

### 3.0 COMMENTS AND RESPONSE TO COMMENTS



## United States Department of the Interior

### FISH AND WILDLIFE SERVICE

Ecological Services  
Palm Springs Fish and Wildlife Office  
777 East Tahquitz Canyon Way, Suite 208  
Palm Springs, California 92262



In Reply Refer To:  
FWS-IMP-14B0224-14CPA0158

**LETTER 4**

JUN - 5 2014

Mr. Jim Minnick  
Imperial County  
Planning and Development Services  
801 Main Street  
El Centro, California 92243

Subject: Comments on the Draft Environmental Impact Report for the Seville Solar Farm Complex Project, Imperial County, California

Dear Mr. Minnick:

The U.S. Fish and Wildlife Service (Service) has reviewed the draft Environmental Impact Report (EIR), dated April 2014, for the Seville Solar Farm Complex Project (Project). The proposed 135-megawatt Project is located on portions of the 2,440-acre Allegretti Farms property in west-central Imperial County, approximately 8 miles west of the junction of State Route (SR) 78 and SR 86, and approximately 3 miles east of the San Diego County line. Regenerate Power LLC (Applicant) is proposing to develop a group of solar photovoltaic (PV) or concentrating photovoltaic (CPV) energy generation facilities on approximately 1,243 acres.

The 1,243-acre Project would consist of either thin film or crystalline solar PV technology modules mounted on horizontal single-axis tracker (HSAT) systems; CPV systems mounted on a dual-axis tracking system; or a mix of two of the technologies. The Applicant would construct, operate, and decommission up to five separate solar energy projects; a 48-foot wide access road from SR 78; internal access roads; an Imperial Irrigation District (IID) electrical switch station; electrical substations for each of the five projects; and internal gen-tie lines to the substations and IID switch station. The Project would also include the construction and operation of 3 miles of new 92 kV transmission line to provide an interconnection to the existing IID Anza Substation located on SR 78. Additionally, two new groundwater wells would be developed, and sanitary waste septic systems and leach fields and on-site storm water retention basins are proposed within each of the five solar energy project lots. Lastly, dust control palliatives would be applied for erosion and dust control and soil stabilization.

Modifications to the IID Anza Substation, which is located east of the Project along SR 78, are also proposed. Modifications include expanding the existing fenced area around the facility; relocating the existing 92 kV switch and breaker bank into the expanded substation area and reorienting the switch and breaker bank in a north/south alignment; constructing a new 92 kV switch and breaker bank; and installing up to five new steel and/or concrete poles.

4-1

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PLANNING & DEVELOPMENT SERVICES

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The Project would result in permanent, direct effects to approximately 1,243 acres of vegetation communities and other land cover types, the majority of which (1,119 acres) are classified as disturbed, e.g., Saharan mustard dominated, active farmland, fallow agriculture. The remaining vegetation communities (124 acres) include common desert habitats, e.g., creosote bush scrub and allscale scrub, and 13.2 acres of direct effects to mesquite thickets, a rare vegetation community.

4-2

We offer the following comments on the draft EIR as they relate to potential impacts on public trust resources. The primary concern and mandate of the Service is the conservation, protection and enhancement of fish and wildlife resources and their habitats for the continuing benefit of the American people. The Service has legal responsibility for the welfare of migratory birds, anadromous fish, and threatened or endangered animals and plants listed under the Endangered Species Act of 1973 (Act), as amended (16 U.S.C. 1531 *et seq.*). The comments provided herein are based on the information provided in the draft EIR, our knowledge of sensitive and declining fish and wildlife resources, and our participation in regional renewable energy conservation planning efforts.

We preface our comments by recognizing the need for development of renewable energy and the challenge of balancing solar energy development with conserving natural resources in the Salton Sea basin. We look forward to working with the agencies involved and offer our assistance in helping develop consistent renewable energy goals and policies at the local, State, and Federal levels.

4-3

One of the Service's goals is to encourage development of renewable energy facilities on degraded and less environmentally valuable sites to minimize impacts to biological communities and ecological processes. As such, we agree with and support the use of the proposed site as an appropriate location for the project. Accordingly, we offer the following comments and recommendations to help avoid and minimize adverse impacts to public trust resources that may be impacted by the proposed Project, including migratory birds, the federally endangered Yuma clapper rail (*Rallus longirostris yumanensis*), flat-tailed horned lizard (*Phrynosoma mcallii*), and the federally endangered desert pupfish (*Cyprinodon macularius*).

#### Migratory Birds

The Migratory Bird Treaty Act (MBTA), 16 U.S.C. 703, is the cornerstone of migratory bird conservation and protection in the United States. The MBTA implements four treaties that provide for international protection of migratory birds. The MBTA protects most native species of birds in the United States, including those likely to occur in the project area; a list of species protected by the MBTA can be found at 50 CFR 10.13. The MBTA prohibits the "take" or possession of protected species of migratory birds; "take" means to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempts to do so (50 CFR 10.12). The State Fish and Game Code contains similar prohibitions.

4-4A

The Project is located near the Salton Sea, which is a critical stopover along the Pacific Flyway, providing permanent habitat and seasonal refuge to resident water-associated birds and migratory birds (Shuford et al. 2002). The agricultural fields surrounding the Salton Sea also provide habitat for a variety of wintering birds and shorebirds (Patten et al. 2003). To date, limited information exists on bird collisions at utility-scale solar energy facilities within the Salton Sea basin due to a lack of systematic, statistically rigorous monitoring. However, utility-scale photovoltaic, parabolic trough, and power tower projects that are currently under construction or in operation are reporting

4-4B



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mortalities and injuries to a wide range of avian species, including water-associated birds, passerines, and raptors involving various project features, including solar panels or heliostats, evaporation ponds, fencing, distribution lines within the facility, and gen-tie lines.

4-4B  
Continued

Table 3.0-1 in the draft EIR lists solar projects that have or will convert approximately 19,000 acres of agricultural fields to utility-scale solar sites within the Salton Sea basin. Three large transmission projects are also either constructed (including Sunrise Powerlink, which was not included in Table 3.0-1) or proposed for construction. Additionally, the Ocotillo Express Wind Energy Facility is located within this region; adverse effects to avian species from this project should be included in the cumulative effects analysis in the final EIR.

4-4C

As mentioned above, the proposed Project site is located within a known migratory bird flyway but the potential for birds to be attracted to the site with consequent risk of collision-related injury or mortality was not adequately addressed in the draft EIR. Some avian species, such as water-associated birds, may perceive the solar field as a water body (commonly referred to as “lake effect”). Many birds 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 once they are built. We can provide documentation for this collision-related risk upon request.

4-4D

Based on preliminary avian mortality reports from existing facilities, the Project’s proximity to the Salton Sea and this important section of the Pacific Flyway, and the large number of permitted or proposed utility-scale solar and transmission projects in the area, there is the potential for cumulative effects on the abundance and distribution of the bird species occurring as resident, winter visitors, and/or migrants in and around the Salton Sea. The draft EIR concludes the proposed mitigation measures will ensure the Project does not cumulatively affect migratory birds; however, an analysis of the impacts of cumulative habitat loss and the potential for bird fatalities at the solar facilities covering 19,000 acres of converted agricultural fields within the Salton Sea basin was not conducted. Based on the available information regarding bird fatalities, the cumulative effects to migratory birds, could be considerable.

4-4E

While the draft EIR proposes measures be implemented to avoid direct impacts to migratory birds during construction, e.g., seasonal restrictions and buffers, it does not provide a thorough analysis of the direct and indirect effects associated with the Project over the 30-year permit period. To develop effective best management practices and adaptive management measures to reduce avian mortality at utility-scale solar energy facilities, and for planning future project development, the final EIR should include a section discussing these potential effects to migratory birds and describe measures to avoid, reduce, and mitigate those effects.

4-4F

To help the Applicant reduce potential adverse effects to avian species, we recommend the development and implementation of a statistically robust, systematic bird and bat mortality and injury monitoring program. The monitoring program should be developed in a timely and effective manner, and regularly reviewed and revised as needed, to minimize impacts while allowing for Project development in the most environmentally conscientious ways practicable.

4-4G

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Additionally, because the Project is segmented into five independent projects and the solar technology has not been determined for these projects, an opportunity exists to generate important information regarding the effects of the different technologies on various bird species. Currently, available information on which solar technologies and configuration of panels would result in less avian mortality is lacking. With implementation of a robust, systematic avian and bat mortality monitoring program and different technologies at the five project sites, information could be derived that would increase our knowledge of technology-specific collision rates. Some potential design considerations could include thin film versus crystalline solar PV; HSAT systems versus a dual-axis tracking system; and traditional thin film versus a multi-layer anti-reflection coating. We are available to help the County and Applicant in designing a suite of various technologies and configurations amenable to comparative monitoring for adaptive management purposes.

4-4H

The enclosure to this letter includes specific information on the recommended content of this monitoring program and additional mitigation measures to help avoid and minimize adverse indirect and cumulative effects to migratory birds.

#### Yuma clapper rail

Breeding Yuma clapper rail populations are primarily restricted to managed wetlands along the lower Colorado River Valley and near the Salton Sea, with a few additional small and scattered locations along the Gila River in Arizona and refuges in Nevada (Service 2009, 2014). These birds only occupy early-successional freshwater and brackish marshes dominated by low- to medium-density stands of southern cattail (*Typha domingensis*) and select species of bulrush (Nadeau et al. 2011). To date, the mortality rate of marsh/water-associated bird species across all taxa represents about 40 percent of total birds reported killed at three utility-scale solar projects using different technologies [Solar One – power tower (McCrary et al. 1986); Desert Sunlight – thin film (Ironwood Consulting 2013); NextEra Genesis – thermal trough (AECOM 2013)]. Since few, if any, marsh/water-associated birds were reported in pre-project avian surveys for these projects and suitable habitats were not present on or in proximity of these project sites, available evidence suggests these solar technologies pose an attractive nuisance to which various rail species and other water-associated birds are particularly vulnerable. This is evidenced by incidental observations of sora, clapper, and Virginia rail mortality at these solar projects along the I-10 corridor and multiple projects in the Imperial Valley. Additionally, construction monitoring along transmission lines in Imperial County documented Virginia and sora rail fatalities, which indicates there is an additional risk of mortality to rails posed by the gen-tie lines that are part of the transmission infrastructure connecting utility-scale projects to the power grid.

