

## **CHAPTER 3.0**

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# **INTRODUCTION TO THE ENVIRONMENTAL ANALYSIS AND ASSUMPTIONS USED**

## **3.0 INTRODUCTION TO THE ENVIRONMENTAL ANALYSIS AND ASSUMPTIONS USED**

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The following is an introduction to the environmental impacts analysis and general assumptions used in the Project specific and cumulative analyses. Individual sections of the Draft EIR include assumptions, methodology and standards of significance relevant to each applicable environmental factor identified through preparation of the Initial Study. [Note: The Initial Study is included on the attached CD of Technical Appendices as **Appendix A** of this EIR].

### **3.1 ANALYSIS ASSUMPTIONS GENERALLY USED TO EVALUATE THE IMPACTS OF THE PROJECT**

#### **3.1.1 BASELINE ENVIRONMENTAL CONDITIONS ASSUMED IN THE DRAFT EIR**

CEQA Guidelines Section 15125(a) requires that an EIR include a description of the physical environmental conditions in the vicinity of the project as they exist at the time the Notice of Preparation (NOP) is published. The CEQA Guidelines also specify that the description of the physical environmental conditions normally serves as the baseline physical conditions by which a lead agency determines whether impacts of a project are considered significant.

The California Supreme Court recently clarified the requirements of Section 15125(a) of the CEQA Guidelines. In *Neighbors For Smart Rail v. Exposition Metro Line Construction Authority (2013) 57 Cal.4th 439*, the Court affirmed that a lead agency may instead use future conditions as the baseline where (1) the departure is justified by “unusual aspects of the project or surrounding conditions”; and (2) where “an analysis based on existing conditions would be uninformative or because it would be misleading to decision makers and the public.” The Court further explained that “nothing in CEQA law precludes an agency, as well, from considering both types of baseline—existing and future conditions—in its primary analysis of the project’s significant adverse effects.”

The environmental setting conditions of the solar field site parcels and the surrounding area are described in detail in Sections 4.1 through 4.13 of this Draft EIR. In general, these setting discussions describe the conditions of the solar field site parcels and the surrounding area as they existed at the time the NOP for the Project was released in September 2013 (SCH No. 2013091084) (see subsection 3.2, “Approach to the Cumulative Impact Analysis” subsection below). However, in some cases the EIR departs from the existing conditions baseline where the existing conditions baseline would have been uninformative or misleading to the public and there was evidence that unusual aspects of the Project and surrounding conditions justified using a different baseline for analysis.

#### **3.1.2 CONSERVATIVE APPROACH/WORST CASE SCENARIO**

The EIR’s analysis reflects a conservative approach/“worst case” analysis of impacts from the Project features and development scenarios that may be constructed. A conservative approach was taken so that all potential impacts from the proposed Project are identified and mitigated prior to the final decision on which authorized feature, technology, or development scenario to construct. For each individual environmental factor analyzed in Sections 4.1 thru 4.13 of this EIR, the “worst-case” scenario is modeled and/or considered. The worst-case scenario can vary from environmental factor to environmental factor and is explained in the introduction and methodology of each section. For example, the Aesthetics section analyzes the visual impacts of the larger of the two solar panel technologies (CPV); the Noise section analyzes the impacts of the noisiest energy storage technology option; the Air Quality section examines the impacts of a near-term development scenario with construction equipment that is not representative of required future clean air technologies; and the traffic impact assessment analyzes the impacts of a

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development scenario towards the end of the ten year period where background traffic levels will be marginally greater than a near-term scenario.

