accurate information regarding sensitive resources along the Partial Underground Alternative alignment.

There is no discussion of the impacts on biological resources from creating a new utility corridor within undeveloped portions of the SFPUC watershed. On Page D.4-2, the DEIR states that under the Peninsula Watershed Management Plan, the SFPUC shall "restrict new utility lines proposed on the watershed...to existing utility corridors, and require that any new powerlines be buried, where feasible." In the DEIR analysis on Page D.4-56, there is no mention that this alternative creates an entirely new transmission line corridor. This substantially greater disturbance created by a new utility corridor would also have a greater impact on other resources, such as by result of increased erosion from work sites, the new access roads that need to be cut into certain of the tower sites, and tree removal to accommodate this new alignment.

**Southern Overhead Portion (south of Edgewood Road, along Cañada Road).** Many of the sensitive species and habitats which occur in Edgewood Park also occur along portions of the proposed Partial Underground Alternative, including three endangered plants and the

PG-144

PG-145

## Comment Set PG, Attachment A, cont.

BIOLOGICAL RESOURCES

endangered Bay checkerspot butterfly. Furthermore, this alternative places towers in a location currently devoid of any utility structures.

The Partial Underground Alternative crosses the area bounded by Edgewood Road, Cañada Road, and Hwy 280, a well-known serpentine hotspot referred to as “The Triangle.” The Triangle Area is critical habitat for the Bay checkerspot butterfly and supports several endangered plants including the white-rayed pentachaeta (*Pentachaeta bellidiflora*). PG&E eliminated this area from consideration early in the planning process because of serious environmental concerns. Reconnaissance surveys for wildlife and botanical resources were conducted during the spring of 2002. For botany, this consisted of a visit by a PG&E biologist on March 26, 2002. The quality of serpentine habitat in the Triangle exceeds even that in Edgewood Park, and some of this would be permanently lost. This will affect the sole remaining population of the white-rayed pentachaeta, a highly endangered plant, as well as the Bay checkerspot butterfly. Note that the recovery plan for the pentachaeta recommends a buffer zone of 500 ft. around this plant, a requirement that cannot be met by any construction within the Triangle area. Therefore, this alternative has far greater impacts than the proposed alternative (and much less than Route Option 1B) and it is inaccurate to classify these impacts as less than significant, if impacts at Edgewood Park are considered significant.

Three state and federally-listed endangered plants have been found in the Triangle Area: the major part of the sole remaining population of the white-rayed pentachaeta, one of two populations of the San Mateo thormmint (*Acanthomintha obovata* ssp. *duttonii*), and the fountain thistle (*Cirsium fontinale* var. *fontinale*). (U. S. Fish and Wildlife Service, 1998. Recovery Plan for the Serpentine Soil Species of the San Francisco Bay Area. Sacramento, CA 443 pp.) Also see Corelli, 1991 (Corelli, Toni. 1991. Rare Plant Populations and Associated Natural Communities of the San Francisco Peninsula Watershed Lands – 1991 Survey Report. Prepared for the Nature Conservancy, San Francisco, California. n.p.), and vegetation data from the GGNRA, 2001. During the spring 2002 reconnaissance, white-rayed pentachaeta was observed growing widely on grasslands in the parcel, especially on dry slopes (see Figures 3 and 4). Impacts to these plants and their habitat due to the construction of a new tower line and required access roads would be significant and unmitigable (Class I impacts).

Dwarf plantain (*Plantago erecta*), the main larval food plant of the Bay checkerspot butterfly was also widely and densely distributed. *Orthocarpus densiflorus*, an alternate larval food plant, was common, as were the nectar source plants tidy-tips (*Layia platyglossa*) and goldfields (*Lasthenia californica*). The Bay checkerspot butterfly occurs in the Triangle Area, and was seen there during entomological surveys in 2002. This area is included as critical habitat for the Bay checkerspot. (U. S. Fish and Wildlife Service. 2000. Endangered and Threatened Wildlife and Plants, Proposed Designation of Critical Habitat for the Bay Checkerspot Butterfly. Federal Register 65[200]:61218-61244. Oct. 16, 2000.) The triangle population is a critical part of the Edgewood population, the main population of the San Mateo metapopulation. Given the continuing decline of the butterfly in San Mateo County, impacts on the Triangle sub-population would be a significant Class I impact.

The three harvestmen species probably also occur here based on the excellent quality of serpentine habitat present at the Triangle parcel. There are numerous partially-buried boulders, their preferred habitat, scattered throughout this serpentine grassland site.

PG-145

## Comment Set PG, Attachment A, cont.

BIOLOGICAL RESOURCES

**West of I-280** The northern relocation of the towers, in the West of I-280 corridor, is proposed for the bench area between Skyline Blvd. and the east border of the long, narrow marsh and creek drainage between the south end of San Andreas Lake and Tracy Lake at the north end of Lower Crystal Springs Reservoir. There is endangered species habitat in the vicinity of this alternative that for reasons of confidentiality are detailed under separate cover. The placement of this alternative within the proximity of endangered habitat is in conflict with CPUC Mitigation Measure B-8a.

This area includes Helicopter site 15. As noted in the report sent to the CPUC on the potential helicopter landing sites, some serpentine grassland exists here. We suspect it occurs throughout the area.

**San Mateo Creek Area** Running the underground line from tower 6/35 to the planned transition structure at tower 6/37 would require extensive tree removal for a distance of approximately 750 feet, in addition to the area needed to construct a transition structure or station capable of supporting the planned 2500-foot span across San Mateo Creek. This potentially significant loss of tree cover and nesting habitat in the vicinity of San Mateo Creek is not discussed. The route between towers 6/36 and 6/37 is very steep, and impacts from erosion are not discussed.

### 1.3 Route Option 1B

#### Route Option 1B—Underwater Crossing Around Dam

After further field review and consideration of the other available alternatives, PG&E believes the PG&E Route Option 1B – Underwater Crossing Around Dam (Page D.4-54, Impact B-9) may be technically infeasible to perform directional drilling, as required by Mitigation Measure B-9, given the substrate of the reservoir (likely rock), the steep slope of the southern entry point, and the potential for “frac-out” (release of bentonite drilling mud) into the reservoir, and PG&E cannot be certain that Mitigation Measure B-9 would not be required due to the potential presence of sensitive habitats. Though the reliability of the underwater crossing is expected to be adequate, it is not as certain as the other alternatives, and the effort and time to replace a cable section will be much greater should a failure occur. Furthermore, it has the potential to conflict with DEIR water quality and biological mitigation measures and inherently has more risk to worker safety, biological resources, water quality, and reliability than other alternatives. PG&E believes the underground cable can be placed on top of the dam in a cut trench such that impacts to the red-legged frog would be minimal as described below, and believes permitting issues could be resolved with regulatory agencies. For these reasons, PG&E requests evaluation of this crossing option as a component of Alternative 1B.

