



United States Department of the Interior



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In Reply Refer To:
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Mr. Robert Hingtgen
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San Diego, California 92123

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Subject: Draft Program Environmental Impact Report for the Proposed Soitec Solar Development Project, San Diego County, California (SCH No. 2012-121-018)

Dear Mr. Hingtgen:

We have reviewed the draft Program Environmental Impact Report (DEIR) for the proposed Soitec Solar Development Project (SSDP) dated January 2, 2014. The applicant(s) (Tierra del Sol Solar LCC, Rugged Solar LCC, LanWest Solar LCC, LanEast Solar LCC, and Soitec Solar Development LCC) propose to construct and operate four renewable energy solar farms. The DEIR addresses the LanEast and LanWest solar farms at a programmatic level and the other two solar farms at the project level. The four solar farms (i.e., the project) would encompass approximately 1,490 acres located in the Boulevard Subregion of southeastern San Diego County (County). The proposed project occurs within the plan boundary of the draft East County Multiple Species Conservation Program (MSCP).

The primary concern and mandate of the U.S. Fish and Wildlife Service (Service) is the protection of fish and wildlife resources and their habitats. The Service has legal responsibility for the welfare of migratory birds, anadromous fish, and threatened and endangered animals and plants occurring in the United States. As such, we are responsible for administering the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*); the Bald and Golden Eagle Protection Act, as amended (16 U.S.C. 668) (BGEPA); and the Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-712) (MBTA). The County, Service, and the California Department of Fish and Wildlife (Department) entered into a planning agreement in 2008 for the development of MSCP plans to address regional conservation needs and future planned development in north and east County. The planning agreement includes an interim review process to ensure that projects do not compromise conservation objectives prior to the completion of the MSCP plans. Our comments are based on the information provided, our knowledge of sensitive species and declining vegetation communities in the County, and our participation in regional conservation planning efforts.

Migratory Bird Treaty Act¹

The MBTA makes it illegal for anyone to take, possess, import, export, transport, sell, purchase, barter, or offer for sale, purchase, or barter, any migratory bird, or the parts, nests, or eggs of such a bird except under the terms of a valid permit issued pursuant to Federal regulations. The MBTA is a strict liability statute, meaning that proof of intent, knowledge, or negligence is not an element of an MBTA violation. The statute's language is clear that actions resulting in a "taking" or possession (permanent or temporary) of a protected species, in the absence of a Service permit or regulatory authorization, are a violation of the MBTA. The MBTA does not specifically authorize the incidental take of migratory birds. The Bird and Bat Conservation Strategy (BBCS) discussed below is not a surrogate for a take permit under the MBTA; therefore, it does not limit or preclude the Service from exercising its authority under any law, statute, or regulation, nor does it release any individual, company, or agency of its obligations to comply with Federal, State, or local laws, statutes, or regulations. A BBCS often includes mortality monitoring associated with the project. Companies are strongly encouraged to apply for a Special Purpose Utility (SPUT) permit under the MBTA that will facilitate this type of monitoring by allowing projects to collect and possess bird carcasses as part of the monitoring effort.

Bald and Golden Eagle Protection Act¹

Golden eagles (*Aquila chrysaetos*) and bald eagles (*Haliaeetus leucocephalus*) are protected under the BGEPA, which prohibits the take at any time or in any manner, of any eagles, alive or dead, or any part, nest, or egg thereof. Take is defined as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, destroy, molest, or disturb." Disturb is defined by the Service as "to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior."

In 2009, the Service promulgated a final rule on two new permit regulations that, for the first time, specifically authorize the incidental take of eagles and eagle nests in certain situations under BGEPA (see 50 CFR 22.26 & 22.27). Companies are strongly encouraged to apply for permits under BGEPA where eagle take (including disturbance) is likely. Ultimately it is the responsibility of those involved with the planning, design, construction, operation, maintenance, and decommissioning of projects to conduct relevant wildlife and habitat evaluations and determine which, if any, species may be affected, and to seek and obtain necessary permits to avoid liability.

