

6.0 CUMULATIVE IMPACTS

This Environmental Impact Report (EIR) provides an analysis of overall cumulative impacts of the projects with other past, present, and probable future projects producing related impacts, as required by the State California Environmental Quality Act (CEQA) Guidelines (14 California Code of Regulations [CCR] Section 15130). The purpose of this analysis is twofold: first, to determine whether the overall long-term impacts of all such projects would be cumulatively significant and second, to determine whether the projects would cause a “cumulatively considerable” (and thus significant) incremental contribution to any such cumulatively significant impacts (see the State CEQA Guidelines [CCR Sections 15064(h), 15065(c), 15130(a), 15130(b), and 15355(b)]. In other words, the required analysis first creates a broad context in which to assess the projects’ incremental contribution to anticipated cumulative impacts, viewed on a geographic scale well beyond the project sites themselves. The analysis then determines whether the projects’ incremental contribution to any significant cumulative impacts from all projects is itself significant (i.e., “cumulatively considerable”).

Cumulative impacts are defined in the State CEQA Guidelines (CCR Section 15355) 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” (CCR Section 15355[b]).

Consistent with the State CEQA Guidelines (CCR Section 15130[a]), the discussion of cumulative impacts in this EIR focuses on significant and potentially significant cumulative impacts. The State CEQA Guidelines (CCR Section 15130[b]) state that:

The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the projects alone. The discussion should be guided by the standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact.

Where feasible, mitigation measures for cumulative impacts are provided along with the analysis of each issue area in Section 6.3 below. In those cases where project-specific mitigation measures would reduce the cumulative level of significance, those mitigation measures are identified. This EIR evaluates the cumulative impacts of the projects for each resource area, using the following steps:

- (1) Define the geographic and temporal scope of cumulative impact analysis for each cumulative effects issue, based on the project’s reasonably foreseeable direct and indirect effects.
- (2) Evaluate the cumulative effects of the projects in combination with past and present (existing) and reasonably foreseeable future projects in the study areas and, in the larger context of the Imperial Valley.
- (3) Evaluate the projects’ incremental contribution to the cumulative effects on each resource considered in Chapter 4, Environmental Analysis. When the projects’ incremental contribution to a significant cumulative impact is considerable, mitigation measures to reduce the projects’ “fair share” contribution to the cumulative effect are discussed, where required.

6.1 GEOGRAPHIC SCOPE AND TIMEFRAME OF THE CUMULATIVE EFFECTS ANALYSIS

The geographic area of cumulative effects varies by each resource area considered in Chapter 4. For example, air quality impacts tend to disperse over a large area, while traffic impacts are typically more localized. Similarly, impacts to the habitats of special-status wildlife species need to be considered within its range of movement and associated habitat needs. The analysis of cumulative effects in this EIR

considers a number of variables including geographic (spatial) limits, time (temporal) limits, and the characteristics of the resource being evaluated. The geographic scope of each analysis is based on the topography surrounding the project sites and the natural boundaries of the resource affected, rather than jurisdictional boundaries. The geographic scope of cumulative effects will often extend beyond the scope of the direct effects of a project, but not beyond the scope of the direct and indirect effects of that project.

The cumulative development scenario includes projects that extend through year (2030), which is the planning horizon of the County of Imperial General Plan. Likewise, the lease term for the solar fields is 40 years with land restoration commencing thereof. It is likely that other similar projects would be developed between the year 2030 and the end of the lease term. However, due to uncertain development patterns that far in the future, it is too speculative to accurately determine the type and quantity of cumulative projects beyond the planning horizon of the County's adopted County General Plan.

6.2 PROJECTS CONTRIBUTING TO POTENTIAL CUMULATIVE IMPACTS

The CEQA Guidelines identify two basic methods for establishing the cumulative environment in which the projects are to be considered: the use of a list of past, present, and probable future projects (the "list approach") or the use of adopted projections from a general plan, other regional planning document, or certified EIR for such a planning document (the "plan approach"). For this EIR, the list approach has been utilized to generate the most reliable future projections of possible cumulative impacts. When the impacts of the projects are considered in combination with other past, present, and future projects to identify cumulative impacts, the other projects considered may also vary depending on the type of environmental impacts being assessed. As described above, the general geographic area associated with different environmental impacts of the projects defines the boundaries of the area used for compiling the list of projects considered in the cumulative impact analysis. Figure 6-1 provides the general location for each of these projects in relation to the project study areas.

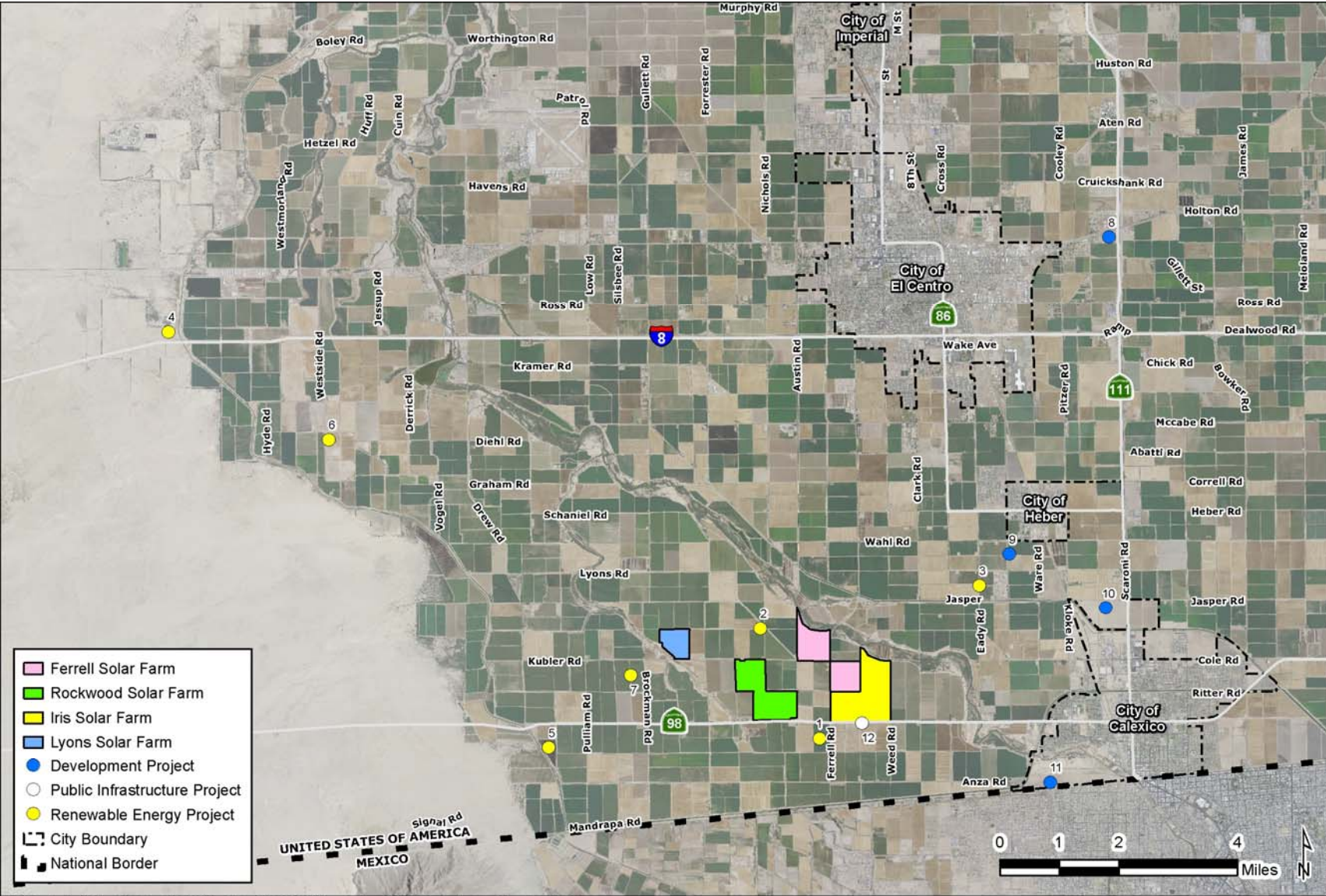
6.3 CUMULATIVE IMPACT ANALYSIS

This cumulative impact analysis utilizes an expanded list method (as defined under CEQA) and considers environmental effects associated with those projects identified in Table 6-1 in conjunction with the impacts identified for the projects in Chapter 4 of this EIR. Table 6-1 includes projects known at the time of release of the Notice of Preparation (NOP) of the Draft EIR, as well as additional projects that have been proposed since the NOP date. Figure 6-1 provides the general geographic location for each of these projects.