On Page Ap.1-34, the DEIR Alternatives Screening Report states that placement of the line on top of the dam in a cut trench is a technically feasible option, described as Option 1. The DEIR states on Page Ap.1-42, paragraph 6, line 1 that “*there are endangered species concerns at the dam (i.e., California red-legged frog) that could affect permitting of Options 1 and 5.*” For this reason, this option of crossing the dam is not carried forward as a component of Alternative 1B for full analysis in the DEIR. PG&E believes the line can be placed on top of the dam such that impacts to red-legged frog would be minimal.

PG-146

PG-147

PG-148

## Comment Set PG, Attachment A, cont.

BIOLOGICAL RESOURCES

Studies conducted by Dr. Sam McGinnis have established that the shallow concrete pond at the south end of the top of Crystal Springs Dam is a viable California red-legged frog (CRLF) breeding and larval rearing habitat. The annual CRLF reproductive cycle within this pond begins in February and early March with the movement of several adult female CRLF and at least one male CRLF to the pond from foraging areas in the adjacent San Mateo Creek canyon.

After spawning, the adults leave the pond, presumably because there is little foraging opportunity on the concrete apron which surrounds it. They leave behind egg clusters attached to the aquatic vegetation in the southeast segment of the pond. The eggs hatch by early April and the larva feed and grow until mid-August when they begin to undergo metamorphosis. The newly transformed juvenile frogs (metamorphs) remain in the pond until early fall rains saturate the understory of the plant community on the adjacent canyon wall. Here they presumably forage and may return to the pond two or more years later as breeding adults. Of special note for this proposed project is the fact that the pond now remains void of all CRLF life forms until breeding adults again return in February or March of the next year.

Dr. McGinnis suggests the following procedure be followed to minimize impacts to CRLF during installation of the 230 kV duct bank:

- The construction period for the top of the dam will only occur between November 15 and January 15.
- Before initiating any work on top of the dam, a permitted biologist will carefully search the pond water and substrate to verify that year no CRLF are present.
- A pathway into the pond area should be established which will not disturb the plant community on the canyon wall immediately adjacent to the south end of the pond, since this is the only CRLF entrance and exit route.
- A solid four-foot high plywood exclusion fence with the bottom buried six inches below grade will be attached to the outside of the chain link fence at the south end of the pond. This will prevent any CRLF which may be wandering through the adjacent hillside early in the rain season from entering the pond.
- A permitted biological monitor will check the work site daily to see that all protective procedures are being followed and answer any questions concerning same that may arise.
- The pond should then be dewatered and all aquatic plants and substrate material removed from the work space and stored in tubs. A sand bag wall should be constructed along the edge of the work space in order to keep mud and remaining water from seeping into the cable installation site.
- The installation of the concrete cable box should be done in such a way that the top of the box is flush with the concrete bottom of the rest of the pond. This will insure that no loss of CRLF critical habitat occurs.
- Upon completion of all work, the sand bag barrier between the pond and the work area will be removed, soil replaced, and all plants replanted in a pattern as directed by the

PG-148

## Comment Set PG, Attachment A, cont.

BIOLOGICAL RESOURCES

principal biological monitor. The pond should then be re-supplied with finely screened lake water and the plywood barriers should be removed.

- The pond will be monitored weekly for the appearance of adult frogs and eventually egg clusters. These two events will represent the success criteria for the work through this area.

From the information currently available, this alternative is not expected to conflict with the future bridge removal and construction. Additional coordination with SFPUC will be necessary to obtain information regarding future spillway modifications. Since the CRLF is a federally-listed species, informal consultation with the Fish and Wildlife Service, as part of the US Army Corps of Engineers 404 permit for work in these wetlands and appropriate measures such as those listed above will be adopted to mitigate the potential impact on the frog to less than significant levels (Class II impact).

### Open-Cut Trenching Method

The method of entering the reservoir via open-cut trench presents both feasibility and safety concerns given the steep slope of the southern entry point, which would prevent the use of excavation equipment. Trenching directly into the reservoir could result in excessive sediment deposition and associated increases in turbidity that could create a potentially significant water quality impact. Coordination with SFPUC on obtaining the approvals necessary to place the underwater cable with Crystal Springs Reservoir given this potential significant impact could delay construction of the underground line as scheduled.

### Directional-Drilling Method

The installation method required by Mitigation Measure B-9a (if sensitive biological resources are present) would require directional-drilling into the reservoir. After further technical analysis, PG&E is concerned that installing the cable into the reservoir may be infeasible for the following reasons: the southern entry point for the directional drill appears to require an entry angle greater than 20 degrees, which is the upper limit of these systems. Due to the proximity of the access road to the shore line and the depth required upon entering the reservoir, a feasible entry angle does not appear to be possible. Once the directional drill "daylights" into the reservoir, a significant amount of drilling mud could potentially enter into the water. The DEIR identifies this type of contamination as a "frac-out" in section D.7 Hydrology and Water Quality and requires mitigation measure B-1h for this impact. Bentonite has to be used for directional drilling and if there is any unconsolidated rock or even bedrock there is a higher likelihood of a frac-out into the reservoir.

Any time a work area involves working on or within bodies of water, the potential for injury or fatalities increase. Diver safety is the greatest concern, followed by those working on the boats. Safety measures will be in effect, but the relative risk level of this alternative to the others is greater.

## 2. Specific Comments

### 2.1 Sensitive Habitat Areas

Figures D.4-4 to D.4-7, pages D.4-19 to D.4-22 and related text.