4-5A

4-5B

The evidence summarized above documents that Yuma clapper rails are vulnerable to project-induced mortality posed by solar energy projects in the desert. Solar and transmission projects within the resident and dispersal range of Yuma clapper rail are likely to kill multiple individuals over the life span of these projects, given the observed pattern of regular long distance dispersal events across the Mojave and Sonoran deserts and the large cumulative disturbance footprint (e.g., 19,000 acres in the Imperial Valley alone). Because of the large size of these projects, the numerous projects approved and proposed within the range of the species, and lack of opportunity for effective adaptive management measures and other design modifications sufficient to avoid the risk of

4-5C



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incidental take<sup>1</sup>, we anticipate recurrent but low levels of take at multiple project sites, with higher levels anticipated with increasing proximity to breeding centers in the lower Colorado River Valley and Salton Sea basin. Therefore, we recommend the final EIR address the direct, indirect, and cumulative effects of the Project on Yuma clapper rail, and appropriate mitigation measures.

4-5C  
Continued

If incidental take of Yuma clapper rail is anticipated over the 30-year life of the Project, we recommend the final EIR include a mitigation measure requiring that the applicant apply for an incidental take permit through the development of a Habitat Conservation Plan (HCP) that satisfies the permit issuance criteria stipulated under section 10(a)(1)(B) of the Act. HCPs provide for partnerships with non-Federal parties to conserve the ecosystems upon which threatened and endangered species depend for survival and recovery and permit the take of listed species incidental to otherwise lawful activities. Alternatively, the Desert Renewable Energy Conservation Plan (DRECP), which is currently in development, is intended to serve as a multiple species HCP providing similar incidental take coverage for a wider array of species proposed for conservation under that planning effort. Under the DRECP alternative, Imperial County could apply for and obtain County-wide incidental take authority for covered species and could extend take authorization to projects requiring County permits subject to defined obligations under the plan. Lastly, if a Federal regulatory nexus exists for the Project, i.e., a Federal agency undertakes, funds, permits, or authorizes the action, the Federal agency may consult with the Service under section 7 of the Act to obtain an exemption from the Act's take prohibitions. Any of these alternative approaches could be used to authorize and offset the incidental take of the Yuma clapper rail.

4-5D

#### Flat-tailed horned lizard

The Project is located adjacent to the West Mesa Management Area and the Ocotillo Wells State Vehicular Recreation Area Research Area as defined under the Flat-tailed Horned Lizard Rangewide Management Strategy (RMS). Based on information in the draft EIR, pre-project surveys for flat-tailed horned lizards were not conducted but the Project would present a potentially significant impact if flat-tailed horned lizards are discovered during construction. Measures are proposed (e.g., worker education, designation of a field contact representative, demarcation of work areas, relocation of FTHL) to reduce adverse effects to less than significant levels. While these measures will reduce direct effects to flat-tailed horned lizards, indirect effects to lizards occurring adjacent to the proposed Project site were not addressed.

4-6A

The fallow agriculture on the Project site is described as 'idle agricultural land that is reverting to open desert.' Based on surveys conducted for the C Solar West Project, lizards occupy fallow agricultural fields adjacent to open desert (A. Trouette, BLM, 2014, pers. comm.). Since the Project encompasses areas of fallow agricultural fields adjacent to open desert and a flat-tailed horned lizard management area, lizards likely occur on the Project site.

4-6B

Flat-tailed horned lizard exclusion fencing will not be installed around the solar facility; therefore, the site will be accessible to the lizards. Consequently, the site may become a population sink due to mortality along the interior and exterior access roads and increased predation due to artificial avian

4-6C

<sup>1</sup>"Take" is defined by the Act as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct.

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perch sites (Barrows et al. 2006). This could result in lower survival and reproduction rates in adjacent flat-tailed horned lizard populations within the West Mesa Management Area (Runge et al. 2006). Additionally, Barrows et al. (2006) found that out of several species monitored, only the flat-tailed horned lizard demonstrated an unambiguous negative response to anthropogenic habitat edges; they found the effect up to 490 feet from the development edge. Additionally, Young and Young (2005) found the probability of flat-tailed horned lizard occurrences increased significantly with increasing distance from development. They hypothesized that adverse edge effects extend up to 1,480 feet from the edge of development areas. Therefore, it is likely the effects from the Project would extend past the facility boundary and indirect loss of habitat currently used by flat-tailed horned lizards is likely to be greater than that assessed in the draft EIR, with loss of suitable habitat potentially extending into the West Mesa Management Area. An analysis of these indirect effects, and how they could be offset, should be included in the final EIR. We recommend the project Applicant consult with the RMS's Interagency Coordinating Committee to obtain information on these potential effects and measures to reduce those effects.

4-6C  
Continued

#### Desert Pupfish

To avoid and minimize potential indirect effects to desert pupfish in designated critical habitat south of the Project, we recommend adoption of the measures described in the attachment to this letter.

4-7

We appreciate the opportunity to provide comments on the draft EIR. We have attached specific recommendations to further assist in avoidance and minimization of impacts to public trust resources. Should you have any questions regarding these comments, or provide further technical assistance, please contact Felicia Sirchia of my staff at 760-322-2070, extension 205.

4-8

Sincerely,



for Kennon A. Corey  
Assistant Field Supervisor

Enclosure

cc:  
Shankar Sharma, California Department of Fish and Wildlife

### 3.0 COMMENTS AND RESPONSE TO COMMENTS

#### Enclosure

U.S. Fish and Wildlife Service  
Comments and Avoidance and Minimization  
Recommendations on the  
Draft EIR for the Seville Solar Farm

#### Avian Recommendations

1. Prepare and implement a Bird and Bat Conservation Strategy (BBCS) in consultation with the County, California Department of Fish and Wildlife (CDFW), and the Service for review and comment. The BBCS will include the following:
  - A description and assessment of the existing habitat, risk characterization, and avian risk minimization measures.
  - A statistically robust, systematic avian and bat mortality and injury monitoring program to: (1) estimate annual mortality by taxa and season using appropriate models and appropriate estimators (this estimate should include mortality associated with all features of the project that are likely to result in injury and mortality - e.g., fences, ponds, solar panels, gen-ties); (2) identify collision and other mortality during diurnal and nocturnal times of the day; and (3) assess the spatial distribution and abundance of mortalities [species composition (including rare and sensitive species), abundance, and distribution] on the project site.
  - An adaptive management and decision-making framework for reviewing, characterizing, and responding to monitoring results.
  - Specific conservation measures and/or programs to avoid, minimize, reduce, or eliminate avian and bat injury or mortality over time and evaluation of the applicability and effectiveness of those measures using results from the monitoring program.

The avian and bat mortality and injury monitoring program should include:

- Onsite monitoring to systematically survey representative locations within the facility, at a level that will produce statistically robust data. The monitoring effort will account and correct for potential spatial bias and allow for the extrapolation of survey results to non-surveyed areas within the solar plant site boundary and to tailor the survey interval seasonally based on carcass removal rates.
- Statistically robust carcass removal and searcher efficiency trials pre and post construction to document the extent to which avian or bat carcasses remain over time (hours/days) and how well searchers can detect carcasses within the project area. The results from these trials will be used to adjust the survey frequency and to improve mortality estimates to reflect bias from carcass removal rates and searcher efficiency.

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- Accepted statistical methods from the peer-reviewed literature to generate facility estimates of potential post-construction avian and bat impacts based on the observed number of injury/fatality detections during standardized monitoring.
- Handling and reporting requirements according to applicable state or federal permits.
- Development of an injured bird response plan that delineates care and curation of any and all injured birds, and funding for rehabilitation centers for the care and treatment, and eventual release or permanent storage of injured birds.

Post-construction monitoring studies should be conducted by a third-party independent contractor for at least 3 years following commencement of commercial operation of each individual unit. At the end of the 3-year period, the County, in consultation with CDFW and the Service, will determine whether the survey program will be continued based on whether the data are sufficient to answer monitoring objectives within a predetermined level of statistical certainty.

2. Avoid using lattice-type structures and placing external ladders and platforms on towers to minimize perching and nesting.
3. Ensure panels used at this facility are tracking panels to allow for maximum flexibility to minimize bird impacts.
4. Minimize use of outdoor lighting. If additional lighting is necessary, it should be focused downward to reduce skyward illumination. Lights should be equipped with motion detectors to reduce continuous illumination.
5. Where feasible, place electric power lines underground or on the surface as insulated, shielded wire to avoid electrocution of birds. Use the most recent recommendations of the Avian Power Line Interaction Committee (APLIC 2006, 2012) for any required above-ground lines, transformers, or conductors to reduce collisions and electrocutions. When transmission lines must be above-ground, avoid placing lines within wetlands and over canyons.
6. Install and replace flight diverters, as needed on the proposed transmission line to render the line more visible to both resident listed and migratory birds, including night-migrating birds.
7. Install fence markers or other devices on perimeter fences to render the fence more visible to both resident listed and migratory birds to reduce collision risk.
8. There are several projects in San Diego County within the Salton Sea basin that were not included in the cumulative impact table, for example, NRG's Borrego Solar Project located on 308 acres of privately owned land northeast of Borrego Springs. These projects should be added and included in the cumulative impact analysis as they pose similar threats to migratory birds in the Salton Sea basin.