Consistent with Project Objectives, such as meeting the terms of any PPA, the Applicant may enter into and encourage economic investment in renewable energy activities that will expand the renewable energy sector in Imperial County's economy, the proposed Project reflects the type of flexibility in Project features and Project construction terms capable of meeting the demands of purchasers of large solar generation. For example, PPAs are trending toward buying power in smaller 20 MW increments on short construction schedules necessitating an entitlement that permits such incremental construction. In addition, PPAs typically provide incentives for construction with CPV technology, but CPV technology is not always financeable. This necessitates an entitlement that permits flexibility in the technology ultimately selected. Accordingly, while the Project objectives require a flexible entitlement, the Project description consistently and accurately accounts for the differences in technology and development scenarios in a manner that conservatively reflects the Project impacts rather than underestimates them.

#### **3.1.3 GENERAL PLAN CONSISTENCY ANALYSIS**

As required by CEQA Guidelines Section 15125(d), each relevant environmental factor analyzed in Sections 4.1 through 4.13 has been evaluated for consistency with goals, objectives, policies and programs contained in the Imperial County General Plan (January 18, 1993, with updates and amendments through November 2008). The General Plan consistency analysis is presented in tabular form and identifies goals, objectives, policies and programs from the General that are relevant to the proposed Project. The analysis considers the hierarchical structure of the General Plan beginning with overall goals, supported by objectives, and implemented through policies and programs. This hierarchical structure is reflected in the consistency table provided in each section to demonstrate the Project's consistency with all aspects of the overarching goal which the objectives, policies and programs support. Each consistency table includes three columns. Applicable goals, objectives, policies and programs appear in the left column; the middle column identifies whether the Project is consistent (yes or no) with the item in the left column; and the right column includes a discussion of the consistency or inconsistency.

#### **3.1.4 PROJECT CONSTRUCTION EFFECTS**

The proposed Project is a solar energy center consisting of 17 CUPs of approximately 20 megawatts (MW) which may be constructed individually or in multiples (i.e. Phased CUP Scenario), or all at once as a consolidated Project (i.e. "Full Build-out Scenario") generating approximately 250 MW. In order to be approved by the Imperial County Board of Supervisors, the Project must be consistent with the General Plan and Land Use Ordinance Policies and Standards. During construction, impacts such as dust, equipment noise, and increased traffic volumes are anticipated to occur. Construction phase impacts would be reduced to a level which is less than significant through the implementation of mitigation measures for the following environmental factors: air quality; geology and soils; cultural and paleontological resources; noise; agricultural resources; hazards and hazardous materials; hydrology and water quality; biological resources, and public services and utilities. Project construction impacts specific to each environmental factor are evaluated in sections 4.1 through 4.13 (refer to subsections 4.1.3, 4.2.3, 4.3.3, etc., "Impacts and Mitigation Measures).

#### **3.1.5 PROJECT BUILD-OUT ASSUMPTIONS**

For the environmental analysis, it is assumed that each of the 17 CUPs could be constructed individually or in multiples (i.e. Phased CUP Scenario), could be constructed at one time over 18 months (i.e. "Full Build-out Scenario"). The Development Agreement requires the Applicant to commence construction on

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a CUP within ten years from the Project approval or the CUP will expire. The CUP, if constructed individually or in multiples would be constructed in approximately 7 month phases. The Project impacts are greater with the Full Build-out Scenario because the development is more intense with build-out occurring all at once. However, the impacts of individual CUPs (13-0036 thru 13-0052) are analyzed to inform the public and the decision-makers regarding impacts if the Project is constructed under a Phased CUP Scenario. Under this Scenario, where applicable, mitigation measures are tied to impacts from a particular CUP phase (e.g. biological resources).

Project operational impacts, such as traffic, air quality, noise, and hydrology and water quality, are evaluated in Sections 4.1 through 4.13 of the EIR (refer to subsections 4.1.3, 4.2.3, 4.3.3, etc., “Impacts and Mitigation Measures”). Buildout of the Project is assumed to occur primarily in the context of other large scale renewable energy projects which are currently proposed, approved or reasonably foreseeable (refer to **Table 3.0-1**).