Potential Impacts to Avian Species

We concur with the DEIR that the proposed SSDP would have potentially significant and unavoidable impacts to special status avian species and migratory birds. The project will result in direct, indirect, and cumulative loss of habitat for a diversity of shrub dependent avian species (e.g., resident, winter visitors, and migrants). The DEIR also discloses multiple adverse effects, including

¹ Regulatory information on the MBTA and BGEPA is provided herein to give context to our specific comments and recommendations regarding potential compliance issues with these laws.

collision risks, habitat fragmentation, increased human presence, and potential attractant qualities of the site, on avian species. To date, limited information exists on impacts to avian species associated with bird collisions at solar energy facilities. However, as incidental reports of collisions and mortalities are becoming available from other solar power facilities (flat panel, solar trough, power tower), we are noting impacts to multiple avian species, including waterbirds, passerines, and diurnal/nocturnal raptors, involving various project features, including solar panels, mirrors, heliostats, evaporation ponds, fencing, distribution lines within the facility, gen-tie lines, and metal posts within the panel arrays before the panels are installed.

The proposed project site is located within the Pacific Flyway, a known migratory bird flyway and an area that is also rich in resident bird diversity. The potential for birds to be attracted to the site and the risk of collision and other project-related mortality and/or injury, is not adequately addressed in the DEIR. Some species of birds, such as waterbirds, may perceive the solar field as a water body (commonly referred to as “lake effect”). Many avian species are attracted to permanent and ephemeral water sources, especially in arid environments. Based on information collected at existing solar facilities, solar panels and other project components are likely to present a collision hazard to migratory birds.

The mountainous topography surrounding the project sites and throughout San Diego County have supported nesting and non-nesting golden eagles historically, as noted by Dixon (1937). The open habitat at the project sites, proximal to cliff, tree, and open shrub habitats supports eagle prey species and contributes to the survival of adult, juvenile, and eagles by providing roosting, nesting, and foraging opportunities. Based on a review of the project-specific data, local eagle populations, and the life history of the species, the proposed project has the potential to impact golden eagles through the loss of foraging habitat, via direct loss and fragmentation, increased human presence, and overall reduction of prey.

The anecdotal nature of the information provided by the golden eagle report (Appendix I of Appendix 2.3-1 of the DEIR) and the lack of robust survey efforts, result in an inadequate assessment of the project’s direct, indirect, and cumulative impacts on golden eagles in the DEIR. Information provided by the applicant lacked detail on variability of seasonal survey efforts, which made interpretation of the results difficult. We disagree that an eagle territory (i.e., Boulevard territory) should be considered ‘extirpated’ after 5 years of apparent eagle inactivity due to information indicating that eagles will reuse nest sites that have not been used for more than 5 years (see Kochert and Steenhof 2013). The information in the report was not detailed regarding when field assessments commenced during each year of survey. The methods relied heavily on helicopter reconnaissance, which often do not provide information on early breeding season territory occupancy. We could find no avian point count information in the information provided to support the analysis of impacts to golden eagles. The report included information from eagles that had been fitted with transmitters. Since these birds were caught as juveniles, and the telemetry information provided is only representative of behavior or juvenile birds. The behavior and habitat use patterns of adult eagles can be markedly different from those of juvenile birds in their first 1-2 years of life, and therefore telemetry information from juvenile birds should be considered indicative of adult eagle activity. Finally, information on prey availability on and near the project site was not provided in the golden eagle report.

In order to adequately assess the potential impacts to golden eagle, we recommend more robust studies be conducted on nest occupancy in the vicinity of the project as well as studies on current use of the project area by breeding adults, juveniles, subadults and adult floaters. We recommend breeding surveys be conducted at the known eagle nests to discern occupancy and reproductive success, as well as thorough searches of suitable nesting habitat out to 10 air miles early in the nesting season for new/known nests and/or reoccupied territory adjacent to the project site using the survey protocols established by Pagel et al. 2010. We also recommend a golden eagle observational study covering all seasons to assess use of the project area by golden eagles of all age classes and breeding status. These data can be used to understand potential disturbance impacts, as defined by BGEPA. Depending on the results of these surveys, it may be appropriate to develop an Eagle Conservation Plan and assess the need to apply for a permit under BGEPA. We recommend coordination with other project proponents and their consultants that may be collecting eagle data to minimize potential survey related impacts to the species.