6.3.1 Aesthetics

The cumulative study area for projects considered in the visual resources cumulative impact analysis considers a five mile radius from the project sites. Views beyond five miles are obstructed by a combination of the flat topography coupled with the Earth's curvature. The short-term visual impacts of the projects would be in the form of general construction activities including grading, use of construction machinery, and installation of the transmission poles and stringing of transmission lines. Longer-term visual impacts of the projects would be in the form of the presence of solar array grids, inverter modules and transformer stations, an electrical distribution and transmission system, operations and maintenance (O&M) buildings, and, substations (where constructed). The projects would be enclosed by a security fence, significantly limiting views onto the site, and screening most of the proposed equipment at the site from adjacent and nearby roadways.

Figure 6-1. Cumulative Projects



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TABLE 6-1. PROJECTS CONSIDERED IN THE CUMULATIVE IMPACT ANALYSIS

Project Name	Description of Project	Size/ Location	Status
Solar and Electrical Transmission Projects			
Mount Signal and Calexico Solar Farm Projects	The proposed projects consist of five separate CUP and Variance applications for the following properties: <ul style="list-style-type: none"> • Mount Signal Solar Farm • Calexico Solar Farm 1 Phase A • Calexico Solar Farm 1 Phase B • Calexico Solar Farm 2 Phase A • Calexico Solar Farm 2 Phase B. The projects involve the construction and operation of solar energy facilities and transmission infrastructure, and supporting uses.	The project sites encompass a total of 4,228 acres of land located approximately six miles west of Calexico, California in southern Imperial County (see #1 in Figure 6-1).	Approved in April 2012. Construction has begun on the Mount Signal Solar Farm and Solar Farm 2 Phase B sites.
Wistaria Ranch Solar	Proposed solar farm. Additional details not available.	3,288-acre site (see #2 in Figure 6-1)	In Progress
Imperial Solar 1 LLC (Heber Solar Energy Facility)	Proposed solar farm. Additional details not available.	North of Jasper Road and east of Corfman Road (see #3 in Figure 6-1).	Application filed with County.
Imperial Solar Energy Center–West (CACA-51644)	Imperial Solar Energy Center–West consists of two primary components: (1) the construction and operation of the 250 MW Imperial Solar Energy Center West solar energy facility; and (2) the construction and operation of the electrical transmission line and associated access/ maintenance road that would connect from the solar facility to the existing Imperial Valley substation. The development of the solar energy center is on 1,130 acres of vacant land previously utilized for agricultural purposes.	North of I-8 and immediately west of Westside Main Canal (see #4 in Figure 6-1).	Final EIR certified in June 2011.
Imperial Solar Energy Center-South (CACA51645)	The Imperial Solar Energy Center-South consists of the construction and operation of the 200 MW Imperial Solar Energy Center South solar energy facility; the construction and operation of the electrical transmission lines that would connect from the solar power facility to the existing Imperial Valley substation; and widening of an existing access road along the west side of the Westside Main Canal.	The site is located on 946.6 gross acres of privately-owned, undeveloped and agricultural lands, in the unincorporated County. Immediately west of study area (see #5 in Figure 6-1).	FEIR certified by County in September 2011; BLM adopted FONSI for EA in August 2011.
Campo Verde Solar	The Campo Verde Project is located on a 1,400-acre site. The electricity generated at the facility powers nearly 48,000 homes.	Accessed by Diehl Road and south of I8 (see #6 in Figure 6-1).	Approved. Commercial operation began in October 2013.
Centinela Solar Power, LLC	A 170 MW solar power plant located on 2,067 acres of previously disturbed private land.	Approximately 10 to 12 miles southwest of El Centro, Imperial County (see #7 in Figure 6-1).	Approved on December 27, 2011.
Other Projects			
Alder 70	A Specific Plan including a mix of single-family detached residences, attached townhomes, a cluster of manufactured homes and a commercial area consisting of a self-storage facility and a small business area.	South of Gillett Road, west of SR-111, and, east of the City of El Centro (see #8 in Figure 6-1).	Draft EIR issued March 2009.

6.0 Cumulative Impacts

Project Name	Description of Project	Size/ Location	Status
Mosaic	The Mosaic project is a residential project of 1,156 single-family units and 2.7 acres of commercial.	Located in the County of Imperial. South of SR-86 and bisected by Dogwood Ranch (see #9 in Figure 6-1).	EIR in process.
Manzanita Casino	A mixed-use project of residential, commercial, and casino. The casino facility would include an approximately 93,880 square foot casino; 63,000 square feet of food/beverage and retail components; 38,660 square foot entertainment venue; and, 218,081 square feet of other operational facilities.	Southwest corner of SR-111 and Jasper Road (see #10 in Figure 6-1).	Approved.
Calexico Gran Plaza	The project applicant (Charles Company) proposes to develop the site with a total of approximately 561,650 square feet of commercial/retail uses.	The approximately 62-acre project site abuts the Mexican border in the southwestern portion of the City of Calexico (see #11 in Figure 6-1).	Existing
SR-98 Widening, SR-111 to SR-7	The plan calls for widening and/or realigning SR-98 between SR-111 and SR-7 from two to four lanes (six in some locations).	East of Calexico (see #12 in Figure 6-1)	Construction date unknown; subject to funding.

Source: Compiled by HDR 2014.

As provided in Section 4.1, Aesthetics, the solar facility portions of the project sites are comprised of an agricultural landscape that is altered from its natural desert landscape. Although the projects would entail a substantial change in the existing visual character of the project area to solar generating uses and transmission infrastructure, these uses would be located in an area with a general lack of any distinctive visual features, such as varied topography or other topographical features. These factors all contribute to only low to moderate levels of vividness and intactness. Because the visual changes associated with the projects would be located in a remote area viewed by a minimal number of people, the project sites are not located within scenic vistas, and are not readily viewable from any frequently travelled interstates or scenic highways. Additionally, with the exception of the transmission line, the projects' structural features would generally be less than 30 feet in height and, therefore, would not substantially disrupt background view of mountains to the west and association landscape unity. Further, the project sites would be restored to agricultural uses following the decommissioning of the solar uses. As a result, although the visual character of the project area would change from that of a rural agricultural nature to one with developed characteristics, a less than significant impact associated with the proposed projects has been identified.

Development of the proposed projects in conjunction with the cumulative projects identified in Table 6-1 will gradually change the visual character of this portion of the Imperial Valley. Projects located within private lands and/or under the jurisdiction of the County of Imperial are being designed in accordance with the County of Imperial's General Plan and Land Use Ordinance, which includes policies to protect visual resources in the County.

