

## **1.0 PURPOSE AND NEED FOR ACTION**

### **1.1 BACKGROUND AND PROPOSED ACTION**

Private landowners, corporations, state or local governments, or other non-Federal landowners who wish to conduct otherwise lawful activities on their land that might incidentally *take* wildlife that is listed as endangered or threatened under the Federal Endangered Species Act of 1973, as amended (16 U.S.C Section 1531 et seq., 1539) (ESA) must first obtain an incidental take permit (ITP) from the U.S. Fish and Wildlife Service (Service). As discussed further in Section 1.3, ESA take is generally defined as harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting a protected animal species.

Maricopa Sun, LLC, has submitted an application to the Service for an ITP pursuant to Section 10(a)(1)(B) of the ESA, as amended, for activities covered under the Maricopa Sun Solar Complex Habitat Conservation Plan (Maricopa Sun HCP) The Draft HCP dated August 2013 is included in Appendix B of this EIS. Maricopa Sun LLC has requested that an ITP from the Service authorize the incidental take of five species, including three federally listed species and 2 other species that may become federally listed during the 35-year life of the HCP. These species are collectively referred to as the Covered Species and include the following: blunt-nosed leopard lizard (*Gambelia sila*), Tipton kangaroo rat (*Dipodomys nitratooides nitratooides*), San Joaquin kit fox (*Vulpes macrotis mutica*), Nelson's antelope squirrel (*Ammospermophilus nelsoni*), and burrowing owl (*Athene cunicularia*).

Maricopa Sun LLC proposes to construct and operate the Maricopa Sun Solar Complex Project (Project), a 700 megawatt (mw) photo-voltaic power generating facility<sup>1</sup>. Electricity generated by the photo-voltaic facility will be sold to retail energy providers and made available to consumers. The Project, on approximately 5,784.3 acres, is generally located along South Lake Road and along Copus Road approximately 3 miles from the unincorporated community of Maricopa in southwestern Kern County (Covered Lands) (See Chapter 2.0, Figure 2-2 of this EIS). Activities proposed to be covered by the ITP include pre-construction, construction, operations and maintenance, decommissioning, preservation and enhancement, and conservation plan management (Covered Activities). (See Chapter 2.0 of this EIS, for proposed land use/disturbance. More detailed information can be found in the Draft HCP, contained in Appendix B of this EIS). At the end of the life of the Project (35 years) and after decommissioning, disturbed lands will be placed in a conservation easement that will be held in perpetuity.

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<sup>1</sup> The amount of energy from a 700 mw facility is calculated as follows: 700 mw x 8,766 hours/year x 30% capacity factor = 1.84 million MWh = 1,840 gigawatt hours = 1.84 terrawatt hours

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This Environmental Impact Statement (EIS) has been prepared by the Service pursuant to the National Environmental Policy Act (NEPA) (42 U.S.C. §4321 *et seq.*) This EIS evaluates the effects of issuing an ITP pursuant to Section 10(a)(1)(B) of the ESA for activities associated with the proposed Maricopa Sun Solar Complex Project (Project or Proposed Action). Under Section 10(a)(2)(A) of the ESA, any application for an ITP must include a conservation plan that details, among other things, the impacts of take and the steps taken to minimize and mitigate such impacts.

The ITP applications request authorization for the incidental take of three federally listed species and for two currently unlisted species that may become listed within the 35-year permit period that may result from implementing activities covered under the proposed Maricopa Sun HCP.

## **1.2 PURPOSE AND NEED FOR THE PROPOSED FEDERAL ACTION**

Certain areas of Maricopa Sun LLC's property are occupied by, or provide suitable habitat for, species that are presently listed as threatened and endangered under the ESA or may become listed under the ESA. Proposed pre-construction, construction, operations and maintenance, and decommissioning activities could result in take of the Covered Species, and Maricopa Sun LLC needs a long-term, comprehensive solution that assures compliance with the ESA.

The Service needs to ensure compliance with the ESA and continue to conserve the Covered Species and their habitats within the Maricopa Sun Solar project area through the use a comprehensive conservation program that improves habitat functions and connectivity. Specifically, the Service has a desire to conserve five species, including three federally-listed species and two other species that may become federally-listed during the 35-year life of the Maricopa Sun HCP. These include the blunt-nosed leopard lizard (*Gambelia sila*), Tipton kangaroo rat (*Dipodomys nitratooides nitratooides*), San Joaquin kit fox (*Vulpes macrotis mutica*), Nelson's antelope squirrel (*Amмосpermophilus nelsoni*), and burrowing owl (*Athene cunicularia*).

