

SECTION 5.0

Cumulative Impacts

5.0 CUMULATIVE IMPACTS

Both NEPA and CEQA require the consideration of cumulative impacts for the Proposed Action, Alternative 1-Alternative Transmission Line Corridor, Alternative 2-Alternative Transmission Line Corridor, Alternative 3-Reduced Solar Energy Facility Site, and Alternative 4-No Action/No Project Alternative.

Council on Environmental Quality NEPA Guidelines

Preparation of a cumulative impacts analysis is required under NEPA. A “cumulative impact” (also termed a “cumulative effect”) is an impact on the environment which results from the incremental impact of a Proposed Action when considered with other past, present, and reasonably foreseeable future actions regardless of which agency (Federal or non-Federal) or person undertakes such other actions (40 CFR Section 1508.7).

NEPA states that cumulative effects can result from “...individually minor but collectively significant actions taking place over a period of time” (40 CFR Section 1508.7). Under NEPA, both context and intensity are considered to determine whether a cumulative impact is significant. When considering the intensity of an effect, it is necessary to consider “...whether the action is related to other actions with individually minor but cumulatively significant impacts. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.” 40 CFR Section 1508.27(b)(7).

CEQA Guidelines

CEQA Guidelines (Section 15355) states a similar definition of cumulative impact.

“Cumulative impact refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.

- (a) The individual effects may be changes resulting from a single project or a number of separate projects; and
- (b) The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.”

CEQA Guidelines Section 15130(b)(1) provides two alternative methods to analyze cumulative impacts:

List Method – 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.

General Plan Projection Method – A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area-wide conditions contributing to the cumulative impact.

Methodology

The EIR/EA uses an expanded list method approach, which also incorporates information from planning and programmatic documents to develop the cumulative project list and provide additional information about cumulative project impacts. A comprehensive list of all past, present, and reasonably foreseeable future projects that are considered in the cumulative impacts analysis is provided in Table 5.0-1. The following planning and programmatic documents were also used to inform the cumulative impact analysis: BLM Resource Management Plan (RMP), BLM/DOE Draft Solar Programmatic EIR, Federal Land Management Policy Act, California Desert Conservation Area Plan, Yuha Basin Area of Critical Environmental Concern Management Plan, Flat-tailed Horned Lizard Rangelwide Management Strategy, Imperial County General Plan, and County of Imperial Land Use Ordinance.

The cumulative impacts analysis defines each cumulative effects study area by each resource area and includes a narrative assessment of cumulative impacts, combined with a table summarizing projects considered and cumulative impacts to the resource. The following describes the overall approach and context for the cumulative impact analysis. It also describes the study areas and relevant projects considered in the analyses for the different resource areas.

This EIR/EA evaluated cumulative impacts of the Proposed Action and Alternatives 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 Proposed Action's reasonably foreseeable direct and indirect effects.
- (2) Evaluate the cumulative effects of the Proposed Action in combination with past and present (existing) and reasonably foreseeable future projects in the study area.
- (3) Evaluate the Proposed Action's incremental contribution to the cumulative effects on the resource. When the Proposed Action's incremental contribution to a significant cumulative impact is considerable, mitigation measures to reduce the Proposed Action's "fair share" contribution to the cumulative effect are discussed.

Geographic Scope and Timeframe of the Cumulative Effects Analysis

The geographic area of cumulative effect varies by resource. For example, air quality impacts tend to disperse over a large area, while traffic impacts are typically more localized. For this reason, the geographic scope for this analysis must be identified for each resource area.

The analysis of cumulative effects 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 site 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 Proposed Action, but not beyond the scope of the direct and indirect effects of that Proposed Action.

TABLE 5.0-1
List of Projects Located at or Within the Vicinity of the Proposed Project

Project Name	Description of Project	Size/Location	Status	
Renewable Energy Projects Within the Jurisdiction of BLM				
1	<p>"S" Line Upgrade 230-kV Transmission Line Project</p>	<p>The "S" Line route originates from the IID/San Diego Gas & Electric Imperial Valley Substation located on BLM lands and terminate at the El Centro Switching Station on Dogwood Road near Villa Road. The project is located in Imperial County. The IID proposed to upgrade about 18 miles of the 230-kV overhead electrical transmission line by installing (+/-) 285 new double-circuit steel poles (including all existing polymer horizontal insulators) to replace the existing wood poles supporting a single 230-kV circuit. The execution plan is to complete the pole replacement and upgrades in three phases. The "S" Line would be upgraded at distinct locations with an assigned order of importance on the basis of system outages, structural reliability, risk, construction feasibility, and costs.</p>	<p>18 miles of various composed segments.</p> <p>I-8, Hwy 86, 10 miles southwest of the City of El Centro, near Liebert and Wixom Roads, to the north, and terminating at the El Centro Switching Station on Dogwood Road near Villa Road.</p>	<p>End of review.</p> <p>The Mitigated Negative Declaration was filed with mitigation measures on December 17, 2009.</p> <p>The Right-of-Way (ROW) was amended/renewed in March 2010.</p>
2	<p>Imperial Valley Solar (Formerly called SES Solar Two Project)</p>	<p>On June 30, 2008, Stirling Energy Systems Solar Two, LLC (SES Solar Two, LLC) submitted an Application for Certification (AFC) to construct and operate the Stirling Energy Systems Solar Two project (SES Solar Two), a solar dish Stirling systems project in Imperial County, California. February 2010, the company formally requested that the project change its name to Imperial Valley Solar. The company name was also changed to Imperial Valley Solar LLC.</p> <p>The 6,500 acre project site is located on approximately 6,140 acres of federal land managed by the Bureau of Land Management (BLM) and approximately 360 acres of privately owned land. The site is approximately 100 miles</p>	<p>Imperial Valley, 100 miles east of San Diego, 14 miles west of El Centro, and 4 miles east of Ocotillo Wells.</p>	<p>The Final Environmental Impact Statement (FEIS) was prepared in July 2010.</p> <p>The California Energy Commission (CEC) approved the application for certification in September 2010. The Notice of Availability of the CEC's Final Decision</p>

Project Name	Description of Project	Size/Location	Status
	<p>east of San Diego, 14 miles west of El Centro, and approximately 4 miles east of Ocotillo, California. The proposed Imperial Valley Solar/SES Solar Two project would generate 750 megawatts of renewable energy. The plant would involve 30,000 SunCatchers using solar-dish technology designed to automatically track the sun and collect and focus solar energy onto a power conversion unit that generates electricity. The project includes a 10.3 mile 230-kilovolt transmission line, substation, water pipeline, and access road.</p>		<p>was made available on October 12, 2010.</p> <p>The BLM ROW was authorized on October 12, 2010.</p>
3	<p>Sunrise Powerlink Transmission Project (CACA-047658)</p> <p>This would consist of a transmission line from Imperial County to coastal San Diego County. For the first 36 miles of the Selected Alternative, the 500 kV transmission line will be built on BLM lands adjacent to the existing Southwest Powerlink 500 kV line. The Selected Alternative crosses approximately 49 miles of BLM land, approximately 19 miles of Forest Service land, approximately two miles of Department of Defense land, and approximately 0.4 miles of state land. The remainder of the line would cross lands in various ownerships, including private and local agencies.</p> <p>SDG&E has stated that it developed the Sunrise Powerlink Transmission Project for three major objectives: (1) to bring renewable energy resources to San Diego County from Imperial County by providing access to remote areas with the potential for significant development of renewable energy sources; (2) to improve electric reliability within the San Diego area by providing additional transmission during peak loading and for the region's growing economy; (3) and to reduce congestion and power supply costs of delivering electricity to ratepayers.</p>	<p>Imperial Valley to Penasquitos. Located in the Yuha Basin Area of Critical Habitat in the southwestern portion of Imperial County. 8 to 9 miles southwest of the town of El Centro. Map included.</p>	<p>POWER Engineers FEIS is complete. The ROW was authorized in February 2009.</p>

Project Name	Description of Project	Size/Location	Status
4	<p>Proposed Action-Imperial Solar Energy Center – West (CACA-51644)</p> <p>Imperial Solar Energy Center - West consists of two primary components: 1) the construction and operation of the 250 megawatt 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 electricity generation process associated with the Proposed Action would utilize solar technology to convert sunlight directly into electricity. As part of the project, the solar facility would interconnect to the utility grid at the 230 kV side of the Imperial Valley Substation via an approximately five-mile long transmission line. The proposed right-of-way (ROW) for the electrical transmission line corridor would be 120-feet wide.</p> <p>The development of the solar energy center is on 1,130 acres of vacant land previously utilized for agricultural purposes. Project would include a facility consisting of ground mounted photovoltaic solar power generating system, supporting structures, operations and maintenance building, substation, water treatment facility, plant control system, meteorological station, and roads and fencing.</p>	<p>Follows the proposed Dixieland alignment. Map in reference document.</p>	<p>The draft plan for development was completed on January 25, 2010.</p> <p>The CEQA/NEPA analysis is in process.</p>
5	<p>Imperial Solar Energy Center – South (CACA-51645)</p> <p>The Imperial Solar Energy Center - South consists of three primary components: 1) the construction and operation of the 200 megawatt Imperial Solar Energy Center South solar energy facility; 2) the construction and operation of the electrical transmission lines that would connect from the solar power facility to the existing Imperial Valley substation; 3) the widening of an existing access road for ingress and egress to the Solar facility across Federal and private lands located along the</p>	<p>The site of the proposed solar energy facility is located on 946.6 gross acres of privately-owned, undeveloped and agricultural lands, in the unincorporated Mt. Signal area of the County of Imperial, approximately eight miles southwest of the City of El Centro and south of the</p>	<p>The Draft plan for development was completed on January 25, 2010.</p> <p>The CEQA/NEPA analysis is in process.</p>

Project Name	Description of Project	Size/Location	Status
	west side of the Westside Main Canal. The electricity generation process associated with the Proposed Action would utilize solar technology to convert sunlight directly into electricity. As part of the project, the facility would interconnect to the utility grid at the 230 kV side of the Imperial Valley Substation via an approximately five-mile long transmission line. The proposed ROW for the electrical transmission line corridor would be 120-foot wide. The project proponent is also requesting construction and operational access to the solar energy facility via use of an existing dirt road located along the west side of the Westside Main Canal, located within BLM and private lands.	community of Seeley. The proposed transmission lines and access road would be located within the Yuha Desert, and within BLM's Utility Corridor "N" of the California Desert Conservation Area plan. Imperial County is located in Southern California, bordering Mexico, west of Arizona, and east of San Diego County.	
6	SDG&E Proposed Photovoltaic Solar Field (CACA-051625)	SDG&E proposed photovoltaic solar field. Producing 12 to 14 megawatts of renewable energy.	Located on approximately 100 acres of federal land directly adjacent to SDG&E's Imperial Valley substation. Map included.
7	North Gila to Imperial Valley #2 Transmission Line (CACA-51575)	Southwest Transmission Partners double-circuit 500-kV line proposed from the North Gila Substation in Yuma County, Arizona to the Imperial Valley Substation in Imperial County, proposed due east of the IV substation. Project would provide high-voltage transmission capacity in the southwestern U.S. to facilitate the development and interconnection of renewable energy. The total ROW will be approximately 1,903 acres of BLM land. Project will be approximately 75 miles long.	Between North Gila Substation in Yuma County, Arizona and the Imperial Valley Substation in Imperial County between North Gila Substation in Yuma County, Arizona and the Imperial Valley Substation in Imperial Valley. Project will follow the same route as existing Southwest Powerlink 500-kV line.
8	Centinela Solar Power, LLC (CACA-052092)	Proposed 230-kV line (follows the 230kv lines from the international border going north alignment) would generate 225-275 megawatts of electricity	Follows the 230-kv lines from the international border going north alignment. Draft plan for development dated November 2010.

Project Name	Description of Project	Size/Location	Status
	on 2,054 acres of previously disturbed private farmland in the Imperial Valley. Approximately 5 miles of new 230-kV transmission line. The line will connect solar farm on private land with the IV Substation.	Approximately 10 to 12 miles southwest of the town of El Centro, Imperial County. Map in reference document	The CEQA/NEPA analysis is in process.
9	<p>SDG&E East County (SDG&D ECO) Substation/ Tule Wind/Energia Sierra Juarez Gen-The Projects</p> <p>The proposed ECO Substation Project will cross approximately 1.5 miles of land managed by BLM. The ECO Substation Project includes construction of a 500/230/138-kV substation in Eastern San Diego County; construction of the Southwest Powerlink (SWPL) loop-in, a short loop-in of the existing SWPL transmission line to the proposed ECO Substation; construction of a 138 kV transmission line, approximately 13.3 miles in length, running between the proposed ECO Substation and the rebuilt Boulevard Substation; and rebuilding of the existing Boulevard Substation.</p> <p>The proposed Tule Wind Project, consisting of up to 134 wind turbines in the 1.5 to 3.0-megawatt (MW) range generating up to 200 MW of electricity.</p> <p>As proposed by Energia Sierra Juarez U.S. Transmission, LLC, the ESJ Gen-Tie Project would have the capacity to import up to 1,250 MW of renewable energy generated in northern Baja California, Mexico, to the existing SWPL Transmission Line in southeastern San Diego County, California. The selected route would interconnect with the proposed ECO Substation and would be constructed on three to five 150-foot lattice towers or 170-foot steel monopoles. Only renewable energy would be transmitted via the gen-tie line.</p>	<p>The proposed ECO Substation, is situated approximately 0.5 mile north of the United States (U.S.)–Mexico border and 0.5 mile west of the Imperial County border in San Diego County, California.</p> <p>The proposed Tule Wind Project is located in the McCain Valley in southeastern San Diego County, California.</p> <p>The ESJ Gen-Tie Project would extend south from the point of interconnection for about 0.5 mile to the U.S.-Mexico international border.</p>	<p>The CPUC and the BLM developed and signed a Memorandum of Understanding (completed on December 14, 2009) that directed the preparation of a joint EIR/EIS.</p> <p>The Draft EIR/EIS was released for public review on December 24, 2010, for a 54-day public review period originally ending February 16, 2011. However, the public review comment period of the Draft EIR/EIS has been extended to March 4, 2011.</p>
10	Dixieland Connection to IID Transmission System	Approximately 10 to 12 miles southwest of the City of El Centro, Imperial County.	The application was filed and the NEPA analysis is in process.

Project Name		Description of Project	Size/Location	Status
		Solar Energy Center West 230 kV transmission line. The proposed access/maintenance road for the transmission line is proposed to be shared for both transmission lines.		Draft plan of development was submitted on September 14, 2010.
11	Mount Signal Solar Farm I-82LV 8ME, LLC (CACA-052325)	Proposed 230-kV line (follows the 230kv lines from the international border going north alignment) CACA-052325. The project would create 200 megawatts of electricity on 1,375 acres of private farmland in the Imperial Valley. Proposed transmission line route would parallel existing 230 kV lines and share transmission line with C Solar Imperial Valley Energy South project.	Located in 1,375 acres of privately owned land located 2.5 to 7.5 miles west of Calexico in southern Imperial County. Right-of-way is located within BLM lands.	The application was filed and the NEPA analysis is in process. Draft plan for development dated October 12, 2010.
12	Superstition Solar 1	The Surperstition Solar 1 project is a photovoltaic solar energy facility capable of producing 500 megawatts of electricity on approximately 5,516 acres.	Westmorland	Application filed and currently working on a Draft EIR/EIS.
13	Bethel Solar X, Inc.	The Bethel Solar X, Inc project is a solar-hybrid energy project that will produce approximately 49.40 megawatts of electricity on approximately 571 acres of land.	Calexico	In Process
14	Energy Source Solar I, LLC	The Energy Solar Source I project is a solar energy project that will produce 80 megawatts of electricity on approximately 480 acres of land.	Niland	The project has been approved by the County of Imperial. Actual beginning construction date is unknown.
15	Energy Source Solar II, LLC	The Energy Solar Source II project is a solar energy project that will produce 80 megawatts of electricity on 480 acres of land.	Niland	The project has been approved by the County of Imperial. Actual beginning construction date is unknown.
16	Salton Sea Solar Farm I	The Salton Sea Solar Farm I project is a solar energy project that will produce approximately 49.9	Calipatria	The project application has been received by

	Project Name	Description of Project	Size/Location	Status
		megawatts of electricity on approximately 320 acres of land.		the County of Imperial and is under review.
17	Salton Sea Solar Farm II	The Salton Sea Solar Farm II project is a solar energy project that will produce approximately 100 megawatts of electricity on approximately 623 acres of land.	Calipatria	The project application has been received by the County of Imperial and is under review.
18	Calipat Solar Farm I	The Calipat Solar Farm I project is a solar energy project that will produce approximately 50 megawatts of electricity on approximately 280 acres of land.	Calipatria	The project application has been received by the County of Imperial and is under review.
19	Calipat Solar Farm II	The Calipat Solar Farm II project is a solar energy project that will produce approximately 50 megawatts of electricity on approximately 280 acres of land.	Calipatria	The project application has been received by the County of Imperial and is under review.
20	Midway Solar Farm I	The Midway Solar Farm I project is a solar photovoltaic project that will produce approximately 50 megawatts of electricity on approximately 326 acres of land.	Calipatria	The project application has been received by the County of Imperial and is under review.
21	Midway Solar Farm II	The Midway Solar Farm II project is a solar photovoltaic energy project that will produce approximately 155 megawatts of electricity on approximately 803 acres of land.	Calipatria	The project application has been received by the County of Imperial and is under review.
22	IV Solar Company	The IV Solar Company project is a solar photovoltaic energy project that will produce approximately 23 megawatts of electricity on approximately 123 acres of land.	Niland	The project has been approved by the County of Imperial. Actual beginning

