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June 10, 2011

Mr. Iain Fisher
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102

**Subject: Lockhart Substation Project, Mitigated Negative Declaration,
State Clearinghouse Number (SCH#) 2011051041**

Dear Mr. Fisher:

The Department of Fish and Game (Department) has reviewed the Mitigated Negative Declaration (MND) for the above-referenced project prepared by the California Public Utilities Commission (CPUC). The proposed project is for the construction and operation of the Special Protection System (SPS) upgrades required to distribute solar power generated by the 250-megawatt (MW) Abengoa Mojave Solar Project to the electric grid. The proposed SPS facilities are approximately 85 miles long and include a new substation (Lockhart Substation), interconnection to the adjacent transmission lines, distribution system to provide substation light and power, and fiber-optic telecommunications links to various substations in the region. The project is along sections of State Highways 15, 18, 40, 58, and 395, portions of the fiber-optic routes pass through the cities of Adelanto, Victorville and Barstow and cross Bureau of Land Management (BLM)-administered lands in an unincorporated portion of San Bernardino County.

The Department is providing comments on the MND as the State agency which has the statutory and common law responsibilities with regard to fish and wildlife resources and habitats. California's fish and wildlife resources, including their habitats, are held in trust for the people of the State by the Department (Fish and Game Code §711.7). The Department has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and the habitats necessary for biologically sustainable populations of those species (Fish and Game Code §1802). The Department's Fish and wildlife management functions are implemented through its administration and enforcement of Fish and Game Code (Fish and Game Code §702). The Department is a trustee agency for fish and wildlife under the California Environmental Quality Act (see CEQA Guidelines, 14 Cal. Code Regs. §15386(a)). The Department is providing these comments in furtherance of these statutory responsibilities, as well as its common law role as trustee for the public's fish and wildlife.

The project is in the range of the desert tortoise (*Gopherus agassizii*), which is listed as threatened pursuant to both the federal Endangered Species Act (ESA) and the California Endangered Species Act (CESA; Division 3, Chapter 1.5 of the Fish and Game Code). It also is in the range of the Mohave ground squirrel (*Spermophilus mohavensis*) and Swainson's hawk (*Buteo swainsoni*), listed as threatened under CESA and the southwestern willow flycatcher (*Empidonax traillii*), listed as endangered under both ESA and CESA. Finally, the project occurs in the range of the burrowing owl (*Athene cunicularia*), which is a species of special concern and protected under Fish and Game Code §3503.5.

The Department offers the following comments and recommendations:

General and species-specific

1. The MND refers to the Department of Energy (DOE) Environmental Assessment (EA). The Department notes that the DEO EA incorporated by reference in the MND is in draft form and therefore subject to change, so it can not be assumed as stated on page B-6 of the MND that the DEO EA agency-implemented measures will be implemented as part of the Lockhart Substation Project.
2. The MND uses the term "clearance survey" for activities associated with the desert tortoise and Mohave ground squirrel. The term appears to imply that tortoises and Mohave ground squirrels will be moved if found on site. Capturing and movement of individuals of these listed species without an Incidental Take Permit issued by the Department would entail unauthorized "take", which is prohibited under CESA. Before moving these species, consultation with the Department pursuant to Fish and Code §2081(b) would be warranted.
3. Desert tortoise (Page 3.4-14 and 15) - The MND states that 429 acres of habitat would be adversely affected, due to varying quality of this habitat, the DOE determined that 118 acres of compensation lands would be required. It is not clear what criteria were used to determine the quality of habitat. Since presence is assumed as stated on page 3.4-14 of the MND, then all habitat is suitable and considered occupied. In addition it is not clear if the estimated 0.001-acre direct, permanent project impact to designated critical habitat includes the installation of 30 poles as well as the potential access and spur roads, crane pads, drainage improvements, and grading. It is also not clear what on what basis (e.g. mitigation ratio) the required acres of compensation lands was determined.
4. Mohave ground squirrel (Page 3.4-18) - The MND states that 430 acres of low-quality habitat would be adversely affected. It is not clear what habitat assessment was used to classify the quality of habitat and how mitigation

was determined for each habitat classification. In addition since presence is assumed as stated on page 3.4-17 of the MND, then all habitat within the project is suitable and should be considered occupied.