Bird and Bat Conservation Strategy

Migratory birds are an important component of our national heritage and are a trust resource for the Service. Birds are also important economic resources, given that they prey on numerous species that are considered pests (e.g., some insects and rodents) and generate income to communities through bird-watching. We recommend that measures to address the adverse effects of the SSDP on migratory birds and their habitat consistent with State mitigation responsibilities be developed and implemented. The DEIR acknowledges the potential for significant impacts to birds during construction and operation of the SSDP, and although the applicant(s) proposes to minimize impacts to birds during construction using a Nesting Bird Management, Monitoring and Reporting Plan (NBMMRP), the DEIR does not identify measures to address ongoing avian mortality that may occur during project operations and the loss of bird habitat through the construction of the site. Although the DEIR acknowledges the potential for impacts to bat species, measures to limit or offset these impacts are not identified. Therefore, we recommend a project-specific Bird and Bat Conservation Strategy (BBCS) be developed.

In addition to addressing proposed minimization measures during project construction, the BBCS should identify mortality risks and adaptive management strategies to reduce threats to avian species and bats. Based on mortality reports from other solar facilities, avian mortalities and other impacts to wildlife may occur long before construction of a project is complete. Therefore, we recommend that the BBCS and any necessary permits be in place prior to construction. We support the development and implementation of a scientifically robust mortality monitoring plan for the project, and quarterly reports being sent directly to the resource agencies and the County. We recommend that the BBCS, including the monitoring plan, be developed in close coordination with the County, Department, and Service. This plan should fully address and monitor construction and operation-related mortalities at all project features (e.g., fencing, utility infrastructure, and impacts with vehicles), photovoltaic presence (i.e., monitoring from first installation of panels).

An adaptive management program should be included in the BBCS. Part of the suite of adaptive management measures may include the collection of additional information (i.e., off-site migration behavior and radar studies to determine at what scale birds may be attracted to the project) if warranted based on project monitoring results. We, in concert with the County and Department, will

coordinate with the project applicant(s) to explore the most effective adaptive methods for avoiding and minimizing direct, indirect, and cumulative impacts as more data become available relative to these impacts and measures to offset them. We will work with the applicant to develop scientifically appropriate triggers for notification to respective agencies, as well as adaptive management changes, which may be needed to avoid and minimize impacts to bird species protected under the MBTA and BGEPA.

Adaptive Mitigation

We support adaptive mitigations measures that would fund conservation efforts for migratory birds on a regional basis, such as contributing to the Sonoran Joint Venture (<http://sonoranjv.org/>) or to the Migratory Bird Conservation Fund. The Sonoran Joint Venture is a multi-agency Federal, State, and non-governmental partnership with the mission of conserving the unique birds and habitats of the southwestern United States and northwestern Mexico. The Migratory Bird Conservation Fund, managed by the Department of the Interior, provides financing for the acquisition of migratory bird habitat. In addition, the National Fish and Wildlife Foundation is another venue that would be well suited to direct conservation funding for migratory birds in the region of the project.

Regional Planning and Wildlife Movement

We have worked cooperatively with the Department, County, and private entities on the development of MSCP plans to balance development and wildlife conservation within the region. Currently, the draft East County MSCP identifies a framework using Focused Conservation Areas (FCAs) to designate recommended areas for conservation (within FCA) or development (outside FCA). In general, the goals for regional planning within the project vicinity are to expand existing wildlife protection by adding to large expanses of protected lands [e.g., Bureau of Land management (BLM), Department, and California State Parks] and to facilitate wildlife movement, primarily between Mexico and the north through Interstate 8. To this end, FCAs are concentrated immediately west of BLM land north of Interstate 8 through the best remaining wildlife crossing in the area, McCain Valley Road, south to the international border where land is relatively undisturbed in Mexico.