Cumulative projects including the Imperial Solar Energy Center South, Imperial Solar Energy Center West, Centinela, Wistaria Ranch, Campo Verde, and others south of Interstate 8 (I-8) would not have a cumulative effect on a scenic vista because they are located in an area that is not identified as a designated scenic resource and would not affect a scenic vista. All cumulative projects would not impact scenic resources within a state scenic highway as no designated state scenic highway is located within five miles of these cumulative projects.

Finally, all projects listed in Table 6-1 would not produce a substantial amount of light and glare, as no significant source of light or glare is proposed, or the projects will otherwise comply with the County lighting ordinance. Based on these considerations, no significant cumulatively considerable aesthetic impact is anticipated.

6.3.2 Agriculture and Forestry Resources

The geographic scope of cumulative impacts related to agricultural resources is Imperial County because the Imperial Valley Agricultural Complex is 500,000 acres of more-or-less contiguous farm fields located in the Imperial Valley and surrounded by desert and mountain habitat. Irrigated agriculture within the Imperial Valley is made possible by the Colorado Aqueduct. The timeframe considered is the life of the projects since the land would be returned to agriculture after the projects are dismantled in accordance with a project-specific Reclamation Restoration Plan.

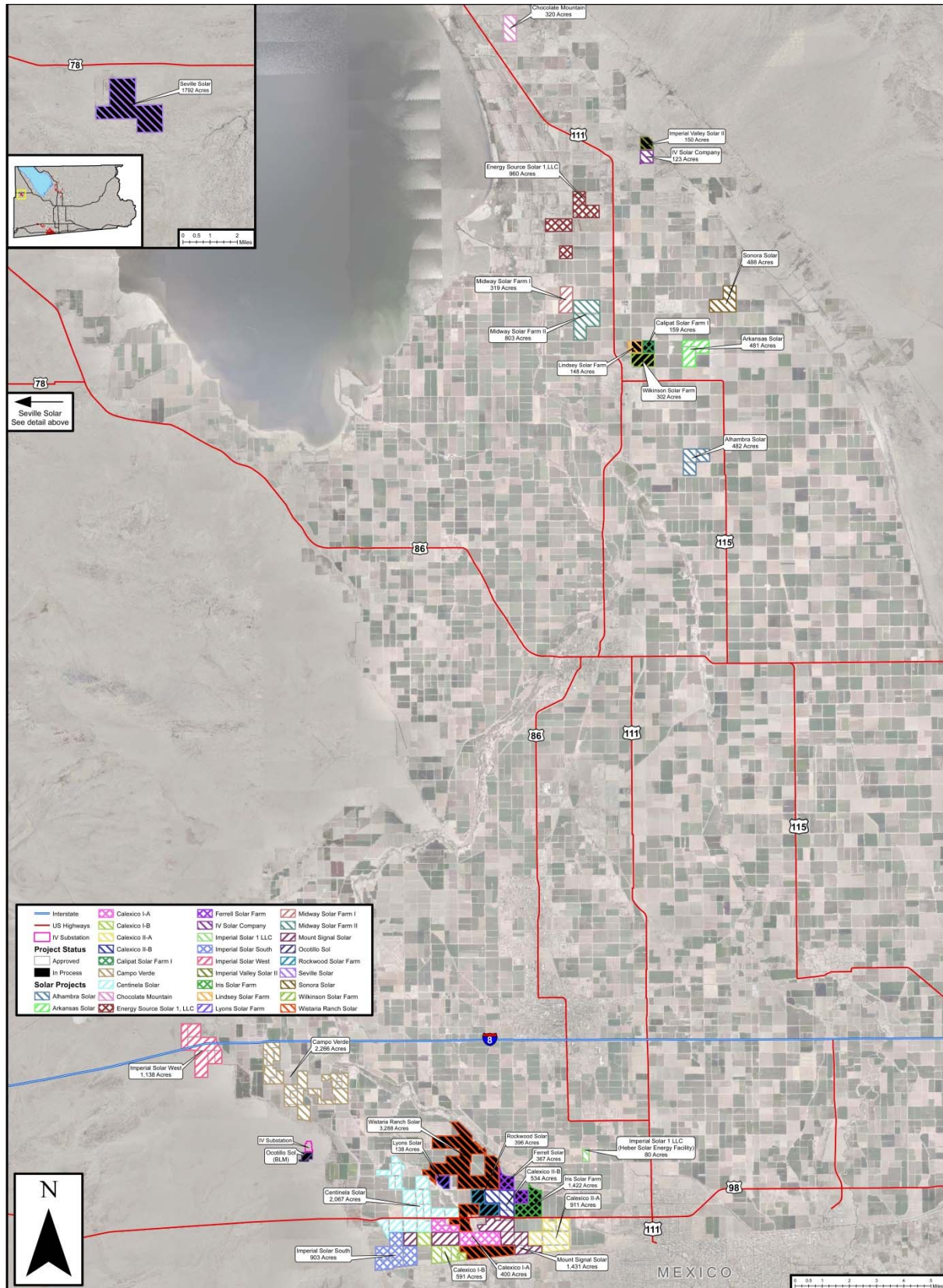
Continuing development within the Imperial County would result in the conversion of land currently utilized for agricultural production to urban and other land uses. This agricultural conversion has been a continuing trend in the County; based on Department of Conservation (DOC) farmland conversion reports (see Table 4.2-1). Since 1984, the DOC has recorded an approximately 21,190-acre reduction in important farmland to non-agricultural use (DOC 2010). Of this total, approximately 18,368 acres were designated as Prime Farmland. Based on records maintained by DOC, the annual average loss in Important Farmland within the County is approximately 883 acres; with 765 acres designated as Prime Farmland and 296 acres designated as Farmland of Statewide Importance (DOC 2010).

Up until a few years ago, agricultural land conversion in the County was attributable to more traditional types of development, such as residential subdivisions. However, the residential housing market has fallen, but has been essentially replaced with an influx of renewable energy projects. In particular, the County has experienced a rapid influx of applications for solar development in very recent years. Currently, there are approximately 29 solar-related projects, including FSF, RSF, ISF and LSF, proposed within the County. Figure 6-2 depicts the various proposed solar projects in the County and their relationship to agricultural lands. The cumulative projects identified in Table 6-1 for which acreages of impacts is available would impact approximately 11,343 acres of farmland; for other projects, quantitative information was not available and, therefore, was not included within this evaluation. It is anticipated that up to 20,000 acres of farmland could be converted from agricultural uses to alternative energy projects. This acreage corresponds to a theoretical Megawatt Production that is essentially limited by the ultimate capacity of existing and planned transmission lines that would carry the power to other regions. While approximately 11,343 acres of farmland are proposed for solar energy use, it should also be noted that many of these projects may not ultimately be realized as they may not be able to obtain Power Purchase Agreements (PPAs) with applicable energy companies.

As discussed in Section 4.2, Agricultural Resources, the projects would result in the temporary conversion of 1,4004,422 acres of Important Farmland, which would correspond with the duration of the lease of the properties for solar farm use. With the implementation of Mitigation Measure 4.2-1, this impact would be reduced to a level less than significant. As with the projects, cumulative projects would be required to provide mitigation for any impacts to agricultural resources. The cumulative impact associated with project-related agricultural conversion is less than 0.3 percent (1,4004,422 acres/539,273 total acres) of all County-wide Important Farmlands. The projects' conversion of up to 160.4 acres of Prime Farmland is approximately 20 percent of the annual average on record with the DOC. Mitigation Measure 4.2-1a is proposed to minimize this impact to a less than significant level.