5. Burrowing owl (Page 3.4-19) – The MND states a preconstruction survey may be required by project-specific mitigations no more than 30 days prior to ground disturbing activity. If during the preconstruction survey burrowing owls are observed, mitigation measures for the burrowing owl would be appropriate. As compensation for the direct loss of burrowing owl nesting and foraging habitat, the Department recommends the MND includes a requirement that the project proponent shall mitigate by acquiring and permanently protecting known burrowing owl nesting and foraging habitat at the following ratio:
 - a) Replacement of occupied habitat with occupied habitat at 1.5 times 6.5 acres per pair or single bird;
 - b) Replacement of occupied habitat with habitat contiguous with occupied habitat at 2 times 6.5 acres per pair or single bird; and/or
 - c) Replacement of occupied habitat with suitable unoccupied habitat at 3 times 6.5 acres per pair or single bird.

Further, the Department recommends the MND require the project proponent establish a non-wasting endowment account for the long-term management of the acquired burrowing owl habitat for the benefit of burrowing owls. The Department suggests the CPUC through the MND require DFG's concurrence on the project proponent's selected burrowing owl mitigation lands before the land is acquired, as well as on a long-term plan prepared by the proponent for managing the lands and its endowment.

The Department recommends the MND require that all owls associated with occupied burrows that will be directly impacted (temporarily or permanently) by the project shall be relocated and the following measures shall be implemented to avoid direct take through injury or mortality during project operations:

- a) Occupied burrows shall not be disturbed during the nesting season of February 1 through August 31, unless a qualified biologist can verify through non-invasive methods that either the owls have not begun egg laying and incubation or that juveniles from the occupied burrows are foraging independently and are capable of independent flight.
- b) Owls must be relocated by a qualified biologist from any occupied burrows that will be impacted by project activities. Suitable habitat

must be available adjacent to or near the disturbance site or artificial burrows will need to be provided nearby. Once the biologist has confirmed that the owls have left the burrow, burrows should be excavated using hand tools and refilled to prevent reoccupation.

- c) All relocation shall be approved in advance by the Department. The permitted biologist shall monitor the relocated owls a minimum of three days per week for a minimum of three weeks. A report summarizing the results of the relocation and monitoring shall be submitted to CPUC and the Department within 30 days following completion of the relocation and monitoring of the owls.

The Department recommends CPUC requires the project proponent prepare a Burrowing Owl Mitigation and Monitoring Plan and submit to the CPUC and the Department for review and approval prior to relocation of owls. The Department recommends the Burrowing Owl Mitigation and Monitoring Plan describe proposed relocation and monitoring plans, and include the number and location of occupied burrow sites and details on adjacent or nearby suitable habitat available to owls for relocation. In addition, if no suitable habitat is available near the project for relocation, the Department recommends the project proponent's Plan include details regarding the creation of artificial burrows (numbers, location, and type of burrows). The Plan should also describe proposed off-site areas to preserve to compensate for impacts to burrowing owls/occupied burrows at the project site.

Spread of Noxious Weeds

The spread of noxious weeds is a major threat to biological resources in the Mojave Desert, particularly where disturbance has occurred and is ongoing. The subject project appears to present the potential to introduce and increase the presence of noxious weeds in the project area and beyond, which can lead to a significant impact to native flora and fauna in the project area.

Noxious weeds are species of non-native plants included on the weed list of the California Department of Food and Agriculture (CDFA 2009), the California Invasive Plant Council (Cal-IPC 2006), or those weeds of special concern identified by BLM. Noxious weeds species that occur on the project site include Russian thistle (*Salsola tragus*), herb Sophia (*Descurania sophia*), Saharan mustard, London rocket (*Sisymbrium irio*), tamarisk, slender wild-oat (*Avena barbata*), red brome (*Bromus madritensis* ssp. *rubens*), cheat grass (*Bromus tectorum*), and hare barley (*Hordeum murinum*).