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#### Desert Pupfish

1. The draft EIR states the Project will apply 'advanced, environmentally safe, polymer emulsion dust control palliatives' to control erosion and dust. To avoid impacts to desert pupfish and its designated critical habitat within San Felipe Creek, we recommend polyacrylamide (PAM) compounds be used with the following constraints:
  - use only products containing <0.05% residual monomer by volume
  - use only anionic forms of polyacrylamides with high molecular weight
  - use only pre-mixed PAM's in a water-based formulation, and
  - do not exceed the recommended rate as that may result in unanticipated impacts

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#### Literature Cited

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- Runge, J. P., M. C. Runge and J. D. Nichols. 2006. The role of local populations within a landscape context: defining and classifying sources and sinks. *American Naturalist* 167:925-938.
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- [Service] U.S. Fish and Wildlife Service. 2009. Yuma clapper rail (*Rallus longirostris yumanensis*) recovery plan. Draft first revision. U.S. Fish and Wildlife Service, Southwest Region, Albuquerque, New Mexico. 73 pp.

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[Service] U.S. Fish and Wildlife Service. 2014. Yuma clapper rail survey data 2006-2013, version: January 31, 2014. U.S. Fish and Wildlife Service, Ecological Services, Phoenix, Arizona.

Young, K.V. and A.T. Young. 2005. Draft final report: indirect negative effects of human activity on the flat-tailed horned lizard. Report submitted to Arizona Game and Fish Department, Yuma, Arizona. 11 pp.

#### **Personal Communications**

Trouette, A. 2014. Bureau of Land Management, El Centro, California. Email regarding documentation that flat-tailed horned lizards were found in fallow agricultural fields to Felicia Sirchia, U.S. Fish and Wildlife Service, Palm Springs, California. May 2, 2014.



### 3.0 COMMENTS AND RESPONSE TO COMMENTS

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#### RESPONSE TO COMMENT LETTER 4

**Commenter:** Kennon A. Corey, Assistant Field Supervisor, United States Department of the Interior, Fish and Wildlife Service

**Date of Letter:** June 5, 2014

**Response to Comment 4-1:** The comment provides introductory remarks and a description of the proposed Project. No response is required.

**Response to Comment 4-2:** The comment states that the Project would result in permanent, direct effects to approximately 1,243 acres of vegetation communities and other land cover types.

As explained in the Draft EIR, while the construction of the Project would result in temporary conversion of idle farmland, the Draft EIR assumed that construction of the Project would result in permanent impacts to approximately 1,238 acres of vegetation communities/land cover types (See, e.g., Draft EIR page 4.12-34.) This would occur as a result of vegetation removal, grading, and installation of Project components on the Project site. (*Id.*) During operation, the solar farm complex site, 92 kV transmission line corridor and IID Anza Substation areas would be maintained to avoid establishment of a sensitive vegetation community or land cover type (Draft EIR page 4.12-36.) Reclamation would be undertaken at the end of the Project's useful life of 20-25 years. The Applicant has submitted a Reclamation Plan to the County detailing the Applicant's protocol to return the solar farm complex site to farmland. At the end of the Project's useful life, the Reclamation Plan would be implemented. Therefore impacts associated with the temporary conversion of the Project site's 1,243 acres of vegetation communities would be considered less than significant.

**Response to Comment 4-3:** This comment provides introductory information regarding the responsibilities of the United States Fish and Wildlife Service (USFWS), its goal to encourage development of renewable energy facilities on degraded and less environmentally valuable sites, and provide recommendations to help avoid and minimize adverse impacts to public trust resources, including migratory birds, Yuma clapper rail (*Rallus longirostris yumanensis*), flat-tailed horned lizard (*Phrynosoma mcallii*) and desert pupfish (*Cyprinodon macularius*). Comment noted.

The comment also states that USFWS supports the use of the proposed site as an appropriate location for the Project. The County acknowledges this support. Detailed responses to USFWS' comments on migratory birds, Yuma clapper rail (*Rallus longirostris yumanensis*), flat-tailed horned lizard (*Phrynosoma mcallii*) and desert pupfish (*Cyprinodon macularius*) are provided below in responses to comments 4-4A thru 4-7.

**Response to Comment 4-4A:** The comment provides introductory information regarding the Migratory Bird Treaty Act (MBTA) and the responsibilities of the USFWS in implementing the MBTA. The comment does not identify any issues with the environmental analysis in the Draft EIR. Accordingly, no response is required.

**Response to Comment 4-4B:** The comment states that the Project is located near the Salton Sea, which is a critical stopover along the Pacific Flyway. The comment further states that the agricultural fields surrounding the Salton Sea provide habitat for a variety of wintering birds and shorebirds; that limited information exists on bird collisions at utility-scale solar energy facilities within the Salton Sea basin; and that utility-scale photovoltaic, parabolic trough, and power tower projects currently under construction or in operation are reporting mortalities and injuries to avian species involving various project features.

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The Salton Sea is an important stopover along the Pacific Flyway and that the agricultural fields adjacent to the Salton Sea provide habitat for wintering birds and shorebirds (Draft EIR page 4.12-48). Birds that migrate (particularly water birds) will fly between bodies of water and other available habitats, such as actively managed agricultural fields:

“The agricultural fields north and south of the Salton Sea are known to attract large numbers of water birds that migrate through the area, particularly shore birds and wading birds, because the agricultural fields provide an abundance of foraging opportunities (Shuford et al. 2000). Flooded fields provide more resources, along with vegetative food resources. A review of aerial photography reveals a near continuous swath of green irrigated cropland between the Gulf of Mexico and the Salton Sea within the United States.”<sup>1</sup>

The Project area is located on the western edge of the migration corridor for avian species traveling north through the desert region between the Gulf of California and the Salton Sea. The Gulf of California is located approximately 140 miles southeast of the Project area, and the southwestern shore of the Salton Sea is located approximately 11 miles east of the Project area, perpendicular to the path of the Pacific Flyway. There are no open bodies of water on the Project area and, with the exception of the Salton Sea, no open bodies of water occur within 20 miles of the Project area (Draft EIR, Figure 4.11-4 page 4.11-13).

The only actively managed agricultural fields located between the Project area and the Salton Sea form a narrow band along the edge of the Salton Sea, and are over 8 miles from the Project area. No other agricultural lands are located within 20 miles of the Project area.

Because the Project area is located on the western edge of the major migration route between the Gulf of California and the Salton Sea and their associated agricultural fields, and there are no water resources or agricultural fields near the Project area, large numbers of avian species are not expected to fly over the Project area. Given the large area of the Salton Sea and the abundance of natural resources for migratory birds that occur within and directly adjacent to the Salton Sea, coupled with the Project’s distance from these resources and the comparatively small area of the Project’s footprint, the likelihood of bird collisions with the Project is low. The Bird and Bat Conservation Strategy (BBCS), prepared with input from CDFW and USFWS, will document the avian protection measures incorporated into the Project by the Applicant as well as the mitigation measures included in the EIR, and will outline a monitoring program for Project operations that will help identify the level of avian mortality, if any, at the site. (See Response to Comment 4-4G.)

Currently, the available documentation regarding avian mortality levels at utility-scale solar energy facilities is for a small sample of projects that primarily include parabolic mirror trough and solar mirror power tower units (personal communication between Dr. Peter Bloom and Manjunath Venkat from Stantec Consulting Services, Inc., 2014). Publically available data on avian mortality for Photovoltaic (PV), horizontal single-axis tracker (HSAT) or Concentrated Photovoltaic (CPV) solar designs in general, or for PV projects in the Imperial Valley specifically, is lacking. Given the lack of information pertaining to PV projects in the Imperial Valley and the use of the PV solar technologies to be implemented by the Project, estimating or predicting potential impacts to avian species during operation of the Seville Solar Farm Complex is not feasible.

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<sup>1</sup> Letter dated September 23, 2013 from Brock Ortega, Principal/Senior Wildlife Biologist. Dudek, to Ashley Gungle, Planning and Development Services, County of San Diego, “Response to Comments for the Ocotillo Wells Solar Major Use Permit PDS2012-3300-12-004 – Biological Section of the Initial Study/Mitigated Negative Declaration.”

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However, there appear to be significant differences between the solar facilities constructed in the Imperial Valley and the utility-scale PV, parabolic trough, and power tower projects currently in operation in the Mojave Desert which are reporting mortalities and injuries to avian species involving various project features.<sup>2</sup> First, the only solar technology used by the solar projects constructed to date in the Imperial Valley has been photovoltaics – no projects constructed to date have utilized either the parabolic trough technology used by the Genesis Project or the power tower technology used by the Ivanpah Project. Second, most of those PV projects constructed in the Imperial Valley have used HSAT systems for the PV panels, not the fixed PV panel systems used by the Desert Sunlight Project studies in the Mojave Desert. Third, the Mojave Desert facilities are not located adjacent to a large body of water, such as the Salton Sea, nor located adjacent to agricultural lands which provide forage for birds associated with that large body of water, such as the agricultural lands associated with the Salton Sea. Therefore, for all these reasons the likelihood of the Project creating an avian collision hazard is considered low.

**Response to Comment 4-4C:** The comment states that three large transmission projects (including Sunrise Powerlink) and the Ocotillo Express Wind Energy Facility are not included in Table 3.0-1 of the Draft EIR and should be included in the cumulative effects analysis in the Final EIR.

The CEQA Guidelines define cumulative impacts as “two or more individual effects that, when considered together, are considerable or which compound or increase other environmental impacts” (Section 15355). The Guidelines further state that the individual effects can be various changes related to a single project or a number of separate projects, and that the “cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable future projects” (Section 15355(a), (b)). The Guidelines allow for the use of two different methods to determine the scope of projects for the cumulative impact analysis, including list and general plan projection methods. The Draft EIR examined cumulative effects using the List Method, which list past, present, and probable future projects producing related or cumulative impacts (Section 15130(b)(1)(A)).

