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Ms. Sandra Morey
Deputy Director
California Department of Fish and Game
1416 Ninth Street, 12th Floor
Sacramento, CA 95814

Subject: Comments on the *Staff Report on Burrowing Owl Mitigation,* State of California Natural Resource Agency Department of Fish and Game, March 7, 2012.

Dear Sandy,

Pacific Gas and Electric Company ("PG&E") has reviewed the *Staff Report on Burrowing Owl Mitigation,* State of California Natural Resource Agency Department of Fish and Game, dated March 7, 2012.

Our comments on the Staff Report are informed by our extensive experience in maintaining ROWs to access, operate, maintain and improve gas and electric transmission and distribution facilities and substations throughout our service area, some parts of which contain potential or confirmed burrowing owl habitat. We have conducted numerous biological surveys (submitted annually as part of our HCP report, and monitored burrowing owl using qualified and expert raptor ecologists on many PG&E-related activities. Moreover, PG&E has worked cooperatively with the U.S. Fish and Wildlife Service and the Department on avian protection matters. PG&E notes and firmly supports the Department enforcing the Migratory Bird Treaty Act consistent with rules and regulations adopted by the Secretary of the Interior (Fish and Wildlife Service Migratory Bird Permit Memorandum, April 15, 2003) under provisions of the Migratory Treat Act through Fish and Game Code section 3513. This is very helpful to public utilities throughout California.

PG&E supports the overall goals of the Staff Report, namely to create a comprehensive conservation and mitigation strategy for burrowing owls; however, PG&E does have a few questions and concerns regarding the drafting process and scope of the Report. First, PG&E is not aware of the document going through a public review period or a solicitation of public comments. One of the Report's key conservation goals is to engage stakeholders involved in burrowing owl protection and habitat management. Unfortunately, it appears that the Report's acknowledgements mention only a handful of consulting raptor ecologists.

Second, PG&E has some concerns regarding the applicability of the proposed buffer distances to the utility industry. Specifically, the Report's recommended buffer distances pertain exclusively to large-scale petroleum industry exploration in Canada where the owl is endangered. These buffer distances are not workable for linear activities such as the construction, operation and maintenance of existing infrastructure. We have often commented to the Department that many listed species, including the burrowing owl, actually utilize our infrastructure as nesting and refuge -- and in the case of substations, protection from predators. PG&E's obligation is to serve reliable energy to Californians throughout our service area and, like you, we look for ways to protect the resources but also to factor public safety into our strategy.

We have had great success with the 1997 Consortium Guidelines. We respectfully suggest that it makes more sense – both from a policy and a biological perspective -- for PG&E to continue to implement the buffer distances recommended in the Consortium Guidelines for both nesting and wintering occupied burrows in place of the recommendations included in the 2012 Staff Report. This suggestion is based on the need for further dialogue regarding the process for new recommendations, as well as the need to meet and confer to collaborate on defining workable buffers and "adequate" mitigation. We hope that, as with past projects, the evaluation of adequate mitigation will be a collaborative process between the Department and the project proponent. PG&E believes that our Operations and Maintenance Habitat Conservation Plan (conservation strategy) captured in our HCP efforts throughout the service area will serve to identify, select and gain approval of mitigation lands from both the Department and the U.S. Fish and Wildlife Service.

We respectfully offer the following comments and ask that the Department to take them into account for utility work.

Sincerely,

Diane Ross-Leech

Diane Ross-Leech
Director, Environmental Policy

Attach: 2

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POLICY

Normally, when recommendations are issued, stakeholders have a chance to respond. In this instance, the Staff Report is being given the weight of formal Guidance, yet neither PG&E nor other utilities were asked to provide industry review. PG&E's comments are intended to begin that public dialogue, and to raise some of the concerns and issues we feel would benefit from a more formal, public vetting.

Setback Buffers

PG&E firmly supports the concept of establishing burrowing owl work exclusion buffers to minimize risks to burrowing owls and other raptor species; however, we believe the new buffer distances recommended in the Staff Report on Burrowing Owl Mitigation (March 2012) are impractical for public utilities.