The DEIR generally discusses existing wildlife movement possibilities within each proposed solar farm site but does not address potential impacts to wildlife movement or regional conservation from the SSDP. Regional planning and wildlife movement should be an important consideration in developing a full range of alternatives for analysis. Thus, we recommend that the County and the applicant(s) analyze a broader range of project alternatives and include a complete analysis of potential impacts to regional wildlife movement and the draft East County MSCP. This analysis should consider the cumulative impacts of projected development projects in the vicinity (e.g., Tule Wind Energy Project) on regional conservation and wildlife movement.

Based on the limited information provided in the DEIR, we have identified the following substantial issues and concerns specific to the proposed individual solar farms that should be addressed by the County and the applicant(s):

Tierra del Sol

We estimate that 75 percent of the 420-acre Tierra del Sol site is within the FCAs of the current draft East County MSCP. Given the anticipated development to the west, where most of the land is either developed or designated outside of FCAs, and existing development south of the border, development of this site would have only minor impacts relative to regional wildlife conservation planning efforts. Impacts associated with the Tierra del Sol solar farm could be mitigated through protection of land in the vicinity with equal or greater regional conservation value.

Rugged

The 765-acre Rugged solar farm site is entirely within FCAs in an area that complements wildlife function to a large, protected block of BLM land to the north and east. Development of this site would fragment existing habitat and impact regional conservation plans as delineated in the draft East County MSCP; specifically, loss of this site would hinder efforts to expand and connect to the large protected BLM and State Park lands to the north and east.

LanEast and LanWest

Because plant and wildlife studies were not completed for LanEast (233 acres) and LanWest (55 acres) solar farms, we are unable to assess potential impacts to specific sensitive species or vegetation communities. However, based on the location within the landscape, these properties are of high importance to regional conservation. They are located entirely within FCAs for the draft East County MSCP and provide the most viable north-south connection for wildlife movement across Interstate 8 via the undercrossing at McCain Valley Road. From the perspective of regional-scale conservation and wildlife movement, development of LanEast and LanWest will conflict with the conservation objectives of the East County MSCP planning agreement and may compromise the establishment of a viable preserve. A thorough analysis of the larger scale wildlife value of these properties is necessary to fully evaluate the proposed solar farms at these locations. Because of the juxtaposition on the landscape, we suggest that the County and the applicant consider including conservation of the LanEast and LanWest properties as part of the wildlife mitigation proposal for the SSDP.

Los Robles

Although the Los Robles site is identified as a potential alternative solar farm location, the DEIR provides insufficient information regarding the existing biological conditions and potential impacts. Because plant and wildlife studies were not completed for the Los Robles location, we are unable to assess potential impacts to specific sensitive species or vegetation communities; however, based on its configuration within the landscape, this property likely has high wildlife functional value and may be important for long-term regional conservation. This site is entirely within FCAs for the draft East County MSCP. Based on expected wildlife movement trajectories, development of this property, particularly the eastern section, has the potential to limit connectivity between wildlife in Mexico and the large blocks of protected habitat north of Interstate 8. A thorough analysis of the regional wildlife value as well as the specific onsite resources of this property is necessary to fully evaluate this alternative location.

Mitigation Site

Although the DEIR does not definitively describe where impacts would be mitigated, it does describe a specific mitigation site and include a preliminary analysis of the biological resources of the site. The proposed mitigation site is entirely within FCAs for the draft East County MSCP, and protection of the site would help mitigate impacts to sensitive vegetation and wildlife resources as well as maintain wildlife movement between undeveloped land in Mexico and protected land to the north. However, protection of the proposed mitigation site does not fully mitigate for the unique functions found at each of the proposed solar farm sites. In addition, the proposed development of solar farms north of the mitigation site has the potential to compromise the functional value of the mitigation site to offset impacts to wildlife movement. For example, development of the Rugged site would impact regional conservation by disrupting wildlife movement north of Interstate 8. Conservation of the proposed mitigation site would not address these functional losses. Given that a primary ecological function of the mitigation site is to maintain wildlife movement from Mexico north through Interstate 8, impacts of development within Los Robles, LanEast and LanWest on wildlife movement should be considered when evaluating the value of the mitigation site for this function. We recommend the County consider multiple mitigation sites in order to address the unique landscape functions that would be impacted at the different development sites.