Cumulative projects would be required to provide mitigation for any impacts to agricultural resources. Current agricultural acreage in the County for alfalfa and Bermuda grass alone is approximately 415,365 acres. County-wide Important Farmland totaled 473,311 acres in 2013. In the County, the amount of agricultural land in production in any one year varies widely. Tens of thousands of acres of farmland is either out of production or intentionally fallowed at any given time. The cumulative impact of the projects quantified falls well within the annual variation of out-of-production/fallowed farmland.

Figure 6-2. Proposed Solar Projects in Imperial County



Combined, the cumulative impact of agricultural conversion associated with the theoretical megawatt (MW) production is conservatively estimated at approximately 3.7 percent of all County-wide Important Farmland with the assumption that all the land converted is "Important." For all of these reasons, the contribution of the proposed projects to any potentially significant loss of farmland, if any, would not be considerable. The incremental impact of the loss of ~~1,4004,422~~ acres of farmland would be mitigated via full restoration of the project study areas to comparable agricultural production post-project, purchase of an agricultural easement at a 2:1 ratio, or payment into the County's agricultural mitigation fund, which the County uses at its discretion to mitigate for farmland loss consistent with its General Plan policies.

Imperial Irrigation District (IID) currently implements a fallowing program with willing land owners and/or lessees with the IID to fallow fields to meet IID's Salton Sea mitigation water needs for the first 15 years of the IID's Quantification Settlement Agreement Compromise Delivery Schedule. Starting in 2018, efficiency conservation replaces all fallowing. Each field's participation in the fallowing program is limited to two out of every four years. As a result, notwithstanding the landscape changes attributable to the projects, tens of thousands of acres of farmland are either out of production or intentionally fallowed at any given time within the Imperial Valley. In this context, the projects' impacts to agriculture would fall well within this annual variation of out-of-production/fallowed farmland and, therefore, is not cumulatively considerable.

Given that the incremental impact of the loss of approximately ~~1,4004,422~~ acres would be mitigated via full restoration of the project sites per the project ~~Reclamation Restoration~~ Plan to comparable agricultural production under post-project conditions, following the conclusion of the lease, project-related agricultural conversion impacts would be minimized to a less than significant level. Additionally, with the County's decision to no longer participate in the Williamson Act program, parcels under existing active contracts within the project sites are anticipated to convert to non-renewal status with or without the projects. Nevertheless, based on criteria presented in the CEQA Guidelines, the cancellation of properties contracted under the Williamson Act to facilitate the projects is considered significant from a broader perspective and requires the application of Mitigation Measure 4.2-1a to reduce the impact to a less than significant level. Based on these circumstances, the projects would not result in any residual impacts to agricultural resources that could otherwise be cumulatively considerable.

6.3.3 Air Quality

The Salton Sea Air Basin (SSAB) is used as the geographic scope for the analysis of cumulative air quality impacts due to the geographic factors which are the basis for designating the SSAB, the existence of an Air Quality Management Plan (AQMP), State Implementation Plan (SIP), and requirements set forth by the Imperial County Air Pollution Control District (ICAPCD), which apply to both the construction and operational aspects of all cumulative projects within the SSAB. Table 6-1 lists the projects considered for the air quality cumulative impact analysis. As shown in Table 6-1, many of these projects are large-scale renewable energy generation projects, where the main source of air emissions would be generated during the construction phases of these projects; however, there would also be limited operational emissions associated with operations and maintenance activities for these facilities.

As identified in Section 4.3, Air Quality, currently the SSAB is either in attainment or unclassified for all federal and state air pollutant standards with the exception of 8-HOUR ozone, PM₁₀, and PM_{2.5}. More specifically, Imperial County is classified as a "serious" non-attainment area for PM₁₀ and a "moderate" non-attainment area for 8-hour ozone for the National Ambient Air Quality Standards (NAAQS) and non-attainment for PM_{2.5} for the urban areas of Imperial County.

The Air Quality Attainment Plan (AQAP) for the SSAB, through the implementation of the AQMP (previously AQAP) and SIP for PM₁₀, sets forth a comprehensive program that will lead the SSAB into compliance with all federal and state air quality standards. With respect to PM₁₀, the ICAPCD implements Regulation VIII – Fugitive Dust Rules, to control these emissions and ultimately lead the basin into compliance with air standards, consistent with the AQAP. Within Regulation VIII are Rules 800 through 806, which address construction and earthmoving activities, bulk materials, carry-out and track-out, open areas, paved and unpaved roads, and conservation management practices. Best Available Control

Measures to reduce fugitive dust during construction and earthmoving activities include but are not limited to:

- Phasing of work in order to minimize disturbed surface area;
- Application of water or chemical stabilizers to disturbed soils;
- Construction and maintenance of wind barriers; and
- Use of a track-out control device or wash down system at access points to paved roads.

Compliance with Regulation VIII is mandatory on all construction sites, regardless of size. However, compliance with Regulation VIII does not constitute mitigation under the reductions attributed to environmental impacts. In addition, compliance for a project includes: (1) the development of a dust control plan for the construction and operational phase; and (2) notification to the air district is required 10 days prior to the commencement of any construction activity.

Construction

Potential short-term impacts of the proposed FSF, RSF, ISF, and LSF projects would result due to vehicle and dust emissions associated with construction activities. Similar effects would also be realized upon site decommissioning, which would be carried out in conjunction with the projects' restoration plan, and subject to applicable ICAPCD standards. Likewise, the other cumulative projects identified in Table 6-1 would result in the generation of air emissions during construction activities.

With respect to the proposed FSF, RSF, ISF, and LSF projects, during the construction and decommissioning phases, the projects would generate particulate matter less than 10 microns (PM_{10}), particulate matter less than 2.5 microns ($PM_{2.5}$), reactive organic gas (ROG), and nitrogen oxide (NO_x) emissions during each active day of construction.

The applied thresholds for PM_{10} and NO_x would be exceeded by air emissions during construction, which represents a significant air quality impact. The projects' impact could be cumulatively considerable because: (1) portions of the SSAB are nonattainment already (PM_{10} and $PM_{2.5}$), although mitigated by ICAPCD Regulations as discussed above; and, (2) project construction would occur on most days, including days when ozone already in excess of State standards. Additionally, the effects would again be experienced in the future during decommissioning in conjunction with site restoration. With the implementation of the mitigation prescribed in Section 4.3, Air Quality, construction-related air quality emissions as a result of the proposed projects would be reduced to a level less than significant. The proposed projects, in conjunction with the construction of other cumulative projects as identified in Table 6-1 could result in a cumulatively considerable increase in the generation of PM_{10} and NO_x ; however, like the proposed projects, cumulative projects would be subject to mitigation as pursuant to County ICAPCD's Regulations and Rules, and the cumulative impact would be reduced to a level less than significant through compliance with these measures. Because the projects will be required to implement measures consistent with ICAPCD regulations designed to alleviate the cumulative impact associated with PM_{10} , the proposed project's contribution is rendered less than cumulatively considerable.

Operation

In the long-term, operation of the FSF, RSF, ISF, and LSF projects would result in minor emissions associated with operation and maintenance activities. Table 4.3-11 (see Section, 4.3 Air Quality) summarizes the operational air emissions associated with the projects, and indicates that all operational emissions would not exceed significance thresholds; therefore, the impact would be less than significant. Operational impacts of other renewable energy facilities identified in Table 6-1 would also be similar, as, although these cumulative projects involve large areas, their operational requirements are very minimal, requiring minimal staff or use of machinery or equipment that generate emissions. Further, alternative energy projects, such as the projects, would assist attainment of regional air quality standards and improvement of regional air quality by providing clean, renewable energy sources. Consequently, the projects would provide a positive contribution to the implementation of applicable air quality plan policies and compliance with Executive Order S-3-05.