1. The suggested buffers are based on the oil and gas industry, and are not wholly relevant to the activities of the utility industry.

The Staff Report points to exclusion buffers derived from a separate industry, where work activities are considerably different from utility work practices, and therefore, are not equally applicable to anticipated disturbance from electric or gas pipeline work. The enlarged buffers are also required due to the presence of an endangered population of owls and other prairie species in Canada subject to disturbance from major oil exploration activities (Scobie and Faminow, 2000). PG&E believes that these extensive "no work" buffers (starting at 200 meters during the nesting season) are unworkable for managing site-specific burrowing owl issues related to smaller scale natural gas line repair/replacement work and/or electrical upgrade, repair, and installation work.

The studies relied upon by Staff reference impacts to burrowing owls at airports and oil and gas development projects, including shallow gas fracturing operations, traditional drill rig operations, and typical coil rig operations on grasslands.[1]There may be other more appropriate sources (published and unpublished data) on which to base buffer distances and generalized protection measures for burrowing owls.

In California, burrowing owls now occupy areas with human encroachment and in degraded native habitats. In urban areas, they are often found nesting within landfills, golf courses, airports and vacant lots within highly developed areas (Haug et al. 1993, Trulio 1997). PG&E often encounters burrowing

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[1] The heavy reliance on the oil and gas industry is highlighted in the background data (Holroyd et al. 2001); for example:

"In 2000, Environment Canada contracted Avocet Environmental Inc., which produced a working document entitled Development of Standardized Guidelines for Petroleum Industry Activities that Affect COSEWIC (Committee on the Status of Endangered Wildlife in Canada) Prairie and Northern region Vertebrate Species at Risk (COSEWIC Guidelines) (Scobie and Faminow 2000). The information for the COSEWIC Guidelines was based on broad consultation, the best available knowledge and existing local management. It reflected the varying degrees of impact that activities associated with the petroleum industry may have on the COSEWIC species.

Avocet Environmental Inc. was again contracted in 2006 to provide Environmental Canada with an update to the COSEWIC Guidelines, but this time with a focus on Prairie and Northern Region Vertebrate Species Listed under the Species at Risk Act in Alberta, Saskatchewan and Manitoba. (Environment Canada. 2009)."

owls in highly disturbed areas, within utility right of ways, along railroad tracks, in vacant fields or along shopping center margins, and within electrical substations.

2. The activities discussed in the studies relied upon by Staff present much different scenarios and risks than the utility industry.

The nature, type of work, and amounts of disturbance anticipated with PG&E gas and electric transmission/distribution are very different from petroleum-based and other unrelated industry-associated work. Typically PG&E crews work a few hours to a few days when performing operations and maintenance at existing infrastructure. The work is generally small in size and work locations geographically dispersed. Construction jobs or green field work would involve surveys and a mitigation plan so that if burrowing owl were present work periods could be adjusted and biological monitors would be on-site. As proof of success, PG&E has effectively implemented the no disturbance buffers recommended by the California Burrowing Owl Consortium (1997) for wintering and for nesting owls and has noted that these buffers have been effective at minimizing and avoiding impacts to burrowing owls. In fact, in some situations PG&E has worked with the Department and burrowing owl experts to establish workable plans in close proximity when necessary (see attached list) with favorable monitoring results.

3. The Staff Report does not take into account the need for flexibility or the uniqueness of site conditions.

It is well established that there is generally a direct relationship between the remoteness or isolation of a setting and burrowing owl sensitivity and an inverse relationship with habituation (Beebe 1974; Newton 1979). Raptors sensitive to human activity can be influenced by the degree of exposure to such activities. Moreover, it is clear that site conditions may allow for work to take place within 500 meters. However **the Staff Report states that if it is decided to allow activities closer than the setback distances recommended, a broad scale, long term, scientifically-rigorous monitoring program ensures that burrowing owls are not detrimentally affected by alternative approaches (CDFG BUOW Staff Report 2012).** PG&E does not believe that a broad-scale, long-term monitoring program is appropriate to implement and fund for each occurrence of burrowing owls monitored during utility construction. Monitoring costs can be approximated at $1500 per day for a single monitoring biologist, so if multiple pairs are present in multiple areas, and the project is of a longer duration, project-specific costs relating to burrowing owls can exceed $50,000 in as short as a two- week period. From a conservation perspective, funding survey and monitoring efforts should be weighed in proportion to other conservation priorities.