The purpose of the proposed federal action is to enable the permit applicant (Maricopa Sun LLC) to engage in pre-construction, construction, operations and maintenance, and decommissioning activities that will provide protection and conservation of the Covered Species and allow some take of listed species, as provided for under section 10(a)(1)(B) of ESA.

The applicant's needs and goals for preparing an HCP, are listed below.

- Respond to Maricopa Sun, LLC's application for an ITP for the covered species, pursuant to Section 10(a)(1)(B) of the ESA, as amended, and its implementing regulations (50 C.F.R. part 17.22 (b)(1) and policies.

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- Protect, conserve and enhance the covered species and their habitats for the continuing benefit of the people of the United States.
- Provide a means and take steps to conserve the ecosystems depended on by the covered species.
- Ensure the long-term survival of the covered species through protection and management of the species and their habitat.
- Ensure compliance with the ESA, NEPA, and other applicable federal laws and regulations.
- Develop a commercially viable solar energy facility in the Maricopa area of Kern County that would deliver electrical energy to the PG&E power grid in order to help meet California’s Renewable Portfolio Standard goals and help reduce greenhouse gas emissions pursuant to Assembly Bill (AB) 32 and the Energy Element of the Kern County General Plan.

The need for the action is based on the covered activities proposed by Maricopa Sun, LLC that could result in the incidental take of Covered Species within the HCP boundaries as a result of habitat modification from planned future development of the Maricopa Sun Solar Complex Project.

### **1.3 ASSESSMENTS AND DECISIONS REQUIRED**

The primary responsibility of the Service is the conservation and enhancement of the nation’s fish and wildlife populations and their habitats. The Service’s mission is: “working with others to conserve, protect, and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American People” (should reference this). The Service is the lead agency for the preparation of this EIS and will be making the following assessments and decisions.

As required by NEPA, the Service will use a systematic, interdisciplinary approach for the EIS, considering environmental amenities and values in decision-making along with economic and technical considerations. The purpose of NEPA is to ensure that the potential environmental impacts of any proposed federal action are fully considered and made available for public review.

Upon completion of the EIS process including a 90-day public comment period on the Draft EIS (DEIS), the Service will issue a Final EIS and provide a concise record of its consideration of the environmental analysis in the Record of Decision (ROD). The ROD will discuss the agency’s assessment of the alternatives considered in the EIS and its determination on whether to issue an

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ITP for the Project. No permit decision would be made until at least 30 days after completion of the ROD.

As required by the ESA Section 10(a)(2)(B) and 50 C.F.R.17.22(b)(2) and 50 C.F.R. 17.32(b)(2) as well as the guidance in the Service's Five Point Policy (Fed.Reg. 65, 35241-35257), the Service must determine that the following criteria are met before issuing an ITP:

- The taking will be incidental;
- The applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking;
- The applicant will ensure that adequate funding will be provided for the HCP;
- The taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild;
- The HCP addresses the five concepts outlined in the Five Point Policy: permit duration, public participation, adaptive management, monitoring provisions, and biological goals;
- The HCP will be implemented; and
- Such other measures that the Secretary may require as being necessary or appropriate for purposes of the HCP will be implemented.
- The Service's decision pursuant to the ESA may consist of one of the following:
  - Issue an ITP conditioned on implementation of the Applicant's HCP;
  - Issue an ITP conditioned on implementation of the Applicant's HCP together with other specified measures; or
  - Deny the ITP application.

#### **1.4 RELEVANT STATUTES, REGULATIONS, AND GUIDELINES**

This Draft EIS has been prepared in compliance with various federal, State, and local statutes and guidelines, as described in greater detail in Section 3.0. Relevant statutes and regulations include the following:

##### **1.4.1 National Environmental Policy Act (NEPA)**

The National Environmental Policy Act of 1969, as amended (42 U.S.C. 4321 et seq.), requires that all Federal agencies proposing major actions with potential significant effects on the quality

of the human environment prepare a detailed statement of environmental effects. The Services have concluded that an environmental impact statement review is appropriate for this proposed action.