However, from a cumulative air quality standpoint, the potential cumulative impact associated with the generation of PM₁₀ and PM_{2.5} emissions during operation of the cumulative projects is a concern due to the fact that Imperial County is classified as a "serious" non-attainment area for PM₁₀ and a "moderate" non-attainment area for 8-hour ozone for the NAAQS and non-attainment for PM_{2.5} for the urban areas of Imperial County. With respect to PM_{2.5}, the cumulative development identified in Table 6-1, including the proposed projects are not located within urban areas of the Imperial Valley, therefore, the contribution of PM_{2.5} emissions is not considered cumulatively considerable.

As shown in Table 4.3-10, the projects' operational contribution to PM₁₀ is below a level of significance. However, when combined with other cumulative projects, the operational PM₁₀ emissions would likely exceed daily thresholds which is considered a potentially significant cumulative impact. As with the construction phases, the cumulative projects would be required to comply with ICAPCD's Regulation VIII for dust control (Regulation VIII applies to both the construction and operational phases of projects). As a result, the ICAPCD would require compliance with the various dust control measures and may, in addition be required to prepare and implement dust control plans as approved by the ICAPCD, which is a component of ICAPCD's overall framework of the AQAP for the SSAB, which sets forth a comprehensive program that will lead the SSAB into compliance with all federal and state air quality standards. Therefore, the projects would not contribute to long-term cumulatively considerable air quality impacts and the projects would not result in cumulatively significant air quality impacts.

6.3.4 Biological Resources

The geographic scope for considering cumulative impacts on biological resources includes the Imperial Valley and related biological habitats. The geographic scope also allows for the consideration of the Pacific Migration Flyway. Table 6-1 lists the projects considered for the biological resources cumulative impact analysis.

In general terms, in instances where a potential impact could occur, the California Department of Fish and Wildlife (CDFW) and the U.S. Fish and Wildlife Service (USFWS) have promulgated a regulatory scheme that limits impacts to these species. The effects of the projects would be rendered less than significant through mitigation requiring compliance with all applicable regulations that protect plant, fish, and animal species, as well as waters of the U.S. and State. Other cumulative projects in the project study areas would also be required to avoid impacts to special-status species and/or mitigate to the satisfaction of the CDFW and USFWS for the potential loss of habitat. As described in Section 4.4, Biological Resources, the projects have the potential to result in impacts to biological resources. These impacts are generally focused on potential construction-related affects to burrowing owl, raptor species, migratory birds, mountain plover, long billed curlew, short billed dowitcher, horned lark, and loggerhead shrike.

Burrowing Owls are protected by the CDFW mitigation guidelines for burrowing owl (2012) and Consortium guidance (1993), which require a suite of mitigation measures to ensure direct effects to burrowing owls during construction activities are avoided and indirect effects through burrow destruction and loss of foraging habitat are mitigated at prescribed ratios. Mitigation Measures 4.4-1a and 4.4-1b contain these requirements thereby minimizing potential impacts to these species to a less than significant level. Additionally, as provided in Section 4.4, Biological Resources, the project sites contain suitable habitat for migratory birds, raptors, mountain plover, long billed curlew, short billed dowitcher, horned lark, and loggerhead shrike. As a result of project-related construction activities, one or more of these species could be harmed. However, with the implementation of Mitigation Measures 4.4-1e, 4.4-1f, and 4.4-1g as identified in Section 4.4 Biological Resources, these impacts would be reduced to a level of less than significant. Similarly, the cumulative projects within the geographic scope of the projects would be required to comply with the legal framework as described above. Based on these considerations, impacts to biological resources would not be cumulatively considerable.

As with the proposed projects, each of the cumulative projects would be required to provide mitigation for impacts to biological resources. Although some quantitative information regarding cumulative project biological impacts was available, such information was not available for most. Therefore, the analysis below is conducted qualitatively and in the context that the cumulative projects would be subject to a variety of statutes and administrative frameworks that require mitigation for impacts to biological resources.

Birds listed at 50 CFR 10.3 are protected by the Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703 et seq.), a Federal statute that implements treaties with several countries on the conservation and protection of Birds listed at 50 CFR 10.3 are protected by the MBTA (16 U.S.C. 703 et seq.), a Federal statute that implements treaties with several countries on the conservation and protection of migratory birds. The MBTA is enforced by USFWS. This act prohibits the killing of any migratory birds without a valid permit. Any activity which contributes to unnatural migratory bird mortality could be prosecuted under this act. With few exceptions, most birds are considered migratory under this act. Raptors and active raptor nests are protected under California Fish and Wildlife Codes 3503.5, 3503, 3513.

The Federal Clean Water Act (CWA) and California's Porter-Cologne Water Quality Control Act provide protection for water-related biological resources by controlling pollution, setting water quality standards, and preventing jurisdictional streams, lakes, and rivers from being filled without a federal permit. No jurisdictional wetlands are located with the project sites or off-site transmission area that could otherwise be directly impacted by construction of the proposed projects. Likewise, Mitigation Measures 4.9-1a and 4.9-4 would be required to avoid or minimize potential water quality impacts that could otherwise indirectly impact biological resources.

The proposed projects would comply with these and other laws, regulations and guidelines and therefore would not contribute substantially to a cumulative biological resources impact. Similarly, the cumulative actions within the geographic scope of the proposed projects will be required to comply with the legal frameworks set forth above, as well as others. The cumulative actions will be required to mitigate their impacts to a less than significant level.

Indirect Impacts to Salton Sea

The proposed projects will result in a temporary fallowing of agricultural land as a result of conversion of the project sites to solar energy generation uses. Other cumulative projects which are proposed on privately-owned agricultural land will also result in this temporary conversion. Unlike a permanent conversion of agricultural land to urban or industrial use, the solar projects are required to restore the sites back to agricultural use. Unlike a permanent conversion of agricultural land to urban or industrial use, the solar projects are akin to a long-term fallowing because the project applicant is required to restore the project sites back to agricultural use pursuant to the terms of its lease. Although there is a reduction in water use as a result of the projects, the project sites will continue to contribute IID water to the New River and the Salton Sea via stormwater collection systems. In this context, changes in the quality and quantity of agricultural runoff caused by the projects' temporary agricultural land conversion to solar use is less than significant in relation to the total flows in New River that empty into the Salton Sea.

With respect to the proposed projects, the development of approximately 1,4004,422 acres of land to a solar farm will decrease the amount of surface (tail water) and subsurface water (tile water) into several IID drains (e.g., Wistaria Drain) servicing these properties. Less water in these drains will result in a decrease in weed growth and gopher and muskrat washouts, which will reduce both the maintenance operations and total suspended solids (TSS) within the drains and ultimately to the Salton Sea. Less TSS will improve water quality in support of the drain water quality improvement plan. These drains will still receive agricultural runoff from agricultural fields not developed into solar farms and storm water flows to maintain a vegetative base to support habitat. In addition, storm water flows are estimated to be 3.6 percent of surface water inputs, and that water will still end up in the drains.

There are approximately 1,400 miles of drains which transport subsurface and surface agricultural drain water, storm water flows, municipal wastewater treatment plant effluent, ground water from East and West mesas and industrial effluent discharges. All aforementioned discharge sources contribute to the degradation of water quality within the IID water conveyance system. The IID is currently implementing a drain water quality improvement plan (Resolution No 93-145) to achieve water quality objectives to comply with the Clean Water Act 303(d). A component of the IID plan is to reduce maintenance operations which will result in a reduction of TSS.