PG-148

PG-149

PG-150

PG-151



## Comment Set PG, Attachment A, cont.

BIOLOGICAL RESOURCES

The source for these maps is the CNDDDB, and although valuable for general characterization and guidance, should not be relied upon as accurate at the project-specific scale. As a result, the location and extent of impacts to serpentine and sensitive habitats in the Partial Underground Alternative have been underestimated (see General Comment 1). This treatment distorts the value of two areas in particular:

- This treatment minimizes the value of Edgewood Park and the Triangle area. The extents used from the CNDDDB are the extents of the white-rayed pentachaeta and other rare plants, not the extent of serpentine bunchgrass, which is represented by a one-mile circle. In the Triangle area, the sensitive habitat includes extensive stands of serpentine bunchgrass, some serpentine chaparral (an extremely rare type), three state and federally-listed endangered plants, and an endangered butterfly. One of the plants, the white-rayed pentachaeta, occurs nowhere else in the world (USFWS, 1998).<sup>1</sup> The area is remarkably free of weeds, and protected from public access.
- The serpentine site at the North Buri Buri Ridge (CNDDDB Occurrence #23) is taken from a 1991 report by Toni Corelli<sup>ii</sup>. In it, the area is described as “small areas of serpentine surrounded by other substrates,” and also as occurring on southwest-facing slopes up to the ridge crest. No serpentine grassland was found along the transmission line right-of-way during botanical surveys. It consists mainly of degraded annual grassland with a strong ruderal component, including periwinkle, pyracantha, fuller’s teasel, Italian thistle, oxalis, and even daffodils and calla lilies. We suspect that the serpentine grasslands mentioned in the CNDDDB occur on the slope above Hwy. 280, and possibly at the north end of the mapped occurrence. No rare plants were found at this site. Moreover, it was highly disturbed and had the greatest variety of exotic plants of any location on the right-of-way.

### 2.2 Mitigation Measures

#### Proposed Project

#### Mitigation Measures for Impact B-1, Temporary and Permanent Loss of Sensitive Vegetation Communities

#### B-1a Perform Wetlands Delineation and Avoidance (supplements APM Bio-7) Page D.4-35, third paragraph

**This measure requires avoidance of intermittent creeks, drainages and swales.**

**Response:** For linear projects, it is not reasonable to expect avoidance of all intermittent creeks, drainages, and swales that may cross the ROW. Also, it is inconsistent to require both avoidance of streams and compliance with CDFG Section 1601, which is issued for work affecting streams. Under the Proposed Project –Southern Area, the overhead line would span these features, and no towers are proposed to be located within these features. Alternative 1B would consist of trenching within Cañada Road, where any such features are already directed into culverts. The same is true for the drainages and swales of the Northern underground alternatives. Trenching through and replacing culverts in the dry season has no potential for significant impact (Class III). The proposed visual reroutes, for the most part, appear to span such features, although it does appear that at least one proposed tower relocation, the reroute for Tower 3/22, would be located in or immediately adjacent to a large wetland arm of Upper

PG-151

PG-152

PG-153

## Comment Set PG, Attachment A, cont.

BIOLOGICAL RESOURCES

Crystal Springs Reservoir, and would need to be relocated away from the wetland and trail immediately between the wetland and Cañada Road.

With the underground portion of the Partial Underground Alternative, at least a few small intermittent creeks, drainages, and wetlands, will likely need to be open-trenched; this would occur during the dry season (April 15 to October 15). When no water is flowing, the potential for impact is minimal. Appropriate USACE 404 permits and CDFG Streambed Alteration Agreements would be obtained, and appropriate SWPPP measures installed, as described in Mitigation Measure B-1a and H-1a. With restoration of sites after construction, any potential impacts would thereby be mitigated and there should be no issue with trenching through these resources. The DEIR Partial Underground Alternative does not present sufficient field data on the overhead portions to determine whether the alternative could be constructed in compliance with MM B-1a; although it appears likely that the line would span such features, some new access roads would be required that may cross swales or creeks.

**Suggested Revised Measure:** “Wetlands and aquatic resources such as intermittent and perennial creeks, drainages, and swales that occur within the ROW shall be identified as environmentally sensitive areas and shall be avoided to the extent practicable during construction. Any impacts to these resources will be minimized as described in APM Bio-7, and by obtaining USACE 404 and CDFG 1601 permits, and implementing the requirements of these permits and the SWPPP during construction.”

**B-1b Provide Restoration/Compensation for Vegetation Losses**

On Page D.4-36, first paragraph, the DEIR requires preparation of a Habitat Restoration Plan and off-site compensation for loss of significant plant communities, including wetland, riparian, and serpentine grassland habitats.

**Response:** PG&E prepared a preliminary Erosion Control and Revegetation Plan as part of the PEA V.II, that commits PG&E to these conditions. PG&E has already collected local native grass seed and is having it grown by a contract grower in order to ensure enough seed for revegetation. This plan has been given to the major landowner, the San Francisco Water Department, and discussed with them. This mitigation measure should reference the plans proposed in APM Bio-5.

The requirement to submit the Habitat Restoration Plan 60 days prior to construction conflicts with the requirement in MM B-1a to submit a Wetlands Restoration Plan before restoration activities are initiated. Restoration plans required by the USACE, CDFG, and/or RWQCB will be prepared according to the permitting requirements of those agencies, and submitted to the appropriate agencies as identified in any permits or agreements. Whether the applicant must await approval from the individual agency is up to the permit conditions required by that agency, and should not be imposed upon an outside agency by CPUC. The need for, and details of, any off-site compensation requirements for impacts to significant plant communities will be determined in consultation with the resource agencies: CDFG and/or FWS, as appropriate.

The Wetlands Restoration Plan required in MM B-1a (detailing the restoration of wetlands and riparian zones) should suffice to adequately address restoration requirements of USACE for wetlands, and would not need to be repeated in a separate Habitat Restoration Plan. The draft Erosion Control and Revegetation Plan prepared by PG&E and included in the PEA is

PG-153

PG-154

## Comment Set PG, Attachment A, cont.

BIOLOGICAL RESOURCES

expected to meet the requirements of the RWQCB, for the Proposed Project and also for Alternative 1B. Any additional riparian habitat mitigation measures required by CDFG could be incorporated either with the Wetland Restoration Plan or the Erosion Control and Revegetation Plan, rather than require a third restoration plan. On-site restoration for serpentine grassland habitats is already detailed in APM Bio-5, the Erosion Control and Revegetation Plan. Any modifications to these two plans, the Wetland Restoration Plan and the Erosion Control and Revegetation Plan, required by the agencies would be incorporated into final Plans prior to initiating restoration, or as otherwise specified by the resource agencies. With the relatively small (0.2 acres) area of wetlands impacted, requiring a plan to just address wetland impacts is unreasonable.

**Suggested Revised Measure:** “Where on-site restoration is planned for mitigation of impacts to natural vegetation communities, the Applicant shall prepare and submit the draft Erosion Control and Revegetation Plan and Wetland restoration plan described in B-1a to the CPUC and the U.S. Army Corps of Engineers (for wetlands), the California Department of Fish and Game (CDFG) (for riparian habitat), and the Regional Water Quality Control Board (RWQCB) according to the requirements of any necessary permits, at least 60 days prior to the start of any habitat restoration or as otherwise required in those permits.”