## 3.2 APPROACH TO THE CUMULATIVE IMPACT ANALYSIS

### 3.2.1 DEFINITION OF CUMULATIVE SETTING

CEQA Guidelines Section 15130 requires that EIRs include an analysis of the cumulative impacts to determine if the project’s effect is considered cumulatively considerable. As defined by CEQA Guidelines Section 15065(a)(3), “‘Cumulatively considerable’ means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.”

Section 15130(b)(1) goes on to identify two approaches for performing a cumulative analysis: 1) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency; or 2) A summary of projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect.

For the purposes of this cumulative analysis, a list approach is used. According to Section 15130(b)(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 obtained from the County of Imperial and confirmed to be current as of February 2014. **Table 3.0-1** lists the cumulative projects. **Figure 3.0-1** provides a graphical representation of each project’s location.

**TABLE 3.0-1  
PROPOSED, APPROVED AND REASONABLY FORESEEABLE PROJECTS  
IN THE VICINITY OF THE PROPOSED PROJECT**

#	Name of Project	Use	Project Description	Status
1	Alhambra Solar	Solar	482 acre solar development located south east of the City of Calipatria.	Approved
2	Arkansas Solar	Solar	481 acre solar development located north east of the City of Calipatria.	Approved

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PROPOSED, APPROVED AND REASONABLY FORESEEABLE PROJECTS  
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#	Name of Project	Use	Project Description	Status
3	Calexico I-A	PV Solar Facility	A photovoltaic solar facility capable of producing approximately 100 megawatts of electricity on approximately 720 acres generally located 6 miles west of the City of Calexico.	Under Construction
4	Calexico I-B	PV Solar Facility	A photovoltaic solar facility capable of producing approximately 100 megawatts of electricity on approximately 610 acres generally located 6 miles west of the City of Calexico.	Under construction.
5	Calexico II-A	PV Solar Facility	A photovoltaic solar facility capable of producing approximately 100 megawatts of electricity on approximately 940 acres generally located 6 miles west of the City of Calexico.	Under Construction
6	Calexico II-B	PV Solar Facility	A photovoltaic solar facility capable of producing approximately 100 megawatts of electricity on approximately 530 acres generally located 6 miles west of the City of Calexico.	Under Construction
7	Calexico Mega Park	Mixed-Use	Calexico Mega Park project is a mixed-use project or residential, commercial, and casino.	Unknown
8	Calipat Solar Farm	Solar	159 acre solar development located north east of the City of Niland.	In Process
9	Campo Verde	PV Solar Facility	A 1,443 acre photovoltaic solar facility generally located west of Drew Road and south of I-8.	Under Construction
10	Centinela Solar Energy	PV Solar Facility	A 2,067 acre photovoltaic solar facility capable of producing approximately 275 megawatts of electricity generally located in the vicinity of SR-98 and Drew Road.	Under Construction
11	Commons	Commercial	The Commons is a regional shopping center made up of 780,000 square feet or 18 acres.	Approved

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#	Name of Project	Use	Project Description	Status
12	County Center II Expansion	Mixed-Use	A mixed use project of a commercial center, expansion of the Imperial County Office of Education, a Joint-Use Teacher Training and Conference Center, Judicial Center, County Park, Jail expansion, County Administrative Complex, Public Works Administration, and a County Administrative Complex located on the southwest corner of McCabe Road and Clark Road.	Not Under Construction
13	Chocolate Mountain	Solar	Chocolate Mountain is a solar photovoltaic energy project that will produce approximately 49.9 MW of electricity on approximately 320 acres of land.	Approved
14	Energy Source Solar I, LLC	Solar	The Energy Source I project is a solar energy project that will produce 80 MW of electricity in approximately 480 acres of land	Approved
15	Hallwood/Calexico Place 111 & Casino	Mixed Use	Calexico Place 111 and Casino project is a mixed-use project of residential, commercial and casino.	Approved
16	Imperial Valley Solar II	Solar	150 acre solar development located north east of the City of Niland.	In Process
17	IV Solar Company	Solar	The IV Solar Company project is a solar photovoltaic energy project that will produce approximately 23 MW of electricity on approximately 123 acres of land.	Operational
18	IV Substation and SDG&E Ocotillo Solar	Transmission	A project connecting the Imperial Irrigation District's "S" line from the Imperial Irrigation District substation to the Imperial Valley substation and a photovoltaic solar facility capable of producing approximately 14 megawatts of electricity on approximately 100 acres located adjacent to the SDG&E Imperial Valley Substation.	Approved