These drains are all located within the far southernmost part of Imperial County and are not considered direct-to-Sea drains and therefore would not impact desert pupfish (*Cyprinodon macularius*). The drains are in the southwest corner of Imperial County and at the end of the water conveyance system; drain water generated by the agricultural fields that will be developed into a solar farm must travel over 35 miles to reach the Salton Sea. No more than 31 percent surface and subsurface runoff into the drains actually reaches the Salton Sea. Therefore, eliminating the volume this acreage has generated in the past should not adversely affect the elevation of the Salton Sea as the waters not utilized by the projects are expected to remain within the All American Canal Service area. It is expected that this water will be used on other agricultural crops and therefore will not be lost to the drainage system and the Salton Sea drainage. The projects impact related to this issue is considered less than significant.

The proposed projects' reduction in agricultural water use would support IID's needs in fulfilling its legal obligations under State Water Resources Control Board (SWRCB) orders, the Quantification Settlement Agreement and IID Water Transfer Agreement, which includes mitigation of water quality and biological impacts to the Salton Sea. As such, the proposed projects are consistent with the IID Water Transfer Agreement Habitat Conservation Plan (HCP) EIR/EIS, the existing Section 7 Biological Opinion, and IID California Endangered Species Act (CESA) Permit 2081. Further, IID has created an Equitable Distribution Plan (EDP) to give itself the flexibility to meet changing circumstances in supply and demand. The EDP would essentially create an agricultural fallowing incentive program in the event of a supply/demand imbalance. By October of each year, IID staff must forecast water demand and available supply and recommend whether there will be a supply/demand imbalance (SDI). With the knowledge that the proposed projects are anticipated to use only 1,310 acre-feet per year (AFY) of water during its long lease period, instead of a more intense agricultural water use, IID can account for this lower water demand when determining whether there will be a SDI and may help prevent the need to activate the EDP, which will allow more agricultural landowners to use their agricultural water supply, which is expected to result in a neutral net impact on water flowing to the sea (Imperial County 2011).

Likewise, in the years when IID must trigger the EDP, the water conservation from the proposed projects reduces the need to induce fallowing on as many agricultural acres to generate the additional water conservation needed to meet its transfer obligations and Salton Sea mitigation obligations. According to IID's EDP Negative Declaration, in 2003, IID implemented a rotation fallowing program to successfully create conserved water to deliver to the Salton Sea and now IID plans to increase fallowing incrementally to a maximum of about 25,000 acres. With the knowledge that the proposed projects will be using less water, IID can fallow less than the 25,000 acres to produce the same amount of water needed to meet its transfer obligations and conserve water to deliver to the Salton Sea (Imperial County 2011). In this context, to the extent IID believes mitigation is needed in implementing the EDP, IID controls the mitigation by selecting how many farmland acres to enroll in its fallowing program to create the Salton Sea mitigation water.

In addition, IID acknowledged in its Negative Declaration adopting the EDP that the fallowing necessary to provide the transfer and Salton Sea mitigation water would not have a significant impact on water quality or biology. Specifically, it states for biology, "Implementation of the EDP would not have an effect on any biological resources within the IID water service area. The EDP could result in minor short-term changes in the location of water use and therefore, the volume of flows in the drains. However, any changes in the location of flows are expected to be both short-term and negligible, and well within historic variations, and therefore not to result in any adverse effects on biological resources that rely on the drains for habitat....[i]t is expected that under an SDI [state and federal refuges in the IID service area] will have sufficient supplied to maintain current uses and operations and/or to fulfill obligations under environmental permits issued to IID (Imperial County 2011). This EIR incorporates by reference finding the no impact determination for cumulative impacts related to the EDP as identified in the Imperial Solar Energy Center South Project EIR/EA.

For water quality, it states, "The proposed EDP would not result in any impacts associated with hydrology and water quality....the magnitude of any potential change is anticipated to be minimal and, due to constant variation in cropping patterns and locations of idled lands, most likely to undetectable when

compared to the existing condition" (Imperial County 2011). This finding is incorporated by reference from the Imperial Solar Energy Center South Project EIR/EA into this EIR.

Finally, Figure 3 of the Negative Declaration shows how insignificant the IID's EDP following program is in comparison with the historic variation in following levels in Imperial Valley. This EIR tiers off this conclusion and incorporates it by reference into the proposed projects' analysis. Therefore, not only do the projects reduce the need for as much following under the Equitable Distribution Plan, but Figure 3 demonstrates, even without aiding the IID's EDP, the projects' long-term following of agricultural lands is not significant compared to the historic levels of following in Imperial County. As such, this EIR incorporates by reference finding the less than significant impact determination for cumulative impacts related to the proposed projects' reduction in agricultural use water use as compared to historic levels of agricultural use water reductions as attributed to following and identified in the Imperial Solar Energy Center South Project EIR/EA.

The IID's EDP Negative Declaration also analyzed the cumulative impacts of the EDP following program and concluded "Because there are no environmental impacts associated with implementation of the EDP, there are no cumulative impacts to consider." These findings are incorporated by reference in conjunction with the Imperial Solar Energy Center South Project EIR/EA. Based on these findings, it is reasonable to conclude that the proposed projects' conservation of water reduces the need for IID to declare a supply/demand imbalance, aids IID in meeting its water transfer and mitigation water obligations, and is within the range of historic levels of following within Imperial County and, therefore, the County concludes that no cumulatively considerable impact would occur.

6.3.5 Cultural Resources

As discussed in Section 4.5, Cultural Resources, a total of five new resources and one previously recorded resource (CA-IMP-3325) were identified as a result of the pedestrian survey. These resources consist of a multicomponent archaeological site (Iris-Site-001M) and four historic built resources (Iris-Built-001, Iris-Built-002, Iris-Built-003, and Iris-Built-004). All six resources will be avoided by the proposed projects. Therefore, the projects would not impact cultural resources and would not contribute to a cumulative impact to cultural resources.

As with the projects, the other cumulative projects would likely be required to provide similar mitigation for any direct impacts to cultural resources to reduce impacts. Because the cultural resources within the geographic scope of this cumulative impact analysis are important for their potential contribution to knowledge of history, additional mitigation measures are included in this EIR to ensure the proper collection and systematic data recovery for any undocumented archaeological resources that may be encountered during construction. Implementation of these mitigation measures would reduce the potential for cumulative impacts to these resources as a result of the projects.

Based on these findings, there would be no net loss in the cumulative value/context of cultural resources within the geographic scope of the cumulative analysis. With the inclusion and compliance with the required mitigation measures, the value of any undocumented archaeological resources encountered during construction would be exhausted through a data recovery program. Therefore, the projects would not result in a cumulative cultural resources impact.

6.3.6 Geology and Soils

The Imperial Valley portion of the Salton Trough physiographic province of Southern California is used as the geographic scope for the analysis of cumulative impacts on geology/soils and mineral resources. Cumulative development would result in an increase in population and development that could be exposed to hazardous geological conditions, depending on the location of proposed developments. Geologic and soil conditions are typically site specific and can be addressed through appropriate engineering practices. Cumulative impacts to geologic resources would be considered significant if the projects would be impacted by geologic hazard(s) and if the impact could combine with off-site geologic hazards to be cumulatively considerable. None of the projects identified within the geographic scope of

potential cumulative impacts would intersect or be additive to the projects' site-specific geology and soils impacts; therefore, no cumulative effects are identified for geology/soils.

With regards to mineral resources, no mineral resources are located within the boundaries of the project study areas. Therefore, the projects would not result in a cumulative geology/soils impact for mineral resources.