	Project Name	Description of Project	Size/Location	Status
				construction date is unknown.
23	Chocolate Mountain	The Chocolate Mountain is a solarphotovoltaic energy project that will produce approximately 49.9 megawatts of electricity on approximately 320 acres of land.	Niland	The project has been approved by the County of Imperial. Actual beginning construction date is unknown.
24	Ocotillo Express	The Ocotillo Express project is wind energy project that will produce approximately 750megawatts of electricity on approximately 15,000 acres of land.	Ocotillo	Application filed and currently working on a Draft EIR/EIS.
25	Hudson Ranch II	The Hudson Ranch II project is a geothermal energy project that will produce approximately 49.9 megawatts of electricity on approximately 326.26 acres of land.	Niland	Currently in the process of preparing a MND.
26	Black Rock Unit #1 2 3	Black Rock Unit # 1 2 3 project is a geothermal energy project that will produce approximately 159 megawatts of electricity on approximately 160 acres of land.	Niland	Currently in the process of preparing an EIR.
27	Ram/Power/Overlay	Ram Power Overlay is a geothermal energy project that will produce approximately 50 megawatts of electricity on approximately 27,875 acres of land.	Brawley	Currently in the process of preparing an EIR.
28	Orni 19	Orni 19 is a geothermal energy project that will produce approximately 49.9 megawatts of electricity on approximately 32 acres of land.	Brawley	Currently in the process of preparing an EIR.
29	Orni 21 (Wister)	Orni 21 is a geothermal energy project proposed to 49.9 mega watts of geothermal power.	Brawley	The following were filed with the County of Imperial: 1. TPM (minor subdivision) 2.Variance (height of transmission poles connecting to plant) 3. Conditional Use Permit (CUP) 08-

Project Name		Description of Project	Size/Location	Status
				0023(to drill geothermal)
Renewable Energy Projects on State and Private Lands (Source: Imperial Valley Solar Project FEIS)				
30	LADWP and OptiSolar Power Plant	This project is anticipated to generate 68 megawatts of solar energy.	Imperial County, SR-111	Currently under environmental review.
31	Orni 18, LLC Geothermal Power Plant	This would generate 49.9 megawatts of geothermal energy.	Brawley, Imperial County	
Existing Projects in Imperial Valley (Source: Imperial Valley Solar Project FEIS)				
32	U.S. Naval Air Facility El Centro	El Centro Naval Air Facility U.S. Naval Reservation Target 103 and Parachute Drop Zone. Desert range is used for air-to-ground bombing, rocket firing, strafing, dummy drops and mobile land target training.	West Mesa	Existing facility.
33	Recreation Activities	The area is primarily used for the conservation of Flat Tailed Horned Lizard. OHV activity is limited to designated routes of travel only within this area. There are occasional groups that visit this area for trail rides.	The area is primarily used for the conservation of Flat Tailed Horned Lizard. OHV activity is limited to designated routes of travel only within this area. There are occasional groups that visit this area for trail rides.	The area is primarily used for the conservation of Flat Tailed Horned Lizard. OHV activity is limited to designated routes of travel only within this area. There are occasional groups that visit this area for trail rides.
34	Recreation Activities	The area is primarily used for the conservation of Flat Tailed Horned Lizard, and archaeological resources. OHV activity is limited to designated routes of travel only within this area. The Juan Bautista De Anza National Historic Trail runs through this area. This region is also rich with paleontological and geological resources. Visitors come to this area to find fossils and explore the area's geology and enjoy the desert landscape. Some schools and universities have visited this region for educational field trips and research.	Yuha Desert ACEC	Existing recreation area

Project Name		Description of Project	Size/Location	Status
35	U.S. Gypsum Mining	Existing gypsum plant; proposal to expand active gypsum quarry undergoing environmental review. Gypsum quarry is located 26 miles northwest of the plant located at Plaster City.	Plaster City	Existing facility. The FEIR was released in January 2008.
36	California State Prison, Centinela	Existing prison opened in 1993 which covers 2,000 acres.	2302 Brown Road, Imperial, CA	Existing facility.
37	Recreation Activities	Cross-country OHV use is permitted within the boundaries of this area. Approximately 20 to 30 Permitted and Organized events occur on the Plaster City Open Area and Superstition Mountain Open Area. Many of these events are competitive OHV races involving as many as 100 riders and several hundred spectators. The area is a popular OHV riding area with high visitation during the cool season and on holiday weekends.	Superstition Mountain and Plaster City Open Area	Existing recreation area
38	IV Substation (TermoElectrica US, LLC, aka Sempra)	International Border and Department of Energy (DOE) was the NEPA lead for preparation of a joint EA. This involves a construction of a 230-kv transmission line from the IV substation to the international U.S./Mexico border. Requires Presidential Permit for border crossing.	From the IV Substation to the international U.S./Mexico border.	Existing transmission line. The construction of the two natural-gas fired power plants in Mexico started in 2001 and are complete. The Imperial-Mexicali FEIS was prepared in December 2004.
39	IV Substation (Baja California Power, Inc., aka, Intergen)	International Border and DOE were the NEPA lead for preparation of a joint EA. Involves construction of a 230-kv transmission line from the IV Substation to the international U.S./Mexico border. Requires Presidential Permit for border crossing.	From the IV Substation to the international U.S./Mexico border.	Existing transmission line. The construction of the two natural-gas fired power plants in Mexico started in 2001 and are complete.

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				The Imperial-Mexicali FEIS was prepared in December 2004.
40	IV Substation (SDG&E)	Involves construction of the La Rosita 230-kv transmission line from the IV Substation to the international U.S./Mexico border near Mt. Signal. 230-kv transmission line (IV-La Rosita line) that connects the IV Substation with Mexico’s La Rosita Substation.	La Rosita Substation near the Mexicali border.	Existing facility.
Future Foreseeable Projects in Imperial Valley (Source: Imperial Valley Solar Project FEIS)				
41	Las Aldeas Specific Plan	The Las Aldeas Specific Plan project is a mixed-use project of 2,156 single-family residential units, 84 multifamily residential units, 467 4-plex residential units, 27.95 acres of commercial zoning, 10.79 acres of light manufacturing zoning, 21.78 acres of park, 48.18 acres of retention basin, and 23.09 acres for two school sites.	North of Adams Avenue, east of Austin Road and west of La Brucheri Road	City of El Centro working on staff report and condition of approval.
42	Linda Vista	The Linda Vista project is a mixed-use project consisting of 182 single-family homes and a 6-acre commercial lot.	West side of Clark Road and I-8 and McCabe Road	Still in permitting process
43	Desert Village #6	The Desert Village Project #6 consists of 95 single-family homes, 260 apartments, and 7.3 acres of commercial.	West of Clark Road between I-8 and Home Road	Approved-granted extension of 2 years for filing final map of subdivision (Aug. 2008)
44	Commons	The Commons is a regional shopping center of 780,000 square feet.	East side of Dogwood Avenue between I-8 and Danenberg Drive	Approved. Issued a building permit.
45	Imperial Valley Mall	The Imperial Valley Mall consists of a regional shopping center of 1,460,000 square feet and 306 single-family houses.	Southeast corner of Dogwood Road and Danenberg Road	Existing facility
46	Miller Burson	The Miller Burson project consists of a 570 single-family residential project.	South of Ross Road and east of Austin Road	Responses to Draft EIR are under preparation.

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47	Courtyard Villas	The Courtyard Villas is a project consisting of 54 single-family homes.	Northwest of I-8 and Austin Road	Currently in the process of preparing an EIR.
48	Willow Bend (East) & Willow Bend (West)	The Willow Bend (East) and Willow Bend(West) is a combined project of 216 single-family homes.	Northeast corner of Clark Road and McCabe Road	Currently on hold.
49	Lotus Ranch	The Lotus Ranch project is a residential project of 616 single-family homes and a 600 student elementary school.	Southwest corner of I-8 and La Brucher Road.	On hold per applicant request (June 2008).
50	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	Currently in the process of preparing an EIR.
51	Hallwood/Calexico Place 111 & Casino	The Calexico Place 111 and Casino project is a mixed-use project of residential, commercial, and casino.	Southwest corner of SR-111 and Jasper Road	The project has been approved by the City of Calexico. Actual beginning construction date is unknown.
52	Callexico Mega Park	The Calexico Mega Park project is a mixed-use project of a commercial and regional shopping center.	Southeast corner of SR-111 and Jasper Road	The project application has been received by the City of Calexico and is under review.
53	County Center II Expansion	The County Center II Expansion project is 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 Administration Complex.	Southwest corner of McCabe Road and Clark Road (8th Street in the City of El Centro)	Currently in the process of preparing an EIR.
54	Desert Springs Resort	The Desert Springs Resort project is a member's only resort community for motorsports, water sports, and recreational vehicle (RV) enthusiasts with a maximum occupancy of 210 days per year. The resort includes an estimated total of up to 411 water sports lots, 792 recreational vehicle lots, 22	Northwest of the Boley Road and Westmorland Road	Currently in the process of preparing an EIR.

Project Name		Description of Project	Size/Location	Status
		estate lots, 150 vacation villas, and 100 garage villas for a total of up to 1,475 units. The project proposes the following: four lakes for water sport recreational uses; a navigable waterway; clubhouse with a restaurant, pool, tennis courts, and boat docks; a spa; satellite recreation facilities; marinas on the water sports lakes; an executive golf course; and passive open space.		
55	Coyote Wells (Wind Zero)	The Coyote Wells (Wind Zero) project is a mixed-use, three-phase development on approximately 944 acres. The land uses include recreation, education and training, tourism, residential, storage, and hotel/resort. Wind Zero proposes to build a 400-acre training facility for law enforcement, government, college and public near Ocotillo (south of Interstate 8 and north of SR 98) on land that it purchased in 2007. Wind Zero proposes to use the additional 600-acre site to build a 6.1-mile road course and racetrack country club.	Ocotillo/Nomirage Area	The project has been approved by the County of Imperial. Actual beginning construction date is unknown.
56	Granite Carroll Sand and Gravel Mine	The Granite Carroll Sand and Gravel Mine is a mining operation project.	4 miles northwest of Ocotillo	The project has been approved by the County of Imperial. Actual beginning construction date is unknown.
Foreseeable Projects in Imperial Valley (Source: Imperial Valley Solar Project FEIS)				
57	Atlas Storage Facility	RV storage facility related to new water well on 5.3 acre parcel currently vacant land.	Ocotillo townsite/ Imperial Highway	Atlas Storage Centers.
58	Mixed-Use Development	65 single-family lots on over 36 acres.	Southeast corner of 8th Street (Clark Road) about 630 feet south of Horne Road	MND proposal being reviewed by applicant.

	Project Name	Description of Project	Size/Location	Status
59	Mixed-Use Development	15 parcel subdivision on APN 054-280-024 and 054-280-048	1002 East Evan Hewes Highway	Approved by City of El Centro in March 2008.
60	Pedestrian Fence 225 and Pedestrian Fence 70	Construct a tactical infrastructure project that plans to construct approximately 225 miles of primary pedestrian fencing along the southwest border of the United States.	Along the U.S./Mexico Border	Under construction.
61	Mixed Use–Recreation	Cross-country OHV use is permitted within the boundaries of Plaster City Open Area and Superstition Mountain Open Area, Limited Use area is allowed in Yuha which offers washes and trails. Organized and permitted OHV events occur at both Plaster City Open Area and Superstition Mountain Open Area.	Plaster City Open Area; Yuha; Superstition Mountain Open Area	The recreational use of the open areas, especially OHV use, is expected to continue and potentially grow in the foreseeable future.
62	Seeley Wastewater Treatment Plant Upgrade	The IVS project applicant would finance an upgrade to the existing facility to allow it to meet the Title 22 water quality standards.	New River Boulevard, Seeley, California Seeley County Water District	Engineering plans required, completion of project expected March 2010.
63	Cahuilla Gold Project	Consolidated Goldfields Company proposes to operate a geotechnical drilling operation (200 holes) on both tribal and private lands, west of Townsite of Salton Sea Beach.	West of Townsite of Salton Sea Beach	CUP 10-0038 Nov 2010. Environmental Evaluation Committee hearing has been scheduled / Planning Commission hearing has been scheduled.

Source: BRG Consulting, Inc. 2011

The cumulative development scenario includes projects that extend through year (2030), which is the planning horizon of the County of Imperial General Plan. The lease term for the solar fields is 30 years. 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.

Project Effects in Combination with Past, Present and Foreseeable Future Projects

In the Impacts Analysis Chapter 4, each discipline evaluates the impacts of the Proposed Action plus the current baseline/existing condition; in this manner, past and existing cumulative effects are aggregated. However, past and present (existing) projects may continue to have effects on certain resources. In such cases, those projects and future projects within the cumulative effects boundaries are listed and evaluated for cumulative impacts. This is consistent with CEQ Guidance, which states that the magnitude and significance of the environmental consequences of the proposed action should be determined in the context of the cumulative effects of other past, present and future actions. [Considering Cumulative Effects Under the NEPA (CEQ, 1997)].

Past, present, and reasonably foreseeable projects that could contribute to the cumulative effects scenario for the Proposed Action depend on the extent of resource effects, but could include projects in the immediate area as well as other projects in Imperial County, or the greater California desert. Generally, they do not extend beyond the geographic scope of the Proposed Action's direct and indirect effects.

5.1 Cumulative Impact Analysis

This cumulative impact analysis utilizes an expanded list method (as defined under CEQA). This expanded approach includes tables providing location, project description, and other pertinent information for past, present, and reasonably foreseeable projects considered in the cumulative impacts analyses and tables summarizing cumulative effects project-by-project for each resource topic considered. The long-term, year 2030, traffic analysis is based on estimated traffic volumes in the County at that time horizon. Table 5.0-1 provides a list of cumulative past, present, and foreseeable future projects within the area that would potentially be impacted by the Proposed Action, are considered in this EIR/EA cumulative impact chapter and have been identified within the BLM and County of Imperial jurisdiction. These projects include projects past projects not included in the baseline/existing condition because of their continuing effects, present projects, and other reasonably foreseeable future projects. The list includes projects known at the time of release of the Notice of Preparation of the Draft EIR/EA, as well as additional projects that have been proposed since the NOP date.

5.1.1 Visual Resources

5.1.1.1 *Geographic Scope and Timeframe*

Table 5.1.1-1 lists the projects considered for the visual resources cumulative impact analysis. The Geographic Scope of cumulative impacts is circumscribed to within five miles and less of the Proposed Action and Alternatives. This scope is based on the flat topography of the project site and the surrounding area.

The solar energy facility site is visible only from KOPs 3, 4 and 5 located along I-8, which are within the private lands/solar facility component of the project site. The adjacent BLM lands and portions of the transmission line corridor are visible from KOPs 1, 2, and 3. The farthest of these sites is approximately 1.3 miles northwest of the proposed transmission facilities component of the Proposed Action.

The flat topography coupled with the Earth's curvature will limit visibility of the Proposed Action and its components to five miles or less.

Potential visual resources impacts would be short-term during construction activities and long-term during the operation of the Proposed Action until the end of the lease term/ROW grant, at which time the proposed project would be restored to its pre-project condition.

5.1.1.2 *Existing Conditions*

Imperial County contains a wealth of scenic visual resources, which include desert areas, sand hills, mountains, and the Salton Sea.

The Proposed Action has 3 primary components:

- 1) The site of the proposed solar energy facility is located on private land in the unincorporated Seeley area of the Imperial County, approximately eight miles west of the City of El Centro. The solar energy facility site is located east of Dunaway Road, west of the Westside Main Canal, south of Evan Hewes Highway, and north of BLM lands. The site consists of 1,130 acres of privately-owned land, previously used for agricultural production. Currently the site is vacant and undeveloped. BLM lands are located to the west and south of the site, and agricultural lands are located to the east of the site. The existing condition of the land is that it is quite flat, and contains no unique topographical features or major scenic features such as trees, rock outcroppings, or historic buildings. Immediately to the west of the proposed project site for the solar energy facility are BLM lands, which are described below.
- 2) The proposed solar energy facility site is located approximately five miles northwest of the existing Imperial Valley Substation. The Proposed Action includes the solar energy facility interconnection to the utility grid at the 230 kV side of the Imperial Valley Substation via an approximately five-mile long transmission line. The proposed right-of-way for the electrical transmission line corridor would be located within Utility Corridor "N" of the BLM's CDCA. The BLM land is primarily vacant and undisturbed desert land; however, existing utilities, including several 230kV transmission lines and towers traverse this area. The existing Imperial Valley substation is also located in this area.