As you know, there are a variety of small and broad-scale approaches that can be used to gather the best available data, in light of the specific industry and practices. PG&E is currently working diligently with other utilities to identify key issues, and to provide relevant data on appropriate seasonal buffers in relation to disturbance levels and nest success. PG&E also relies on recommendations by qualified raptor biologists to formulate and implement site-specific plans addressing burrowing owl protection during planned construction activities. PG&E believes there needs to be more collaboration between the Department and gas and electric utilities to fully understand the scope of work and to develop recommendations together.

PG&E's Habitat Conservation Plan (HCP)

PG&E's agency-approved San Joaquin Valley O&M HCP (2007) has adopted the standard Burrowing Owl Consortium guideline buffers (50 meters in fall/winter and 75 meters in spring/summer) in order to minimize impacts to burrowing owls during covered HCP activities. Specifically, burrowing owl AMM 18 states:

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

PG&E has had no take of burrowing owl using these guidelines.

PROCEDURE

The Staff Report suffers from a lack of collaboration with the utilities and insight into the types of utility activities in burrowing owl habitat.

PG&E has successfully managed burrowing owl occupancy in and adjacent to substations since 2007 using the 1997 California Burrowing Owl Consortium avoidance measures. In 2006, PG&E initiated a company-wide effort to survey or review nearly 400 substations for breeding burrowing owls. Substations located outside of the burrowing owl range were excluded from this survey. The survey concluded in 2007 with a report documenting the presence or absence of burrowing owls nesting within and outside each substation. Our findings illustrated that PG&E successfully operates substations with burrowing owls present:

- Multiple nesting pairs have been identified within graveled substation yards, as well as directly adjacent to substations located in suitable burrowing owl habitat.
- In 2012, three pairs of burrowing owls successfully nested in grassland habitats adjacent to the Contra Costa Substation; nesting occurred within an owl colony along a railroad berm. Seventeen owlets have been detected in 2012, with fledging of sixteen juvenile owls.

We also continue to add substations to our list as burrowing owls are noted to occur.

Our Substation Plan, developed and then adopted into the San Joaquin Valley O&M HCP and vetted through the EIR process and a Biological Opinion, also includes site-specific avoidance and protection measures for each substation where burrowing owls occupy either the grounds or surrounding habitat that we maintain. The purpose of the Substation Plan is to prescribe avoidance and protection measures developed by our qualified raptor biologists that ensure that O&M and new construction activities within the substation perimeter fencing do not result in the direct mortality/destruction of burrowing owls, their nest burrows, or young. Specific measures include:

- Owls at substations are monitored annually for nesting activity. Burrowing owls occurring at substations are often habituated to low level substation maintenance activities (typically regularly occurring periodic maintenance tasks).
- Signs are posted within the substation to alert the employees to the presence of burrowing owls. The sign directs employees to contact the company's Avian Protection Plan Program Manager prior to any ground disturbing activities or if they need additional information.

Our survey efforts have also shown that low-level maintenance activities can be compatible with burrowing owls occupation at operating substations. In fact, there are some advantages to burrowing owls that take up residence at substations that may differ from other occupied areas such as (1) the presence of night lighting may attract insect prey to well-lit "feeding stations"; (2) periodic low-levels of human disturbance from substation maintenance activities have some potential to deter ground-based predators; and/or (3) aerial equipment may interfere with the flight patterns of large predatory birds of prey. In general, PG&E recognizes and has data to support multiple occurrences of burrowing owls occupying and persisting at substations in accordance with PG&E's current burrowing owl substation management strategy.

PG&E is concerned about a perceived lack of flexibility, as well as a perceived lack of consistency in implementation.