6.3.7 Greenhouse Gas Emissions

Emissions of greenhouse gases (GHGs) have the potential to adversely affect the environment because such emissions contribute, on a cumulative basis, to global climate change. Although the emissions of the projects alone would not cause global climate change, GHG emissions from multiple projects throughout the world could result in a cumulative impact with respect to global climate change. In turn, global climate change has the potential to result in rising sea levels, which can inundate low-lying areas; affect rainfall and snowfall, leading to changes in water supply; and affect habitat, leading to adverse effects on biological resources. The South Coast Air Quality Management District (SCAQMD) has proposed a threshold of 3,000 tonnes of carbon dioxide equivalents (tCO_{2e}), for residential and commercial projects; which was applied to the project analysis as provided in Section 4.7, Greenhouse Gases. As provided, the proposed projects' CO_2 emissions would not exceed SCAQMD's threshold of 3,000 tCO_{2e} . Although the proposed projects would not exceed SCAQMD's threshold, consistent with the intent of AB 32, the proposed projects should demonstrate that policies are in place that would assist in providing a statewide reduction in CO_2 emissions. Therefore, Mitigation Measures 4.7-1a and 4.7-1b are prescribed as additional reduction strategies to further improve air quality and reduce GHG emissions.

Given that the projects are characterized as renewable energy projects and places emphasis on solar power generation, project operations would be almost carbon-neutral with the majority of the operational GHG emissions associated with employee vehicle trips. Based on these considerations, no significant long-term operational GHG impacts would occur and, therefore, project-related GHG impacts would not be cumulatively considerable.

6.3.8 Hazards/Hazardous Materials

The geographic scope considered for cumulative impacts from health, safety and hazardous materials is the area within one mile of the boundary of the project sites. One mile is the standard American Society of Testing and Materials (ASTM) standard search distance for hazardous materials.

As discussed, according to the DOGGR database, there are four plugged and abandoned oil wells located within the project sites. Mitigation Measure 4.8-1 would reduce the project-specific hazard to a less than significant impact by ensuring that all well abandonment requirements will be completed according to DOGGR specifications. Under cumulative conditions, implementation of the projects in conjunction with development of projects listed in Table 6-1 is not anticipated to present a public health and safety hazard to residents. Additionally, the projects and related projects would all involve the storage, use, disposal, and transport of hazardous materials to varying degrees during construction and operation. Impacts from these activities are less than significant for the projects because the storage, use, disposal, and transport of hazardous materials are extensively regulated by various Federal, state, and local laws, regulations, and policies. It is foreseeable that the projects and related projects would implement and comply with these existing hazardous materials laws, regulations, and policies. Therefore, the related projects would not cause a cumulative impact, and the projects would not result in a cumulatively considerable incremental contribution to a cumulative impact related to use or routine transport of hazardous materials.

The proposed transmission line would connect with other off-site proposed and planned transmission infrastructure to the west of the project sites and run parallel to these facilities. As a result of this circumstance, the cumulative projects would be contained within the same right of way as the off-site project facilities and would not subject additional land areas to hazards associated with hazardous

materials. Thus, the projects' incremental contribution to any potential cumulative impacts would not be considerable.

6.3.9 Hydrology/Water Quality

Table 6-1 lists the projects considered for the hydrology and water quality cumulative impact analysis. The geographic scope for considering cumulative hydrology and water quality impacts is the Imperial Valley Hydrologic Unit as defined by the Colorado Basin Regional Water Quality Control Board (RWQCB) Basin Plan (2005). The construction of the projects are expected to result in short-term water quality impacts. It is expected that some of the cumulative projects, which are not yet built, could be under construction at the same time as the projects. Therefore, substantial short-term cumulative water quality impacts may occur during simultaneous construction of the projects and other cumulative projects identified in Table 6-1. However, compliance with the SWRCB's National Discharge Pollution Discharge Elimination System (NPDES) general permit for activities associated with construction (2009-0009-DWQ) would reduce water quality impacts. As with the projects, each of the cumulative projects would be required to comply with the Construction General Permit. The SWRCB has determined that the Construction General Permit protects water quality, is consistent with the Clean Water Act, and addresses the cumulative impacts of numerous construction activities throughout the State. This determination in conjunction with the implementation of Mitigation Measures 4.9-1a and 4.9-1b would ensure short-term water quality impacts are not cumulatively considerable.

The projects are not expected to result in long-term operations-related impacts related to water quality. The projects would mitigate potential water quality impacts by implementing site design, source control, and treatment control BMPs. Some cumulative projects would require compliance with the SWRCB's NPDES general permit for industrial activities, as well as rules found in the Federal Clean Water Act, Section 402(p)(1) and 40 CFR 122.26, and implemented Order No. 90-42 of the RWQCB. Quantitative information for cumulative projects considered for long-term water quality impacts was not available; however, with implementation of SWRCB, CRRWQCB, and County policies, plans, and ordinances governing land use activities that may degrade or contribute to the violation of water quality standards, cumulatively considerable impacts to water quality would be minimized to a less than significant level.

Based on a review of the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), the project sites and the majority of the cumulative projects listed in 6-1 are located within Zone X, which is an area determined to be outside of the 100-year floodplain. As such, the projects would not result in a significant cumulatively considerable impact to floodplains by constructing new facilities within an identified flood hazard zone. Additionally, under the projects, operation could contribute additional stormwater runoff to local drains owned and operated by IID and the Greeson Wash, resulting in potential downstream flooding. Implementation of Mitigation Measures 4.9-2 and 4.9-4, in Section 4.9, Hydrology/Water Quality, and conformance with applicable state and regulations regulating surface water runoff, including the procedures outlined the County's Engineering Manual would reduce the long-term impacts from changes in drainage and runoff patterns to a less than significant level. Based on these considerations, the projects would not contribute to or result in a significant cumulatively considerable adverse hydrological or water quality impact.

6.3.10 Land Use and Planning

The geographic scope for the analysis of cumulative land use and planning impacts is typically defined by government jurisdiction. The geographic scope for considering potential inconsistencies with the General Plan's policies, including agriculture, from a cumulative perspective includes all lands within the County's jurisdiction and governed by its currently adopted General Plan. In contrast, the geographic scope for considering potential land use impacts or incompatibilities include the project study areas plus a one-mile buffer to ensure a consideration for reasonably anticipated potential direct and indirect effects.

As provided in Section 4.10, Land Use and Planning, the projects would not involve any facilities that could otherwise divide an established community. Based on this circumstance, no cumulatively considerable impacts would occur. As discussed in Section 4.10, Land Use and Planning, the projects

would not conflict with the goals and objectives of the County of Imperial General Plan. In addition, a majority of the cumulative projects identified on Table 6-1 would not result in a conflict with applicable land use plans, policies, or regulations. In the event that incompatibilities or land use conflicts are identified for other projects listed in Table 6-1, similar to the projects, the County would require mitigation to avoid or minimize potential land use impacts. Based on these circumstances, no cumulatively considerable impact would occur.

In contrast to the rest of the projects, the transmission line component of the projects would extend above the height restrictions for the A-2, A-2-R, and A-3 zones of 120 feet. However, these facilities would be similar composition and structure as other transmission facilities within the Imperial Valley. Additionally, these facilities would interconnect with other approved or proposed transmission facilities that would be constructed in proximity to and blend with existing electrical transmission infrastructure. Based on these circumstances, no cumulatively considerable impact would occur.

6.3.11 Noise and Vibration

When determining whether the overall noise (and vibration) impacts from related projects would be cumulatively significant and whether the projects' incremental contribution to any significant cumulative impacts would be cumulatively considerable, it is important to note that noise and vibration are localized occurrences; as such, they decrease rapidly in magnitude as the distance from the source to the receptor increases. Therefore, only those related projects and identified in Table 6-1 that are in the direct vicinity of the project study areas and those that are considered influential in regards to noise and vibration would have the potential to be considered in a cumulative context with the projects' incremental contribution.