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#	Name of Project	Use	Project Description	Status
19	Imperial Solar 1 LLC (Heber Solar Energy Facility)	PV Solar Facility	An 80 acre solar facility on approximately 80 acres generally located in the vicinity of Dogwood Road south of E Heber Road. This project is northeast of the study area and is not anticipated to add traffic to the study area roadways.	Under Construction
20	Imperial Solar Energy Center South	PV Solar Facility	A photovoltaic solar facility capable of producing approximately 200 megawatts of electricity on approximately 946.6 acres generally located south of SR 98 and east of Drew Road. This project was under construction at the time the traffic counts were collected; therefore, the cumulative traffic is accounted for within the existing baseline data.	Construction Complete
21	Imperial Solar Energy Center West	PV Solar Facility	A photovoltaic solar facility capable of producing approximately 250 megawatts of electricity on approximately 1,130 acres generally located east of Dunaway Road and located both north and south of I-8.	Construction Began May 2014
22	IRIS Solar Farm	PV Solar Facility	A 520 acre photovoltaic solar facility capable of producing approximately 200 megawatts of electricity generally located north of SR-98 between Brockman Road and Weed Road.	In Process, No DEIR
23	Linda Vista	Mixed Use	A mixed use project of 182 single family homes and a 6 acre commercial lot generally located on the west side of Clark Road between I-8 and McCabe Road.	Approved
24	Lindsey Solar	Solar	148 acre solar development located north of the City of Calipatria.	In Process

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#	Name of Project	Use	Project Description	Status
25	Midway Solar Farm I	Solar	The Midway Solar Farm I project is a solar photovoltaic project that will produce approximately 50 MW of electricity on approximately 326 acres of land.	In Process
26	Midway Solar Farm II	Solar	The Midway Solar Farm II project is a solar photovoltaic project that will produce approximately 155 MW of electricity on approximately 803 acres of land.	In Process
27	Mosaic	Mixed Use	Residential project of 1,156 single-family units and 2.7 acres of commercial.	In Process, No DEIR
28	Mount Signal Solar Farm I	PV Solar Facility	A photovoltaic solar facility capable of producing approximately 200 megawatts of electricity on approximately 1,431 acres generally located south of SR-98 between Pulliam Road and Ferrell Road.	Under Construction
29	Canergy Rockwood	Ethanol	An approximately 83 acre chemical manufacturing project generally located northeast of Brawley.	Proposed; Draft EIR Being Prepared
30	California Ethanol & Power	Ethanol	An approximately 160 acre electricity and bio-methane facility generally located approximately 4.5 miles south-southeast of the City of Brawley. This project is outside of the project's traffic study area (about 15 miles away as a crow flies);	Approved; Not Yet Under Construction
31	Ferrell Solar	Solar	367 acre solar development located south of the City of El Centro, west of Calexico.	In Process
32	Imperial Center	Commercial	Imperial Center is a +/- 78 acre regional commercial center that will be designed for specialty, retail and wholesale commercial businesses just north of the City of Calexico within Imperial County.	Approved/ Under Construction