To date, it appears that in practice, there may not be much flexibility once burrowing owls are detected within 500 meters of maintenance, repair, installation or upgrade projects. PG&E needs to retain the flexibility to evaluate each burrowing owl conflict in close coordination with the specific type of work activities planned, so that site-specific plans addressing the best scenario for each situation can be formulated and implemented. Seasonal work timeframes, the duration of the planned activity, the type of activity, together with owl status and owl burrow usage patterns, are used to determine the most appropriate scenario to avoid and minimize impacts. For each owl or colony detected in areas with planned work activities, PG&E's general approach is to develop site-specific plans that will avoid direct impacts and minimize indirect effects.

PG&E is also concerned that the new guidelines may be interpreted differently by the individual CDFG regions as well as by staff biologists. Consistency in application is necessary across Department regions.

PG&E recommends that the Department and other gas and electric utilities in California meet to determine a utility-based approach to the protection and management of owls .

The definition of "Level of Disturbance" is unclear in that low, medium, and high disturbance categories are not clearly defined in the 2012 Staff Report.

Utility practices can vary greatly depending on the project. Disturbance can range from driving along an access road adjacent to burrowing owl habitat, to removing tower footings with specialized equipment. PG&E considers specific factors related to each construction situation, including work schedule, anticipated noise levels, equipment usage, excavation needs, work duration, work timing, among others, in order to evaluate disturbance potential. Interpretation of disturbance category and setback distance based on the information provided in the Staff Report is subjective and has potential to be inconsistent during practical application.

BIOLOGY

Survey & Monitoring Instructions Are Not Wholly Applicable to Linear Projects.

Burrowing owl surveys are necessary to evaluate if projects may result in impacts to resident or wintering burrowing owls. The 2012 CDFG Staff Report states that surveys should "*be conducted whenever burrowing owl habitat or sign (see Appendix B) is encountered on or adjacent to (within 150 meters) a project site (Thomsen 1971, Martin 1973)*." **The survey distance defined in the Staff Report is inconsistent with the recommended setback distance (ranging from 50 m in the non-breeding season to 500 m in the breeding season).** The required avoidance buffers suggest that burrowing owl surveys would need to be conducted up to 500 m, in the breeding season, out from planned project work areas to prevent work from occurring closer than the maximum setback distance, when applicable. In order to determine if owls are present within 500 meters of a linear project, surveys would need to be conducted for 1000m (1 km), or 500 m from center line on either side. It appears the recommendations are based on large scale projects occurring at point locations and do not consider linear projects.

Wintering Owls

PG&E is concerned about potential impacts to burrowing owls during the non-breeding season (defined as September 1st through January 31st) under the updated 2012 Staff Report. PG&E has encountered burrowing owls on many projects during winter months, and has been following the 1995/1997 Consortium Guidelines to define a 160 ft no disturbance buffer as feasible to prevent impacts to wintering owls. In addition, PG&E has not found that burrowing owls are more difficult to detect in winter (as stated on page 6 of the 2012 guidelines), and has frequently detected, monitored, and applied appropriate minimization measures to wintering owl populations that are present along gas line and electric right-of-ways in the vicinity of active projects.

Non-Breeding Surveys

PG&E disagrees with the statement "on *rare occasions*, non-breeding surveys may be warranted" for the following reasons:

1. Work that PG&E conducts in winter is the same type of work that is conducted at other times of the year, and can involve significant earth moving activities that could impact owls directly in underground burrows, if owls are present at the site between September and January;
2. PG&E has projects where the only owls detected have been wintering populations, with surveys during the breeding season not detecting resident populations, indicating that detection, survey, and protection measures are being applied to migratory owl populations utilizing winter range habitats.
3. PG&E has recorded burrowing owls utilizing PG&E property in winter from as far north as Canada (a banded owl that was part of a Canadian reintroduction effort), indicating that some portion of the wintering owls detected may be returning to wintering ranges in California not only from local migratory areas, but in some instances, from areas outside of California, where burrowing owls may possess a different status (endangered and/or threatened).