The Draft EIR explains how cumulative projects were identified (Section 3.2.1, page 3.0-2):

“...when using a list it is important to consider the nature of each environmental resource being examined, the location of the project and its type. In keeping with these provisions, the cumulative project list was compiled in consultation with Imperial County. The projects identified were chosen because they are approved, proposed or reasonably foreseeable and include solar energy facilities of similar size and scale.”

The Draft EIR goes on to state (Section 3.2.1, page 3.0-6) that:

“Because the proposed Seville Solar Farm Complex is in a remote portion of the County with very little development of any kind, large scale solar projects within Imperial County as a whole (refer to Figure 3.0- 1a and 3.0-1b) were included in the cumulative setting. Several projects outside the control of Imperial County (i.e. those with BLM as the Lead) were also included based on their similarity (solar projects, electrical transmission projects). One project in San Diego County was included based on proximity (approximately 4 miles) to the Project site (refer to Figure 3.0-2).

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<sup>2</sup> “Avian Mortality at Solar Energy Facilities in Southern California: A Preliminary Analysis,” April 2014. <http://alternativeenergy.procon.org/sourcefiles/avian-mortality-solar-energy-ivanpah-apr-2014.pdf>



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The eastern end of the Sunrise Powerlink is located within the study area identified in Figure 3.0-1B, and will be added to Table 3.0-1 and Figure 3.0-1B of the Final EIR. However, because the Ocotillo Express Wind Energy Facility is a wind energy project, rather than a solar project, and located outside of the cumulative study area (approximately ten miles from the cumulative study area), it was not added to Table 3.0-1 of the Final EIR.

**Response to Comment 4-4D:** The comment states that the potential for birds to be attracted to the site with consequent risk of collision-related injury or mortality was not adequately addressed in the Draft EIR; that some avian species may perceive the solar field as a water body (“lake effect”), and that birds are attracted to permanent and ephemeral water sources in arid environments.

The Draft EIR’s analysis of the Project’s effects on migratory birds is adequate based on the Project’s geographic isolation, lack of appropriate habitat, and the PV technology to be utilized as a part of the Project’s design.

The potential for the Project to present a collision hazard is partially based on the Project’s geographic isolation and lack of appropriate habitat for migratory species. The Project area is located approximately 11 miles west of the Salton Sea, and is currently characterized by dry, fallow agricultural lands and desert uplands. It is completely surrounded by expansive, dry desert uplands, which separate the site from the Salton Sea and the agricultural lands adjacent to the Salton Sea which provide foraging habitat for migratory birds. Thus, habitat found within the Project area is not comparable to that of the Salton Sea, nor the habitat and active agricultural lands adjacent to the Salton Sea which attract and support migratory birds. The Project area does not support the resources (open bodies of water, wetlands or croplands) associated with an important stop-over location along the Pacific Flyway<sup>3</sup>, nor is it situated in the direct path between lands supporting active agricultural land, wetlands, open bodies of water or other important habitat for migrating birds moving within the Pacific Flyway (Draft EIR Figure 2.0-1). Given the Project area’s distance from the Salton Sea; its isolation from suitable habitat; and the overall lack of resources attractive to migratory birds, it is not likely that the Project area would attract migratory birds using the Pacific Flyway and the impact is considered less than significant. The Bird and Bat Conservation Strategy (BBCS), prepared with input from CDFW and USFWS, will document the avian protection measures incorporated into the Project by the Applicant and the mitigation measures included in the EIR, and will outline a monitoring program for Project operations that will help identify the level of avian mortality, if any, at the site. (See Response to Comment 4-4G.)

In addition to being habitat-dependent, the potential for the Project to present a collision hazard to migratory birds is also dependent upon the type of solar system to be installed. The Project would construct and operate only PV or CPV solar panels and their associated components within the Project area – no parabolic mirror trough or solar mirror power tower units are proposed. This is in contrast to the parabolic mirror and solar mirror power tower projects that have identified avian mortality and were cited by the commenter. There is very little publicly available documentation of avian mortality levels at utility-scale solar energy facilities and that which is available is for a small sample of projects that primarily include parabolic mirror trough and solar mirror power tower units (personal communication between Dr. Peter Bloom and Manjunath Venkat from Stantec Consulting Services, Inc., 2014). Publically available data on avian mortality for PV HSAT or CPV solar designs in general, as well as for PV projects in the Imperial Valley specifically, is lacking.

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<sup>3</sup> [http://www.fws.gov/refuge/Sonny\\_Bono\\_Salton\\_Sea/wildlife\\_and\\_habitat/index.html](http://www.fws.gov/refuge/Sonny_Bono_Salton_Sea/wildlife_and_habitat/index.html). Retrieved July 23, 2014.

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The Project's proposed PV and CPV modules would be specifically designed to absorb light, rather than reflect it (Draft EIR Table 2.0-6, page 2.0-29). PV modules are dark in color and have a coating that enables the panel to absorb as much of the available light as possible (Draft EIR Table 2.0-6, page 2.0-29). As a result, the Draft EIR concludes that impacts from bird strikes are not anticipated to be substantial (Draft EIR Impact 4.12-8, page 4.12-49).

Furthermore, current solar PV project designs are different than previously constructed solar facilities. The Project is planning to use HSAT systems to eliminate panel shading and to track the sun across the sky, with the intent to maximize electric power output at the beginning and end of the day. HSAT arrays are designed with slightly greater spacing between individual arrays, which means more of the ground between each of the arrays is visible from above which could incidentally make the solar field look less monolithic. The use of the HSAT systems would result in solar arrays that are arranged north-south (instead of the east-west configuration of fixed systems), and are turned toward the sun during the day. Both of these design features could further reduce the potential for any "lake-effect" from the Project. Therefore, there are no additional impacts beyond those already discussed in the Draft EIR, and no additional mitigation is required.

The BBCS, prepared with input from CDFW and USFWS, will document the avian protection measures incorporated into the Project by the Applicant as well as the mitigation measures included in the EIR, and will outline a monitoring program for Project operations that will help identify the level of avian mortality, if any, at the site (See Response to Comment 4-4G). This information will assist the agencies with determining if these project design features reduce the potential for any "lake-effect" from the Project when compared to the avian mortality documented on other utility-scale solar projects using different technologies (such as parabolic mirror trough and solar mirror power tower units).

**Response to Comment 4-4E:** The commenter believes that there is a potential for cumulative effects on the abundance and distribution of the bird species occurring as resident, winter visitors, and/or migrants in and around the Salton Sea, based on preliminary avian mortality reports from existing facilities; the Project's proximity to the Salton Sea and this section of the Pacific Flyway; and the large number of permitted or proposed utility-scale solar and transmission projects in the area.

As discussed in Response to Comment 4-4B, there are substantial differences between the solar facilities located in the Imperial Valley and the utility-scale photovoltaic, parabolic trough, and power tower projects currently under construction or in operation in the Mojave Desert which are reporting mortalities and injuries to avian species involving various project features. Thus, extrapolating the limited data on migratory bird species mortality at these Mojave Desert solar plants to the solar plants located in the Imperial Valley in general, and the proposed Seville Solar Farm Complex specifically, is not appropriate. As discussed in the Response to Comment 4-4D, given the Project area's distance from the Salton Sea; its isolation from suitable nesting and foraging habitat and the agricultural lands adjacent to the Salton Sea; and the overall lack of resources attractive to migratory birds, it is unlikely that the Project area would attract migratory birds using the Pacific Flyway. Given the large area of the Salton Sea and the abundance of natural resources for migratory birds that occur within and directly adjacent to the Salton Sea, coupled with the Project's distance from these resources and the small area of the Project's footprint compared to the surrounding area, the likelihood of bird collisions with the Project is low.

Moreover, Response to Comment 4-4D documents that the Project would construct and operate only PV or CPV solar panels, which are specifically designed to absorb light, rather than reflect it,

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thereby limiting the potential for bird species to perceive the solar field as a water body (i.e., “lake effect”). Accordingly, the Draft EIR determined that impacts to migratory birds from striking the PV panels during Project operation would be considered less than significant. Response to Comment 4-4D further documents that current solar PV project designs are both spacing the individual PV arrays further apart than earlier designs and HSAT systems to eliminate shading and track the sun across the sky, both of which could incidentally further reduce the potential for any “lake effect” from the Project.

The Project would also not result in any indirect cumulative impacts to migratory birds from the loss of habitat through the conversion of agricultural fields because the Project area is not currently being farmed; farming ceased on some portions of the Project area decades ago. All agricultural activities on the Property have been suspended within the last few years. The only exception was a small area in the southeast corner of the Property which was planted with grain crops in 2012 (refer to, Appendix G of Draft EIR [Property Agricultural History, page 6]). The Project would also not result in the loss of any wetlands, water bodies or other important habitat for migrating birds moving within the Pacific Flyway (Draft EIR page 4.12-17). Therefore, the Project would not contribute to any indirect cumulative loss of these resources and no additional mitigation is required.

**Response to Comment 4-4F:** The commenter requests that the Final EIR provide an analysis of the direct and indirect effects to migratory birds associated with the Project over the 30-year permit period and describe measures to avoid, reduce, and mitigate those effects.

As described in Responses to Comments 4-4B and 4-4D, given the Project area’s distance from the Salton Sea; its isolation from habitat and the agricultural lands adjacent to the Salton Sea by expansive, dry desert uplands; and the overall lack of resources attractive to migratory birds, it is unlikely that the Project area would attract migratory birds using the Pacific Flyway. Given the large area of the Salton Sea and the abundance of natural resources for migratory birds that occur within and directly adjacent to the Salton Sea, coupled with the Project’s distance from these resources and the comparatively small area of the Project’s footprint, the likelihood of bird collisions with the Project is low.