#### **1.4.2 The Endangered Species Act (ESA)**

Section 9 of the ESA prohibits “take” of species that are listed as endangered, and Section 4 provides the Services with the discretion to extend all or some of those protections deemed necessary and advisable to provide for the conservation of threatened species. Take includes harassment, harm, pursuit, hunting, shooting, wounding, killing, trapping, capturing, or collecting a listed species, or attempting to engage in any such conduct. (16 USC §1538(19)) Harm is further defined in ESA implementing regulations as an act which actually kills or injures fish or wildlife, including significant habitat modification or degradation which actually kills or injures fish or wildlife by significantly impairing essential behavioral patterns, including, breeding, spawning, rearing, migrating, feeding or sheltering. (50 C.F.R. §17.3, and §222.102)

Under Section 10 of the ESA, non-federal entities can apply for an ITP exempting them from the “take” prohibition for scientific purposes to aid the species’ survival, or for an “incidental take” authorization when the project or activity does not involve a federal action and the take is incidental to, and not the purpose of, an otherwise lawful activity. (16 USC §1539(a)(1)(A-B)) Section 10 and the Services’ implementing regulations then define under what circumstances the Services will issue an ITP.

Under Section 10(a)(2)(A)(i-iv), no permit may be issued by the Services authorizing incidental take of listed species unless the applicant submits a conservation plan that specifies:

- the impact that will likely result from such taking;
- what steps the applicant will take to minimize and mitigate such impacts, and the funding that will be available to implement such steps;
- what alternative actions to such taking the applicant considered and the reasons why such alternatives are not being utilized; and
- such other measures that the Services may require as being necessary or appropriate for purposes of the plan.

Section 10(a)(2)(B), provides that the Services shall issue an ITP if the Services find, after opportunity for public comment, that:

- the taking will be incidental;

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- the applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking;
- the applicant will ensure that adequate funding for the plan will be provided;
- the taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild;
- the measures, if any, required by the Services as being necessary or appropriate for purposes of the plan will be met; and
- the Services have received such other assurances as may be required that the plan will be implemented.

In 2000, the Services adopted a five-point policy designed to clarify certain elements of an HCP. 65 FR 35242-35257 (June 1, 2000). The five-point policy recommends that:

- an HCP include specific, measurable biological goals and objectives based on the best available scientific information;
- an HCP include an adaptive management provision;
- an HCP include a monitoring program to gauge the effectiveness of the plan in meeting the biological goals and objectives and the permittees compliance with the plan;
- the Services consider several factors to determine the appropriate duration of an ITP, including the duration of the covered activities and the expected effects on the covered species; and
- the Services expand public participation by providing a 60-day comment period for most HCPs.

The ESA's implementing regulations provide "no surprises" assurances. (50 CFR Part 17.22(b)(5), 17.32(b)(5); 50 CFR 222.307(g)). The no surprises rule assures private landowners that if "unforeseen circumstances" arise, the Services will not require the commitment of additional land, water or financial compensation or additional restrictions on the use of land, water, or other natural resources beyond what is required by the ITP and associated HCP and Implementing Agreement without the permittee's consent. The government will honor these assurances as long as a permittee is implementing the terms and conditions of the HCP, permit, and other associated documents.

In addition, the following laws apply:

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- California Endangered Species Act (California Fish and Game Code, Section 2014, et seq.);
- Fish and Wildlife Act of 1918 (16 U.S.C. Section 742(a) -754);
- Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-712);
- Federal Water Pollution Control Act (33 U.S.C. 1251, et seq.);
- Porter-Cologne Water Quality Control Act (California Water Code, Section 13000, et seq.);
- Federal Clean Air Act (42 U.S.C. 7401, et seq.);
- California Clean Air Act (California Health and Safety Code, Section 39000, et seq.);
- National Historic Preservation Act of 1966 (16 U.S.C. 470);
- California Surface Mining and Reclamation Act (California Public Resources Code, Section 2710, et seq.);
- California Integrated Waste Management Act (Assembly Bill 939);
- Consolidated Appropriations Act, 2008 (H.R. 2764 [110th]);
- California Global Warming Solutions Act (Assembly Bill 32);
- Alquist-Priolo Earthquake Fault Zoning Act (California Public Resources Code, Division 2, Chapter 7.5, Sections 2621-2630);
- Seismic Hazards Mapping Act (California Public Resources Code, Division 2, Chapter 7.8); and
- Renewable Energy federal and state mandates, and executive orders.