To prevent impacts to burrowing owls that may be occupying project areas in fall and winter, PG&E's policy is to assess habitats and survey for burrowing owls in areas that are suitable, and based on the type of projects and impacts that are anticipated, often conducts surveys for burrowing owls in winter to avoid impacting occupied burrows. PG&E is concerned that the statement indicating that wintering surveys are *only warranted on rare occasions* is misleading, and that it is necessary for PG&E (and other

utilities that may plan ground disturbing activities in winter burrowing owl habitat) to include wintering burrowing owl surveys in project planning efforts, depending on the type of construction activity planned, the type of habitat present, and to some extent, if there are records of owls in the general vicinity.

There is a Conflict Between Survey Recommendations and Setback Distances in the Staff Report.

The larger setbacks recommended in the Staff Report will result in a dramatic increase in the distances that PG&E will need to survey. Clarification is needed to address the conflict between survey recommendations of 150 m and setback distances ranging from 50 m to 500 m. In many situations, surveys extending beyond recommended setback distances can be considered unnecessary, as they may not result in any planned conservation measures during the construction phase of work (such as site-specific monitoring). PG&E is concerned that the restricted activity date and setback distance table (Scobie and Faminow 2000) will be implemented across the board for most projects, and that these setback distances (655 ft to 1640 ft) will significantly exceed site-specific recommendations by experienced raptor biologists to avoid disturbance to burrowing owls.

COSTS

The 2012 Staff Report may triple and/or substantially increase costs associated with detecting, surveying, and monitoring for burrowing owls.

The total effort and expense involved in surveying and monitoring for burrowing owls on projects is anticipated to substantially increase. As drafted, the Staff Report suggests that PG&E and other utilities will have to contact the Department of Fish and Game when work takes place within 500 meters -- even if that work is considered to have no potential for impacts to burrowing owls based on the qualified biologist's assessment and past experience with burrowing owl on similar projects and monitoring outcomes. This may have additional resource implications for the Department of Fish and Game. Even with additional streamlining, staffing resources at the Department of Fish and Game are dwindling and their ability to support the requirements of the Staff Report remains a serious concern. Similarly, PG&E anticipates additional funding and schedule impacts for gas and electric activities and projects under the 2012 Staff Report buffers.

PG&E is concerned about the additional time and cost commitments, as well as whether the additional increase in spending contributes to the overall conservation goals for burrowing owls across California. PG&E feels that the substantially increased effort and expense involved in assessing and monitoring burrowing owls under the 2012 Staff Report could be better utilized and targeted towards recovery goals pertaining to specific declining populations of owls. To address this issue. PG&E suggests that an understanding be reached as to who is a qualified biologist, and that PG&E be allowed to submit information from one of its qualified biologists in assessing any potential impacts.

For linear and other types of projects, the survey requirements and setback distances result in substantial effort and expense. To put this into perspective, to adequately survey a linear project out to 500m (1640 feet) on either side of a line (total of 1000 m),a team of two biologists (at $3,000 for time and expenses per day) might be able to effectively survey from 1-2 miles of linear project per day. Using a 10 mile linear project as an example, it is estimated that it could cost a minimum of $30,000 to conduct a single survey of the linear area extending out to 1,000 m (or 3,280 ft). At a maximum of four visits per season (8 visits total for breeding/winter season surveys), this could result in a survey expense

of $240,000 which does not include any follow-up such as ongoing construction monitoring of individual burrowing owl sites that may be needed along the length of construction for any owls detected during surveys.

PG&E recommends that monitoring needs are determined based on site-specific plans that are drafted for each project and coordinated with the Department. PG&E relies on qualified raptor ecologists to assess each situation, draft appropriate minimization measures, and determine monitoring needs over the length of the actual job.

MITIGATION

The discussion of mitigation contained in the 2012 Staff Report would benefit from more detail as there is no clear mitigation ratio or amount of mitigation identified for the "take" of burrows or a direct mortality. PG&E suggests that more needs to be taken into consideration such as the availability of suitable habitat nearby, the presence of burrows and foraging habitat. Project proponents need assurances that the cost will be affordable. The default position for PG&E is to rely on the conservation strategy laid out in our Operations and Maintenance Habitat Conservation Plans where a specific ratio is defined for permanent and temporary impacts, suitable mitigation lands are identified, selected, and agency approved. The manner in which the Staff Reports lays out the determination of "how much" is needed could be a concern when working across individual Department regions leading to inconsistencies. PG&E believes that the process needs to be transparent for this species of special concern.