Non-native weeds frequently outcompete native plants resulting in several synergistic indirect effects: increased fire frequency by providing sufficient fuel to carry fires, especially in the inter-shrub spaces that are mostly devoid of native vegetation (Brown and Minnich 1986¹; Brooks and Esque 2002²) as well as decreased quality and quantity of plant foods available to desert tortoises and other herbivores and thereby affecting their nutritional intake. Construction activities and soil disturbance under the proposed project could aid the transport and dispersal of invasive weed propagules, thereby potentially introducing new species of noxious weeds exacerbating invasions already present in the project vicinity. There are several species of noxious weeds within the proposed project area and within its immediate vicinity including Saharan mustard and split grass, two of several species that are rapidly spreading and invading the Mohave Desert.

6. The Department recommends CPUC requires the project proponent to ensure construction vehicles are inspected and washed, the project area is monitored for any weed invasions and any of these that are found be effectively eradicated, and temporarily disturbed areas be quickly revegetated.
7. To help ensure the project avoids causing the spread of noxious weeds, the following Best Management Practices are recommended during construction and operation to prevent the spread and propagation of noxious weeds:
 - a. Limit the size of any vegetation and/or ground disturbance to the absolute minimum and limit ingress and egress to defined routes;
 - b. Reestablish vegetation quickly on disturbed sites temporarily disturbed areas.
 - c. Prevent spread of non-native plants via vehicular sources by implementing methods of vehicle cleaning for vehicles coming and going from construction sites. Earth-moving equipment and construction vehicles shall be cleaned within an approved area or commercial facility prior to transport to the construction site. The number of cleaning stations shall be limited and weed control/herbicide application shall be used at the cleaning station(s);
 - d. Use only weed-free straw, hay bales, and seed for erosion control and sediment barrier installations;

¹ Brown D.E., and R.A. Minnich. 1986. Fire changes in creosote bush scrub of the Western Sonoran Desert, California. *American Midland Naturalist* 116:411-422.

² Brooks, M.L., and T.C. Esque. 2002. Alien annual plants and wildfire in desert tortoise habitat: status, ecological effects, and management. *Chelonian conservation and Biology* 4:330-340.

- e. Invasive non-native species shall not be used in landscaping plans and erosion control; and
- f. Monitor and rapidly implement control measures to ensure early detection and eradication of weed invasions.

Vegetation, wetlands and streams

- 8. The Department recommends CPUC include a detailed vegetation map, preferably overlaid on an aerial photograph. The map should be of sufficient resolution to depict the locations of the project site's major vegetation communities. The vegetation classification used to name the polygons should be described.
- 9. As trustee agency for fish and wildlife resources, the Department has responsibility to help ensure the protection and enhancement of conserve wetland and riparian habitats. It is the policy of the Fish and Game Commission (Commission) to strongly discourage development in wetlands or conversion of wetlands to uplands. In addition, the Commission and the Department in implementing the Commission's policies opposes development or conversion which would result in a reduction of wetland acreage or wetland habitat values, unless, at a minimum, project mitigation assures there will be "no net loss" of either wetland habitat values or acreage. As such, the Department recommends the CPUC ensures the MND demonstrate that the project will not result in a net loss of wetland habitat values or acreage.

Toward this end, the Department recommends that CPUC requires the project proponent provide a jurisdictional delineation of lakes, streams, associated riparian habitats and other wetland features potentially affected by the project for agency and public review. This report should include a jurisdictional delineation that includes wetlands identification pursuant to the U. S. Fish and Wildlife Service wetland definition³ as adopted by the Commission and the Department⁴. Please note that some wetland and riparian habitats subject to the Department's authority may extend beyond the jurisdictional limits of the U.S. Army Corps of Engineers. The jurisdictional delineation should also include mapping of ephemeral, intermittent, and perennial stream courses potentially impacted by

³ Cowardin, Lewis M., et al. 1979. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Department of the Interior, Fish and Wildlife Service.