Construction equipment noise from the related projects identified in Table 6-1 would be similar in nature and magnitude to those discussed for the projects in Section 4.11, Noise and Vibration. Specifically, noise levels from on-site construction activities would fluctuate depending on the particular type, number, and duration of usage for the varying equipment. The site preparation phase would be anticipated to generate the most substantial noise levels as the on-site equipment associated with grading, compacting, and excavation tend to be the loudest. Although detailed information is not currently available, construction of the related projects would be anticipated to result in noise levels of approximately 74 decibels (dBA) equivalent sound level (L_{eq}) to a maximum noise level of 79 dBA (L_{max}) at 100 feet from the simultaneous operation of heavy-duty equipment. These noise levels would exceed applicable standards at nearby sensitive receptors and/or result in substantial increases in ambient noise levels especially during the more noise-sensitive hours of the day. While temporary, short-term construction source noise levels from the related projects could be considered exempt if such noise would only occur during the daytime hours, there is no guarantee that all of the related projects would include such restrictions. Therefore, the related projects could generate significant impacts related to short-term exposure of sensitive receptors to increased equipment noise. Construction of the projects could also result in a significant impact from temporary, short-term equipment noise levels in the direct vicinity and possible during the same time frame as the related projects. Implementation of Mitigation Measures 4.11-1a through 4.11-1e, by the project applicant's construction contractor would be required to achieve reductions in these noise levels and may include the use of temporary noise barriers. These measures are expected to be sufficient in minimizing construction noise related impacts to a less than significant level. Thus, the incremental contribution of the projects to significant cumulative air quality impact would not be cumulatively considerable.

Groundborne noise and vibration levels from construction of the aforementioned related projects would be similar in nature and magnitude to those discussed in Section 4.11, Noise and Vibration. Specifically, construction activities would result in varying degrees of temporary groundborne noise and vibration, depending on the specific construction equipment used and activities involved (see, for example, Table 4.11-5). Although detailed information is not currently available, construction of the related projects would be anticipated to result in maximum groundborne noise and vibration levels associated with bulldozing activities. According to the Federal Transit Administration (FTA), levels associated with the use of a large bulldozer are 0.089 inches per second (in/sec) peak particle velocity (PPV) at 25 feet, respectively. With respect to the prevention of structural damage, bulldozing would not exceed the

Caltrans-recommended level of 0.2 in/sec PPV even at a distance of 25 feet. Given that all adjacent structures would generally be 100 feet or more from construction activities, the projects would result in less than significant vibration impacts and, therefore, these impacts are not cumulatively considerable.

Stationary-source and vehicular noise from the aforementioned related projects would be similar in nature and magnitude to those discussed for the projects in Section 4.11, Noise and Vibration, for mechanical heating, ventilation, and air conditioning (HVAC) equipment, emergency electrical generators, pumps, parking lot activities, delivery activities, employee vehicular trips, and electrical substation and transmission facilities. Operation of the related projects could result in the long-term stationary source noise levels that exceed applicable standards at nearby sensitive receptors and/or result in substantial increases in ambient noise levels. Given that the project facilities would be constructed within the A-2, A-2-R, or A-3 zones, long-term operational noise levels are not expected to exceed normally acceptable noise levels for these zones (e.g., 70 dBA day-night average sound level [L_{dn}]). Thus, the incremental contribution of the projects to significant cumulative noise impacts would not be cumulatively considerable.

6.3.12 Public Services

The projects would result in increased demand for public services (fire protection service and law enforcement services) (see Section 4.12, Public Services). Future development in the Imperial Valley, including projects identified in Table 6-1, would also increase the demand for public services. In terms of cumulative impacts, the appropriate service providers are responsible for ensuring adequate provision of public services within their jurisdictional boundaries. In conjunction with the projects' approval, the project applicant would also be conditioned to ensure sufficient funding is available for any fire protection or prevention needs and law enforcement services. Based on the type of projects proposed (e.g. solar energy generation), their relatively low demand for public services other than fire and police, it is reasonable to conclude that the projects would not increase demands for education, or other public services. Service impacts associated with the projects related to fire and police would be addressed through payment of impact fees as part of the project's Conditions of Approval to ensure that the service capabilities of these departments are maintained. Therefore, no cumulatively considerable impacts would occur.

6.3.13 Transportation/Traffic

The geographic scope of the cumulative analysis for transportation/circulation is based on the roadways in the vicinity of the project sites that, based on the Traffic Impact Analysis (LL&G Engineers 2014), may be impacted by traffic generated by the projects and cumulative projects. As provided in the Traffic Impact Analysis, which is provided in Appendix J of this EIR, vehicle trips generated during construction-related (up to 400 employees) would be substantially higher as those compared to project operations (up to 24 employees) (see Section 4.13, Transportation/Traffic). Based on these trip generation rates, construction-related traffic was used in the assessment of the projects' cumulative impacts to local roadway operations.

To account for potential cumulative project traffic increases that may occur between existing conditions (2010) and the time of construction (2014), a 5 percent growth factor was applied to all existing 2010 traffic volumes throughout the project sites. This 5 percent growth was assumed to conservatively represent the amount of traffic that may utilize the street system in the projects' vicinity proposed from future unapproved development and other solar energy projects planned in Imperial County, including those projects identified in Table 6-1. While it is most likely that these projects will be constructed sequentially over the course of the next few years, to be conservative, the cumulative analysis assumes that half of all construction traffic for all identified projects within the vicinity of the project study areas were assigned to the street system in addition to the 5 percent cumulative growth rate applied for the development projects.

As provided in Section 4.13, Transportation/Traffic, the intersection analysis revealed that all study intersections would continue to operate at Level of Service (LOS) D or better with the addition of project-

related construction traffic (LL&G Engineers 2014). Although an increase in delay would occur, the delay would be minimal and would vary between 0.0 and 3.3 seconds at these intersections (LL&G Engineers 2014). This increase in delay is considered less than significant and, therefore, is not cumulatively considerable. See Appendix J for additional details. Similarly, roadway segments analyzed under the cumulative condition are calculated to operate at LOS B or better with the addition of the construction project traffic (LL&G Engineers 2014). Although an increase in volume to capacity ratio (V/C) due to the construction traffic would occur, V/C would vary between 0.0 and 0.01 at these segments and, is therefore, considered less than significant. Based on these findings, the projects would not result in cumulatively considerable roadway or intersection impacts.

6.3.14 Utilities/Service Systems

Future development in Imperial County would increase the demand for utility service in the region. In terms of cumulative impacts, the appropriate service providers are responsible for ensuring adequate provision of public utilities within their jurisdictional boundaries. As indicated in Sections 4.14, Utilities/Service Systems, the necessary public utilities would be provided to the projects by IID; however, the projects by themselves are not expected to substantially increase demands for any particular service provider. The related projects identified in Table 6-1 would rely on similar service providers. Further, as provided in Table 4.14-3, the projects' water requirements are over 90 percent less than existing agricultural uses within the project sites. Likewise, limited on-site wastewater facilities would be constructed for the projects and, therefore, no extension of sanitary sewer service would be required. Similarly, the projects would connect with existing drainage infrastructure owned and operated by IID or the County. Additionally, the projects would be comprised of mostly recyclable materials and would not generate significant volumes of solid waste that could otherwise contribute to significant decreases in landfill capacity. Based on these considerations, the projects would result in less than significant impacts to existing utility providers and, therefore, would not result in cumulatively considerable impacts.