TABLE 5.1.1-1
List of Projects Considered for Visual Resources Cumulative Impact Analysis

Project Name		Included in Visual Resources Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Visual Resources CI Analysis?	Impacts to Visual Resources
Past and Present Projects				
Imperial Valley Substation		Yes	--	The Imperial Valley Substation is located within a designated utility corridor, Utility Corridor "N" of the BLM's California Desert Conservation Area Plan. The Imperial Valley Substation is surrounded by BLM lands to the south and west and agricultural lands to the north and east. Because this is an existing transmission line, no additional visual resources impacts would occur.
Southwest Power Link		Yes	--	The Southwest Power Link is an existing 500-kV transmission line that enters the Imperial Valley Substation from the east at the substation's southeast corner. This transmission line is located within a designated utility corridor, Utility Corridor "N" of the BLM's California Desert Conservation Area Plan. Because this is an existing transmission line, no additional visual resources impacts would occur.
Potential Projects				
1	"S" Line Upgrade 230-kV Transmission Line Project	Yes	--	The "S" Line upgrade would install approximately (+/-) 285 new double-circuit steel poles to replace the existing wood poles supporting a single 230-kV circuit. No significant impact to visual resources would occur because the project would upgrade (i.e., replace) equipment within the existing "S" line transmission corridor.
2	Imperial Valley Solar (Formerly called SES Solar Two Project)	Yes	--	Permanent visual changes to the desert landscape. Visual impacts of project grading and construction would include a highly industrial scene of assembly and installation of Suncatcher units. In addition, this project will add new sources of glare. This project's gentie line would be located within an

Project Name	Included in Visual Resources Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Visual Resources CI Analysis?	Impacts to Visual Resources
			existing transmission corridor, adjacent to the Southwest Power link transmission line, therefore the existing visual character would not be altered.
3	Sunrise Powerlink Transmission Project (CACA-047658)	Yes	-- The installation of new 500 kV transmission towers would affect travelers on local roads, recreationists, and local residents. However, this project would be located within an existing transmission corridor, adjacent to the Southwest Power link transmission line. Therefore the existing visual character would not be significantly altered.
4	Proposed Action-Imperial Solar Energy Center-West (CACA-51644)	Yes	-- No significant impact to visual resources due to the following: <ol style="list-style-type: none"> 1. The project site is not located in a designated scenic vista, nor has the County of Imperial General Plan designated the project site as an important visual resource. 2. Construction of this project would alter the existing visual character of the area and its surroundings as a result of converting vacant agricultural land to a solar energy facility; however, the project site would not be visible from any designated scenic resources or scenic highways. 3. The proposed transmission line corridor will be located within a designated utility corridor; therefore, the project will not degrade the existing visual character or quality of the site. 4. The project would not create a new source of substantial light or glare.
5	Imperial Solar Energy Center-South (CACA-51645)	Yes	-- No significant impact to visual resources due to the following: <ol style="list-style-type: none"> 1. The project site is not located in a designated scenic vista, nor has the County of Imperial General Plan designated the project site as an important visual resource. 2. The proposed transmission line corridor will be located within a designated utility corridor; therefore, the project will

Project Name	Included in Visual Resources Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Visual Resources CI Analysis?	Impacts to Visual Resources
			<p>not degrade the existing visual character or quality of the site.</p> <p>3. The project would not create a new source of substantial light or glare.</p>
6	SDG&E Proposed Photovoltaic Solar Field (CACA-051625)	No	<p>Potential impacts to visual resources are unknown at the time of this evaluation.</p> <p>The SDG&E proposed photovoltaic solar field is located on approximately 100 acres of federal land directly adjacent to SDG&E's Imperial Valley substation.</p> <p>Impacts are currently unknown because BLM is reviewing the project's POD.</p>
7	North Gila to Imperial Valley #2 Transmission Line (CACA-51575)	No	<p>Potential impacts to visual resources are unknown at the time of this evaluation.</p> <p>Visual impacts would be minimized to the extent possible by locating the structures of the new line adjacent to and with the same spacing as existing structures.</p>
8	Centinela Solar Power, LLC (CACA-052092)	Yes	<p>--</p> <p>The Centinela project proposes approximately 5 miles of new 230-kV lines, which would follow the existing 230-kV lines from the international border going north alignment. As such, no significant impact to visual resources would occur because the project would follow existing 230-kV lines.</p>
9	San Diego Gas & Electric (SDG&E) East County (ECO) Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects	No	<p>The project site is not located within the 5 mile geographic scope analyzed for visual resource impacts.</p>

Project Name		Included in Visual Resources Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Visual Resources CI Analysis?	Impacts to Visual Resources
10	Dixieland Connection to IID Transmission System	Yes	--	<p>The Dixieland project would involve the placement of new transmission line poles and installation of transmission lines in an area primarily consisting of open desert and fallow agricultural land. While scenic views are currently available from I-8, these views are affected by intrusions of existing transmission towers and by desert lands disturbed by now-fallow agricultural plots and by off-highway vehicle use. As such, much of the natural character and scenic quality of the area has been reduced and the project area does not represent an area of natural scenic beauty.</p> <p>No significant impact to scenic resources, as the nearest State Scenic Highway is located approximately 14 miles west of the project site.</p> <p>No significant impacts from lighting or glare would occur because lighting would be shielded and directed downward. In addition, construction activities would only occur during daylight hours.</p>
11	Mount Signal Solar Farm I-82LV 8ME, LLC (CACA-052325)	Yes	--	<p>The proposed transmission line route would parallel existing 230 kV lines and share C Solar Imperial Valley Energy South project's transmission line. No significant impact to visual resources would occur because the project would follow the existing 230-kV lines.</p>
12-35	*Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	No	These project sites are not located within the 5 mile geographic scope analyzed	

Project Name	Included in Visual Resources Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Visual Resources CI Analysis?	Impacts to Visual Resources
			for visual resource impacts.
36	California State Prison, Centinela	Yes	--
37	Recreation Activities	No	The project site is not located within the 5 mile geographic scope analyzed for visual resource impacts.
38	IV Substation (TermoElectrica US, LLC, aka Sempra)	Yes	--
39	IV Substation (Baja California Power, Inc., aka, Intergen)	Yes	--
			<p>The Sempra Line is an existing 230-kV transmission line which runs north and connects to the Imperial Valley Substation. The Sempra Line is located adjacent to the Intergen and Imperial Valley-Rosita Lines. This transmission line is located within a designated utility corridor, Utility Corridor "N" of the BLM's California Desert Conservation Area Plan. Because this is an existing transmission line, no additional visual resources impacts would occur.</p> <p>The Intergen Line is an existing 230-kV transmission line which runs north from the International Border and connects to the Imperial Valley Substation. The Intergen Line is located in between the Intergen and Sempra Lines. This transmission line is located within a designated utility corridor, Utility Corridor "N" of the BLM's California Desert Conservation Area Plan. Because this is an existing transmission line, no additional visual resources impacts would occur.</p>

Project Name		Included in Visual Resources Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Visual Resources CI Analysis?	Impacts to Visual Resources
40	IV Substation (SDG&E)	Yes	--	The Imperial Valley-Rosita Line is an existing 230-kV transmission line which runs north from the International Border and connects to the Imperial Valley Substation. The Imperial Valley-Rosita Line is located adjacent to the Intergeren and Sempra Lines. This transmission line is located within a designated utility corridor, Utility Corridor "N" of the BLM's California Desert Conservation Area Plan. Because this is an existing transmission line, no additional visual resources impacts would occur.
41-53	*Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	No	These project sites are not located within the 5 mile geographic scope analyzed for visual resource impacts.	
54	Desert Springs Resort	Yes	--	<p>No significant impact to visual resources because the project site is not located near any scenic vistas or scenic highways. Implementation of the proposed project would not damage or degrade any existing scenic resources. Although the proposed project would change the existing visual character of the site, the site is not located in an area where sensitive viewsheds and visual resources have been identified.</p> <p>The project would result in a minor increase in the cumulative light or glare of the area; however, standard County regulations require the shielding of lights to reduce potential light and glare, and new light from the project would not effect any significant visual resources in the area.</p>

Project Name		Included in Visual Resources Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Visual Resources CI Analysis?	Impacts to Visual Resources
55-61	*Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	No	These project sites are not located within the 5 mile geographic scope analyzed for visual resource impacts.	
62	Seeley Wastewater Treatment Plant Upgrade	Yes	--	The construction would occur at an already existing water treatment facility and would not result in taller structures than currently occur on site. Additionally, minimal changes to the existing landscape would be expected from the upgrades. As such, no significant visual resources impact would occur.
63	Cahuilla Gold Project	No	The project site is not located within the 5 mile geographic scope analyzed for visual resource impacts.	

Source: BRG Consulting, Inc., 2011

- 3) The proposed access road would be located within the proposed ROW approval being requested from the BLM for the transmission line corridor and will disturb approximately 6.8 acres of BLM lands. The existing conditions of the access road within BLM lands is the same as the transmission line corridor described above.

5.1.1.3 *Summary of Effects of the Proposed Action*

A. Short-term Visual Impacts

The short-term visual impacts to the proposed solar energy facility site would be in the form of general construction activities. The construction activities would be substantially identical for either the CPV or the PV technologies. These construction activities would include some slight grading of the solar facility site. They would also include the use of construction machinery, lighting, and a temporary increase in activity at the site. The visual impacts of these activities are expected to be minor because of the remote location of the site and because the site is not readily visible from more than a mile away. There are no sensitive receptors within the one mile vicinity and people travelling along KOPs along I-8 will likely be passing the site at 65mph. Figures 4.1-1a through 4.1-3b depict visual simulations of both the CPV and PV panels and the proposed transmission line from KOPs.

The short-term visual impacts to the proposed transmission line corridor would also be in the form of construction activity to bring the transmission poles to the corridor, install them, and string transmission lines between the poles.

The short-term visual impacts on the proposed access road would be in the form of construction activity to widen the road and increased traffic use of the road by construction crews traveling to and from the solar energy facility site.

B. Long-term Visual Impacts

Solar Energy Facility

The long-term visual impacts at the proposed solar energy facility site would be in the form of changing the visual character of the site from agricultural land to a solar energy facility. The major generation equipment that will be installed on the project site includes solar modules; a panel racking and foundation design; inverter and transformer station; an electrical collection system; and, a switchyard. The facility would also have Auxiliary Equipment, which would include safety and security equipment and operations and maintenance facilities. The entire solar facility site would be enclosed by a 6-foot chain link security fence; however, this fence would not block or screen any views of the site. Along the I-8, views of the site, regardless of technology (PV or CPV) that is selected, would remain, as the freeway is elevated above the site. See EIR/EA Section 4.1 for a detailed discussion of the Proposed Action potential visual impacts.

Transmission Line Corridor

The solar energy facility would interconnect via the installation of transmission lines and towers to the utility grid at the 230 kV side of the Imperial Valley Substation, located on lands managed by the BLM. The

transmission lines and towers for the Proposed Action would extend from the north side of the existing Imperial Valley Substation northwest approximately five miles (Figure 2-15). Figure 2-16 depicts the transmission line corridor for the Proposed Action. The transmission line support structures would consist of monopoles from the project site to just south of the Imperial Valley Substation. The use of monopoles would reduce the visual impact, as it would match the proposed IID Dixieland 230 kV line. The monopoles would be spaced approximately 600 to 800 feet apart and would be roughly in line with the proposed IID Dixieland line's structures in an east-west direction. Two types of steel monopoles would be used, suspension (Figure 2-16) and deflection (Figure 2-18). Suspension and deflection monopoles are about 100 feet high.

As discussed in Section 3.1 of this EIR/EA, the adjacent BLM lands are visible from three KOPs located along Dunaway Road and I-8. However, due to distance and existing land topography, the existing transmission lines on BLM lands is only visible from KOP #2, located along I-8. Figure 4.1-4a depicts a visual simulation of the larger CPV technology and the proposed transmission lines and towers. Figure 4.1-4b depicts the PV technology and the proposed transmission line ad towers. As depicted on Figures 4.1-4a and 4.1-4b, the proposed transmission line corridor would be similar to the IID "S" line, SDG&E, Sempra, and Intergen 230kV transmission facilities located within this corridor. The proposed transmission line would occur within an area designated by the BLM for utilities, Utility Corridor "N." This is consistent with the CDCA. Project siting was used to minimize cumulative visual impacts by using of an area already utilized for the same purpose and staying within the designated corridor.

Overall, the proposed transmission line would be visually similar to the existing corridor and the project site is designated for such use; therefore, implementation of the Proposed Action would not substantially degrade the existing visual character or quality of the site and its surroundings in the long term.

Access Road

As discussed in Section 3.1, the proposed access road for the transmission line is located within BLM lands and is not visible from any KOPs. The proposed access road would disturb approximately 6.8 acres of BLM lands within the transmission line corridor and would be used to provide access to the transmission line corridor during construction and operation of the project. As such, construction and use of this road would change the existing visual character of the site, because the site is currently undeveloped. However, due to distance and existing land topography, the proposed access road within BLM lands would not be visible from any KOP and would be consistent with the CDCA. Therefore, the Proposed Action would not substantially degrade the existing visual character or quality of the site and its surroundings in the long term.

5.1.1.4 Cumulative Impact Analysis

A. CEQA Impact Analysis

As discussed in EIR/EA Section 4.1, visual resources impacts under CEQA have been identified as less than significant, regardless of the panel technology (PV or CPV) that is selected for this project. Development of the Proposed Action in conjunction with the cumulative projects identified in Table 5.1.1-1, considered as part of the cumulative analysis of visual resources, will gradually change the visual character of this portion

of the Imperial Valley. Cumulative projects affecting visual resources are either: 1) located within an existing utility corridor (Utility Corridor “N”), replacing existing utilities, located adjacent to existing utility lines and supporting utilities, and/or located within an area that is not identified as natural scenic beauty or a designated scenic resource. 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, that each project must conform to in order to obtain a CUP or other local development permit.

Cumulative projects Imperial Solar Energy Center South, Dixieland Connection to IID Transmission System, and Desert Springs Resort would not have a cumulative effect on a scenic vista because they are not located in an area that is identified as a designated scenic resource and would not affect a scenic vista (see Table 5.1.1-1). All cumulative projects in Table 5.1.1-1 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. Existing cumulative projects Imperial Valley Substation, Imperial Valley Rosita Line, Intergen Line, Sempra Line, Southwest Power Link would not substantially degrade the character of the site or its surroundings because they are located within designated Utility Corridor “N” where similar facilities already exist. The Utility Corridor “N” was selected to be in this location in order that utility lines and facilities would not be constructed elsewhere near valuable scenic resources. Therefore, the overall visual character would not be qualitatively altered. Potential cumulative project “S” Line Upgrade would not substantially degrade the character of the site or its surroundings because they are located within designated Utility Corridor “S” where similar facilities already exist; therefore, the visual character would not be qualitatively altered. Similarly, all other transmission-line type projects in Table 5.1.1-1 follow designated utility corridors and/or parallel existing transmission line routes and thereby do not qualitatively alter the visual resource. Finally, all projects listed in Table 5.1.1-1 would not produce a substantial amount of light and glare, as no significant source of light or glare is proposed, or the project will otherwise comply with the County lighting ordinance.

Furthermore, cumulative visual resource impacts were analyzed in the Solar Programmatic Environmental Impact Statement (PEIS) (see EIR PEIS page 6-98). BLM and DOE analyzed the cumulative impacts of solar development across a six-state study area and found that the introduction of solar facilities in remote rural areas would alter the landscape and produce dramatic changes in the visual character of many, but not all affected areas. Thus, their programmatic analysis concluded that solar development across the six-state study area would be a major contributor to cumulative visual impacts from foreseeable development in those areas where dramatic changes occurred (see EIR PEIS page 6-98). The Proposed Action would not produce “dramatic changes in the visual character” in this area because new transmission facilities would be built next to existing transmission lines and the energy production facilities would be sited on disturbed agricultural lands, not the type of remote rural areas analyzed in the Solar PEIS. The remote rural areas referenced in the PEIS are remote basin flats surrounded by mountains and highlands where sensitive viewing locations exist. This differs from the use of the term remote rural areas to describe the ISEC West site location within Imperial County. ISEC West is located in an unincorporated area of Imperial County on previously disturbed fallow agricultural land surrounded by BLM managed lands and agricultural lands. Many of the agricultural lands in the area have constantly changing visual character as the crop cycle

changes and the fields go from freshly graded brown fields to green field crops, then to dry tan dead crops, and then to blackened freshly burnt fields, and then back to brown freshly graded fields to restart the cycle. Additionally, there are power lines running throughout the flat agricultural lands to provide service to water pumps and other agricultural facilities which is in contrast to the remote sensitive and undisturbed areas described in the Solar PEIS.

The Proposed Action's contribution to the cumulative impacts is not considerable. That is because the impacts at the proposed solar energy facility project site will be located in a remote area that does not constitute a scenic vista and is not readily viewable from scenic highways. The project site would be readily visible from I-8; however, the portion of I-8 that the site is visible from is not designated as a scenic highway. The visual character of the proposed site of the solar energy facility will change from rural, agricultural vistas to one with developed characteristics; however, these changes are not characterized as degradation because the solar field site is not designated as a scenic resource.

As for the transmission lines, those will parallel existing transmission lines and towers within designated Utility Corridor "N", and therefore will not qualitatively change or degrade the scenic quality of the area in a substantial way. In addition, the proposed access road would be constructed within an undeveloped portion of the designated Utility Corridor "N" and would not be visible from any frequently travelled roads or scenic highways. Therefore, this is not a cumulatively significant impact under CEQA.