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#	Name of Project	Use	Project Description	Status
33	Lyons Solar	Solar	138 acre solar development located south of the City of El Centro, west of Calexico.	In Process
34	McCabe Ranch I	Residential	McCabe Ranch I is a subdivision consisting of a variety of lot sizes, McCabe Ranch I is within the Heber Sphere of Influence and is on approximately 80 acres of land.	
35	McCabe Ranch II	Mixed-Use	McCabe Ranch II is a subdivision consisting of a variety of lot sizes, McCabe Ranch II is within the Heber Sphere of Influence and is on approximately 457 acres of land.	Approved
36	Ranchos Los Lagos	Mixed Use	1076 acre proposed master planned community project. Project would include 3,830 dwelling units, 97 acre business park, 167 acres of parks, and open space buffers, 18 hole golf course on approximately 139 acres, 11 acres of commercial and commercial mixed use and 12 acres for an active adult or conventional gated community, 24 acres for elementary school sites.	Approved
37	101 Ranch	Mixed Use	101 Ranch is a subdivision consisting of a variety of lot sizes, 101 Ranch is within the Brawley Sphere of Influence and is on approximately 1897 acres of land.	Approved
38	Rockwood Solar	Solar	396 acre solar development located west of the City of Calexico.	Approved
39	Seville Solar	Solar	1,222 acre solar development located south of the Salton Sea.	In Process
40	Sonora Solar	Solar	488 acre solar development located east of the Calipatria State Prison, north east of the City of Calipatria.	In Progress
41	Wilkinson Solar Farm	Solar	302 acre solar development located north east of the City of Niland.	Approved

Source: LOS 2014; ICPDS 2014a and 2014b.

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### **3.2.2 CONSIDERATION OF CUMULATIVE IMPACTS**

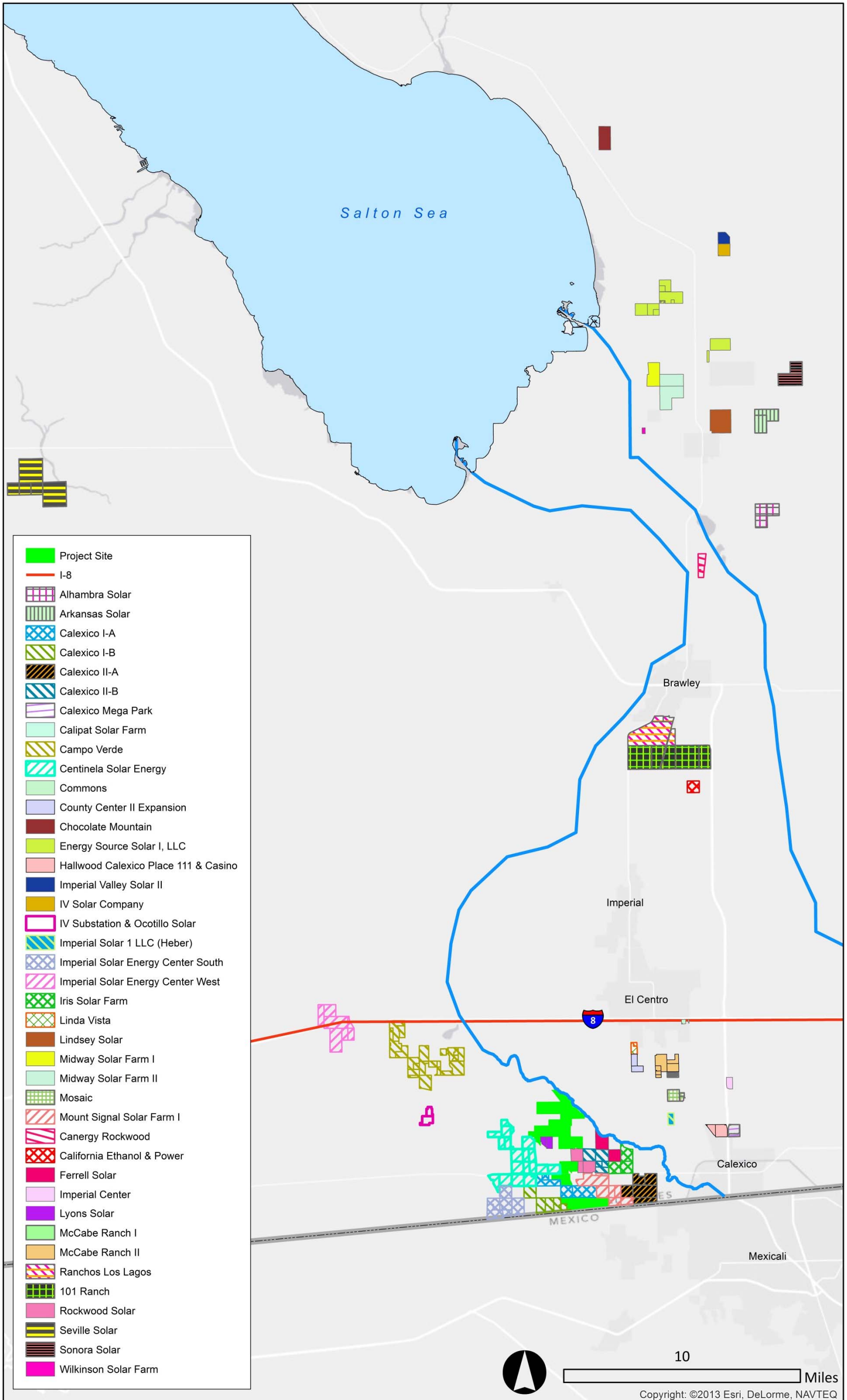
While the cumulative projects list establishes proposed, approved and reasonably foreseeable projects to consider in combination with the proposed Wistaria Ranch Solar Energy Center, the cumulative setting varies for each environmental factor. The cumulative setting is established specific to each environmental factor based on the nature and extent of the resource or issue. Some environmental factors such as hazards and hazardous materials may be highly localized. In contrast, environmental factors such as air quality and seismicity may be regional in nature. Still, some environmental factors demonstrate both aspects as is the case of geology and soils (e.g. site-specific soils and regional geologic and seismic conditions). In most cases, a geographic scope (in miles from the Project site, or as determined based on a natural or jurisdictional boundary) is identified.