Furthermore, Response to Comment 4-4D documents that the Project would construct and operate only PV or CPV solar panels, which are specifically designed to absorb light, rather than reflect it. As a result, the Draft EIR determined that impacts to migratory birds from striking the PV panels during Project operation would be considered less than significant (Draft EIR page 4.12-49). Response to Comment 4-4D further documents that current solar PV project designs are both spacing the individual PV arrays further apart than did earlier designs and using HSAT systems to eliminate shading and to track the sun across the sky, each of which could incidentally further reduce the potential for any “lake effect” from the Project.

The Project would also not result in any indirect impacts to migratory birds from the loss of any habitat through the conversion of agricultural fields because the Project area is not currently being farmed; farming ceased on some of the Project area decades ago. No wetlands, water bodies or other important habitat for migrating birds moving within the Pacific Flyway would be removed as a result of the Project. Therefore, the Project is not anticipated to create any significant indirect impacts to migratory birds.



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The USFWS report on its preliminary analysis of avian mortality at solar energy facilities in southern California<sup>4</sup> makes only one “bird mortality avoidance measure” recommendation which could have applicability to solar projects using PV panels (all the rest apply to solar thermal projects or open water storage ponds): incorporate visual cues into new panel design, which should be Ultraviolet (UV)-reflective or solid, contrasting bands spaced no further than 28 centimeters (i.e. 11 1/32 inches) from each other. This report provides the following additional discussion of this potential “bird mortality avoidance measure” (page 17):

“Variables that may affect the illusory characteristics of solar panels are structural elements or markings that may break up the reflection. Visual markers spaced at a distance of 28 cm or less have been shown to reduce the number of window strike events on large commercial buildings (City of Toronto Green Development Standard; Bird-friendly development guidelines. March 2007). . . . Photovoltaic panels at Desert Sunlight are arranged as large banks of small units that are 60 x 90 cm. The visually uninterrupted expanse of both these types of heliostat (*sic*) is larger than that which provides a solid structure visual cue to passerines. . . .

“The paper by Horvath et al cited above provides experimental evidence that placing a white outline and/or white grid lines on solar panels significantly reduced the attractiveness of these panels to aquatic insects, with a loss of only 1.8% in energy-producing surface area (page 1651). While similar detailed studies have yet to be carried out with birds, this work, combined with the window strike results, suggest that significant reductions in avian mortality at solar facilities could be achieved by relatively minor modifications of panel and minor design. This should be a priority for further research.”

Given that the Draft EIR determined that impacts to migratory birds from striking the PV panels during Project operations would be considered less than significant, and that the one “bird mortality avoidance measure” identified by USFWS which may be applicable to the Project is based on experimental evidence with aquatic insects which the USFWS itself states “should be a priority for further research,” it is premature to assume this to be a valid mitigation measure which should be applied to the Seville Solar Farm Complex.

The BBCS, prepared with input from CDFW and USFWS, will document the avian protection measures incorporated into the Project by the Applicant and the mitigation measures included in the EIR, and will outline a monitoring program for Project operations that will help identify the level of avian mortality, if any, at the site (See Response to Comment 4-4G.) This information will assist the agencies with determining if these project design features reduce the potential for any “lake-effect” from the Project when compared to the avian mortality documented on other utility-scale solar projects using different technologies (such as parabolic mirror trough and solar mirror power tower units).

**Response to Comment 4-4G:** The commenter recommends the development and implementation of a bird and bat mortality and injury monitoring program.

Section 3.5.3.1 (page 10) of the Biological Technical Report prepared for the Seville Project states that “Based on the list of bat species recorded in Imperial County (San Diego Natural History Museum 2012), cross-referenced with the species’ specific habitat requirements and preferences

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<sup>4</sup> “Avian Mortality at Solar Energy Facilities in Southern California: A Preliminary Analysis,” April 2014. <http://alternativeenergy.procon.org/sourcefiles/avian-mortality-solar-energy-ivanpah-apr-2014.pdf>

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(CDFW 1990), the potential for any bat species to occur in the survey area is none to very low, so bats are not addressed further.” Thus, implementation of a bat mortality and injury monitoring program for the Project is not warranted.

For all of the reasons stated in the Responses to Comments 4-4B, 4-4D, 4-4E, 4-4F and 4-5B - as well as the lack of existing evidence of avian mortality related to utility-scale solar developments in the Imperial Valley - construction, operation and reclamation of the Project are not anticipated to result in significant impacts to migratory birds:

- Mitigation:
  - Implementation of mitigation measure MM 4.12.8 (Vegetation clearing limitations) would reduce impacts to nesting birds protected under California Fish and Game Code and the MBTA during construction to less than significant.
- Location:
  - The Project area is located on the edge of the migratory bird migration route between the Gulf of California and the Salton Sea and their associated agricultural fields;
  - The southwestern shore of the Salton Sea is located approximately 11 miles east of the Project area, perpendicular to the path of the Pacific Flyway.
  - The Project area is completely surrounded by expansive, dry desert uplands, which separate the site from the Salton Sea and the agricultural lands adjacent to the Salton Sea which provide foraging habitat for migratory birds.
  - The Project area is not situated in the direct path between lands supporting active agricultural land, wetlands, open bodies of water or other important habitat for migrating birds moving within the Pacific Flyway.
- Technology and Design:
  - The Project PV and CPV modules would be specifically designed to absorb light, rather than reflect it.
  - The Project is proposing the use of photovoltaic technologies, not the parabolic trough or the power tower technologies used in the Mojave Desert and studied by the USFWS for avian mortality;
  - Current solar PV project designs are using horizontal single-axis tracking (HSAT) systems and slightly increasing the distance between the individual PV arrays to eliminate shading and to track the sun across the sky, which could incidentally reduce the potential for any “lake-effect” from the Project.
  - Publicly available documentation of avian mortality levels at utility-scale solar energy facilities – is for a small sample of projects that primarily include parabolic mirror trough and solar mirror power tower units (personal communication between Dr. Peter Bloom and Manjunath Venkat from Stantec Consulting Services, Inc., 2014).
- Migratory Bird Resources:
  - There are no migratory bird resources (open water bodies, wetlands or croplands) at the Project area which would draw large numbers of avian species over the Project area;

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- The Project would also not result in any indirect impacts to migratory birds from the loss of any habitat through the conversion of agricultural fields because the Project area is not currently being farmed; farming ceased on some of the Project area decades ago.

In addition, the Project Applicant has voluntarily agreed to develop, with input from CDFW and USFWS, and implement a Bird and Bat Conservation Strategy (BBCS), which will include as a component monitoring of the Project area to identify the level of mortality, if any, in the Project area during Project operations. The information collected through the BBCS would assist these agencies with identifying whether this type of project design reduces the potential for any “lake-effect” from the Project when compared to the avian mortality documented on other utility-scale solar projects using different technologies (such as parabolic mirror trough and solar mirror power tower units).

**Response to Comment 4-4H:** The commenter believes that the Applicant should use a different PV and tracking technology at each of the five solar energy project sites so that information could be derived that would increase the agency’s knowledge of technology-specific avian collision rates.

There is very little publicly available documentation of avian mortality levels at utility scale solar energy facilities – that which is available is for a small sample of projects that primarily include parabolic mirror trough and solar mirror power tower units (personal communication between Dr. Peter Bloom and Manjunath Venkat from Stantec Consulting Services, Inc., 2014). Publically available data on avian mortality for PV HSAT or CPV solar designs in general, or for PV projects in the Imperial Valley specifically, is lacking. The Project Applicant has voluntarily agreed to develop (with input from CDFW and USFWS) and implement a BBCS, which would include as a primary component monitoring of the Project area to identify the level of mortality, if any, in the Project area during Project operations. The development and implementation of this BBCS with the monitoring of any avian mortality from operations would provide data which would be valuable in evaluating avian mortality in the Imperial Valley in general and specifically in regards to the selected solar technology implemented for these projects.

As provided in the Draft EIR (page 1.0-5), two of the proposed Seville Solar Farm Complex Project basic objectives are:

- Use a proven and available solar PV technology to reliably and economically produce electricity during daylight hours, and
- Comply with the terms and requirements of the projects’ long-term power purchase agreements.

Each of the five solar energy projects would make individual business decisions regarding the purchase of solar PV technology and tracking system (if any) to best achieve both of these objectives. Because there are constant changes to solar PV technology and the terms and requirements of long-term power purchase agreements, and these projects are expected to be implemented over time, business decisions on technology and tracking may evolve over time. Accordingly, each of the individual projects requires the freedom to make business decisions based on each project’s situation, as well as the best available technologies; it is integral that each project has the freedom to contract and not be locked into a pre-determined solar technology and/or tracking system.

That said, current market conditions favor solar PV modules installed on horizontal single-axis trackers (HSAT) with greater separation between the arrays to reduce panel shading and maximize electric power output at the beginning and end of the day. As discussed in Response to

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Comment 4-4D, greater spacing between individual arrays means more of the ground is visible from above between the arrays, which would make the solar field look less monolithic. The use of the HSAT systems means that the solar arrays are arranged north-south (instead of the east-west arrangement of fixed systems), and are turned toward the sun during the day. Both of these design features could further reduce the potential for migratory birds to fall prey to any “lake-effect” from the Project.

**Response to Comment 4-5A:** The comment provides introductory information regarding Yuma clapper rail. The comment does not raise any issues with the environmental analysis in the Draft EIR. Accordingly, no response is required.