## **1.5 ORGANIZATION OF THE EIS**

The organization of this EIS follow CEQ's recommended organization (40 CFR 1502.10) and complies with guidance provided in the Service's NEPA Reference Handbook, including proposed National Environmental Policy Act – Compliance Guidance (550 FW 2). The EIS consists of an Executive Summary, nine sections, and appendices. Following is a brief description of the content of each section and appendix.

- **Executive Summary:** This section provides a summary of the proposed action and alternatives and the results of the environmental analysis, including the significant

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environmental impacts/effects and the proposed mitigation measures contained in the EIS.

- **Section 1.0 Purpose and Need for Action:** This section describes the purpose and need for action, the purpose of the EIS, the relevant statutes, regulations, and guidelines, and the organization of the document.
- **Section 2.0 Proposed Action and Alternatives:** This section describes the proposed action and alternatives that are discussed and analyzed in the EIS
- **Section 3.0 Affected Environment:** This section describes the current physical and regulatory environment that could be affected by the alternatives analyzed. Issue areas identified include aesthetics/visual resources agriculture, air quality and greenhouse gas, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, public services, traffic and transportation, and environmental justice.
- **Section 4.0 Environmental Consequences:** This section analyzes the potential environmental effects of implementation of the proposed action and the alternatives, and compares the environmental consequences of implementing the various alternative scenarios. Cumulative impacts of the proposed action are described in this section for each of the issue areas. Each of the issue areas listed in Section 3.0 are addressed in this section.
- **Section 5.0 Additional Topics Required by NEPA:** This section addresses additional impacts relating to growth-inducing effects; the irreversible or irretrievable commitment of resources; and significant irreversible changes to the environment.
- **Section 6.0 List of Agencies and Organizations Consulted:** This section identifies the organizations and persons consulted during preparation of the EIS.
- **Sections 7.0 List of Preparers:** This section identifies the list of preparers of the EIS.
- **Section 8.0 References:** This section provides references for cited materials.
- **Section 9.0 Acronyms:** This section provides a list of acronyms used in the document.
- **Appendices**

## **1.6 SCOPE OF DRAFT EIS ANALYSIS**

This Draft Environmental Impact Statement (Draft EIS) analyzes the potential direct, indirect, and cumulative environmental effects of authorizing “take” of the Covered Species through

issuance of the requested ITPs and applicant implementation of the proposed HCP. Direct effects are caused by the action and occur at the same time and place. Indirect effects are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. The Draft EIS considers the physical and biological effects of the Proposed Action and the alternatives in the study area. The analysis of cumulative effects uses a broader study area, depending on the resource being assessed.

The Draft EIS address three alternatives: 1) No Action Alternative, 2) Proposed HCP Alternative, and 3) Reduced Permit Area Alternative. The resource areas analyzed for each alternative are associated with the physical environment (Aesthetics/Visual Resources, Agriculture, Air Quality and Greenhouse Gas, Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Mineral Resources, Public Services, Traffic and Transportation, and Environmental Justice. The resource area of Indian Trust assets were not analyzed in depth because the preliminary analysis indicated these resources are not in the study area and would not be affected.

## **1.7 PUBLIC OUTREACH AND SCOPING PROCESS**

### **1.7.1 NEPA Scoping Process**

The CEQ regulations for implementing NEPA require a process, referred to as scoping, for determining the range of issues to be addressed during the environmental review of a proposed action (40 CFR 1501.7). Through the scoping process, comments are solicited from agencies, organizations, and individuals to assist the Service in identifying environmental issues to be addressed in the EIS.

It should be noted that an environmental scoping process was conducted for the EIR that was prepared under the California Environmental Quality Act (CEQA) for the Maricopa Sun Solar Project and certified by the County of Kern (SCH# 2010031034). A scoping meeting was conducted for the EIR in March 2010. At the end of the scoping process 13 comment letters were received addressing the proposed scope of EIR. The environmental topic areas analyzed in the EIR were based in part upon comments received during the scoping process. Those same environmental topics, or issue areas, are addressed in this EIS.