Table 5.1.1-2 provides a comparison of the Proposed Action and Alternatives related to cumulative visual resources impacts under CEQA.

B. NEPA Impact Analysis

As discussed in EIR/EA Section 4.1, no direct or indirect visual resources impacts have been identified for the Proposed Action, regardless of the panel technology (PV or CPV) that is selected for this project. Development of the Proposed Action in conjunction with the cumulative projects identified in Table 5.1.1-1, considered as part of the cumulative analysis of visual resources, will gradually change the visual character of this portion of the Imperial Valley. Cumulative projects affecting visual resources are either: 1) located within an existing utility corridor (Utility Corridor "N"), replacing existing utilities, located adjacent to existing utility lines and supporting utilities, and/or located within an area that is not identified as natural scenic beauty or a designated scenic resource. 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.

The proposed transmission line corridor will be located within a designated utility corridor and the transmission line will be similar to the other existing and proposed transmission facilities located within this corridor; therefore, the visual resources within BLM lands would not be altered. The existing transmission lines include facilities built by SDG&E, Sempra, Intergen, and IID. SDG&E's facilities include a 230kV line, the 500kV Southwest Powerlink, and recently constructed portions of the 500kV Sunrise Powerlink. There are no existing transmission lines that run from the project site to the Imperial Valley Substation. The 500kV Southwest and Sunrise Powerlink lines are located about a half a mile south of the proposed solar field for

ths project. The Sunrise Powerlink, is approved and under construction; however, both Sunrise and Southwest Powerlink are too big for the proposed transmission to interconnect to. The Imperial Valley Solar proposed transmission lines will pass a half mile South of the proposed solar field; however, construction of this transmission facility is uncertain. IID operates the 230kV “S” line which runs due North of the Imperial Valley Substation and the Sempra, Interegen, and SDG&E lines run to the South of Imperial Valley Substation. While these lines come from various directions, they all lead to the Imperial Valley Substation, so the closer an observer gets to the substation, the more prominent the transmission lines become. Because the proposed transmission line would be similar to the existing and proposed facilities and the project site is designated for such use, implementation of the Proposed Action would only incrementally degrade the existing visual character or quality of the site and its surrounding viewshed.

Cumulative projects Imperial Solar Energy Center South, Dixieland Connection to IID Transmission System, and Desert Springs Resort 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; however, would not affect a scenic vista (see Table 5.1.1-1). All cumulative projects in Table 5.1.1-1 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. Existing cumulative projects Imperial Valley Substation, Imperial Valley Rosita Line, Intergen Line, Sempra Line, Southwest Power Link would not substantially degrade the character of the site or its surroundings because they are located within designated Utility Corridor “N” where similar facilities already exist; therefore, the visual character would not be qualitatively altered. Potential cumulative project “S” Line Upgrade would not substantially degrade the character of the site or its surroundings because it is located within designated Utility Corridor “S” where similar facilities already exist; therefore, the visual character would not be qualitatively altered. Similarly, all other transmission-line type projects in Table 5.1.1-1 follow designated utility corridors and/or parallel existing transmission line routes and thereby do not qualitatively alter the visual resource. Finally, portions of all projects listed in Table 5.1.1-1 within public lands would not produce a minimal amount of light and glare, because transmission lines do not contribute to light and glare impacts. However, the portions of all projects within private lands would produce a minimal amount of light and glare and will be required to comply with the County lighting ordinance. However, although the amount of light and glare generated by the Proposed Action and the cumulative projects would be minimal, regardless of the technology (PV or CPV panels) that is selected, this minimal increase is considered a cumulative impact under NEPA.

Furthermore, cumulative visual resource impacts were analyzed in the Solar PEIS (see EIR PEIS page 6-98). BLM and DOE analyzed the cumulative impacts of solar development across a six-state study area and found that the introduction of solar facilities in remote rural areas would alter the landscape and produce dramatic changes in the visual character of many, but not all affected areas. Thus, their programmatic analysis concluded that solar development across the six-state study area would be a major contributor to cumulative visual impacts from foreseeable development (see EIR PEIS page 6-98). The Proposed Action would not produce “dramatic changes in the visual character” because new transmission facilities would be built next to existing transmission lines and the energy production facilities would be sited on disturbed agricultural lands, not the remote undisturbed rural areas analyzed in the Solar PEIS. The remote rural areas referenced in the PEIS are remote basin flats surrounded by mountains and highlands where sensitive

viewing locations exist. This differs from the use of the term remote rural areas to describe the ISEC West site location within Imperial County. ISEC West is located in an unincorporated area of Imperial County on previously disturbed fallow agricultural land surrounded by BLM managed lands and agricultural lands. Many of the agricultural lands in the area have constantly changing visual character as the crop cycle changes and the fields go from freshly graded brown fields to green field crops, then to dry tan dead crops, and then to blackened freshly burnt fields, and then back to brown freshly graded fields to restart the cycle. Additionally, there are power lines running throughout the flat agricultural lands to provide service to water pumps and other agricultural facilities which is in contrast to the remote sensitive and undisturbed areas described in the Solar PEIS.

The Proposed Action's contribution to the cumulative impacts is not considerable under NEPA. That is because the impacts at the proposed solar energy facility project site will be located in a remote area on previously disturbed soil that does not constitute a scenic vista and is not readily viewable from any scenic highways. The project site would be readily visible from I-8; however, the portion of I-8 that the site is visible from is not designated as a scenic highway. The visual character of the proposed site of the solar energy facility will change from rural, agricultural vistas to one with developed characteristics; however, these changes are not characterized as degradation because the solar energy facility site is not designated as a scenic resource.

As for the transmission lines, those will parallel existing transmission lines and towers within designated Utility Corridor "N", and therefore will not qualitatively change or degrade the scenic quality of the area in a substantial way. In addition, the proposed access road would be constructed within an undeveloped portion of the designated Utility Corridor "N" and would not be visible from any scenic highways. Therefore, this is not a cumulatively considerable impact under NEPA. Table 5.1.1-2 provides a comparison of the Proposed Action and Alternatives related to cumulative visual resources impacts under NEPA.

TABLE 5.1.1-2
Comparison of Alternatives for Cumulative Visual Resources Impacts

Proposed Action	Alternative 1 – Alternative Transmission Line Corridor	Alternative 2 – Alternative Transmission Line Corridor	Alternative 3 – Reduced Solar Energy Facility Site	Alternative 4 – No Action/No Project Alternative
<i>CEQA Impact Analysis</i>				
Implementation of the Proposed Action, in conjunction with applicable cumulative projects as it relates to visual resources, will not result in a cumulative visual resources impact under CEQA.	As with the Proposed Action, this alternative would not result in a significant, cumulative visual resources impact under CEQA. The alternative transmission line would be located within the same general utility corridor as the Proposed Action.	As with the Proposed Action, this alternative would not result in a significant, cumulative visual resources impact under CEQA. The alternative transmission line would be located within the same general utility corridor as the Proposed Action.	As with the Proposed Action, this alternative would not result in a significant, cumulative visual resources impact under CEQA. The alternative transmission line would be located within the same general utility corridor as the Proposed Action.	As with the Proposed Action, this alternative would not result in a significant, cumulative visual resources impact under CEQA.
<i>NEPA Impact Analysis</i>				
Implementation of the Proposed Action, in conjunction with applicable cumulative projects as it relates to visual resources, will not result in a cumulative visual resources impact under NEPA. However, the Proposed Action when combined with the cumulative projects would result in a cumulative impact with regards to light and glare under NEPA.	As with the Proposed Action, this alternative would not result in a cumulative visual resources impact under NEPA. The alternative transmission line would be located within the same general utility corridor as the Proposed Action. However, similar to the Proposed Action, this alternative when combined with the cumulative projects would result in a cumulative impact with regards to light and glare under NEPA.	As with the Proposed Action, this alternative would not result in a cumulative visual resources impact under NEPA. The alternative transmission line would be located within the same general utility corridor as the Proposed Action. However, similar to the Proposed Action, this alternative when combined with the cumulative projects would result in a cumulative impact with regards to light and glare under NEPA.	As with the Proposed Action, this alternative would not result in a cumulative visual resources impact under NEPA. The alternative transmission line would be located within the same general utility corridor as the Proposed Action. However, similar to the Proposed Action, this alternative when combined with the cumulative projects would result in a cumulative impact with regards to light and glare under NEPA.	As with the Proposed Action, this alternative would not result in a cumulative visual resources impact under NEPA.

Source: BRG Consulting, Inc., 2011

5.1.2 Land Use

5.1.2.1 *Geographic Scope and Timeframe*

The geographic scope for the analysis of cumulative impacts related to land use is defined by government jurisdiction: the geographic scope of land use impacts considered cumulatively for land under the County of Imperial’s jurisdiction includes all land governed by its General Plan with regard to inconsistencies with the General Plan’s policies addressing agriculture. Otherwise, the geographic scope with regard to land under County jurisdiction includes the project site plus a one-mile buffer—this geographic scope includes reasonably anticipated potential direct and indirect effects. For land under BLM authority, the geographic scope is bounded by the outermost limits of the overlapping CDCA-designated Utility Corridor “N” and Yuha Basin Area of Critical Environmental Concern (ACEC) and Yuha Desert FTHL Management Area. The County of Imperial General Plan governs the proposed project’s land use and the impacts on the County’s land use plans and policies need to be evaluated cumulatively. Similarly, proposed project activities are governed by the BLM’s land use policies and that the Proposed Action may impact, directly or indirectly, the implementation of those plans and policies. Consequently, projects within the so-defined boundary must be considered to evaluate cumulative impacts to these BLM policies. The cumulative develop scenario includes projects that extend through year (2030), which is the horizon year for the currently adopted Imperial County General Plan. Table 5.1.2-1 lists the projects considered for the land use cumulative impacts analysis.

5.1.2.2 *Existing Conditions*

The solar energy facility portion of the Proposed Action is located on privately-owned land, previously utilized for agricultural production, in the unincorporated Seeley area of the County of Imperial. The proposed transmission line corridor and access road would be located within BLM lands. Land use plans and policies that are applicable to the project site include the County of Imperial General Plan, the County of Imperial Land Use Ordinance, Airport Land Use Compatibility Plan, Federal Land Management Policy Act, 1976, California Desert Conservation Area Plan, Yuha Basin Area of Critical Environmental Concern (ACEC) Management Plan, and Flat-tailed Horned Lizard Rangeland Management Strategy.

5.1.2.3 *Summary of Effects of the Proposed Action*

As discussed in EIR/EA Section 4.2, the Proposed Action would not conflict with the goals and objectives of the County of Imperial General Plan. The proposed solar energy facility is an allowed use within the existing zoning of the site, subject to a conditional use permit. As part of the Proposed Action, a CUP application has been filed, which would allow the uses of the Proposed Action to occur within the A-2, A-2-R, and A-3 zones. Although the project applicant has applied to the County for a variance to accommodate the height of the transmission towers (20 ft above the allowable 120 ft), transmission towers are allowed within the existing zoning of the site. As such, the Proposed Action is consistent with all other County land use plans for the project area.

TABLE 5.1.2-1
List of Projects Considered for Land Use Cumulative Impact Analysis

Project Name		Included in Land Use Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Land Use CI Analysis?	Impacts to Land Use
1	"S" Line Upgrade 230-kV Transmission Line Project	Yes	--	The "S" Line is an existing transmission line. The upgrade of the line would replace the existing poles to withstand wind and provide better reliability to IID's infrastructure. As such, no additional land use impacts would occur.
2	Imperial Valley Solar (Formerly called SES Solar Two Project)	Yes	--	<ol style="list-style-type: none"> 1. The Imperial Valley Solar project would impact planned uses as designated in the CDCA Plan (1980 as amended) and designated Open Routes. 2. The conversion of 6,500 acres of land would constrain the existing recreational uses on site and would result in adverse effects on recreational users of these lands.
3	Sunrise Powerlink Transmission Project (CACA-047658)	Yes	--	<p>Construction Impacts: Within the Imperial Valley Link, the proposed project would traverse or adjoin agricultural land and open space west of El Centro. Other uses impacted along the proposed route include a national historic trail, border checkpoint, irrigation canals, military facilities, public roadways, railroad ROW, a State prison, and rural residential. Construction of the proposed project would temporarily disturb this rural area as a result of heavy construction equipment. Implementation of mitigation measures would reduce this land use impact to a level less than significant. The proposed route would cross the Fillaree Canal. To minimize potential land use and other conflicts with operation of the canals, SDG&E must coordinate with IID and obtain appropriate authorization from IID to cross the canals prior to construction of the proposed project.</p> <p>Operational Impacts: The proposed project would traverse or adjoin land used agricultural, parks and recreational/open space, public facilities, and residential purposes within the Imperial Valley Link.</p>

	Project Name	Included in Land Use Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Land Use CI Analysis?	Impacts to Land Use
				<p>The proposed route would not physically divide these established uses but would traverse between and border them. The transmission facilities would not constitute a physical division of an established community.</p> <p>Pending and future development projects may have been proposed or constructed by landowners on land parcels across which the route would pass. SDG&E would need to coordinate with landowners to revise the route, where feasible, to minimize land use conflicts between the transmission line and existing/planned development.</p>
4	Proposed Action-Imperial Solar Energy Center-West (CACA-51644)	Yes	--	<p>No significant land use impacts due to the following:</p> <ol style="list-style-type: none"> 1. Development and operation of the Proposed Action would not divide an established community as no development exists within, or in the surrounding area of the site. 2. No significant conflict with existing land use plans, policies, and regulations (i.e., Federal Land Management Policy Act, County of Imperial General Plan, County of Imperial Land Use Ordinance, and Airport Land Use Compatibility Plan). 3. No significant conflict with any applicable habitat conservation plan or natural community conservation plan (i.e., California Desert Conservation Area Plan and Yuha Basin Area of Critical Environmental Concern Management Plan). Implementation of the Proposed Action will impact biological resources. However, implementation of the mitigation measures set forth in the EIR/EA will address potential direct and indirect impacts to biological resources located within the ACEC.
5	Imperial Solar Energy Center-South (CACA-51645)	Yes	--	<p>No significant land use impacts due to the following:</p> <ol style="list-style-type: none"> 1. Development and operation of the Proposed Action would not divide an established community as no development exists within, or in the surrounding area of the site.

	Project Name	Included in Land Use Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Land Use CI Analysis?	Impacts to Land Use
				<p>2. No significant conflict with existing land use plans, policies, and regulations (i.e., Federal Land Management Policy Act, County of Imperial General Plan, County of Imperial Land Use Ordinance, and Airport Land Use Compatibility Plan).</p> <p>3. No significant conflict with any applicable habitat conservation plan or natural community conservation plan (i.e., California Desert Conservation Area Plan and Yuha Basin Area of Critical Environmental Concern Management Plan). Implementation of the Proposed Action will impact biological resources. However, implementation of the mitigation measures set forth in the EIR/EA will address potential direct and indirect impacts to biological resources located within the ACEC.</p>
6	SDG&E Proposed Photovoltaic Solar Field (CACA-051625)	Yes	--	Analysis incomplete at this time, therefore the project's consistency with land use plans is difficult to estimate. The impacts to the BLM designated utility corridor "N" have not been fully analyzed.
7	North Gila to Imperial Valley #2 Transmission Line (CACA-51575)	No	STP is preparing a Plan of Development. NEPA analysis has not yet commenced.	
8	Centinela Solar Power, LLC (CACA-052092)	No	The level of qualitative data available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	Located on approximately 2,067 acres of privately-owned agricultural land in the western portion of the Imperial County, near the Imperial Valley Substation. The proposed transmission line corridor will follow the 230-kV lines from the international border going north alignment.
9	San Diego Gas & Electric (SDG&E) East County (ECO)	Yes	--	1. Construction would temporarily disturb land uses at or near project components.

	Project Name	Included in Land Use Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Land Use CI Analysis?	Impacts to Land Use
	Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects			<ol style="list-style-type: none"> 2. Presence of a project component would divide an established community or disrupt land uses at or near project components. 3. The project would conflict with applicable land use plans, policies, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect.
10	Dixieland Connection to IID Transmission System	Yes	--	<p>No significant land use impacts due to the following:</p> <ol style="list-style-type: none"> 1. The proposed project would not be located within or along the boundary of any existing residential or community uses. As such, the project would not divide an existing community. 2. The project would not require a change in land use designations. The CDCA shows the project site to be located within an Energy Production and Utility Corridor. 3. Biological impacts within the FTHL Management Area would be reduced to a level less than significant with the implementation of mitigation measures. 4. No conflicts with an applicable NCCP/HCP.
11	Mount Signal Solar Farm I- (82 LV 8ME, LLC (CACA-052325)	No	The level of qualitative data available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	Located on 1,375 acres of privately owned land located 2.5 to 7.5 miles west of Calexico in southern Imperial County. Right-of-Way is located within BLM lands.
12	Superstition Solar 1	Yes	--	The Superstition Solar 1 project could impact planned uses as designated in the CDCA Plan (1980 as amended) and designated Limited/Open Routes. In addition, the conversion of 5,587 acres of land could constrain the existing recreational uses on site and may result in adverse effects on recreational users of these lands.