⁴ California Fish and Game Commission Policies: Wetlands Resources Policy; Wetland Definition, Mitigation Strategies, and Habitat Value Assessment Strategy; Amended 1994

the project. In addition to federally protected wetlands, the Department considers impacts to wetlands (as defined by the Commission) potentially significant.

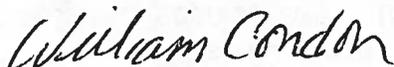
10. The project proponent must notify the Department as the project may require a Lake or Streambed Alteration Agreement, pursuant to Fish and Game Code §§1600 *et seq.*, Notification by the project proponent would be warranted prior to commencement of any activity that would substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank (which may include associated riparian resources) of a river, stream or lake, or use material from a streambed. The Department's issuance of a Lake or Streambed Alteration Agreement for a project that is subject to CEQA will require CEQA compliance actions by the Department as a responsible agency. The Department as a responsible agency under CEQA may consider the local jurisdiction's (lead agency) Negative Declaration or Environmental Impact Report for the project. To minimize additional requirements by the Department pursuant to Fish and Game Code §§1600 *et seq.* and/or CEQA, the document should fully identify the potential impacts to the lake, stream or riparian resources and provide adequate avoidance, mitigation, monitoring and reporting commitments for issuance of the agreement.
11. To help CPUC ensure the proposed project avoids significant impacts (including take) to breeding birds, the Department recommends its activities (including disturbances to native and non-native vegetation and man-made nesting substrates) occur outside of the bird breeding season, which generally runs from March 1-September 15 (as early as February 1 for raptors). Take includes disturbances which would cause abandonment of active nests containing eggs and/or young.

If the project activities cannot feasibly avoid the bird breeding season, the Department recommends that beginning thirty days prior to the disturbance of suitable nesting habitat, the project proponent arranges for weekly bird surveys to detect any protected native birds in the habitat to be removed and any other such habitat within 300 feet of the construction work area (within 500 feet for raptors). The surveys should be conducted by a qualified biologist with experience in conducting breeding bird surveys. The surveys should continue on a weekly basis with the last survey being conducted no more than three days prior to the initiation of clearance/construction work. If a protected native bird is found, the project proponent should delay all clearance/construction disturbance activities in suitable nesting habitat within which the native bird is found, or within 300 feet of

nesting habitat (within 500 feet for raptor nesting habitat) until Sept. 15 or continue the surveys in order to locate any nests. If an active nest is located, clearing and construction within 300 feet of the nest (within 500 feet for raptor nests) shall be postponed until the nest is vacated and juveniles have fledged and when there is no evidence of a second attempt at nesting. Limits of construction to avoid a nest should be established in the field with flagging and stakes or construction fencing. Construction personnel should be instructed on the sensitivity of the area. The project proponent should record the results of the recommended protective measures described above to document compliance with applicable State and Federal laws pertaining to the protection of native birds.

In conclusion, the Department believes the MND and information presented in its attachments does not support a finding that any potentially significant impacts would be mitigated to less than significant levels or that no potentially significant impact would occur as a result of the project. The Department recommends the CPUC revise the MND to include an adequate discussion of biological resources potentially affected by the project, an analysis of potential impacts to these biological resources, and adequate mitigation measure to offset any identified impacts. The Department's anticipates its comments and recommendations presented above should help CPUC meet these objectives. Questions regarding this letter and further coordination on these issues should be directed to Ms. Wendy Campbell, Environmental Scientist, at (760) 872-1128.

Sincerely,



Bruce Kinney
Environmental Program Manager

cc: Tonya Moore
Wendy Campbell
State Clearinghouse
Chron