### **B-1c Protect Serpentine Grasslands and Edgewood Park**

This measure calls for submittal of a report to the CPUC evaluating the option of leaving tower foundations in place. It should be noted that the FWS will be responsible for determining the best approach in Bay checkerspot butterfly habitat, as part of any Section 7 consultation.

### **B-1d Perform Pre-construction Surveys and Provide Monitors**

On Page D.4-36, sixth paragraph, the DEIR requires preconstruction surveys for all special status plant and animal species within 200 feet of project construction activities (including towers, access roads, cable pulling sites, laydown sites, and other work areas). The DEIR also requires PG&E to flag special status species habitat, as well as jurisdictional wetlands riparian habitat, and serpentine grassland (as identified during 2002 and 2003 field surveys) prior to the start of construction of any project components.

**Response:** PG&E has completed three years of plant surveys for the Proposed Project. All proposed access roads, laydown areas, pull sites, and work areas have been surveyed, and should not have to be resurveyed within 200 ft. (translating to a 400 ft. survey corridor along the ROW) of project construction activities. Based on our survey experience from the 2001, 2002 and 2003 seasons, surveys should be targeted to relocate identified plant population boundaries, flag the ROW or work areas as needed, or to survey new project areas as required by MM B-1e. PG&E should only need to survey for special status plants if the alignment changes or if there are new project facilities identified. The requirement to “flag” special status species habitat is overly broad; habitat for special status species occurs in broad swaths along the alignment and is too extensive to flag. Flagging most special species habitat and serpentine grassland is not practical, and will provide no additional protection to these resources. Either the actual resource locations (such as rare plant populations or wetlands) or the limits of the ROW or work area adjacent to the resources should be flagged, not the habitat itself.

PG-154

PG-155

PG-156

## Comment Set PG, Attachment A, cont.

BIOLOGICAL RESOURCES

There is also no need to repeat the invertebrate surveys that were performed during 2001, 2002 and 2003. Unless construction of the project is delayed for several years the habitat conditions are not likely to change enough to warrant new surveys. Occurrences of the sensitive invertebrate taxa and their habitats have already been documented and are unlikely to change unless habitat conditions are dramatically degraded. This is particularly true at Edgewood Park, which has been well documented over a period of years as a location that supports the sensitive harvestmen and Bay Checkerspot butterfly.

CPUC should provide data from any field surveys, including dates and types of surveys, performed for the visual reroutes or alternative routes proposed in the DEIR, so as to assist in determining the needs for those areas.

**Suggested Revised Measure:** revise the first paragraph to read “Pre-construction wildlife surveys shall be performed for certain special status animal species within 200 feet of project construction activities (including towers, access roads, cable pulling sites, laydown sites, and other work areas. Previously identified special status plant populations shall be located and either the plant populations, the ROW, or work limits flagged prior to construction. Avoidance measures vary for each species and are specified under Mitigation Measure B-1e for rare plants, and under Mitigation Measures B-8a for special status wildlife species .”

**Suggested Revised Measure:** “Special status species locations, as well as jurisdictional wetlands and riparian habitat (as identified during 2001, 2002 and 2003 field surveys), shall be flagged prior to the start of construction of any project components; alternatively, the limits of the work area in the vicinity of these resources will be flagged, to minimize the impacts of flagging activities within the protected resource.”

### **B-1e Complete Rare Plant Surveys**

On Page D.4-37, fourth paragraph, the DEIR requires fencing any special status plant occurrences located within 200 feet of the approved project construction corridor (e.g., the Marin Flax population on Pulgas Ridge) prior to the start of any construction.

**Response:** The requirement to fence all special-status plant population with 200 feet of the project corridor is excessive and may in fact cause unnecessary impacts to the resource. It has the potential to affect fragile habitat areas through increased human presence in areas that would otherwise be unaffected by project activities. Fencing or flagging populations within 50 feet of project facilities would be more reasonable or just fencing or flagging the edge of the ROW for those plant populations outside of the ROW.

**Suggested Revised Measure:** Replace the first sentence of the second paragraph of this measure with “Any special status plants that are located within 50 feet of the approved project facilities, or that might be affected by construction activities, shall be fenced or flagged prior to the start of any construction, and if feasible, towers or other project components shall not be placed in areas where these plant populations have been identified.”

### **B-1f Protect Sensitive Habitats During Construction**

On Page D.4-37, fifth paragraph, the DEIR requires PG&E to map and flag or fence overland travel routes and project access areas prior to construction or periodic maintenance during operation and to ensure that vehicles or project personnel do not disturb identified areas.

PG-156

PG-157

PG-158

## Comment Set PG, Attachment A, cont.

BIOLOGICAL RESOURCES

**Response:** Suggest removing requirement to flag or fence access areas for “periodic maintenance during operation.” This requirement commits PG&E to flagging and fencing and possibly relocating resources prior to maintenance activities for the life of the project. Additionally, installing and maintaining flagging or fencing could result in additional impacts through increased human presence, and will in fact have a greater impact than occasional routine operations and maintenance. These access roads are used not only by PG&E but as needed by Peninsula Watershed employees and maintenance crews, or park staff. It is difficult to envision the value of PG&E fencing or permanently flagging access roads within Edgewood Park or the Peninsula Watershed; those agencies responsible for their resources should be the ones to determine if such a measure is appropriate.

**Suggested Revised Measure:** “PG&E shall map and flag or fence sensitive resources that are at risk from project activities along overland travel routes and project access areas as appropriate prior to construction, as approved by the land owner agency, and shall ensure that vehicles or project personnel do not disturb identified areas.”

### **B-1g Implement Weed Control**

On Page D.4-38, second paragraph, the DEIR requires PG&E to protect against the potential introduction or spread of noxious weeds or pathogens, such as sudden oak death. Requires vehicles used in transmission line construction to be cleaned prior to operation off of maintained roads. Requires using “weed-free” imported soil. Requires existing vegetation to be cleared only from areas scheduled for immediate construction work (within 10 days) and only for the width needed for active construction activities.