	Project Name	Included in Land Use Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Land Use CI Analysis?	Impacts to Land Use
13-15	*Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	No	The level of qualitative data available regarding these projects was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	
16-21	*Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	No	The development applications were received after the NOP was published.	
22	IV Solar Company	No	The level of qualitative data available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	
23	Chocolate Mountain	No	The level of qualitative data available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	

	Project Name	Included in Land Use Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Land Use CI Analysis?	Impacts to Land Use
24	Ocotillo Express	Yes	--	The Ocotillo Express Wind Development Facility could impact planned uses as designated in the CDCA Plan (1980 as amended) and designated Limited/Open Routes. In addition, the conversion of approximately 15,000 acres of land could constrain the existing recreational uses on site and may result in adverse effects on recreational users of these lands.
25-31	*Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	No	The level of qualitative data available regarding these projects was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
32	U.S. Naval Air Facility El Centro	Yes	--	Existing, ongoing impacts are consistent with land use plans.
33	Recreation Activities	Yes	--	Ongoing impacts are consistent with land use plans.
34	Recreation Activities	Yes	--	Ongoing impacts are consistent with land use plans.
35	U.S. Gypsum Mining	Yes	--	Existing; Quarry is undergoing expansion. The project would result in an expansion and extension of existing quarrying activities on the site. As such, the project would not be incompatible with existing surrounding land uses.
36	California State Prison, Centinela	Yes	--	Existing facility, ongoing impacts are consistent with land use plans.
37	Recreation Activities	Yes	--	Ongoing impacts are consistent with land use plans.
38	IV Substation (TermoElectrica US, LLC, aka Sempra)	Yes	--	The Sempra line is an existing transmission line. As such, no additional land use impacts would occur.

	Project Name	Included in Land Use Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Land Use CI Analysis?	Impacts to Land Use
39	IV Substation (Baja California Power, Inc., aka, Intergen)	Yes	--	The Intergen line is an existing transmission line. As such, no additional land use impacts would occur.
40	IV Substation (SDG&E)	Yes	--	The SDG&E line is an existing transmission line. As such, no additional land use impacts would occur.
41	Las Aldeas Specific Plan	Yes	--	The proposed Specific Plan proposes medium-high-density residential development adjacent to an on-site span of railway tracks, which conflicts with the City's policy of developing compatibility between land uses and will potentially cause significant noise and public safety impacts. In addition, the proposed Specific Plan proposes medium-high-density residential development adjacent to the sewage treatment plant, which conflicts with the policy of developing compatibility between land uses and will potentially cause significant air quality and aesthetic impacts. With the mitigation measures identified in the FEIR, land use impacts will be reduced to a level less than significant.
42	Linda Vista	No	The level of qualitative data available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	
43	Desert Village #6	No	The level of qualitative data available regarding this project was insufficient to determine the project's potential impacts at the time this	

	Project Name	Included in Land Use Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Land Use CI Analysis?	Impacts to Land Use
			evaluation was prepared.	
44	Commons	Yes	--	<p>No significant land use impacts due to the following:</p> <ol style="list-style-type: none"> 1. There are a variety of existing land uses within the adjacent properties in the vicinity of the proposed project site. The project is within a sparsely settled agricultural area, adjacent to commercial development. Therefore, development of the site would not physically divide any established community. 2. The proposed project is consistent with the City of El Centro General Plan Policies. 3. Development of the proposed project would not conflict with any habitat conservation plan or natural community conservation plan.
45	Imperial Valley Mall	Yes	--	Existing facility. No additional land use impacts would occur.
46-49	*Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	No	The level of qualitative data available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	
50	Mosaic	Yes	--	<p>No significant land use impacts due to the following:</p> <ol style="list-style-type: none"> 1. Implementation of the proposed project would not divide an established community. 2. The proposed project is considered to be consistent with the County of Imperial General Plan. 3. The County of Imperial is not within the jurisdiction of any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

	Project Name	Included in Land Use Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Land Use CI Analysis?	Impacts to Land Use
51	Hallwood/Calexico Place 111 & Casino	Yes	--	<p>The project site is currently vacant and is surrounded by agriculture and industrial uses. The site is at the extreme northerly limit of the City; and therefore, the project could not divide the City. As such the proposed project would not divide an established community.</p> <p>The project has a potential to be inconsistent with the General Plan policies for water conservation and solid waste. However, implementation of mitigation measures would reduce the impact to a level less than significant.</p>
52	Calexico Mega Park	Yes	--	<p>The proposed project would not divide an established community and is not located within a habitat conservation area. Furthermore, the proposed project would not conflict with any applicable plans or policies and the project would result in less than significant impacts on land use.</p>
53	County Center II Expansion	Yes	--	<p>No significant land use impacts due to the following:</p> <ol style="list-style-type: none"> 1. The project site is located within an unincorporated area of the County of Imperial and is not located within an established community. 2. No significant conflict associated with the project's consistency with the County of Imperial General Plan. 3. With approval of the Change of Zone, the proposed project would be consistent with the currently General Plan land use designation of the site. 4. The County of Imperial is not within the jurisdiction of any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.
54	Desert Springs Resort	Yes	--	<p>No significant land use impacts due to the following:</p> <ol style="list-style-type: none"> 1. The project site is located within an unincorporated area of southwestern Imperial County and is predominately surrounded by agriculture and vacant lands. Therefore, the project would not divide an established community, as no

	Project Name	Included in Land Use Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Land Use CI Analysis?	Impacts to Land Use
				<p>development exists within, or in the surrounding area of the site.</p> <ol style="list-style-type: none"> 2. With approval of the General Plant Amendment, the proposed project would be compatible and consistent with the land use designations of the Specific Plan. 3. With approval of the Change of Zone, the proposed project would be compatible and consistent with the zoning of the project site. 4. The proposed project is designed to preserve the BLM area that surrounds the site and be consistent with the California Desert Conservation Area Plan, Flat-tailed Horned Lizard Rangelwide Management Strategy, and Western Colorado Desert Routes of Travel Designations.
55	Coyote Wells (Wind Zero)	Yes	--	<p>No significant land use impacts due to the following:</p> <ol style="list-style-type: none"> 1. The proposed project would not physically divide an established community because development would occur in a predominantly vacant portion of the Ocotillo/Nomirage Community Area. 2. With the approval of a General Plan Amendment and Change of Zone, the proposed project would be consistent with existing Imperial County General Plan and Ocotillo/Nomirage Community Area Plan land use designations and Imperial County Land Use Ordinance designations. 3. The County of Imperial does not have an adopted habitat conservation plan or natural community conservation plan that is applicable to the project site. <p>The proposed project would increase the intensity of land use on the project site and would place a mixed-use development in a predominantly vacant portion of the Ocotillo/Nomirage Community Area adjacent to existing residential uses.</p>

Project Name	Included in Land Use Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Land Use CI Analysis?	Impacts to Land Use
			This impact is considered potentially significant, but mitigation measures have been identified to reduce or avoid this impact.
56-61	*Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	No	The level of qualitative data available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.
62	Seeley Wastewater Treatment Plant Upgrade	Yes	--
63	Cahuilla Gold Project	No	The level of qualitative data available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.

Source: BRG Consulting, Inc., 2011

The transmission towers are proposed to be located within Utility Corridor “N” and no plan amendment to the Yuha Basin Area of Critical Environmental Concern Management Plan would be required. In addition, the project applicant, as part of the transmission line corridor a right of way permit from the BLM, is applying for right-of-way permit approval for the proposed construction of a dirt access road within BLM lands for construction and maintenance of the transmission line corridor. However, use of this road for construction and maintenance would not prohibit or diminish the existing vehicular use of the road by others. Therefore, no land use compatibility impact with respect to these issue areas has been identified.

Potential impacts to biological resources and cultural resources are expected to occur with implementation of the Proposed Action, and as a result is inconsistent with the Yuha Basin Area of Critical Environmental Concern Management Plan. However, Mitigation Measures B1, B3, B4, BR5, CR1, CR2, and CR3 as identified in Sections 4.7 and 4.12 of this EIR/EA, have been identified to address minimize direct and indirect impacts to biological and cultural resources located within the Yuha Basin Area of Critical Environmental Concern Management Plan.

5.1.2.4 Cumulative Impact Analysis

The following provides a separate cumulative impact analysis for both CEQA and NEPA.

A. CEQA Impact Analysis

As discussed in EIR/EA Section 4.2, the Proposed Action would not conflict with the goals and objectives of the County of Imperial General Plan. Therefore, no significant impact under CEQA.

In addition, certain cumulative projects identified on Table 5.1.2-1 would result in a conflict with applicable land use plans, policies, or regulations. Based on the analysis provided below under Section 5.1.9, the cumulative projects identified in Table 5.1.9-1 for which acreages of impacts are available would impact approximately 8,076 acres of farmland; for other projects, quantitative information was not available and therefore was not included within this evaluation. As with the Proposed Action, 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 545,612 acres in 2006.

In the County, the amount of agricultural land in production in any one year varies widely. As discussed in Section 5.1.12, 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 in Table 5.1.9-1 falls well within the annual variation of out-of-production/fallowed farmland.

The cumulative impact associated with agricultural conversion is approximately 1.8%; of all County-wide important farmland.

The County identifies agricultural land as a form of open space. According to the Land Use Element of the General Plan, the permitted uses and standards on agricultural lands include open space/recreation. “Open space and recreation land uses within this category consists of environmentally sensitive areas,

parks, fault zones, floodways and floodplains, agricultural lands, and areas designated for the managed production of mineral resources.” The project would temporarily convert the proposed solar energy facility site from fallow agricultural land to a solar energy facility. In addition, because the project site is not currently used for agricultural production, the Proposed Action would not result in a significant loss of farmland. Therefore, the Proposed Action would not have a considerable contribution to a cumulatively significant land use impact under the CEQA.

The portion of the Proposed Action located within BLM lands is located entirely within the CDCA-designated Utility Corridor “N.” The Proposed Action is designed to be consistent with the CDCA Plan, Yuha Desert ACEC Management Plan, and FTHL RMS. However, implementation of the Proposed Action would result in impacts to biological resources and cultural resources. Combined with the actions of the projects listed in Table 5.1.2-1, the Proposed Action could incrementally contribute to cumulative impacts to these resources. However, Mitigation Measures B1 (Mitigation of Impacts to Vegetation Communities), B3 (FTHL Mitigation Measures), B4 (General O&M Mitigation) and B5 (Burrowing Owl) (EIR/EA Section 4.12 Biological Resources); and, Mitigation Measures CR1 (Formal Testing and Evaluation Program), CR2 (Temporary Fencing), and CR3 (Notification of Unique Resources Encountered) (EIR/EA Section 4.7 Cultural Resources) have been identified to reduce the Proposed Action’s impacts on these resources. Therefore, the Proposed Action’s incremental cumulative impact would be minimal and mitigated, under CEQA. Please refer to Sections 5.2.1.7 and 5.2.1.12 for more detailed discussions on the cumulative impacts with regards to biological resources and cultural resources, respectively. As such, these impacts would be reduced to a level less than significant for purposes of CEQA. The Proposed Action is consistent with all other land use plans for the project area and no significant cumulative impacts to land use are identified under CEQA.

B. NEPA Impact Analysis

As discussed in EIR/EA Section 4.2, the Proposed Action would not conflict with the goals and objectives of the County of Imperial General Plan. Please refer to Section 5.1.9 below for a detailed analysis of Agricultural Resources.

In addition, certain cumulative projects identified on Table 5.1.2-1 would result in a conflict with applicable land use plans, policies, or regulations. Based on the analysis provided below under Section 5.1.9, the cumulative projects identified in Table 5.1.9-1 for which acreages of impacts are available would impact approximately 8,076 acres of farmland; for other projects, quantitative information was not available and therefore was not included within this evaluation. As with the Proposed Action, 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 545,612 acres in 2006.

In the County, the amount of agricultural land in production in any one year varies widely. As discussed in Section 5.1.12, 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 in Table 5.1.9-1 falls well within the annual variation of out-of-production/fallowed farmland.

The cumulative impact associated with agricultural conversion is approximately 1.8% of all County-wide important farmland.

The County identifies agricultural land as a form of open space. According to the Land Use Element of the General Plan, the permitted uses and standards on agricultural lands include open space/recreation. “Open space and recreation land uses within this category consists of environmentally sensitive areas, parks, fault zones, floodways and floodplains, agricultural lands, and areas designated for the managed production of mineral resources.” The project would temporarily convert the proposed solar energy facility site from fallow agricultural land, not currently being used for agricultural production, to a solar energy facility. Therefore, the Proposed Action would not have a considerable contribution to a cumulative land use impact under NEPA.

As discussed above under the CEQA impact analysis, the portion of the Proposed Action located within BLM lands is located entirely within the CDCA-designated Utility Corridor “N.” Implementation of the Proposed Action would result in impacts to biological resources and cultural resources. Combined with the actions of the projects listed in Table 5.1.2-1, the Proposed Action could incrementally contribute to cumulative impacts to these resources. However, Mitigation Measures B1 (Mitigation of Impacts to Vegetation Communities), B3 (FTHL Mitigation Measures), B4 (General O&M Mitigation) and B5 (Burrowing Owl) (EIR/EA Section 4.12 Biological Resources); and, Mitigation Measures CR1 (Formal Testing and Evaluation Program), CR2 (Temporary Fencing), and CR3 (Notification of Unique Resources Encountered) (EIR/EA Section 4.7 Cultural Resources) have been identified to reduce the Proposed Action’s impacts on these resources. Therefore, the Proposed Action’s incremental cumulative impact would be minimal and mitigated. Please refer to Sections 5.2.1.7 and 5.2.1.12 for more detailed discussions on the cumulative impacts with regards to biological resources and cultural resources, respectively. The Proposed Action would not otherwise result in cumulative impacts with regards to land use compatibility under NEPA.

Table 5.1.2-2 provides a comparison of the Proposed Action and Alternatives related to cumulative land use impacts.

TABLE 5.1.2-2
Comparison of Alternatives for Cumulative Land Use Impacts

Proposed Action	Alternative 1 – Alternative Transmission Line Corridor	Alternative 2 – Alternative Transmission Line Corridor	Alternative 3 – Reduced Solar Energy Facility Site	Alternative 4 – No Action/No Project Alternative
<i>CEQA Impact Analysis</i>				
Implementation of the Proposed Action, in conjunction with applicable cumulative projects as it relates to land use, will not result in a significant cumulative land use impact under CEQA.	As with the Proposed Action, this alternative would not result in a significant, cumulative land use impact under CEQA.	As with the Proposed Action, this alternative would not result in a significant, cumulative land use impact under CEQA.	As with the Proposed Action, this alternative would not result in a significant, cumulative land use impact under CEQA.	As with the Proposed Action, this alternative would not result in a significant, cumulative land use impact under CEQA.
<i>NEPA Impact Analysis</i>				
Implementation of the Proposed Action, in conjunction with the applicable cumulative projects as it relates to land use, will not result in a cumulative land use impact under NEPA.	As with the Proposed Action, this alternative would not result in a cumulative land use impact under NEPA.	As with the Proposed Action, this alternative would not result in a cumulative land use impact under NEPA.	As with the Proposed Action, this alternative would not result in a cumulative land use impact under NEPA.	As with the Proposed Action, this alternative would not result in a cumulative land use impact under NEPA.

Source: BRG Consulting, Inc., 2011

5.1.3 Transportation/Circulation

5.1.3.1 *Geographic Scope and Timeframe*

The geographic scope of the cumulative analysis for transportation/circulation is based on the roadways in the vicinity of the project site, that based on the Traffic Impact Analysis, may be impacted by traffic generated by the Proposed Action and cumulative projects, which include Interstate 8 (I-8), Dunaway Road, and Evan Hewes Highway. Figure 3.3-1 depicts the existing roadways conditions of the roadways that were analyzed in the Traffic Impact Analysis (Appendix B of this EIR/EA). Table 5.1.3-1 provides a list of cumulative projects used in the analysis below.

The Traffic Impact Analysis identifies past, present, and reasonably foreseeable future projects in the vicinity of the project site that would potentially add traffic to the study area roadways and intersections, thus contributing to a cumulative impact. These projects are expected to be developed by Year 2012. In addition, for the traffic generating cumulative projects, for the forecasted Horizon Year (2030) conditions, a growth factor of 7.37 percent was added, which applied to the sum of the other cumulative traffic volumes. The cumulative projects are listed above in Section 5.1. The 2030 planning horizon was chosen because it is a common planning horizon for general planning, and forecasting growth beyond a 20-year timeframe using the growth factor methodology is speculative.

Implementation of the Proposed Action would generate approximately 750 ADT during construction and 10 to 15 ADT during operations and maintenance of the project. Table 5.1.3-2 summarizes the trip generation for the cumulative projects. Figure 5-1 depicts the cumulative project (new development) traffic volumes. The majority of the project trips would be generated during the short-term construction phase of the project. The operations of the project would generate a minimal level of ADT. As such, potential cumulative impacts of the Proposed Action are anticipated to occur within the short-term timeframe (Year 2012) and not within the long-term timeframe (Year 2030). However, an analysis of the addition of the Proposed Action with other cumulative projects within the short-term (Year 2012) and long-term (Horizon Year 2030) are provided below.