**Response to Comment 4-5B:** The comment states that marsh/water-associated bird species across all taxa represents about 40 percent of total birds reported killed at three utility-scale solar projects using different solar technologies (solar power tower, thin film PV and solar thermal trough) located in the Mojave Desert, and that available evidence suggests these solar technologies pose an attractive nuisance to which various water-associated birds are particularly vulnerable. As previously discussed (see Response to Comment 4-4B), there are substantial differences between the facilities located in the Imperial Valley and the utility-scale photovoltaic, parabolic trough, and power tower projects currently under construction or in operation in the Mojave Desert which are reporting mortalities and injuries to avian species involving various project features. Thus, extrapolating the limited data on marsh/water-associated bird species mortality at these Mojave Desert solar plants to the solar plants located in the Imperial Valley in general, and the Project specifically, is not appropriate. For example, the referenced Mojave Desert thin film solar PV project was noted to have a particularly high mortality among waterbirds, which was attributed to there being open water resource ponds on the site, which both attracted aquatic birds to the water feature and habituated the birds to the presence of an accessible aquatic environment in the area.<sup>5</sup> Netting to render the ponds at that site inaccessible or unattractive to these species was the recommended mitigation measure.<sup>6</sup> In contrast, no such water resource ponds which would attract aquatic birds to the area are proposed for the Project.

There is very little publicly available documentation of avian mortality levels at utility-scale solar energy facilities – that which is available is for a small sample of projects that primarily include parabolic mirror trough and solar mirror power tower units (personal communication between Dr. Peter Bloom and Manjunath Venkat from Stantec Consulting Services, Inc., 2014). Publically available data on avian mortality for PV HSAT or CPV solar designs in general, or for PV projects in the Imperial Valley specifically, is lacking. Given the lack of information covering PV projects in the Imperial Valley and the use of the PV solar technologies to be implemented by the Project, estimating or predicting potential impacts to avian species during operation of the Seville Solar Farm Complex project is not feasible.

The comment also states that documented fatalities of Virginia and sora rail along transmission lines in Imperial County indicate that there is an additional risk of mortality to rail posed by the gen-tie lines that are part of the transmission infrastructure connecting utility-scale projects to the power grid. The comment does not indicate if these water bird fatalities are connected to the construction of these transmission lines, or where they occurred, or what may have caused the fatalities. The Project would need to construct and operate only 3.0 miles of new 92 kV transmission line that would be overbuilt above an existing 12.5 kV distribution line, located

<sup>5</sup> “Avian Mortality at Solar Energy Facilities in Southern California: A Preliminary Analysis,” April 2014. <http://alternativeenergy.procon.org/sourcefiles/avian-mortality-solar-energy-ivanpah-apr-2014.pdf>

<sup>6</sup> “Avian Mortality at Solar Energy Facilities in Southern California: A Preliminary Analysis,” April 2014. <http://alternativeenergy.procon.org/sourcefiles/avian-mortality-solar-energy-ivanpah-apr-2014.pdf>

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immediately adjacent to State Route (SR) 78 for most of its length (Draft EIR, pages 2.0-23 to 2.0-26). The transmission line conductors would be supported by low-profile single pole structures with an average height of only 65 feet, only 20 feet taller than the existing distribution poles, and spaced approximately 280 feet apart. Moreover, the transmission line would not be located near or adjacent to rail habitat; the areas along the existing IID distribution line right-of-way adjacent to SR 78 are used by off-road vehicles and the United States-Mexico Border Patrol. (Draft EIR, page 2.0-23.) Implementation of mitigation measure MM 4.12.8 (Vegetation clearing limitations) and conformance with Avian Power Line Interaction Committee (APLIC) standards would also minimize impacts to avian migratory birds. As such, the potential effects of the construction and operation of the transmission component on marsh/water-associated bird species would not be substantially different than the effects of the existing distribution line. Impacts to water birds such as Virginia and sora rail are considered less than significant with the incorporation of mitigation measure MM 4.12.8 and no additional mitigation is required.

**Response to Comment 4-5C:** The comment states that solar and transmission projects within the resident and dispersal range of Yuma clapper rail are likely to kill multiple individuals over the life span of these projects, and recommends that the final EIR address the direct, indirect, and cumulative effects of the Project on Yuma clapper rail, and appropriate mitigation measures.

The Project area does not provide suitable habitat for Yuma clapper rail, and is not likely located within the resident and dispersal range of the Yuma clapper rail. The same is true for the short length of 92 kV transmission line that would be constructed adjacent to SR 78 as a result of the Project. The Project would also not construct or use onsite water supply ponds which would attract aquatic birds to the area. As the comment states, populations of this species are primarily restricted to managed wetlands along the lower Colorado River Valley and near the Salton Sea, with a few additional small and scattered locations along the Gila River in Arizona and refuges in Nevada. The Project area is located approximately 11 miles west of the Salton Sea and approximately 9 miles west of the nearest agricultural land near the San Felipe Creek outfall that could provide suitable habitat conditions for Yuma clapper rail. In addition to the Project area being located a considerable distance west from the closest potential suitable habitat for the species, there is no suitable habitat to the west of the Project area, and thus the Project area is not located along a path between two locations supporting suitable habitat for the species. The USFWS's website for Yuma clapper rail indicates that most individuals do not migrate, but have minor seasonal changes in their activity areas, with the presence of scattered habitat patches being important.<sup>7</sup> Given the lack of suitable habitat and the isolation of the Project area from potential habitat in the region, Yuma clapper rail would not be expected to utilize the Project area or disperse over the site during seasonal movement. Accordingly, impacts to Yuma clapper rail would be considered less than significant and no additional mitigation measures are required.

**Response to Comment 4-5D:** The comment states that if incidental take of Yuma clapper rail is anticipated over the 30-year life of the Project, the Final EIR should include a mitigation measure requiring that the Applicant apply for an incidental take permit through the development of a Habitat Conservation Plan (HCP) that satisfies the permit issuance criteria stipulated under section 10(a)(1)(B) of the Act.

For all the reasons stated in responses to comments 4-4B through 4-4G and 4-5B through 4-5C, incidental take of Yuma clapper rail is not anticipated over the life of the Project.

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<sup>7</sup> USFWS website - <http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B00P> –accessed July 19, 2014.

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Under the Federal ESA, take may be authorized under Section 7 (16 USC § 1536) or Section 10 (16 USC § 1539). Pursuant to Section 10 of the Federal ESA, pursuit of an Incidental Take Permit “is not mandatory and a party can choose whether to proceed with the permitting process. However, if a party chooses not to secure a permit and the proposed activity, in fact, takes a listed species, the ESA authorizes civil and criminal penalties. Thus, a party may proceed without a permit, but it risks civil and criminal penalties if a ‘take’ occurs.” (*Defenders of Wildlife v. Bernal*, 204 F.3d 920, 927, 925 (9<sup>th</sup> Cir.) [holding development of a school on owl habitat was not a “take” because petitioner failed to meet its burden of proving by a preponderance of the evidence that the proposed construction would result in the “take” of a pygmy-owl].) Supporting biological evidence indicates construction and operation of the proposed Project is not likely to result in the “take” of any Yuma clapper rail.

Under Section 7, consultation and potential issuance of an Incidental Take Statement is only applicable to a project requiring a “federal agency action.” (*Karuk Tribe of Cal. V. United States Forest Serv.*, 640 F.3d 979 (9<sup>th</sup> Cir. 2011) [“Congress intended that the ‘discrete burdens [of the ESA] properly fall on a private entity only to the extent that the activity is dependent on federal authorization.”] (original emphasis).) As stated in the EIR, no new federal permits or funding is required for the proposed Project.

Therefore no additional mitigation measures are required for this species. For these same reasons there is no need to include a mitigation measure in the Final EIR requiring that the Applicant apply for an incidental take permit through the development of a Habitat Conservation Plan (HCP) that satisfies the permit issuance criteria stipulated under section 10(a)(1)(B) of the Act.

**Response to Comment 4-6A:** The comment states that although measures proposed in the Draft EIR will reduce direct adverse effects of the Project on flat-tailed horned lizards, indirect effects to lizards occurring adjacent to the proposed Project were not addressed.

Mitigation measure MM 4.12.3 specifies measures in accordance with IID’s ROW Grant and consistent with the Rangewide Management Strategy (Draft EIR page 4.12-42.) Mitigation measure MM 4.12.3 would reduce the direct impacts to flat-tailed horned lizard through worker education, designation of a field contact representative (FCR), demarcation of work areas, relocation of lizards, use of existing roads, minimizing grading and vegetation clearance and covering of construction holes. The Applicant’s FCR shall be authorized by the CDFW and the work would be performed in consultation with CDFW, as necessary.

The Project area is not likely to become a FTHL “population sink” due to mortality along the interior and exterior access roads as these roads will be narrow, unpaved, one- or two-lane roads which would be used very sparingly during Project operations (conservatively estimated at 10 round trips per day). Nor is the Project area likely to become a “population sink” due to increased predation because the Project would not create new artificial avian perch sites. See Response to Comment 4-6C for a response to the comments regarding the indirect effects of the Project.

**Response to Comment 4-6B:** The comment states that, based on surveys of other areas of fallow agricultural fields adjacent to open desert and a flat-tailed homed lizard management area, lizards likely occur on the Project site.

The two areas of fallow agricultural fields, located over 25 miles apart, would not necessarily provide the same habitat for, or support the same numbers of, FTHL because each is “adjacent” to open desert and a flat-tailed homed lizard management area.