**Response:** Weed management procedures are strongly emphasized in the restoration plan already submitted to the CPUC. The requirement to clean vehicles prior to each use off-road is not practical or effective. Weeds, particularly yellow star-thistle, are widespread in the project area and it is beyond the scope of this project to control. Weed control is an integral part of the Erosion Control and Revegetation Plan. It is our experience that field cleaning is not very effective in that most weed seeds and parts collect in the undercarriage and engine compartment, areas not accessible during “in the field” cleaning. Field cleaning stations create muddy conditions that cause tracking of mud onto city streets or adjacent roads, and may encourage spread of seeds. A more reasonable process that PG&E has found effective is to require equipment to be thoroughly washed at high-pressure washing stations in PG&E yards prior to initiating work on the project as a whole, and for any piece of equipment that has traveled off-road on non-project location during the course of construction.

It is not practical from a construction scheduling standpoint, nor are there clear environmental benefits, to require PG&E to clear vegetation only in areas where construction will occur within a 10-day window. To meet scheduling requirements, PG&E needs to have available lands prepared for construction. Clearing of trees and shrubs is a precursor activity that would likely occur at the start of construction and would continue until appropriate areas (excluding those with seasonal restrictions) are cleared of vegetation and ready for construction. Herbaceous cover will for the most part be left in place until construction activities begin. Seasonal considerations in tree removal and shrub removal (e.g. to protect nesting birds) will require that this vegetation be removed prior to or after the nesting season and will dictate vegetation removal schedules. This measure should be deleted.

PG-158

PG-159

## Comment Set PG, Attachment A, cont.

BIOLOGICAL RESOURCES

Salvaging 12-inches of “topsoil” will dilute seed bank and organic material typically found in upper few inches of topsoil, 6” would be a more reasonable requirement. Additionally, for areas with significant weed infestations, retaining the seed bank through topsoil salvage could hamper reestablishment of the native species restoration seed mix.

Finally, the requirement for certified weed-free fill material, gravel, and soil amendments is infeasible and should be deleted – no local, large-scale commercial source exists for such materials.

**Suggested Revised Measure:** “The following measures shall be implemented to control the introduction of weedy species within areas disturbed during transmission line construction; implementation of these measures during construction shall be verified by the CPUC Environmental Monitor. Vehicles and equipment used in off-road transmission line construction shall be cleaned prior to initiating construction for the project in off-road areas and after being used off-road on a different project.”

**Suggested Revised Measure:** “Vegetation clearing shall be minimized and shall occur only within the minimum footprint necessary for construction.”

**Suggested Revised Measure:** “During construction, the upper 6 inches of topsoil (or less depending on existing depth of topsoil) shall be salvaged and replaced wherever the transmission line is trenched or constructed [e.g., building towers] through open land (not including graded roads, road shoulders, and other previously disturbed areas including the BART ROW). Areas having a significant weedy component may not be subject to topsoil salvaging requirements.”

### **B-1h Negotiate Compensation for Loss of Significant Plant Communities**

On Page D.4-38, second paragraph, the DEIR requires that the CPUC-approved Project Biologist determine whether or not avoidance of a sensitive resource is possible, and determine the need for compensation. PG&E will consult with the resource agencies to determine the need for compensation. This issue was covered under B-1b, Provide restoration/compensation for vegetation losses.

**Response:** It is not clear if the “CPUC-approved Project Biologist” is a PG&E employee or consultant or someone that CPUC provides. CPUC needs to clarify the roles and responsibilities of the “CPUC-approved Project Biologist.”

### **B-2a Compensate for Tree Loss**

On Page D.4-40, third paragraph, the DEIR requires 3:1 off-site compensation for lost trees and requires a survey of all trees within the construction corridor.

**Response:** Requiring off-site compensation at 3:1 for all trees removed is excessive in an area of extensive wooded habitat like the SFPUC Watershed, and where many trees are non-native invasives such as Monterey Pine and Eucalyptus. Replacement of trees would need to occur outside the ROW, and would displace valuable grassland habitat. Off-site compensation at 3:1 should only apply to those trees identified as Heritage or significant by local tree preservation ordinances, not all trees removed during construction.

Requirement for additional evaluation ten years after replacement trees have been planted to evaluate success sets ten year responsibility precedent. PG&E responsibility should not

PG-159

PG-160

PG-161

## Comment Set PG, Attachment A, cont.

### BIOLOGICAL RESOURCES

extend beyond five years. PG&E cannot be responsible for drought, disease, or land owner actions that may result in mortality after the five year maintenance period.

This measure should not apply to tree removal associated with ongoing operation and maintenance of the transmission line.

Locating and assessing “all trees” within and adjacent to the ROW is unnecessary, since many will not be affected by the Proposed Overhead Project; surveys should focus on areas of ground disturbance where trees will need to be cleared or trimmed.. The tree survey should be targeted to identify certain species with high habitat value (natives, non-natives with wildlife values, etc.) and specifically targeting escaped ornamentals, “problem species”, weed trees, etc. for removal in conjunction with the effort. This will lead to better post project habitat assemblages and would address the competition, fire problems, and general habitat degradation from these undesirable non-native and ornamental species.

#### **Suggested Revised Measures:**

Revise wording in first bulleted list (Page D.4-40) to indicate that the Tree Replacement Plan will address loss or significant damage to Protected Trees.

Revise wording in third paragraph (Page D.4-40) to read “...ensure that the replacement would be consistent with applicable local jurisdiction requirements, such as San Mateo County Tree Ordinances, with additional permit conditions imposed by the local agency (e.g., local oak tree protection requirements), and with the management direction of the landowning agency.”

Reword third bullet in second list to read “Discussion of appropriate tree replacement ratios, as defined by the local jurisdiction, or, at a minimum, a 3:1 replacement to removed/impacted ratio for Heritage or significant trees.”

Add to measure “This measure does not apply to non-native trees, or to tree removal associated with ongoing operation and maintenance of the transmission line.”

#### **B-3a Restoration After Construction**

On Page D.4-41, fifth paragraph, the DEIR requires that PG&E prepare and implement a Revegetation and Restoration Plan that shall define specific measures to ensure successful restoration of all affected habitats. The Plan must include required use of a mixture of custom-collected native grass species appropriate to the area. Restoration activities are required to commence immediately after completion of construction, and shall be monitored for at least five years. The Plan needs to be submitted to the CPUC for review and approval at least 60 days before completion of construction.

**Response:** PG&E prepared a preliminary Erosion Control and Revegetation Plan as part of the PEA V.II that commits PG&E to these conditions. Requiring monitoring of *at least* five years is too open ended; a five-year monitoring plan should be sufficient. Regarding the timing of seeding, although restoration of the site such as restoration of contours can be accomplished immediately after completion of construction, seeding should be done within the proper season so the seeds do not lie dormant and jeopardize revegetation success. To ensure greater germination success, it is preferable to initiate restoration prior to the correct seeding window in the fall. This measure is redundant in that B-1b requires essentially the same plan.