5.1.3.2 *Existing Conditions*

As discussed in Section 3.3 of this EIR/EA, the affected environment for transportation/circulation is based on the existing traffic conditions of the roadways within the vicinity of the project site. Based on analysis provided in the Traffic Impact Analysis (Appendix B of this EIR/EA) during the existing Year 2008 conditions all intersections operate at LOS C or better during both the weekday AM and PM peak hours; all roadway segments currently operate at LOS A; and, all freeway segments operate at LOS B or better. During the Year 2012 conditions, all intersections operate at LOS C or better during both the weekday AM and PM peak hours; all roadway segments operate at LOS A; and, all freeway segments operate at LOS B or better.

TABLE 5.1.3-1
List of Projects Considered for Traffic/Circulation Cumulative Impact Analysis

Project Name		Included in Transportation/Circulation Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Transportation/Circulation CI Analysis?	Impacts to Transportation/Circulation
1	"S" Line Upgrade 230-kV Transmission Line Project	No	The project would replace existing poles and would not generate substantial traffic during construction or operation.	
2	Imperial Valley Solar (Formerly called SES Solar Two Project)	Yes	--	The Imperial Valley Solar project would result in short-term traffic impacts on area roads during construction and damage to area roads during construction. However, these impacts would be reduced with implementation of mitigation measures as identified in the FEIS.
3	Sunrise Powerlink Transmission Project (CACA-047658)	Yes	--	Construction would cause temporary road and lane closures that would temporarily disrupt traffic flow; temporarily disrupt pedestrian and/or bicycle circulation and safety; cause physical damage to roads in the project area; and, generate additional traffic on the regional and local roadways. However, implementation of mitigation measures as identified in the EIR/EIS will reduce impacts to traffic/circulation.
4	Proposed Action-Imperial Solar Energy Center-West (CACA-51644)	Yes	--	The Proposed Action would not cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system; substantially increase hazards due to a design feature; result in inadequate emergency access; result in inadequate parking capacity; or, conflict with adopted policies, plans or programs supporting alternative transportation.

Project Name	Included in Transportation/Circulation Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Transportation/Circulation CI Analysis?	Impacts to Transportation/Circulation
5 Imperial Solar Energy Center-South (CACA-51645)	Yes	--	<p>The ISEC South project would not cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system; substantially increase hazards due to a design feature; result in inadequate emergency access; result in inadequate parking capacity; or, conflict with adopted policies, plans or programs supporting alternative transportation.</p> <p>However, the addition of the ISEC West’s trips to the Year 2012 plus cumulative conditions would result in a cumulatively significant impact to the following intersections:</p> <ul style="list-style-type: none"> • Dunaway Road at Project Access; • Dunaway Road at I-8 WB Ramp; • Dunaway Road at I-8 EB Ramp; and, • Forrester Road at I-8 EB Ramp.
6 SDG&E Proposed Photovoltaic Solar Field (CACA-051625)	No	Potential impacts to traffic are unknown at the time of this evaluation.	
7 North Gila to Imperial Valley #2 Transmission Line (CACA-51575)	No	Potential impacts to traffic are unknown at the time of this evaluation.	N/A
8 Centinela Solar Power, LLC (CACA-052092)	No	Potential impacts to traffic are unknown at the time of this evaluation.	N/A
9 San Diego Gas & Electric (SDG&E) East County (ECO) Substation/Tule	No	This project occurs outside of the geographic scope for	

	Project Name	Included in Transportation/Circulation Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Transportation/Circulation CI Analysis?	Impacts to Transportation/Circulation
	Wind/Energia Sierra Juarez Gen-Tie Projects		cumulative projects for this resource issue.	
10	Dixieland Connection to IID Transmission System	Yes	--	<p>Due to the rural nature of the project area, the low amount of existing traffic in this area, and the temporary nature of the construction traffic from this project, impacts from construction vehicles would have a minimal effect on the local roadway system.</p> <p>The Proposed Action would typically involve not more than 40 average daily trips for construction workers and supply deliveries over an 8-month construction period. Once the project is constructed, approximately four trips per year would be required for operations and maintenance activities. This level of use of state routes and local roads would not cause the capacity of these roads to exceed level of service standards and the impact would be less than significant.</p>
11-31	Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	No	Potential impacts to traffic are unknown at the time of this evaluation.	
32	U.S. Naval Air Facility El Centro	No	This project is an existing facility that has been included in the evaluation of existing conditions.	
33	Recreation Activities	No	The efforts associated with ongoing OHV recreation activities do not include expansion or changes in the existing	

	Project Name	Included in Transportation/Circulation Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Transportation/Circulation CI Analysis?	Impacts to Transportation/Circulation
			activities that would result in adverse effects to traffic.	
34	Recreation Activities	No	The efforts associated with ongoing OHV recreation activities do not include expansion or changes in the existing activities that would result in adverse effects to traffic.	
35	U.S. Gypsum Mining	Yes	--	<p>The project will not create a change in level of service and all study intersections and roadway segments operate at a level of service above the minimum defined by the Imperial County General Plan.</p> <p>All study intersections and roadway segments operate at a level of service in the year 2025 above the minimum defined by the Imperial County General Plan and the State of California Department of Transportation Guidelines and therefore does not require mitigation measures.</p>
36	California State Prison, Centinela	No	This project is an existing facility that has been included in the evaluation of existing conditions.	
37	Recreation Activities	No	The efforts associated with ongoing OHV recreation activities do not include expansion or changes in the existing activities that would	

	Project Name	Included in Transportation/Circulation Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Transportation/Circulation CI Analysis?	Impacts to Transportation/Circulation
			result in adverse effects to traffic.	
38	IV Substation (TermoElectrica US, LLC, aka Sempra)	No	The project is an existing transmission line and would not result in additional impacts to transportation/ circulation.	
39	IV Substation (Baja California Power, Inc., aka, Intergen)	No	The project is an existing transmission line and would not result in additional impacts to transportation/ circulation.	
40	IV Substation (SDG&E)	No	The project is an existing transmission line and would not result in additional impacts to transportation/ circulation.	
41-56	Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	Yes	--	<p>These projects were included in the Traffic Impact Analysis that identified cumulative projects in the vicinity of the project site that would potentially add traffic to the study area roadways and contribute to a cumulative impact.</p> <p>The addition of the Proposed Action's trips to the Year 2012 plus cumulative conditions would result in a cumulatively significant impact to the following intersections:</p> <ul style="list-style-type: none"> • Forrester Road at I-8 WB Ramp; and, • SR-98 at Clark Road

Project Name		Included in Transportation/Circulation Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Transportation/Circulation CI Analysis?	Impacts to Transportation/Circulation
57-61	Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	No	The level of quantitative data available regarding these projects was insufficient to determine the potential impacts at the time this evaluation was prepared.	
62	Seeley Wastewater Treatment Plant Upgrade	Yes	--	Construction would result in a slight increase in traffic associated with the delivery of equipment and construction workers. As such, it is likely that the roads would remain within the level of service thresholds identified by local jurisdictions. Operation of the project is expected to result in a very minor increase in yearly traffic. This minor traffic is not expected to result in additional impacts to traffic or transportation.
63	Cahuilla Gold Project	No	Potential impacts to traffic are unknown at the time of this evaluation.	

Source: BRG Consulting, Inc., 2011

TABLE 5.1.3-2
Cumulative Project Trip Generation

Project	Average Daily Trips	AM Peak Hour	PM Peak Hour
1. Las Aldeas Specific Plan	41,553	2,860	4,227
2. Linda Vista	7,175	252	676
3. Desert Village #6	8,740	331	818
4. Commons	20,648	430	1,943
5. Imperial Valley Mall	47,300	1,095	4,440
6. Miller Burson	5,455	427	576
7. Courtyard Villas	517	40	56
8. Willow Bend (East) & West Willow Bend	2,067	162	218
9. Lotus Ranch	5,830	529	605
10. Mosaic	11,585	845	1,157
11. Hallwood/Calexico 111 Place & Casino	59,285	3,286	6,071
12. Calexico Mega Park	51,338	2,054	4,903
13. County Center II Expansion	24,069	2,581	2,242
14. Desert Springs Resort	7,275	383	714
15. Mt. Signal	632	310	301
16. Coyote Wells (Wind Zero)	538	134	134
17. Granite Carroll Sand and Gravel Mine	834	-	-
18. Imperial Valley Solar Project (Formerly SES Solar Two)	1,736	772	772
19. Imperial Solar Energy Center West	680	271	280

Source: LOS Engineering, Inc., 2010.

5.1.3.3 Summary of Effects of the Proposed Action

As discussed in Section 4.3 of this EIR/EA, the Proposed Action is anticipated to start construction in September 2011 and be completed by January 2013. The construction phase of the project would generate approximately 750 ADT, whereas, the operations and maintenance of the project is estimated to generate 10 to 15 ADT. As such, the higher and more conservative construction trip generation, although short-term in nature, was used to determine potential project impacts. Therefore, construction related traffic was added to the Year 2012 conditions to analyze short-term construction related impacts. As discussed in Section 4.3 of this EIR/EA, with the addition of the construction traffic onto Year 2012 conditions, no direct impacts under CEQA or NEPA to intersections or roadway segments were identified.

5.1.3.4 Cumulative Impact Analysis

The following provides a separate cumulative impact analysis for both CEQA and NEPA.

A. CEQA Impact Analysis

Year 2012 plus Cumulative Conditions

This scenario accounts for the anticipated cumulative traffic added onto year 2012 conditions with Drew Road around I-8 open for travel. Year 2012 plus cumulative volumes are depicted in Figure 5-2.

Intersection, segment, and freeway LOS are provided in Tables 5.1.3-3, 5.1.3-4, and 5.1.3-5, respectively. Under Year 2012 plus cumulative conditions, the study intersections and roadways were calculated to operate at LOS C or better, except for:

- Intersection of Dunaway Road at I-8 WB Ramp (LOS D, AM);
- Intersection of Dunaway Road at I-8 EB Ramp (LOS F, AM); and,
- Intersection of Forrester Road at I-8 EB Ramp (LOS D, AM and LOS F, PM).

Year 2012 Plus Cumulative Plus Project Conditions

This scenario accounts for the anticipated project construction traffic added onto the Year 2012 condition with Drew Road around I-8 open for travel. Year 2012 plus project construction volumes are depicted in Figure 5-3. Intersection, segment, and freeway LOS are provided in Tables 5.1.3-6, 5.1.3-7, and 5.1.3-8, respectively.

Under Year 2012 plus cumulative plus project conditions, the study area intersections and roadways were calculated to operate at LOS C or better, except for:

- Intersection of Dunaway Road at Project Access (LOS D, PM);
- Intersection of Dunaway Road at I-8 WB Ramp (LOS F, AM);
- Intersection of Dunaway Road at I-8 EB Ramp (LOS F, AM); and,
- Intersection of Forrester Road at I-8 EB Ramp (LOS D, AM and LOS F, PM).

For these four intersections, the LOS existing condition may be substantially impacted. Traffic modeling suggests that the addition of the Proposed Action's trips to the Year 2012 plus cumulative conditions could result in a cumulatively significant impact to the four intersections noted above (LOS Engineering, Inc., 2010). The cumulative impacts to these intersections are due in substantial part to background traffic growth from proposed surrounding new residential and commercial development. However, it is reasonable to expect that a majority of the proposed new development will not be built during the 2011-2013 construction period for the Proposed Action due to the economic downturn (ICAPCD, 2010). Many projects slated for development before the downturn in 2008 in areas, including Imperial, San Bernardino, and Riverside counties have been abandoned. For this reason, it is expected that the intersections identified as potentially cumulatively impacted will continue to operate at acceptable levels of service and would not require mitigation despite the initial modeling conclusions.

TABLE 5.1.3-3
Year 2012 With Cumulative Intersection LOS

Intersection and (Analysis) (1)	Movement	Peak Hour	Year (2012) + Cumulative	
			Delay	LOS
1) Dunaway Road at Evan Hewes Hwy (U)	NB LR	AM	10.7	B
	NB LR	PM	12.1	B
2) Dunaway Road at Project Access (U)	WB LR	AM	Does Not Exist	Does Not Exist
	WB LR	PM		
3) Dunaway Road at I-8 WB Ramp (U)	WB LR	AM	33.9	D
	WB LR	PM	15.4	C
4) Dunaway Road at I-8 EB Ramp (U)	EB LR	AM	10.8	B
	EB LR	PM	>500	F
5) Drew Road at I-8 WB Ramp (U)	WB LR	AM	11.4	B
	WB LR	PM	9.7	A
6) Drew Road at I-8 EB Ramp (U)	EB LR	AM	10.8	B
	EB LR	PM	10.7	B
7) Forrester Road at I-8 WB Ramp (U)	WB LR	AM	14.1	B
	WB LR	PM	17.0	C
8) Forrester Road at I-8 EB Ramp (U)	EB LR	AM	30.7	D
	EB LR	PM	392.7	F

Notes: (1) Intersection Control – (S) Signalized, (U) Unsignalized; (2) Delay – HCM Average Control Delay in seconds; (3) LOS = Level of Service.

Source: LOS Engineering, Inc., 2010.

TABLE 5.1.3-4
Year (2012) Without and With Cumulative Segment LOS

Segment	Classification	Year 2012				Cumulative Daily Volume	Year 2012 + Cumulative					
		Daily Volume	LOS C Capacity	V/C	LOS		Daily Volume	LOS C Capacity	V/C	LOS	Change in V/C	
Dunaway Road												
I-8 to Project Access	Major Collector (2U)	793	7,100	0.11	A	5,281	6,074	7,100	0.86	C	0.75	
Project Access to Evan Hewes Hwy	Major Collector (2U)	793	7,100	0.11	A	4,297	5,090	7,100	0.72	C	0.61	
Evan Hewes Highway												
Dunaway Rd to Drew Rd	Prime Arterial (2U)	913	7,100	0.13	A	4,241	5,154	7,100	0.73	C	0.60	

Notes: Classification based on 1/29/08 Circulation and Scenic Highways Element. 2U = 2 lane undivided roadway. Daily volume is a 24 hour volume. LOS = Level of Service. LOS is based on actual number of lanes currently constructed. V/C = Volume to Capacity ratio. Impact? = type of impact (none, cumulative, or direct).

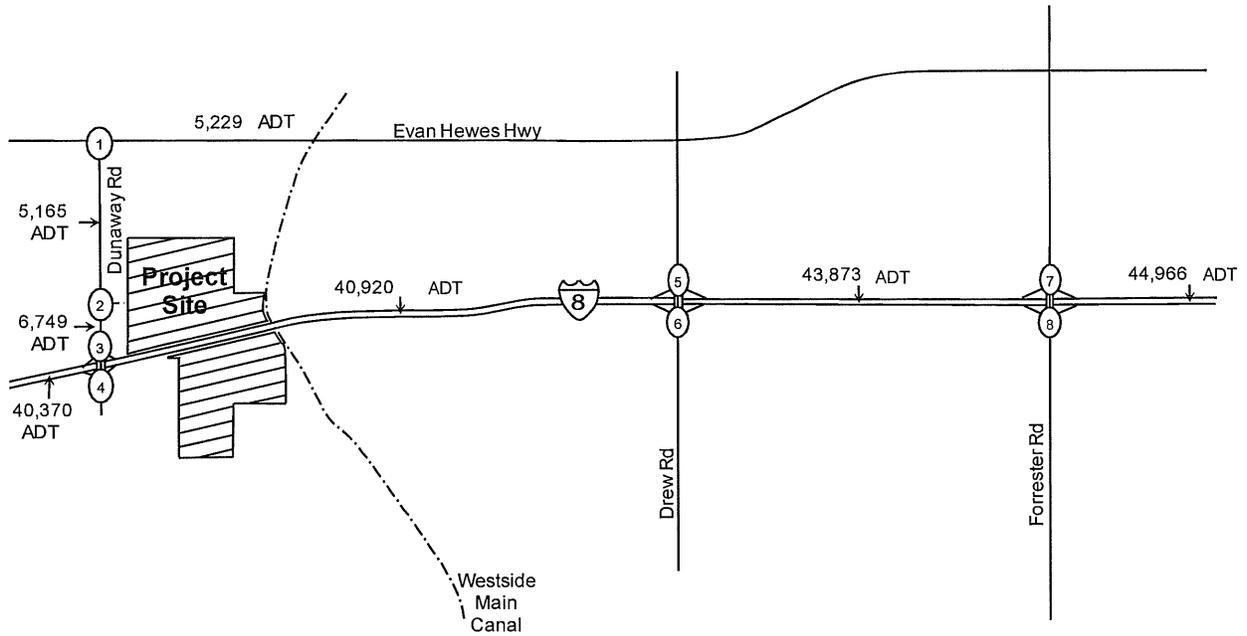
Source: LOS Engineering, Inc., 2010.