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The Draft EIR states that “The nearest observation of FTHL reported to the CNDDDB is in the west Tarantula Wash area, 0.8 mile west/northwest of the junction of Tarantula Wash and SR 78 in the OWSRVA (*sic*). The [observation] occurred in May 2008.” (Draft EIR, page 4.12-21). No observations of FTHL were reported from the biological surveys of the entire Project area and adjacent lands (Draft EIR, Appendix I, Attachment B). The Draft EIR also reported that “Much of the survey area has been heavily impacted by agricultural operations.” (Draft EIR, page 4.12-21). Finally, the Draft EIR (Appendix I, page 10) states that “The survey area is not within a FTHL Management Area, although the West Mesa Management Area occurs just east and south of the eastern end of the proposed transmission line (FTHL Interagency Coordinating Committee 2003).” All but the very northeast corner of the Project area is located at a distance greater than 1,480 feet from the western boundary of the West Mesa Management Area, which aligns diagonally from northwest to southeast, roughly parallel to Tarantula Wash in Section 24.

In contrast, the EIR for the C Solar West Project reported that FTHL were observed during the general biology surveys on or adjacent to all project components:

“Due to the known occupation of FTHL within the MA, no protocol-level surveys were required or conducted along the proposed transmission line. Five FTHLs were observed incidentally within the survey area during various biological surveys conducted in April, May, June, and July 2010. As depicted in Figure 3.12-3a, three individuals were observed within the abandoned agricultural fields of the solar energy facility (Proposed Action, Alternative 1-Alternative Transmission Line Corridor, Alternative 2-Alternative Transmission Line Corridor, and Alternative 3-Reduced Solar Energy Facility Site). Two individuals were observed within the IVW-2 corridor (Proposed Action, Alternative 1, and Alternative 3 Transmission Line Corridor).” (Imperial Solar Energy Center West Draft EIR and EA, page 3.12-27).<sup>8</sup>

The Imperial Solar Energy Center West Project Draft EIR also states that “The action area for the proposed project falls partially within the Yuha Basin [FTHL] Management Area (see Figure 3.12-4); while the proposed transmission line falls entirely within the MA, the proposed Solar Energy Facility is adjacent to the MA.”

Given the differences in recorded observations of individual FTHL within these two areas, it is inappropriate to assume that because the fallow agricultural land proposed for the Imperial Solar Energy Center West Project is occupied FTHL habitat that the Seville Project idle agricultural farmland is also occupied farmland.

The Draft EIR identified mitigation measure MM 4.12.3, which would implement the terms and conditions of IID’s ROW Grant, consistent with the Rangewide Management Strategy, to reduce direct and indirect impacts to FTHL on those lands identified as habitat (Draft EIR page 4.12-42). This mitigation measure would reduce impacts to FTHL through worker education, designation of a field contact representative (FCR), demarcation of work areas, relocation of lizards, use of existing roads, minimizing grading and vegetation clearance and covering of construction holes. (Draft EIR page 4.12-43.) Each of these measures would serve to reduce the likelihood of impacting FTHL should they be present within those lands identified as potential habitat. Following implementation of these measures, impacts to FTHL would be reduced to less than significant. (Draft EIR page 4.12-43.)

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<sup>8</sup> Imperial Solar Energy Center West Draft Environmental Impact Report and Environmental Assessment, November 2010.

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**Response to Comment 4-6C:** The comment states that it is likely that the effects from the Project would extend past the facility boundary (“edge effects”) and indirect loss of habitat currently used by flat-tailed horned lizards is likely to be greater than that assessed in the Draft EIR, with loss of suitable habitat potentially extending into the West Mesa Management Area.

Mitigation measure MM 4.12.3 specifies measures in accordance with IID’s ROW Grant and consistent with the Rangewide Management Strategy to reduce direct and indirect impacts to FTHL on those lands identified as habitat (Draft EIR page 4.12-42). Mitigation measure MM 4.12.3 would reduce impacts to flat-tailed horned lizard through worker education, designation of a field contact representative (FCR), demarcation of work areas, relocation of lizards, use of existing roads, minimizing grading and vegetation clearance and covering of construction holes. The Applicant’s FCR shall be authorized by the CDFW and the work would be performed in consultation with CDFW, as necessary.

Because they have been heavily impacted by agricultural operations, all other areas within the potential impact footprint of the Project do not support habitat typically associated with FTHL. The nearest observation of FTHL reported to the CNDDDB is in the west Tarantula Wash area, 0.8 mile west/northwest of the junction of Tarantula Wash and SR 78 in the OWSVRA (Draft EIR p. 4.12-21), and no observations of FTHL were reported from the biological survey of the Project area and adjacent lands (Draft EIR, Appendix I [Seville Solar Project Biological Technical Report, Appendix, Animal Species Observed]).

The Project area is not likely to become a “population sink” due to mortality along the interior and exterior access roads. Unlike the paved roads linked to FTHL mortality in the cited Barrows report,<sup>9</sup> the interior and exterior access roads within the Project area would not be paved and would not likely attract FTHL seeking to thermoregulate their body heat.

Furthermore, those instances of road-related mortality cited in the Barrows report involve a “busy four-lane road” and a “less used two-lane road,” both of which were paved and which supported traffic from the adjacent intensive land uses, including a residential subdivision and golf course. The interior and exterior Seville Solar Farm Complex roads will be narrow, unpaved, one- or two-lane roads which would support construction and reclamation traffic, but used very sparingly during operations. During the estimated 25+ years of operational life of the Project, traffic volume will be very low, conservatively estimated at 10 round trips per day. Thus, the potential for FTHL to be killed or injured by vehicles during Project operations would not be expected to be appreciably different than under the current, idle agricultural conditions.

Nor is the Project area likely to become a “population sink” due to increased predation due to artificial avian perch sites. The Rangewide Management Strategy<sup>10</sup> reports that densities of some predators are elevated at or near agricultural lands and relatively high densities of predators [e.g., round-tailed ground squirrel (*Xerospermophilus tereticaudus*), common raven (*Corvus corax*), greater roadrunner (*Geococcyx californianus*), American kestrel (*Falco sparverius*), burrowing owl (*Athene cunicularia*), and loggerhead shrike (*Lanius ludovicianus*)] appear to result in elevated predation on FTHL in adjacent undeveloped lands. It should be noted that three of the six predators mentioned in the Rangewide Management Strategy were observed during biological surveys of the Project site in its current “idle farmland” condition. The Project would not introduce

<sup>9</sup> Barrows, C.W., M.F. Allen, and J.T. Rotenberry. 2006. Boundary processes between a desert sand dune community and an encroaching suburban landscape. *Biological Conservation* 131:486-494.

<sup>10</sup> Flat-tailed Horned Lizard Interagency Coordinating Committee. 2003. Flat-tailed horned lizard rangewide management strategy, 2003 revision. 80 pp. plus appendices.

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uses that would attract predators into the local area. The most problematic avian predator in the desert is the common raven. Raven populations and associated predation increase in suburban desert environments due to the "...constantly replenished food and other resources that human development have made available..."<sup>11</sup> The environment created by this Project would not provide appropriate suburban raven food resources, which is generally in the form of trash. As stated in the Draft EIR (page 2.0-28), "All waste, including trash and litter, garbage, and other solid waste would be removed to a disposal facility authorized to accept such materials."

The Project would not create significant new artificial avian perch sites. Of the approximately 3.0 miles of transmission line that would be constructed as part of the Project, about 2.25 miles would be overbuilt above an existing electrical distribution line, and only 0.75 miles would consist of new construction (Draft EIR page 2.0-13).

The Project would not introduce uses that would present an adverse edge effect beyond that which already exists because of the historical agricultural use of the property. The previous agricultural activities on the Project area resulted in the elimination of FTHL habitat from the Project area and created an adverse edge effect on the adjacent undeveloped lands from the active agricultural activities. The adjacent lands are expected to experience less anthropogenic-related disturbance over the life of the Project compared to the previous decades while the Project area was in active agricultural use.

Finally, the comment states that several studies have found that indirect project effects to FTHL may extend from 490 to 1,480 feet from a project, and that the impact analysis did not address this indirect impact. The studies cited in the comment are not applicable to the indirect impact analysis for this Project because they evaluated indirect project impacts to lands adjacent to a suburban project. Notwithstanding the inapplicability of the two referenced distances for indirect Project effects to FTHL, all but the very northeast corner of the Project area is located at a distance greater than 1,480 feet from the western boundary of the West Mesa Management Area, which aligns diagonally from northwest to southeast, roughly parallel to Tarantula Wash in Section 24. Thus, only 80 acres of the 136,100-acre West Mesa Management Area is within 1,480 feet of the Project area.

The environment created by a suburban project is very different from that which would be created by this solar project. Primarily, the amount of traffic generated by a suburban use is much greater than would be generated by operation of the Seville Solar Farm Complex. The total number of round trips per day for the Project is estimated at 10 (Draft EIR, Table 4.3-6). This is a very small fraction of the number generated by suburban development where the typical number of trips per day is on the order of 10 per single-family residence. Nor would the Project provide other resources (such as food or perches) that would increase the number or success rate for FTHL predators. Accordingly, there are no additional impacts beyond those analyzed in the Draft EIR and with the incorporation of mitigation measure MM 4.12.3 (Draft EIR page 4.12-42), any impacts to FTHL would be reduced to less than significant.

**Response to Comment 4-7:** The comment recommends adopting dust control palliative measures in the enclosure to its letter to avoid and minimize potential indirect effects to desert pupfish.

The Draft EIR concludes that there will be no significant impacts to desert pupfish and their designated critical habitat from construction, operation or reclamation of the Project (Draft EIR p. 4.12-48 and 4.12-49). Dust generated during construction would be controlled by watering and,

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<sup>11</sup> <http://www.usgs.gov/newsroom/article.asp?ID=160#.U73ZlPldUYk>. Retrieved July 23, 2014.

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if and as necessary, the use of other dust suppression methods and materials accepted by the ICAPCD or the California Air Resources Board (CARB) (Draft EIR, page 2.0-20; mitigation measure MM 4.4.1a [Compliance with ICAPCD Regulation VIII], page 4.4-44). The comment does not identify a deficiency in the Draft EIR analysis. The recommendations regarding the use of polyacrylamide (PAM) compounds as a dust-controlling agent are noted.

