United States Department of the Interior

FISH AND WILDLIFE SERVICE
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Memorandum

To: Project Manager, Solar Millennium Ridgecrest Solar Power Project, California Desert District, Bureau of Land Management, Moreno Valley, California

From: Field Supervisor, Ventura Fish and Wildlife Office, Ventura, California

Subject: Public Scoping for the Proposed Solar Millennium Ridgecrest, Solar Power Project, Kern County, California

We request that the Bureau of Land Management (BLM) consider the following comments related to potential effects to the U.S. Fish and Wildlife Service's (Service) trust resources during development of the draft environmental impact statement for the proposed Solar Millennium Ridgecrest Solar Power Project.

Solar Millennium, LLC, has applied for a right-of-way (ROW) authorization with the BLM totaling 3,290 acres to construct and operate a parabolic trough, solar thermal, generating facility with a capacity of 250 megawatts. The project would connect to the existing Southern California Edison 230-kilovolt (kV) Inyokern/Kramer Junction transmission line. Approximately 1 mile of the 230 kV transmission line and approximately 1 mile of a 115 kV line would be realigned to avoid the project area. The proposed ROW would contain two solar fields, a power block, construction areas, a dry-cooling tower, steel transmission towers with associated transmission lines, access roads, three covered water tanks, an underground water pipeline, a water treatment facility, an electrical switchyard, a land treatment unit, an office, a warehouse, a parking lot, and facility perimeter fencing. Proposed project facilities would occupy 1,440 acres of the 3,920-acre site; the amount of total disturbance area would be approximately 1,760 acres. The project would be located approximately 5 miles southwest of the city of Ridgecrest.

We have been working closely with the California Energy Commission (CEC) and BLM on this project. Issues at the forefront of our discussions include the consideration of an alternative site and the potential impacts to the federally and State-listed desert tortoise (*Gopherus agassizii*), the State-listed Mohave ground squirrel (*Spermophilus mohavensis*), and the western burrowing owl (*Athene cunicularia*), which is considered a national bird of conservation concern by the Service and a species of concern by the State of California.

Because the proposed project site contains numerous desert tortoises and western burrowing owls, is in a BLM-designated conservation area for the Mohave ground squirrel, and lies within

an important habitat connectivity corridor, we have recommended an alternative site for this project near Koehn Lake that would have few biological resource impacts. The CEC will analyze this alternative site in its staff assessment; we recommend that the BLM also evaluate the Koehn Lake location. Analysis of alternative sites would allow the BLM to identify sites that are more appropriate for utility-scale energy development. Identification of alternative sites with fewer biological resource conflicts could facilitate the permitting process for projects.

In 2007, line distance sampling transects were performed by the Desert Tortoise Recovery Office in designated critical habitat and other selected areas throughout the range of the desert tortoise. The critical habitat units in closest proximity to the proposed project are Fremont-Kramer and Superior-Cronese. Desert tortoise density estimates for these two units were 2.7 and 6.3 animals per square kilometer, respectively (Service 2009). Pre-project biological surveys have estimated that the proposed project site contains 69 desert tortoises (AECOM Inc. 2009), which equates to a density of approximately 9 to 10 desert tortoises per square kilometer within the 1,760-acre disturbance area. Build-out of the proposed 1,760-acre site has the potential to adversely affect all 69 desert tortoises within the disturbance area through direct injury and mortality or through translocation. The density estimate for the project area is relatively high compared to what is known about densities within the western-most portion of the species' range and it is notably higher than that of the nearest desert tortoise conservation areas, which indicates the high quality and importance of this habitat. The current survey methodology only finds and accounts for adult desert tortoises, so it is likely more individuals are present.

Although Mohave ground squirrels have not been found on site, they have been found near the site of the proposed project; because habitat within the project area seems to be suitable, they may also be present on site. The Service is currently reviewing a petition to list the species under the federal Endangered Species Act. The primary threat to this species is the continued loss, degradation, and fragmentation of habitat from human land uses. The proposed project area overlaps the Mohave ground squirrel conservation area established under the BLM's West Mojave Plan (BLM et al. 2005), and fragmentation from development of the proposed project could potentially affect population connectivity and genetic exchange between two core populations. Although we do not have a complete understanding of the current level of gene flow between these populations, maintaining connectivity may have important evolutionary consequences for the species.

The Service also has management authority for migratory birds under the Migratory Bird Treaty Act (MBTA) of 1918, as amended (16 U.S.C. 703 et seq.); therefore, we recommend that the draft environmental impact statement and staff assessment evaluate potential impacts to migratory birds. In particular, the western burrowing owl has been documented on the proposed project site. As with the desert tortoise and the Mohave ground squirrel, one of the primary threats to this species is the loss, degradation, and fragmentation of its habitat.

The draft environmental impact statement should also include a discussion of the cumulative effects of the development of renewable energy resources on the desert tortoise, Mohave ground squirrel, burrowing owl and other sensitive resources in the California desert. The desert tortoise

is at great risk of being substantially affected by solar energy development and transmission through extensive habitat loss, population and habitat fragmentation, changes in water flow (both surface and ground water), introduction of environmental contaminants, mortality by vehicle encounters, increased predation by common ravens (*Corvus corax*), alteration of habitat due to the introduction of non-native plant species, and alteration of adjacent desert tortoise conservation areas through edge effects. Given the large number of solar energy developments that have been proposed, we anticipate that many projects could involve translocation of desert tortoises out of their existing home ranges; consequently, these projects would affect both translocated individuals and individuals that are resident to any identified translocation site and potentially compromise the ability of this species to recover. We recommend the Bureau and the applicant work closely with the wildlife agencies to develop a robust translocation plan that minimizes the potential for take of translocated desert tortoises and to desert tortoises that are resident to the proposed recipient sites.

We appreciate the opportunity to provide comments on the Solar Millennium Ridgecrest, Solar Power Project. The Service continues to support the development of renewable energy. We look forward to working closely with the BLM to facilitate that development in a manner that reduces impacts to our trust resources to the maximum extent possible. If you have any questions regarding these comments, please contact me at (805) 644-1766, extension 313, or Danielle Dillard of my staff at extension 315.

cc:
Eric Solorio, California Energy Commission, Sacramento, California
Amedee Brickey, Regional Energy Coordinator, U.S. Fish and Wildlife Service, Sacramento, California
David Hacker, California Department of Fish and Game, San Luis Obispo, California

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