TABLE 5.1.3-5
Year (2012) Without and With Cumulative Freeway LOS
(Drew Road Interchange Closed)

Freeway Segment	I-8 Dunaway Road to Drew Road				I-8 Drew Road to Forrester Road				I-8 Forrester Road to Imperial Avenue			
Forecasted Year 2012												
ADT	13,000				15,000				19,100			
Peak Hour	AM		PM		AM		PM		AM		PM	
Direction	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
Number of Lanes	2	2	2	2	2	2	2	2	2	2	2	2
Capacity (1)	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700
K Factor (2)	0.1076	0.0963	0.0917	0.1517	0.1076	0.0963	0.0917	0.1517	0.1076	0.0963	0.0917	0.1517
D Factor (3)	0.2616	0.7384	0.4419	0.5581	0.2616	0.7384	0.4419	0.5581	0.2616	0.7384	0.4419	0.5581
Truck Factor (4)	0.8376	0.8376	0.8376	0.8376	0.8376	0.8376	0.8376	0.8376	0.8376	0.8376	0.8376	0.8376
Peak Hour Volume	437	1,104	629	1,314	504	1,273	726	1,516	642	1,621	924	1,931
Volume to Capacity	0.093	0.235	0.134	0.280	0.107	0.271	0.154	0.323	0.137	0.345	0.197	0.411
LOS	A	A	A	A	A	A	A	B	A	B	A	B
Cumulative Pk Hr Vol	26	825	840	34	118	416	411	178	61	66	89	214
2012 + Cumulative												
Peak Hour Volume	463	1,929	1,469	1,348	622	1,689	1,137	1,694	703	1,687	1,013	2,145
Volume to Capacity	0.098	0.410	0.313	0.287	0.132	0.359	0.242	0.360	0.150	0.359	0.216	0.456
LOS	A	B	B	A	A	B	A	B	A	B	A	B

Notes: ADT = Average Daily Trips; LOS = Level of Service; (1) Capacity of 2,350 pcphpl from CALTRANS' Guide for the Preparation of Traffic Impact Studies, December 2002. (2) Latest K factor from Caltrans (based on 2007 report), which is the percentage of AADT in both directions. (3) Latest D factor from Caltrans (based on 2007 report), which when multiplied by K and ADT will provide peak hour volume. (4) Latest truck factor from Caltrans (based on 2007 report).

Source: LOS Engineering, Inc., 2010.



Evan Hewes Hwy			
14 (27) →	①	← 33 (13)	
40 (14) ↓		↖ 272 (179)	
Dunaway Rd ↗ 26 (40)		↘ 112 (387)	
	288 (193) ↓	30 (1) ↓	Project Access
	②	↖ 1 (30)	
Dunaway Rd ↗ 138 (398)		↘ 270 (14)	5 (270)
	136 (219) ↖	19 (779) ↓	I-8 WB Ramp
	③	↖ 788 (16)	
Dunaway Rd ↗ 0 (0)		↖ 0 (3)	
	↖ 0 (0)	↖ 2 (1)	
	3 (1) ↓	22 (780) ↓	I-8 EB Ramp
I-8 EB Ramp ↗ 351 (247)		④	
↖ 1 (0)		↖ 0 (3)	
↖ 0 (0)		↖ 0 (0)	
	↖ 0 (0)	↖ 1 (6)	Dunaway Rd

LEGEND

- XX AM peak hour volumes at intersections
- YY PM peak hour volumes at intersections
- Z,ZZZ ADT volumes shown along segments
- ① Intersection Reference Number to LOS Tables
- Existing Roadways
- - - Project Access
- · - · - Canal



	41 (20) ↖	155 (173) ↓	I-8 WB Ramp		201 (184) ↖	328 (437) ↓	I-8 WB Ramp
	⑤	↖ 167 (102)			⑦	↖ 282 (281)	
	↖ 0 (0)	↖ 0 (0)			↖ 1 (3)	↖ 108 (52)	
	↖ 231 (21)						
Drew Rd ↗ 44 (63)		42 (112) ↓			Forrester Rd ↗ 62 (25)	174 (394) ↓	
	7 (39) ↖	299 (62) ↓	87 (136) ↓		I-8 EB Ramp ↖ 123 (266)	220 (162) ↓	215 (333) ↓
0 (1) ↖	⑥	↖ 0 (1)			↖ 0 (0)	↖ 0 (0)	
54 (54) ↖		↖ 0 (3)			↖ 8 (45)	↖ 8 (45)	
	↖ 83 (125)	↖ 30 (241)	Drew Rd		↖ 113 (157)	↖ 22 (99)	Forrester Rd

SOURCE: LOS Engineering, Inc., 2010

2/28/11



Imperial Solar Energy Center West

Year 2012 + Cumulative + Project Volumes

FIGURE
5-3

TABLE 5.1.3-6
Year (2012) Plus Cumulative Without and
With Project Intersection LOS

Intersection and (Control) ¹	Movement	Peak Hour	Year (2012) + Cumulative		Year (2012) + Cumulative + Project			
			Delay ²	LOS ³	Delay ²	LOS ³	Delta ⁴	Impact ⁵
1) Dunaway Road at Evan Hewes Hwy (U)	NB LR	AM	10.7	B	11.0	B	0.3	None
	NB LR	PM	12.1	B	12.5	B	0.4	None
2) Dunaway Road at Project Access (U)	WB LR	AM	Does Not Exist	Does Not Exist	13.3	B	N/A	None
	WB LR	PM			32.2	D	N/A	Cumulative
3) Dunaway Road at I-8 WB Ramp (U)	WB LR	AM	33.9	D	163.0	F	129.1	Cumulative
	WB LR	PM	15.4	C	16.0	C	0.6	None
4) Dunaway Road at I-8 EB Ramp (U)	EB LR	AM	10.8	B	11.5	B	0.7	None
	EB LR	PM	>500	F	>500	F	>10	Cumulative
5) Drew Road at I-8 WB Ramp (U)	WB LR	AM	11.4	B	12.7	B	1.3	None
	WB LR	PM	9.7	A	10.0	B	0.3	None
6) Drew Road at I-8 EB Ramp (U)	EB LR	AM	10.8	B	11.0	B	0.2	None
	EB LR	PM	10.7	B	12.1	B	1.4	None
7) Forrester Road at I-8 WB Ramp (U)	WB LR	AM	14.1	B	15.5	C	1.4	None
	WB LR	PM	17.0	C	18.5	C	1.5	None
8) Forrester Road at I-8 EB Ramp (U)	EB LR	AM	30.7	D	33.6	D	2.9	Cumulative
	EB LR	PM	392.7	F	>500	F	>10	Cumulative

Notes: (1) Intersection Control – (S) Signalized, (U) Unsignalized; (2) Delay – HCM Average Control Delay in seconds; (3) LOS = Level of Service; (4) Delta is the increase in delay from project; (5) Direct Impact? (yes or no).

Source: LOS Engineering, Inc., 2010.

TABLE 5.1.3-7
Year (2012) Plus Cumulative Without and With Project Segment LOS

Segment	Classification	Year 2012 + Cumulative				Project Daily Volume	Year 2012 + Cumulative + Project					
		Daily Volume	LOS C Capacity	V/C	LOS		Daily Volume	LOS C Capacity	V/C	LOS	Impact?	
Dunaway Road												
I-8 to Project Access	Major Collector (2U)	6,074	7,100	0.86	C	675	6,749	7,100	0.95	C	None	
Project Access to Evan Hewes Hwy	Major Collector (2U)	5,090	7,100	0.72	C	75	5,165	7,100	0.73	C	None	
Evan Hewes Highway												
Dunaway Rd to Drew Rd	Prime Arterial (2U)	5,154	7,100	0.73	C	75	5,229	7,100	0.74	C	None	

Notes: Classification based on 1/29/08 Circulation and Scenic Highways Element. 2U = 2 lane undivided roadway. Daily volume is a 24 hour volume. LOS = Level of Service. LOS is based on actual number of lanes currently constructed. V/C = Volume to Capacity ratio. Impact? = type of impact (none, cumulative, or direct).

Source: LOS Engineering, Inc., 2010.

TABLE 5.1.3-8
Year (2012) Plus Cumulative Without and With Project Freeway LOS

Freeway Segment	I-8 Dunaway Road to Drew Road				I-8 Drew Road to Forrester Road				I-8 Forrester Road to Imperial Avenue			
Forecasted Year 2012												
ADT	13,000				15,000				19,100			
Peak Hour	AM		PM		AM		PM		AM		PM	
Direction	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
Number of Lanes	2	2	2	2	2	2	2	2	2	2	2	2
Capacity (1)	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700
K Factor (2)	0.1076	0.0963	0.0917	0.1517	0.1076	0.0963	0.0917	0.1517	0.1076	0.0963	0.0917	0.1517
D Factor (3)	0.2616	0.7384	0.4419	0.5581	0.2616	0.7384	0.4419	0.5581	0.2616	0.7384	0.4419	0.5581
Truck Factor (4)	0.8376	0.8376	0.8376	0.8376	0.8376	0.8376	0.8376	0.8376	0.8376	0.8376	0.8376	0.8376
Peak Hour Volume	437	1,104	629	1,314	504	1,273	726	1,516	642	1,621	924	1,931
Volume to Capacity	0.093	0.235	0.134	0.280	0.107	0.271	0.154	0.323	0.137	0.345	0.197	0.411
LOS	A	A	A	A	A	A	A	B	A	B	A	B
Cumulative + Project	30	1,050	1,065	46	120	581	576	188	61	156	179	221
2012 + Cumulative + Project												
Peak Hour Volume	467	2,154	1,694	1,360	624	1,854	1,302	1,704	703	1,777	1,103	2,152
Volume to Capacity	0.099	0.458	0.360	0.289	0.133	0.395	0.277	0.363	0.150	0.378	0.235	0.458
LOS	A	B	B	A	A	B	A	B	A	B	A	B
Increase in V/C	0.001	0.048	0.048	0.003	0.000	0.035	0.035	0.002	0.000	0.019	0.019	0.001
Impact?	None	None	None	None	None	None	None	None	None	None	None	None

Notes: ADT = Average Daily Trips; LOS = Level of Service; (1) Capacity of 2,350 pcphpl from CALTRANS' Guide for the Preparation of Traffic Impact Studies, December 2002. (2) Latest K factor from Caltrans (based on 2007 report), which is the percentage of AADT in both directions. (3) Latest D factor from Caltrans (based on 2007 report), which when multiplied by K and ADT will provide peak hour volume. (4) Latest truck factor from Caltrans (based on 2007 report).

Source: LOS Engineering, Inc., 2010.

However, the project applicant will implement a traffic monitoring and reporting program and coordinate with the County for information about any forward progress on the identified projects confirm that the four aforementioned intersections would operate at an acceptable LOS and beyond annually until is completed. If unacceptable LOS is documented starting in Year 2012 until the project construction is complete, then the project applicant would implement its fair share of traffic mitigation measures or pay a Transportation Impact Fee that the County could use to improve traffic conditions. As such, with the implementation of Mitigation Measure CUM1, these impacts would be reduced to a less than significant level under CEQA.

Table 5.1.3-9 provides a summary of the cumulatively impacted intersections with operations before and after proposed mitigation with fair share percentages. The LOS and fair share calculations are provided in Appendix B of this EIR/EA.

**TABLE 5.1.3-9
Impact Summary**

Cumulative Impact Location	Peak Hour	Without Mitigation			Recommended Mitigation	With Mitigation			Fair Share % Construction Traffic	Fair Share % Operations Traffic
		2010 + Cumulative + Project				2012 + Cumulative + Project				
		Delay	LOS	Impact		Delay	LOS	Impact		
2) Dunaway Rd at Project Access	AM	13.3	B	None	Install All Way Stop Control	10.5	B	None	41.4%	0.9%
	PM	32.2	D	Cumulative		15.6	C	None		
3) Dunaway Rd at I-8 WB Ramp	AM	163.0	F	Cumulative	Install Traffic Signal	24.3	C	None	22.9%	0.4%
	PM	16.0	C	None		28.5	C	None		
4) Dunaway Rd at I-8 EB Ramp	AM	11.5	B	None	Install Traffic Signal	11.2	B	None	18.3%	0.9%
	PM	>500	F	Cumulative		24.7	C	None		
8) Forrester Rd at I-8 EB Ramp	AM	33.6	D	Cumulative	Install Traffic Signal	15.6	B	None	9.8%	0.2%
	PM	>500	F	Cumulative		26.8	C	None		

Source: LOS Engineering, Inc., 2010.

CUM1 Intersections of Dunaway Road at Project Access; Dunaway Road at I-8 WB Ramp; Dunaway Road at I-8 EB Ramp; and, Forrester Road at I-8 EB Ramp.

A Mitigation Monitoring and Reporting Program shall be established to determine if the four intersections would operate at unacceptable LOS starting in Year 2012 and beyond annually until the project construction is completed. If unacceptable LOS is documented in Year 2012, then a fair share contribution or payment of applicable Transportation Impact Fee is recommended as the mitigation measure. It should be noted that the fair share participation is based on the project's construction traffic that is significantly higher than the project's traffic after completion of construction.

It should also be noted that the fair share participation is based on the project's construction traffic that is significantly higher than the project's traffic completion of construction (i.e. 285 temporary construction employees vs. 4 permanent operation employees) as follows:

- Dunaway Road at Project Access (Construction = 41.4%, Permanent Emp. = 0.9%);
- Dunaway Road at I-8 WB Ramp (Construction = 22.9%, Permanent Emp. = 0.4%);
- Dunaway Road at I-8 EB Ramp (Construction = 18.3%, Permanent Emp. = 0.9%); and,
- Forrester Road at I-8 EB Ramp (Construction = 9.8%, Permanent Emp. = 0.2%).

If unacceptable LOS is not documented at the four cumulatively impacted intersections based on the mitigation monitoring and reporting program, then the applicant's fair share contribution (based on construction traffic) should be refunded. If the County desires some form of mitigation, then it is recommended that the fair share contribution (based on permanent operation employees) be conditioned.

Horizon Year (2030) Plus Project Conditions

Three sources were reviewed for Horizon Year 2030 volumes and the highest of the three was used to calculate segment operations under 2030 conditions. The three sources included:

- Existing plus cumulative plus project as previously calculated above.
- Existing forecasted to Year 2030 by applying a growth factor of 7.37 percent. This growth factor was calculated by compounding the previously defined annual growth rate of 2.8 percent for 20 years (from year 2010 to year 2030). The project traffic was added on top of this forecast.
- The *Imperial County Circulation and Scenic Highway Element Update* volumes to which the Horizon Year 2030 volumes were interpolated from the listed 2025 and 2050 volumes. The *Imperial County Circulation and Scenic Highway Element Update* listed volumes, and LOS lookup tables are included in Appendix B of this EIR/EA.

The Horizon Year plus project segment operations are provided in Table 5.1.3-10. Under Horizon Year 2030 plus project conditions, the study area roadway segments were calculated to operate at LOS C or better based on the study segments being built to Year 2030 roadway classifications. Therefore, no significant impact under CEQA is identified for this issue area. In summary, implementation of the Proposed Action would not result in a cumulative transportation/circulation impact for the 2030 Horizon Year.

The cumulative projects would not otherwise cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system; substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); result in inadequate emergency access; result in inadequate parking capacity; or, conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).

TABLE 5.1.3-10
Horizon Year Segment LOS

Segment	Circulation and Scenic Highways Element Classification	Source 1: Existing + Cumulative + Project	Source 2: Year 2010 at 2.8%/ys to Year 2030	Source 3: Year 2030 Daily Volume Interpolated	Year 2030 highest of the 3 noted to the left	LOS C Capacity at Year 2030 Classification	V/C	LOS
<u>Dunaway Road</u>								
I-8 to Project Access	Mjr Collector	6,749	1,304	3,100	6,749	27,400	0.25	A
Project Access to Evan Hewes Hwy	Mjr Collector	5,165	1,304	3,100	5,165	27,400	0.19	A
<u>Evan Hewes Highway</u>								
Dunaway Road to Drew Road	Prime Arterial	5,229	1,503	Vol. Not Listed	5,229	44,600	0.12	A

Notes: Classification based on Table 3 of Circulation and Scenic Highways Element. 4U = 4 lane undivided roadway. Daily volume is a 24-hour volume. LOS: Level of Service. V/C: Volume to Capacity ratio. Vol. = Volume.

Source: LOS Engineering, Inc., 2010.

B. NEPA Cumulative Impacts

Year 2012 plus Cumulative Conditions

As discussed above, under Year 2012 plus cumulative plus project conditions, the study area intersections and roadways were calculated to operate at LOS C or better, except for:

- Intersection of Dunaway Road at Project Access (LOS D, PM);
- Intersection of Dunaway Road at I-8 WB Ramp (LOS F, AM);
- Intersection of Dunaway Road at I-8 EB Ramp (LOS F, AM); and,
- Intersection of Forrester Road at I-8 EB Ramp (LOS D, AM and LOS F, PM).

For these four intersections, the LOS existing condition is substantially impacted.

Year 2012 Plus Cumulative Plus Project Conditions

As discussed above, under Year 2012 plus cumulative plus project conditions, the study area intersections and roadways were calculated to operate at LOS C or better, except for:

- Intersection of Dunaway Road at Project Access (LOS D, PM);
- Intersection of Dunaway Road at I-8 WB Ramp (LOS F, AM);
- Intersection of Dunaway Road at I-8 EB Ramp (LOS F, AM); and,
- Intersection of Forrester Road at I-8 EB Ramp (LOS D, AM and LOS F, PM).