**Response to Comment 4-9:** The comment requests preparation and implementation of a Bird and Bat Conservation Strategy (BBCS), which would include a description and assessment of existing habitat, risk characterization, and avian risk minimization measures; a statistically robust, systematic avian and bat mortality and injury monitoring program; an adaptive management and decision-making framework for reviewing, characterizing and responding to monitoring results; and specific conservation measures and/or programs to avoid, minimize, reduce or eliminate avian and bat injury or mortality over time.

Section 3.5.3.1 (page 10) of the Biological Technical Report states that “the potential for any bat species to occur in the survey area is none to very low...” Thus, preparation and implementation of a bat conservation strategy for the Project is not warranted.

Further, for all of the reasons stated in the Responses to Comments 4-4B, 4-4D, 4-4E, 4-4F and 4-5B, which are summarized in Response to Comment 4-4G, construction, operation and reclamation of the Project would not result in significant impacts to migratory birds, and the preparation and implementation of a bird conservation strategy for the Project is not warranted. The Project Applicant has voluntarily agreed to develop, with input from CDFW and USFWS, and implement a BBCS, which would include as a primary component monitoring of the Project area to identify the level of mortality, if any, in the Project area during Project operations. The development and implementation of this BBCS with the monitoring of any avian mortality from operations would provide data which would be valuable in evaluating avian mortality in the Imperial Valley in general and specifically in regards to the selected solar technology implemented for these projects.

**Response to Comment 4-10:** The comment requests that an avian and bat mortality and injury monitoring program should be produced and include onsite monitoring; statistically robust carcass removal and searcher efficiency trials pre and post construction; utilization of accepted statistical methods to generate facility estimates of potential post construction avian and bat impacts; handling and reporting requirements consistent with state or federal permits; and development of an injured bird response plan. The comment also requests that post construction monitoring studies should be conducted by a third-party independent contractor for at least 3 years following commencement of commercial operation.

Section 3.5.3.1 (page 10) of the Biological Technical Report states that “the potential for any bat species to occur in the survey area is none to very low....” Thus, preparation and implementation of a bat mortality and injury monitoring program for the Project is not warranted.

Further, for all of the reasons stated in the Responses to Comments 4-4B, 4-4D, 4-4E, 4-4F and 4-5B, which are summarized in Response to Comment 4-4G, construction, operation and reclamation of the Project would not result in significant impacts to migratory birds, and the preparation and implementation of an avian mortality and injury monitoring program for the Project is not warranted. The Project Applicant has voluntarily agreed to develop, with input from CDFW and USFWS, and implement a Bird and Bat Conservation Strategy (BBCS) which would include as a primary component monitoring of the Project area to identify the level of mortality, if any, in the Project area during Project operations. The development and implementation of this BBCS with the monitoring of any avian mortality from operations would provide data which would

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be valuable in evaluating avian mortality in the Imperial Valley in general and specifically in regards to the selected solar technology implemented for these projects.

**Response to Comment 4-11:** The comment requests that the Project avoid using lattice-type structures and placing external ladders and platforms on towers to minimize perching and nesting. As stated in the Draft EIR (page 2.0-24, 2.0-26 and Figure 2.0-10), the transmission line will be supported by single pole structures and will not utilize either lattice-type structures or external ladders and platforms.

**Response to Comment 4-12:** The comment requests that the Project ensure that panels used are tracking panels to allow for maximum flexibility to minimize bird impacts. As stated in Draft EIR (page 4.1-18-19), “The Project proposes to use either thin film or crystalline solar photovoltaic (PV) technology modules mounted on fixed frames or horizontal single-axis tracker (HSAT) systems; concentrating photovoltaic (CPV) systems mounted on a dual-axis tracking system; or a mix of all three technologies.” As discussed in Response to Comment 4-4D, current solar PV project designs are trending toward the use of HSAT systems which track the sun across the sky, with the intent to maximize electric power output at the beginning and end of the day.

**Response to Comment 4-13:** The comment requests that the Project minimize outdoor lighting and, if used, be downward directed to reduce skyward illumination. As stated in Draft EIR (Table 2.0-6, Applicant proposed measures included as part of the proposed Seville Solar Farm Complex Project), project lighting would be directed on site and would incorporate shielding as necessary to minimize illumination of the night sky and potential impacts to surrounding viewers.

**Response to Comment 4-14:** The comment requests that where feasible, electric power lines should be placed underground or on the surface as insulated, shielded wire to avoid electrocution of birds. The comment also requests that the most recent Avian Power Line Interaction Committee (APLIC) recommendations be used.

As stated in the Draft EIR (page 2.0-12-13), “Strings of PV modules would be fused and electrically combined together, then electrically connected to an inverter through underground wiring. The inverters would take the direct current (DC) electricity produced by the PV modules and convert it to AC electricity. A transformer would then increase the voltage of the AC electricity to 13.8 kV or 34.5 kV so that the power could be economically and efficiently conducted over aboveground gen-tie lines to the project substation in Lot D (see Figure 2.0-7). Each project would deliver its produced power over a separate, aboveground 13.8 kV or 34.5 kV gen-tie line constructed in the transmission common interest development lot (Lot A) from the solar farm complex site to the individual project’s substation.”

As also stated in the Draft EIR (page 2.0-1), approximately three miles of new, aboveground IID 92 kV transmission line would be constructed for interconnection of the new IID switch station to the existing IID Anza Substation, 2.25 miles of which would be constructed atop an existing IID 12.5 kV distribution line. The transmission line and components will conform to 2012 Avian Power Line Interaction Committee (APLIC) standards for collision reducing techniques (Draft EIR. page 4.12-50).

**Response to Comment 4-15:** The comment requests that flight diverters on the proposed transmission line are installed, and replaced as needed.

The “Avian Power Line Interaction Committee” (APLIC) web site (<http://www.aplic.org/Collisions.php>) states that:

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“Power lines located between feeding and roosting areas of flocking birds may present an increased collision risk. This is especially true for lines near rivers, lakes, or wetlands where fog may be common, making lines less visible. Human activity near lines may flush birds, with startled birds potentially colliding with power lines. Heavy-bodied, less agile birds, or those within flocks may lack the ability to quickly negotiate obstacles, making them more vulnerable to power line collisions. Collisions most often occur with the overhead static wire, which may be less visible than energized conductors due to its smaller diameter. Most bird collisions involve waterfowl, pelicans, and cranes.”

Because the proposed Project transmission line and gen-tie lines do not span, and are not located adjacent to, rivers, lakes, or wetlands where fog may be common (Draft EIR, Section 4.11.2, page 4.11-7 through 4.11-20), and are not located between feeding and roosting areas (see Response to Comment 4-4D), no flight diverters are warranted for these transmission lines.

**Response to Comment 4-16:** The comment requests that fence markers or other devices on perimeter fences be installed. Fence markers are applied to barbed wire fences to increase the visibility of these fences to grassland birds to help reduce collision mortality.<sup>12</sup> Instead of using barbed wire, each of the solar energy project lots would be enclosed within a perimeter chain link security fence (Draft EIR, page 2.0-18 and page 2.0-23). As chain link fences are much more visible than barbed wire fences, and fence markers are not available for chain link fences, the installation of fence markers on the perimeter fences is not warranted or feasible.

**Response to Comment 4-17:** The comment states that several projects in San Diego County, including NRG’s Borrego Solar Project, within the Salton Sea basin were not included in the cumulative impact table, and should be added as they pose similar threats to migratory birds in the Salton Sea basin.

Response to Comment 4-4C quotes the Draft EIR (Section 3.2.1, page 3.0-6) to explain how cumulative projects were identified:

“Because the proposed Seville Solar Farm Complex is in a remote portion of the County with very little development of any kind, large scale solar projects within Imperial County as a whole (refer to Figure 3.0- 1a and 3.0-1b) were included in the cumulative setting. Several projects outside the control of Imperial County (i.e. those with BLM as the Lead) were also included based on their similarity (solar projects, electrical transmission projects). One project in San Diego County was included based on proximity (approximately 4 miles) to the Project site (refer to Figure 3.0-2).

Given that the NRG Borrego Solar Project is located outside of the cumulative impacts study area, over 22 miles northwest of the proposed Project in San Diego County, it was not added to Table 3.0-1 of the Draft EIR.

**Response to Comment 4-18:** The comment recommends that, to avoid impacts to desert pupfish and its designated critical habitat within San Felipe Creek from the application of dust control palliatives, polyacrylamide (PAM) compounds be used within specified constraints.

As discussed in Response to Comment 4-7, the Draft EIR concludes that there will be no significant impacts to desert pupfish and their designated critical habitat from construction, operation or reclamation of the Project (Draft EIR pp. 4.12-48 and 4.12-48). Dust generated during construction

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<sup>12</sup> “Reducing Grouse Collision Mortality by Marking Fences (Oklahoma),” Donald H. Wolfe, (G.M. Sutton Avian Research Center, University of Oklahoma, et al. Retrieved July 23, 2014 from [http://www.fws.gov/southwest/es/documents/R2ES/LitCited/LPC\\_2012/Wolfe\\_et\\_al\\_2009.pdf](http://www.fws.gov/southwest/es/documents/R2ES/LitCited/LPC_2012/Wolfe_et_al_2009.pdf)



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would be controlled by watering and, if and as necessary, the use of other dust suppression methods and materials accepted by the ICAPCD or the California Air Resources Board (CARB). (Draft EIR, page 2.0-20; mitigation measure MM 4.4.1a [Compliance with ICAPCD Regulation VIII], page 4.4-44). The comment does not identify a deficiency in the Draft EIR analysis. The recommendations regarding the use of polyacrylamide (PAM) compounds as a dust-controlling agent are noted.