Additionally, in instances where PG&E is complying with state regulations and safety concerns to address infrastructure upgrades on compressed schedules, it may be difficult to adhere to #7 (page 12) which states, "Habitat should not be altered or destroyed, and burrowing owls should not be excluded from burrows, until mitigation lands have been legally secured, are managed for the benefit of burrowing owls according to Department-approved management, monitoring and reporting plans, and the endowment or other long-term funding mechanism is in place or security is provided until these measures are completed." Mitigation transactions take time to arrange, secure, and implement, and for certain projects, it may not be feasible for PG&E to arrange all mitigation prior to impacting burrowing owl habitat. PG&E also feels it would be beneficial if the Staff Report specifically referenced more details on the current availability of burrowing owl credits across different regions of California. PG&E is supportive of #13 (page 13) which proposes the establishment of a *Burrowing Owl Mitigation and Conservation Fund* that funds acquisition and permanent habitat conservation for burrowing owls.

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PARTIAL LIST -- EXAMPLE PG&E ACTIVITIES WHERE PROPOSED PG&E PROPOSED OWL CONSERVATION MEASURES HAVE BEEN SUCCESSFULLY IMPLEMENTED

PG&E Line 57A, (no location provided). Monitoring concluded on July 13, 2012. Jeff Davis was the qualified biologist working with CDFG.
O&M occurred within 10 feet of this active nest. In cooperation with the Department of Fish and Game, a site-specific avoidance plan was developed allowing the project to proceed. The owl laid eggs the following day with no further disturbance. Monitoring indicated juveniles fledged.

PG&E Hydrostatic Test (T-049-12) near Redacted **, Kern County, April 2012. (Using the San Joaquin Valley O&M HCP)**
Access to worksite was immediately adjacent to burrows. The 250 ft buffer could not be maintained and AMM 18 allows for a site-specific plan by a qualified biologist. The plan was implemented with a biological monitor. No detectable effects to the owls.

PG&E Gasline 300A MP 276 Replacement in Redacted **May 2004. Jack Barclay was the raptor ecologist working with CDFG.**
A site-specific avoidance plan was successfully implemented to enable pipeline construction within 35 feet of an active owl nest burrow.

PG&E Gasline 300A Validation Digs near Hollister, San Benito County, June 2003. Jack Barclay was the raptor ecologist working with CDFG.
Site-specific recommendations facilitated PG&E access to the pipeline through an area containing numerous burrows including one probable nest burrow.

PG&E Nortech-Kiefer and Northeast San Jose Transmission Reinforcement projects, San Jose, Santa Clara County, 2002-2003. Jack Barclay was the raptor ecologist working with CDFG.
Site-specific mitigation/avoidance recommendations facilitated transmission line construction in three different areas containing occupied burrowing owl burrows. Coordination with the Department of Fish and Game occurred.

PG&E Los Esteros Substation Construction, San Jose, Santa Clara County, 2000. Jack Barclay was the raptor ecologist working with CDFG.
Site-specific avoidance recommendations for an occupied burrow in September facilitated site preparation (existing building demolition) and initial construction.

PG&E San Ramon Vineyard 21kV Reconductoring at Camp Parks, Alameda County, 2000. Jack Barclay was the raptor ecologist working with CDFG.
Site-specific recommendations facilitated PG&E to proceed with part of its reconductoring project through an area containing burrowing owl nest burrows. Coordination with the Department of Fish and Game occurred.

PGT/PG&E Pipeline Expansion Project near Williams, Colusa County. 1992-1993. Jack Barclay was the raptor ecologist working with CDFG.

Site-specific mitigation measures including passive relocation, closing natural burrows and installing artificial burrows were implemented to facilitate pipeline construction through a burrowing owl nesting colony. Coordination with the Department of Fish and Game occurred.