When considering cumulative impacts, the analysis examines whether the overall long-term impacts of all such projects would be cumulatively significant and whether the projects would cause a “cumulatively considerable” (and thus significant) incremental contribution to any such cumulatively significant impacts (CEQA Guidelines Sections 15064(h), 15065(c), 15130(a), 15130(b), and 15355(b)). To fulfill these two levels of analysis, the Project is assessed with regard to its incremental contribution to anticipated cumulative impacts within a geographic scope that extends beyond the solar field site parcels. The geographic scope is determined for each individual issue area based on the factors most appropriate to the resource area (e.g. the Salton Sea Air Basin would be the geographic scope for analyzing cumulative air quality impacts). The next level of analysis determines if the Project’s incremental contribution to any significant cumulative impacts from all projects is itself significant (i.e. “cumulatively considerable”).

CEQA Guidelines Section 15355 defines a cumulative impact as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.” A cumulative impact occurs from “the change in the environment which results from the incremental impact of the projects when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time” (CEQA Guidelines Section 15355[b]).

This EIR evaluates the cumulative impacts of the Project for each environmental factor or resource area with respect to geographic scope, in combination with proposed, approved and reasonably foreseeable projects in the area, and the Project’s incremental contribution to the cumulative effects.

Chapter 5.0, Cumulative Impacts Summary, provides a summary of the cumulative impacts identified in sections 4.1 through 4.13 (refer to subsections 4.1.4, 4.2.4, 4.3.4, etc., “Cumulative Setting, Impacts and Mitigation Measures”).



Source: ICPDS, EGI 2014.

**FIGURE 3.0-1  
CUMULATIVE PROJECTS MAP**