PG-161

PG-162

## Comment Set PG, Attachment A, cont.

BIOLOGICAL RESOURCES

**Suggested Revised Measure:** Add “Restoration activities shall commence immediately after completion of construction, and shall be monitored for five years” to Mitigation Measure B-1b, delete this measure, it is redundant.

PG-162

### **B-5a Protect Wildlife During Construction**

On Page D.4-43, fourth paragraph, the DEIR requires that vehicles do not exceed 10 mph on the entire ROW or along designated portions of access roads where special status wildlife species are known to occur. These locations shall be determined during pre-construction surveys and identified on project maps prior to the onset of construction. All other areas along dirt access roads outside the limits of known special status wildlife species habitat shall have a 15 mph speed limit, consistent with BAAQMD Control Measures for Construction Emissions of PM10 discussed in the Air Quality Section (Section D.10). Requires Crew behavior to be monitored by a qualified biologist approved by CPUC.

PG-163

**Response:** A 10 MPH speed limit is excessively restrictive and could significantly slow construction and extend the duration of construction-related disturbance along the alignment. Compliance with BAAQMD speed limit of 15 MPH should be adequate for all construction areas. The 15 MPH speed limit should not apply to public or paved roads. Monitors should be monitoring crew compliance with mitigation measures, not crew behavior which can be subjective.

**Suggested Revised Measure:** “Vehicles operating within the ROW and on non-public dirt access roads shall not exceed a 15 mph speed limit, consistent with BAAQMD Control Measures for Construction Emissions of PM10 discussed in the Air Quality Section (Section D.10). Crew compliance will be monitored periodically.”

### **B-7a Bird Electrocutation and Collision Impacts**

On Page D.4-46, first paragraph, the DEIR requires that PG&E at least 60 days prior to installation of conductors, either (a) perform a study to determine the potential for bird strikes in the areas identified below and then, depending on study results, install bird strike diverters, or (b) implement bird strike diverters as defined below.

PG-164

**Response:** There are no known bird strike problems with the existing line. Its location does not interfere with any bird flight corridors, and in many sections existing tress and ridgelines discourage birds from flying perpendicular to the line. The new line with its larger and more visible conductor should have an equal or lesser bird strike potential than the existing line. Additionally, placement of flight diverters would significantly increases the visual prominence of the transmission line and could require additional visual impacts analysis. Given the tight construction schedule for the project, it is not reasonable to expect a bird strike study which could become a lengthy, expensive undertaking, to be completed 60 days prior to construction. PG&E would likely have to install flight diverters in areas where a study would determine they were not necessary. This 230/60 kV routing follows APLIC guidelines for minimizing collision potential – it goes through wooded areas, and generally avoids ridgelines. The requirement to prove a negative on a line with no known problems is an expensive, unnecessary measure.

### **B-8a Protection for Special Status Wildlife Species**

PG-165



## Comment Set PG, Attachment A, cont.

BIOLOGICAL RESOURCES

On Page D.4-48, fourth paragraph, the DEIR requires that PG&E prepare a Special Status Wildlife Protection Plan outlining the actions required for protection of specific wildlife species provided to the CPUC for review and approval 60 days before the start of construction. The Plan shall define the specific areas in which each species is expected to occur, the results of all pre-construction surveys and seasonal surveys conducted prior to construction. For raptor species, requires a 500-foot buffer be established around active nests until a site evaluation by a qualified raptor biologist.

**Response:** Measures to protect special status species should be developed with the appropriate resource agencies (CDFG and/or FWS, depending on the species); many protective measures for special-status species have already been incorporate in the APMs, and preparation of another plan that requires restatement of information already provided is duplicative

It is not practical to require submission of the results of all preconstruction surveys 60 days prior to construction. Agencies frequently require that pre-construction surveys be done within 30 days of construction. Other surveys are timed to follow the seasonality of wildlife species and therefore will occur at different times of the year. Additionally, surveys may be ongoing in one area while construction has started in another. As stated in APM Bio-16 and Bio-17, raptor and special status bird surveys will occur each construction year, and therefore cannot be submitted prior to construction. The Plan should contain a schedule of planned surveys with a commitment to provide CPUC the results of surveys as they become available. PG&E has already identified sensitive wildlife resources near the project. in the PEA, and proposed mitigation Another "Plan" is extraneous, but especially this one, that requires restatement of information already provided. Finally, we believe that many of the specific measures proposed for individual species are not biologically sound, and my actually be harmful to the species involved. These are discussed below.

**Harvestmen.** The discussion of the Edgewood Blind and Edgewood Park Microblind Harvestman states that topsoil salvage and replacement and revegetation of removed pole sites is required in serpentine areas. This conflicts with the requirement in Mitigation Measure B-1c requiring partial tower removal (footings left in place) in serpentine grasslands where these species are believed to be found.

**Raptors.** For raptor species, a 500-foot avoidance buffer is defined, although the measure goes on to state that the buffer is variable. A 500-foot buffer for raptor species is excessive given the existing level of background disturbance in the project area (freeways, urban areas, etc.) Buffer restriction should be under the jurisdiction of the applicable resource agency to prescribe. This mitigation measure should only apply to special-status raptors listed in Table D.4-3, not all raptors as currently required.

There should be language in this mitigation measure excluding survey requirements for raptors and nesting songbirds along the 1B and other underground alternatives under roads, where these routes are completely within paved streets subject to routine traffic disturbance.

**California Red-legged frog.** Moving animals is generally not a desirable measure. Animals should be moved only if they cannot get out of the way of actual construction, a situation which is unlikely to occur on this project. While PG&E proposed moving frogs from actual construction sites to nearby areas that are probably within their home ranges, the CPUC's

PG-165

## Comment Set PG, Attachment A, cont.

BIOLOGICAL RESOURCES

PG-165

additional mitigation measure covers the entire ROW and adjacent areas, a huge swath of ground, much of which will not be affected by tower construction or stringing. Also, for most of the year, frogs will be confined to existing ponds or their banks, as described in greater detail below. Frogs have been found only on the northernmost segment of the overhead line. PG&E is proposing to schedule construction in this segment during the late summer or fall, when snakes and frogs will be confined to permanent water. PG&E believe this is a far more effective and humane mitigation than moving frogs that will not be affected by construction.