The following sections explain the scoping process used for the EIS and the resulting comments received from the public.

### **1.7.2 Notice of Intent**

The Service published a Notice of Intent (NOI) in the Federal Register on December 23, 2011 (76 FR 80385) to provide notice of the preparation of an environmental document, announce the

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initiation of a public scoping period, obtain information to assist the Service in determining whether to prepare an EIS or Environmental Assessment (EA), and to obtain suggestion on the scope and issues to be included in the environmental document. The NOI provided information on the background and purpose of the Proposed Action and provided details for the public scoping meeting, and comment period.

### **1.7.3 Public Scoping Meetings**

The Service held a public scoping meeting on January 23, 2012, at the Kern County Public Services Building, 2700 M Street, Conference Room 1-A, Bakersfield, California.

The scoping period began with publication of the NOI on December 23, 2011 and officially ended on February 21, 2012. A total of one comment letter was received from public agencies, organizations, and individuals. The single letter received is from the U.S. Environmental Protection Agency, dated February 14, 2012. There were no public comments.

A copy of the Scoping Report, which includes a copy of the comment letter is attached as Appendix A.

### **1.7.4 Issues Raised During the Scoping Process**

The February 14, 2012 letter from the U.S. EPA, requested that the following issues be addressed in the EIS:

- The EIS should clarify whether any covered activities and conservation measures will be assessed under separate and future environmental review;
- The environmental impacts of the proposed action and alternative should be presented in comparative form, and impacts should be quantified to the greatest extent possible;
- The EIS should describe the rationale used to determine whether impacts are significant or not;
- An advisory committee should be formed to help craft a scientifically supportable HCP;
- The EIS should describe how it will serve as a tiering document for future environmental analyses, factors used to determine when a subsequent EIS will be required, and factors used to determine when an Environmental Assessment will be required;
- To the greatest extent possible, energy projects should be sited on previously disturbed ground and should minimize disturbance of fragile soils and physical processes;

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- The EIS should analyze potential impacts on water supply and quality. Specifically, a planning-level delineation of aquatic resources should be performed with each of the designated energy development areas;
- The EIS should describe natural drainage patterns, the 50 and 100-year flood plain, and general function of the main aquatic features in the HCP area;
- The EIS should provide information on CWS Section 303(d) impaired waters in the HCP area and efforts to develop and revise TMDLs;
- The EIS should describe impacts to wildlife and habitat and measures to avoid and mitigate impacts to these;
- The EIS should provide a detailed discussion of ambient air quality and potential impacts of the proposed action;
- The EIS should consider climate change in the analysis, specially how climate change could potentially impact the HCP;
- The EIS should describe reasonably foreseeable future land use and associated impacts that might result from the additional power supply;
- The EIS should identify mitigation measures to avoid, reduce, or compensate for adverse environmental impacts associated with construction and operation;
- An adaptable management plan is recommended to evaluate and monitor impacted resources and ensure successful implementation of mitigation measures;
- The EIS should include a requirement for a decommissioning and site restoration plan;
- The EIS should describe the process of consultation between the Service and tribal governments within the project area, and the EIS should address the existence of Indian sacred sites that may exist in the project area;
- The EIS should include an evaluation of environmental justice populations in the project area;
- The EIS should include an invasive plant management plan; and,
- The EIS should address potential impacts associated with hazardous waste from the construction and operation of the propose project.

### **1.7.5 Identification of Potentially Significant Issues**

Issuance of the ITP associated with the Draft HCP could result in potentially significant environmental effects on the following resource areas:

- Aesthetics/Visual Resources
- Agriculture
- Air Quality/Greenhouse Gas
- Biological Resources
- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Public Services
- Traffic and Transportation
- Environmental Justice

### **1.7.6 Draft EIS Public Review**

In accordance with NEPA, the Draft EIS has been circulated for public review and comment. The public review period was initiated with the publication of a Notice of Availability (NOA) in the Federal Register, and will run for 90 days from publication of the NOA. During the public review period, a public meeting will be conducted. The review period will provide the public and federal, State, and local agencies with an opportunity to comment on the Draft EIS. Comments will be responded to in the Final EIS.