Quino Checkerspot Butterfly

Protocol surveys were conducted for the federally endangered Quino checkerspot butterfly (*Euphydryas editha quino*; Quino) on the Tierra del Sol (2012), Rugged (2011), LanEast (2011) and LanWest (2011) properties. No Quino were observed during these surveys; however, we do not consider these results definitive. Quino have been observed within approximately 2 miles of the Tierra del Sol, LanEast, and LanWest properties and within 1,000 feet of the Los Robles property. Occupied Quino habitat may also exist south of the border near the Tierra del Sol and the proposed mitigation site, but surveys have not been conducted in this area. Because suitable habitat was found on the Tierra del Sol, Rugged, LanEast and LanWest properties, and surveys were limited to one year, Quino may still occupy these sites. Based on the known distribution of Quino within the project vicinity and the variable detectability of this species, we recommend focused surveys continue until project construction is initiated in order to verify the conclusion in the DEIR that Quino will not be impacted by the project. We also recommend protocol Quino surveys for the Los Robles site to provide biological information for the alternatives analysis.

Alternatives Analysis

The alternatives analysis fails to adequately address impacts to natural vegetation communities and wildlife. An alternative designed to reduce impacts to biological resources must consider regional conservation planning, including landscape connectivity. The DEIS relies heavily on the development within the Los Robles property as a project alternative; however, there is no information provided to assess the resources that would be impacted on this property. The alternative analysis also needs to consider impacts of alternative development strategies on regional conservation goals. For example, development of Los Robles as well as LanEast and LanWest would affect the wildlife connectivity value that the proposed mitigation site would otherwise maintain.

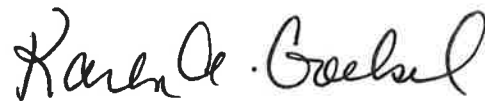
Cumulative Impacts

The DEIR uses the Peninsular Range within the California Floristic Province as the study area to assess cumulative impacts to biological resources. Within this area, the DEIR chooses a subset (Table 2.3-16) of the potential projects (Table 1-12) to include in the cumulative impacts analysis. By establishing a large (466,564-acre) study area and choosing only a small subset within this study area, the DEIR provides a misleading analysis of the cumulative impacts within the vicinity of the SSDP. By definition, impacts of these projects to the defined study area will be minor. A more appropriate scale for the cumulative impacts analysis would be the renewable energy corridor generally defined by the community of Jacumba to the east, the Mexican border to the south, the community of Camp to the east, and the northern border of the Peninsular Range Eco-Subregion as defined in the DEIR. At this scale, a more appropriate analysis can be conducted for the cumulative impacts of foreseeable projects on vegetation communities, Quino, golden eagles, migratory birds, and wildlife habitat and movement.

In summary, the potential impacts to migratory birds, bats, golden eagles, and regional conservation planning have not been adequately addressed in the DEIR. A complete analysis will require site-specific information on all the potential development sites, including Los Robles, as well as the mitigation site(s). The County in concert with the applicant(s) needs to explore other alternatives that will avoid and minimize potential impacts to biological resources and regional conservation planning efforts. Thus, we recommend that the issues outlined in this letter be addressed prior to certification of a final EIR.

We appreciate the opportunity to comment on the DEIR. If you have any questions regarding these comments or our recommendations, please contact Thomas Dietsch in our Division of Migratory Birds (thomas_dietsch@fws.gov; 760-431-9440, extension 214) or Eric Porter in our Ecological Services Division (eric_porter@fws.gov; 760-431-9440, extension 282).

Sincerely,



Karen A. Goebel
Assistant Field Supervisor

cc:

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Literature Cited:

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