The key element of a CRLF habitat is a permanent, eutrophic pond, marsh, or creek oxbow pool. Seasonal ponds and marshes also qualify if they impound water through the CRLF August postmetamorphosis period. At such seasonal sites, adjacent uplands containing the burrow systems of large rodents or other similar moist, cool retreats must be present to support late summer aestivation. The aquatic and emergent vegetation of prime CRLF breeding ponds is composed of soft leaf species which provide good grazing surfaces for the larva. Ponds which are choked with cattail, reed, or willow are of much lower quality and often fail to support successful CRLF reproduction.

Most individual frogs within a CRLF population center their yearly activity within and immediately adjacent to the pond proper. The exception is when occasional dispersal, usually of single adults or small groups of metamorphs, occurs. This is presumably due to overcrowding at such sites. During the winter rain season, sporadic dispersal may take place overland through a variety of plant communities. During the dry season (May - October) dispersal movements are confined to moist drainage courses. Given these features of CRLF natural history, it is possible to predict when and where one might expect to encounter CRLF well outside of their breeding pond area.

Based on additional information provided by Dr. Sam McGinnis, PG&E would like to clarify a statement made in the PEA regarding quality of CRLF breeding habitat along the finger bay of San Andreas Lake. The identification of potential breeding habitat was based on an assessment made in late fall, 2002, when that finger bay had good water well up into the upper shoreline vegetation. If that condition would have remained through the February - April CRLF spawning and larval hatching period, it would have been correct to assume this area would provide good breeding habitat because the good emergent vegetative cover there would have prevented much potential egg/larval predation by fish and turtles. However, further observations by Dr. McGinnis reveals that the annual early spring lake draw-down creates a wide swath of barren shore between open water and vegetative cover, negating this area as a CRLF breeding site.

However, Dr. McGinnis believes this finger bay may very well serve as a summer-fall refuge for the CRLF which were documented in the two small ponds between towers 12/81 and 12/78. The occasional foggy, misty evenings and early mornings in this area facilitate limited amphibian overland movement, and it is likely that the CRLF which vacated these two drying ponds during our survey did indeed move to the only feasible habitat in the area, the newly flooded (late May, 2003) finger bay site.

**San Francisco garter snake.** PG&E must consult with the agencies concerning impacts to this snake. Both CDFG and FWS have biologists experienced with the garter snake. We suggest that the CPUC simply incorporate their requirements.

## Comment Set PG, Attachment A, cont.

BIOLOGICAL RESOURCES

**Please refer to additional SFGS information sent under separate cover.**

**Western pond turtle.** The turtles will be in ponds, and not affected by construction.

**Suggested Revised Measure:** revise B-8a as follows: "For any wildlife resources or protective measures not identified in the PEA, PG&E shall submit locational information and a list of protective measures to the CPUC.. This measure is not meant to duplicate material previously provided.

**Suggested Revised Measure:** Revise first sentence to read; "**Raptor Species.** PG&E shall minimize disturbance to active special status raptor nests at all locations. Pre-construction surveys shall be performed in all areas to identify potential raptor nesting sites within or near the ROW."

Revise first sentence of paragraph 3 under Raptor Species to read: "If active nests are found, a no-disturbance buffer ....."

**Suggested Revised Measure:** revise 2nd bullet page D.4-50 as follows: "PG&E shall consult with the Department of Fish and Game and the Fish and Wildlife Service, as appropriate, and follow any measures required by those agencies to protect these species."

Measure B-8b. PG&E believes that consultation with the U.S. Fish and Wildlife Service and the California Department of Fish and Game is necessary, and has initiated discussions with those agencies. In any event, waiting to initiate consultation until the project is defined and the CPUC biologist makes a determination will cause a lengthy delay to the project, given that these consultations routinely take a year or more.

**Suggested Revised Measure:** delete this measure.

### 2.3 PG&E Route Option 1B – Underground

#### B-9a Habitat Loss from Underwater Cable Installation

On Page D.4-55, seventh paragraph, the DEIR requires that PG&E perform detailed biological surveys at areas proposed to be trenched for cable access to Lower Crystal Springs Reservoir. If surveys show potential effects on sensitive species or habitats as determined by the CPUC-designated biologist, PG&E shall use directional drilling techniques to install the cable, avoiding all impacts to the shoreline.

**Response:** An underwater crossing of the reservoir may not be feasible, given the substrate of the reservoir (likely rock) and the potential for a frac-out. Bentonite has to be used for HDDs and if there is any unconsolidated rock or even bedrock there is a high likelihood of a frac-out into the reservoir. Geotechnical studies would have to be undertaken to evaluate the feasibility of a HDD. Also the ground disturbance required to operate a HDD, set up and pull-back site is quite intensive. Other environmental impacts could result from a HDD and it may not be the best solution.

### 2.4. Partial Underground Alternative

#### Environmental Impacts and Mitigation

Southern Alternative Segment – Overhead  
D.4-56, last paragraph

PG-165

PG-167

PG-166

PG-167

## Comment Set PG, Attachment A, cont.

BIOLOGICAL RESOURCES

This paragraph states that the overhead transmission line portions to this alternative would result in similar types of impacts as those described for the proposed project (Impacts B-1 through B-8), then says the impacts would be less than significant with implementation of mitigation measures. As stated above in General Comments, this is inconsistent with the Class I impact designation for the overhead portions of Proposed Project, and significantly underestimates both the value of the affected habitat and the impacts of the Partial Underground Alternative's new overhead corridors.

PG-167

### 2.5. Partial Underground Alternative

#### Environmental Impacts and Mitigation

Page D4-58, Underground Portion

PG-168

**B-1j Construction Restriction in Valuable Habitat** On Page D.4-58, fourth paragraph, the DEIR states that if the Partial Underground Alternative is approved, *"PG&E shall restrict all underground construction activities to a 40-foot wide corridor, defined and fenced by CPUC-approved biological monitor to avoid the most valuable plant habitat adjacent to the route. Adjacent areas to the west and east of the existing access road shall be fenced temporarily to prevent access and a monitor shall be present at all times within 1,000 feet of ongoing construction activity. PG&E shall restrict all construction vehicles and personnel to the defined 40-foot zone, utilizing only disturbed access roads or the disked firebreak to access the underground construction areas or for equipment or spoils storage."*

As stated in PG&E's response to CPUC data request No. 2, 40 feet is the absolute minimum width necessary for underground construction along the existing 60 kV route, and that width cannot be maintained throughout. Additionally, PG&E stated that in the vicinity of splice vaults and where engineering restraints dictate (proximity of gas lines, topography, turnarounds, etc), the corridor would need to expand to beyond 40 feet. Even with implementation of this mitigation measure, the impacts to serpentine would greatly exceed those for the proposed project, as already discussed. The conclusion that this measure can mitigate the significance of the impacts to Class II is unsupported and contradicted by statements elsewhere in the analysis, as pointed out in the general comments.

