



State of California – Natural Resources Agency  
DEPARTMENT OF FISH AND WILDLIFE  
Inland Deserts Region  
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**EDMUND G. BROWN JR., Governor**  
**CHARLTON H. BONHAM, Director**



February 28, 2014

Katrina Symons  
Field Manager  
Barstow Field Office  
Bureau of Land Management

Subject: Variance Application—Proposed Silurian Valley Solar Project, San Bernardino County, California CACA-53865

Dear Ms. Symons,

The California Department of Fish and Wildlife (CDFW) is responding to your request for comments on the proposed Silurian Valley Solar project. CDFW has reviewed the Plan of Development (POD) prepared by Aurora Solar, LLC (applicant), which proposes to construct and operate a 200-megawatt solar energy generation facility on public lands located 13 miles north of the Town of Baker, California along State Highway 127 in San Bernardino County. The proposal involves 7,218 acres of public lands and consists of the installation of multiple photovoltaic panels including ancillary facilities and a power interconnection generation line. The proposed project location is in a solar variance area, and is subject to the solar variance policies as described in Appendix B, Section B.5.3 of the Bureau of Land Management's (BLM) solar programmatic environmental impact statement (PEIS).

CDFW is providing comments as the State agency which has 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 CDFW (Fish and Game Code Section 711.7). CDFW 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 Section 1802). CDFW's fish and wildlife management functions are implemented through its administration and enforcement of the Fish and Game Code (Fish and Game Code Section 702).

CDFW is concerned that the proposed project would introduce a considerable amount of human disturbance (e.g., access roads, staging areas, vegetation removal) to an area that is currently undisturbed, and would have the potential to significantly impact biological resources. The POD identifies a number of special status species that have moderate to high potential to occur within the project area, including desert tortoise (State threatened (ST)), Loggerhead shrike (State species of special concern (SSC)), Mojave fringe-toed lizard (SSC), golden eagle (State fully protected (FP)), burrowing owl (SSC), northern harrier (SSC), Swainson's hawk (ST), and desert kit fox (fur-bearing

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mammal; fully protected from take under Title 14, California Code of Regulations: Section 460).

According to the POD, the majority of the project site has been identified as suitable habitat for desert tortoise, and sign (burrows and scat) have been observed near the project area. The project site also lies in an area that provides a vital linkage between tortoise conservation areas; such a linkage makes desert tortoise conservation networks more robust, and helps maintain genetic variability through long-term gene flow between populations. In an already fragmented habitat, it is important to maintain such linkages and keep them free of large-scale industrial developments which result in further losses of habitat and introduce more sources of direct mortality. Furthermore, human activity will likely be associated with an increase in the local population of common ravens, which prey on desert tortoise, by providing food and roosting, nesting, and perching sites. This added predation pressure may have an impact not only on tortoises within the project site, but also those near and around it, as common ravens can travel large distances between areas.

The Silurian Valley connects numerous areas that act as stopover sites for migrating birds, and CDFW is also concerned about direct and indirect mortality to migrating and foraging birds. While there is a limited amount of data on the effect of utility scale solar development on wildlife (Lovich and Ennen 2011), there is evidence that large scale solar development, including photovoltaic arrays, is causing bird mortalities (McCrary et. al. 1986, Clark 2013). Several water birds have been documented at solar projects in the desert (Clark 2023) and it is thought that migrating birds are attracted to large panel arrays because they mimic the appearance of water. Some species cannot easily take flight unless they are in water, and such species that land within solar facilities will likely die. Direct mortality can also result from collisions with panels and power lines associated with the project. In addition, the clearance of vegetation and development of the facility can result in loss and degradation of breeding and foraging habitat.

The POD identifies golden eagle nests occurring within a 10 mile radius of the project area, and suitable habitat occurs within the project site, as well as in the surrounding area. Golden eagles are protected under the Bald and Golden Eagle Act, which prohibits the take of bald and golden eagles, including their parts, nests, or eggs, or disturbing or molesting the birds. The proposed project could pose a direct threat through collision or electrocution through power lines, and indirect impacts through loss of foraging habitat.

The POD notes that the California Natural Diversity Database (CNDDDB) was consulted to investigate the potential for plant species that are sensitive, rare, threatened, or endangered, and concludes based on this that there are no occurrences of federally listed plants within the project site. It is important to note that the CNDDDB is merely a database tool for identifying reported occurrences, and the absence of occurrence information does not necessarily mean a species is not present. In order to confirm

presence/absence of species, a qualified biologist should conduct a field survey to fully evaluate potential impacts to sensitive species that may be present within the POD.

The spread of noxious weeds is a major threat to biological resources in the Mojave Desert, particularly where disturbance has occurred and is ongoing. Nonnative weeds frequently out compete native plants resulting in several synergistic indirect effects, such as 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 1986; Brooks and Esque 2002) 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 would 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.

In addition to the above concerns regarding biological resources, CDFW does not think that the applicant will be able to document the following factors to be considered by the BLM for right of way applications in variance area as described in Appendix B, Section B.5.3 of the BLM's solar PEIS: the proposed project is in an area with low or comparatively low resource conflicts, that the proposed project will be located in an area identified as suitable for solar energy development in an applicable BLM land use plan and/or by another related process such as the DRECP, that the proposed project will minimize adverse impacts on access and recreational opportunities on public lands, that the proposed project will minimize adverse impacts on important fish and wildlife habitats and migration/movement corridors, and that the proposed project will minimize impacts on lands with wilderness characteristics and the values associated with these lands (e.g., wildlife habitat).

In closing, because the proposed project has the potential to have significant adverse impacts on biological resources, and because there is not sufficient evidence supporting the applicant's ability to document the above mentioned variance factors, CDFW does not recommend allowing variance for Aurora Solar, LLC's proposed Silurian Valley Solar Project and proceeding with environmental review of the project.

Thank you for the opportunity to provide comments on the proposed variance. Please contact Wendy Campbell with questions regarding this letter at (760) 258-6921 or [Wendy.Campbell@wildlife.ca.gov](mailto:Wendy.Campbell@wildlife.ca.gov).

Sincerely,



Heidi A. Sickler  
Senior Environmental Scientist

Katrina Symons  
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cc: Chron  
Wendy Campbell

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