It is inappropriate to have a CPUC biological monitor define the construction corridor (essentially performing the engineering design of the cable alignment) for the underground route. There are engineering constraints such as proximity to the existing gas lines that will restrict where the underground line can be placed. It is not possible to utilize only disturbed areas for placement of the 40-foot wide corridor, or to limit disturbance to the existing road or the fire breaks. As shown in Figures 1, 2, and 3, the existing road is no more than a two-tracked road, and the firebreak can deviate from the 60 kV alignment as it does near tower 7/40.

It is unreasonable and impractical to require a biological monitor be present at all times within 1000 feet of ongoing construction activity. Once the corridor has been delineated and fenced as required by this mitigation measure, what is the purpose of having biological monitor stationed every 1000 feet? Encroachment beyond the allowed work area will likely be the majority of the monitoring effort, and does not require constant presence or presence

## Comment Set PG, Attachment A, cont.

BIOLOGICAL RESOURCES

at many locations along an alignment. Compliance can be verified on a spot-check or periodic basis.

PG-168

### 2.7 Transition Station Landscaping

Page D3-161

On Page D.3-161, the visual section of the DEIR requires that PG&E provide a landscaping plan to the CPUC for the transition station or structures of the Partial Underground Alternative at least 60 days prior to construction of the transition station. Measure V-20a states. *"The plan shall be prepared by a landscape architect. Screening vegetation of sufficient density and height shall be planted to fully screen from view the lower portions of the transition station including fences and walls within five years of completion of construction. The vegetation plan shall include simulations or drawings of the station or structures after 5 years and after 10 years."*

PG-169

It would be inappropriate to plant landscaping in areas outside the existing substations containing serpentine grassland. Landscaping capable of obscuring a transition tower or station would not blend with the existing environment and would disrupt the existing habitat.

### 2.8 Modified Existing 230 kV Underground ROW

#### D.4-62, B-11 Colma Creek Crossing -- Frac-Out Contingency Plan

PG-170

On Page D.4-62, first paragraph, the DEIR requires preparation of Frac-Out Contingency Plan for the crossing of Colma Creek tributary north of Shaw Drive to ensure appropriate preparation for possible unanticipated release of drilling fluids ("frac-out").

**Response:** This measure presents the specifications that need to be incorporated into a frac-out contingency plan. For a creek this size, it is unlikely that fluids will be used for a jack-and-bore and therefore there is no need for a frac-out contingency plan. Regarding the specifications themselves, the third bullet is unclear. For a HDD, reamers are used to gradually increase the size of the pilot hole for the eventual pullback. The statement "move bores back and forth slowly to keep track of potential frac-outs" is unclear as to why this would be beneficial. The fifth bullet, no nighttime drilling shall be allowed unless absolutely required, should be restated. 24-hour drilling will be required during the pullback of the pipe (with conduits). Since a frac-out can be detected with pressure losses and lights are used to continue allowing for visual inspection, nighttime work should not be restricted. The seventh bullet regarding turbidity monitoring is unclear as to its benefit. Since there will be no in-stream work with a bore or HDD, and visual inspection of the creek will be conducted, turbidity monitoring is not needed. If there is a frac-out it will be very obvious to the naked eye, which leads to the last bullet. Fluorescent dye is not needed to allow easier identification because bentonite is very visible without any modifications.

### 2.9 Impact Analysis

#### 1. Proposed Project

PG-171

#### Impact B-1: Temporary and Permanent Loss of Sensitive Vegetation Communities

## Comment Set PG, Attachment A, cont.

BIOLOGICAL RESOURCES

On Page D.4-32, second paragraph, the DEIR states that many mitigation measures call for additional surveys or resource identification because PG&E has not completed final engineering, so that tower sites may change. PG&E agrees that any changes in project design that affect areas that have not been included in PG&E's three years of surveys should be surveyed to ensure that sensitive resources are minimally affected. PG&E believes that areas surveyed have been adequately characterized, and additional surveys are not needed. However, where the locations of towers and other project features do not change, additional surveys are not required.

On Page D.4-32, second paragraph, the DEIR states that permanent loss involves long-term impacts associated with permanent project features (e.g. new transmission towers) that will remain throughout the life of the project. The actual footprint of the tower footings is in fact extremely small, and balanced with removal of the old towers, is insignificant. The sizes indicated here, e.g. a four-foot diameter footing, actually represents the below-ground size of the footing; only 1 to 2 foot-diameter extends above ground. The loss of acreage for the entire 100 towers and poles is in the vicinity of a net 800 square feet, or .02 acres.

On Page D.4-33, second paragraph, wrong numbers were used for dimensions of tower footings. They used the underground dimensions, not the aboveground dimensions. Mistakenly quantifies the spread-footing permanent impact foot print as 6'x6' for each of the four tower legs. This footing is buried so permanent impacts are the same as for drilled footings.

On Page D.4-33, second paragraph, the DEIR states that potential impacts to plant communities could also be caused by the movement of construction/maintenance vehicles within the transmission line ROW. Placing the new towers at about the same location as the old towers, allows maximizing the use of existing access roads, thus minimizing overland travel routes within the ROW.

On Page D.4-33, first paragraph, the DEIR states the most common type of surface disturbance is associated with rubber-tired or steel-tracked vehicles used to spring/pull the line and transport personnel and materials. Tracked equipment is rarely used for stringing activities or transporting materials and stringing is considerably lower impact than the actual tower erection. Also stringing will also be partially done with a helicopter, which will reduce impacts to tower sites almost entirely. Helicopter stringing requires only minimal activity at the towers to clip in the line. Also pull/tension sites are somewhat flexible depending on the angles and final tower alignment, so may be able to avoid siting them in sensitive areas.

### 3. Clarifications and Minor Comments

#### Impact B-5: Direct Wildlife Mortality

On Page D.4-43, first paragraph, the DEIR states that the project could result in loss of less mobile individual animals and/or ground nests resulting in adverse, but less than significant impacts (Class III). Migratory birds should be addressed separately, and the impacts addressed in terms of impacts to non-migratory or non special-status wildlife. The second paragraph goes on to state that direct mortality could occur as a result of vehicle collisions and would be considered a potentially significant (Class II) impact for which mitigation is

PG-171

PG-172