For these four intersections, the LOS existing condition may be substantially impacted.

The addition of the Proposed Action's trips to the Year 2012 plus cumulative conditions could result in a cumulatively significant impact the four intersections noted above. The traffic modeling suggests that the cumulative impacts to these intersections are due in substantial part to background traffic growth from proposed surrounding new residential and commercial development (LOS Engineering, Inc., 2010). However, it is reasonable to expect that a majority of the proposed new development will not be built during the 2011-2013 construction period for the Proposed Action due to the economic downturn (ICAPCD, 2010). Many projects slated for development before the downturn in 2008 in areas, including Imperial, San Bernardino, and Riverside counties have been abandoned. For this reason, it is expected that the intersections identified as potentially cumulatively impacted will continue to operate at acceptable levels of service and would not require mitigation despite the recent modeling results.

The project applicant will implement a traffic monitoring and reporting program and coordinate with the County for information about any forward progress on the identified cumulative projects to confirm that the two aforementioned intersections would operate at an acceptable LOS and beyond annually until construction of the Proposed Action is completed. If unacceptable LOS is documented during the construction phase starting in 2012 through construction completion, the project applicant will pay a fair

share contribution or payment of applicable Transportation Impact Fee to the County as mitigation for the cumulative impact as identified in Mitigation Measure CUM1 detailed above. It should be noted that the fair share participation is based on the project's construction traffic that is substantially greater than the project's operational traffic. Implementation of Mitigation Measure CUM1 would ensure that the project's contribution to cumulative impacts is reduced. Table 5.1.3-9 provides a summary of the cumulatively impacted intersections with operations before and after proposed mitigation with fair share percentages. The LOS and fair share calculations are provided in Appendix B of this EIR/EA. Table 5.1.3-11 provides a comparison of the Proposed Action and Alternatives related to cumulative traffic impacts.

Horizon Year (2030) Plus Project Conditions

The Horizon Year plus project segment operations are provided in Table 5.1.3-10. As described above, under Horizon Year 2030 plus project conditions, the study area roadway segments would operate at LOS C or better based on the study segments being built to Year 2030 roadway classifications. Therefore, implementation of the Proposed Action would not result in cumulatively considerable impacts to adjacent roadways.

Table 5.1.3-11 provides a comparison of the Proposed Action and Alternatives related to cumulative traffic impacts.

TABLE 5.1.3-11
Comparison of Alternatives for Cumulative Traffic Impacts

Proposed Action	Alternative 1 – Alternative Transmission Line Corridor	Alternative 2 – Alternative Transmission Line Corridor	Alternative 3 – Reduced Solar Energy Facility Site	Alternative 4 – No Action/No Project Alternative
<i>CEQA Impact Analysis</i>				
<p>Based on the traffic impact analysis conducted for this project, implementation of the Proposed Action, in conjunction with applicable cumulative projects as it relates to traffic, will result in a temporary (short-term) cumulative traffic impact during the construction phase of the proposed project only. However, based on the current economic downturn in development growth in vicinity of the project site, it is expected that many of cumulative projects would not be developed during construction of the proposed project and the intersections identified would not be impacted. Nevertheless, the proposed Mitigation Measure CUM1 would reduce the significant cumulative impact to a level less than significant under CEQA.</p>	<p>As with the Proposed Action, based on the traffic impact analysis, this alternative would result in a significant, cumulative traffic impact during the construction phase of the project only, if the cumulative projects begin construction during the proposed project's construction period, which is highly unlikely considering the current economic downturn conditions. Proposed Mitigation Measure CUM1 would reduce the impact to a level less than significant under CEQA. The cumulative impact would be the same as the Proposed Action.</p>	<p>As with the Proposed Action, based on the traffic impact analysis, this alternative would result in a significant, cumulative traffic impact during the construction phase of the project only, if the cumulative projects begin construction during the proposed project's construction period, which is highly unlikely considering the current economic downturn conditions. Proposed Mitigation Measure CUM1 would reduce the impact to a level less than significant under CEQA. The cumulative impact would be the same as the Proposed Action.</p>	<p>As with the Proposed Action, based on the traffic impact analysis, this alternative would result in a significant, cumulative traffic impact during the construction phase of the project only, if the cumulative projects begin construction during the proposed project's construction period, which is highly unlikely considering the current economic downturn conditions. Proposed Mitigation Measure would reduce the impact to a level less than significant under CEQA. The cumulative impact would be the same as the Proposed Action.</p>	<p>This alternative would avoid the significant cumulative impact under CEQA to traffic during construction as no solar energy facility would be constructed.</p>

TABLE 5.1.3-11
Comparison of Alternatives for Cumulative Traffic Impacts

Proposed Action	Alternative 1 – Alternative Transmission Line Corridor	Alternative 2 – Alternative Transmission Line Corridor	Alternative 3 – Reduced Solar Energy Facility Site	Alternative 4 – No Action/No Project Alternative
<i>NEPA Impact Analysis</i>				
<p>Implementation of the Proposed Action, in conjunction with applicable cumulative projects as it relates to traffic, will result in a temporary (short-term) cumulative traffic impact under NEPA during the construction phase of the proposed project only. However, based on the current economic downturn in development growth in vicinity of the project site, it is expected that many of cumulative projects would not be developed during construction of the proposed project and the intersections identified would not be impacted. Nevertheless, the proposed Mitigation Measure CUM1 would reduce the cumulative impact.</p>	<p>As with the Proposed Action, based on the traffic impact analysis, this alternative would result in a cumulative traffic impact under NEPA during the construction phase of the project only, if the cumulative projects begin construction during the proposed project's construction period, which is highly unlikely considering the current economic downturn conditions. Proposed Mitigation Measure CUM1 would reduce the impact. The cumulative impact would be the same as the Proposed Action.</p>	<p>As with the Proposed Action, based on the traffic impact analysis, this alternative would result in a cumulative traffic impact under NEPA during the construction phase of the project only, if the cumulative projects begin construction during the proposed project's construction period, which is highly unlikely considering the current economic downturn conditions. Proposed Mitigation Measure CUM1 would reduce the impact. The cumulative impact would be the same as the Proposed Action.</p>	<p>As with the Proposed Action, based on the traffic impact analysis, this alternative would result in a cumulative traffic impact under NEPA during the construction phase of the project only, if the cumulative projects begin construction during the proposed project's construction period, which is highly unlikely considering the current economic downturn conditions. Proposed Mitigation Measure CUM1 would reduce the impact. The cumulative impact would be the same as the Proposed Action.</p>	<p>This alternative would avoid the cumulative impact under NEPA to traffic during construction as no solar energy facility or transmission line corridor would be constructed.</p>

Source: BRG Consulting, Inc., 2011

5.1.4 Air Quality

5.1.4.1 Geographic Scope and Timeframe

Table 5.1.4-1 lists the projects considered for the air quality cumulative impact analysis. 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 all cumulative projects within the SSAB.

The primary air quality impacts of the Proposed Action would occur during construction, since the operational impacts would result from limited vehicle trips for operations, maintenance, and inspection and would be substantially less than construction impacts. Due to the nonattainment status of the SSAB, the primary air pollutants of concern would be oxides of nitrogen (NO_x), an ozone precursor, and particulate matter less than 10 microns (PM₁₀) and particulate matter less than 2.5 microns (PM_{2.5}). NO_x and VOC are primarily emitted from motor vehicles and construction equipment, while PM₁₀ and PM_{2.5} are emitted primarily as fugitive dust during construction. Because of the nature of ozone as a regional air pollutant, emissions from the entire geographic area for this cumulative impact analysis would tend to be important, although maximum ozone impacts generally occur downwind of the area in which the ozone precursors are released. PM₁₀ and PM_{2.5} impacts, on the other hand, would tend to occur locally; thus, projects occurring in the same general area and in the same time period would tend to create cumulative air quality impacts.

Operation of the Proposed Action would not result in a long-term air quality impact because of the limited number of staff required during operation and the minimal maintenance work required for the solar energy center. However, potential short-term impacts of the Proposed Action would result due to vehicle and dust emissions associated with construction activities.

5.4.1.2 Existing Conditions

The following is a summary of the information in EIR/EA Section 3.4. The Proposed Action is located within the boundaries of the Imperial Air Pollution Control District, and is located within the Salton Sea Air Basin (SSAB). The proposed project site is surrounded by federal lands under the jurisdiction of the BLM immediately to the north, west and south and agricultural lands to east. These land uses are not developed or considered sensitive. As explained in the Noise section, the closest residence to the project site is the Imperial Lakes planned water skiing community located approximately 0.5 miles north of the project site.

Currently, the SSAB is either in attainment or unclassified for all federal and state air pollution standards with the exception of O₃ (8-hour) and PM₁₀. Imperial County is classified as a non-attainment area for PM₁₀ for the National Ambient Air Quality Standards (NAAQS).

TABLE 5.1.4-1
List of Projects Considered for Air Quality Cumulative Impact Analysis

Project Name		Included in Air Quality Resources Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Air Quality CI Analysis?	Impacts to Air Quality
1	"S" Line Upgrade 230-kV Transmission Line Project	No	The S Line upgrade replaces existing poles and lines and would not result in additional air emissions. Construction could not overlap with the Proposed Action, as at least one of the lines must be operational to maintain power supply in the area. Based on Initial Study, no significant impacts were identified to Air Quality.	N/A
2	Imperial Valley Solar (Formerly called SES Solar Two Project)	Yes	--	The 6,500-acre project site consists of approximately 6,140 acres of Federal land administered by BLM, and 360 acres of private land subject to Imperial County jurisdiction. To address any project related direct, indirect, short-and long term, and cumulative impacts, mitigation measures, project design features, and other measures will be implemented to result in impacts less than significant for both construction and operations phases. Additionally, adherence to ICAPCD regulations would also reduce any aforementioned impacts to levels less than significant.
3	Sunrise Powerlink Transmission Project (CACA-047658)	Yes	--	Would extend for 150 miles and traverse numerous government jurisdictions and land use types. Execution of the proposed project would result in significant and unavoidable impacts

	Project Name	Included in Air Quality Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Air Quality CI Analysis?	Impacts to Air Quality
				associated with construction and operations phases. Construction emissions would exceed the significance thresholds for the following pollutants: NO _x , VOC, PM ₁₀ , PM _{2.5} , CO, and SO _x . Implementation of identified mitigation measures would reduce impacts, however, not to levels less than significant.
4	Proposed Action-Imperial Solar Energy Center-West (CACA-51644)	Yes	--	The solar energy facility site is located within an unincorporated area of Imperial County and is predominately surrounded by agriculture and government land uses. Construction related activities would result in short-term air quality impacts during construction, however, with the implementation of mitigation measures, significant air quality impacts would be reduced to levels less than significant.
5	Imperial Solar Energy Center-South (CACA-51645)	Yes	--	The solar energy facility site is currently used for agricultural purposes. The proposed transmission line corridor is located in the desert. The proposed access road is located along an existing dirt road that is currently used by the IID and others for access to the Westside Main Canal in the area. Construction related activities would result in short-term air quality impacts during construction, however, with the implementation of mitigation measures, significant air quality impacts would be reduced to levels less than significant.
6	SDG&E Proposed Photovoltaic Solar Field (CACA-051625)	Yes	--	Located on approximately 100 acres of Federal land directly adjacent to SDG&E's IV Substation. Additional project specific information is needed.
7	North Gila to Imperial Valley #2 Transmission Line (CACA-51575)	Yes	--	Project-specific impacts information was not available, but see Section 5.1.4 for qualitative discussion. Project impacts are expected to be comparable to other transmission line projects, scaled appropriately to size.
8	Centinela Solar Power, LLC (CACA-052092)	Yes	--	Project-specific impacts information was not available, but see Section 5.1.4 for qualitative discussion. Project impacts are expected to be comparable to other solar projects in Imperial

	Project Name	Included in Air Quality Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Air Quality CI Analysis?	Impacts to Air Quality
				Valley, accounting for technology used and scaling for project size.
9	San Diego Gas & Electric (SDG&E) East County (ECO) Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects	No	This project is outside of the SSAB.	N/A
10	Dixieland Connection to IID Transmission System	Yes	--	Short-term construction related impacts would result, however implemented mitigation measures would reduce impacts to levels considered less than significant. Resultant operational impacts are anticipated to have less than significant air quality impacts and therefore, require no mitigation measures.
11	Mount Signal Solar Farm I- (82 LV 8ME, LLC (CACA-052325)	No-but impacts would likely be similar to those identified in cumulative impact analysis.	<ol style="list-style-type: none"> 1. POD has not been accepted by BLM and determined to be complete. 2. POD does not contain sufficient information details to analyze potential impacts of the project, but impacts would likely be similar to the qualitative impacts addressed in Section 5.1.4. 	N/A
12-21	*Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	Yes-qualitative	--	See general discussion in Section 5.1.4.
22	IV Solar Company	Yes	--	The IV Solar project includes measures that would reduce the project's stationary source NOx, VOC, SO2, PM10, and PM2.5 emissions through the use of Best Available Control Technology

Project Name	Included in Air Quality Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Air Quality CI Analysis?	Impacts to Air Quality	
			(BACT), minimizing delivery and employee trips, and reducing mobile source emissions by using lower emitting gasoline- and propane-fueled new vehicles. With the inclusion of these measures and compliance with the ICAPCD measures provided later in this section, the IV Solar project would not result in adverse air quality impacts.	
23-29	*Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	No	The level of quantitative data available regarding these projects was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
30	LADWP and OptiSolar Power Plant	No	Applicant withdrawn	N/A
31	Orni 18, LLC Geothermal Power Plant	Yes-qualitative evaluation of ongoing operations		See general discussion in Section 5.1.4.
32	U.S. Naval Air Facility El Centro	Yes-operational impacts are qualitatively evaluated	This project is an existing facility that has been included in the evaluation of existing conditions.	See general discussion in Section 5.1.4.
33-34, 37, 61	Recreation Activities	Yes-operational impacts are qualitatively evaluated	These projects are existing facilities and are included in the evaluation of existing conditions.	See general discussion in Section 5.1.4.

Project Name		Included in Air Quality Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Air Quality CI Analysis?	Impacts to Air Quality
35	U.S. Gypsum Mining	Yes	--	The Plant site totals approximately 473 acres with 309 disturbed/developed acres prior to 1998. The Quarry consists of 2,048 acres, approximately 1,668 acres of private land, and 380 acres of unpatented placer mining claims on Federal land currently administered by BLM. Impacts associated with the project are either less than significant without mitigation or reduced to level less than significant upon the implementation of mitigation measures.
36	California State Prison, Centinela	Yes-operational impacts are qualitatively evaluated	This project is an existing facility that has been included in the evaluation of existing conditions.	See general discussion in Section 5.1.4.
38	IV Substation (TermoElectrica US, LLC)	Yes	--	It is anticipated that an increase in levels of PM ₁₀ emissions would result during construction, and operations and maintenance phases. Primarily sources of PM ₁₀ emissions result from dust generated through the use of construction equipment and trips undertaken on ungraded roads along the transmission towers during the course of operations and maintenance.
39	IV Substation (Baja California Power, Inc., aka, Intergen)	Yes	--	It is anticipated that an increase in levels of PM ₁₀ emissions would result during construction, and operations and maintenance phases. Primarily sources of PM ₁₀ emissions result from dust generated through the use of construction equipment and trips undertaken on ungraded roads along the transmission towers during the course of operations and maintenance.
40	IV Substation (SDG&E)	Yes	--	It was anticipated that an increase in levels of PM ₁₀ emissions would result during construction, and operations and maintenance phases. Primarily sources of PM ₁₀ emissions result from dust generated through the use of construction equipment and trips undertaken on ungraded roads along the

Project Name	Included in Air Quality Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Air Quality CI Analysis?	Impacts to Air Quality
			transmission towers during the course of operations and maintenance. However implemented mitigation measures reduce impacts to levels considered less than significant.
41-49	*Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	Yes-qualitative	See general discussion in Section 5.1.4.
50	Mosaic	Yes	-- Implementation of mitigation measures would reduce the significant air quality impact associated with the proposed project's estimated aggregate emissions; however, the air quality impact would still remain significant after mitigation. The primary source of impacts associated with project construction include an increase PM ₁₀ levels, while the primary source of emissions associated with project operations include motor vehicles.
51	Hallwood/Calexico Place 111 & Casino	Yes	-- With the exception ROG, the implementation of mitigation measures and compliance with ICAPCD would reduce construction related impact levels to less than significant. ROG levels, however, would remain significant and unmitigatable. Implementation of mitigation measures would reduce the project's operation related air quality impacts to levels less than significant and would ensure the project achieve the net emissions requirement of the ICAPD.
52	Calexico Mega Park	Yes	-- The project would conflict with applicable air quality plans and would therefore result in significant impacts even with incorporated mitigation measures.
53	County Center II Expansion	Yes	-- With the implementation of the required ICAPCD standard and discretionary construction measures, the project's construction related impacts would be less than significant. And although the proposed project will general mobile and stationary emissions (point and area), implementation of mitigation measures would reduce impacts to levels less than significant.

Project Name		Included in Air Quality Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Air Quality CI Analysis?	Impacts to Air Quality
54	Desert Springs Resort	Yes	--	The project would result in generating fugitive dust and PM ₁₀ during construction activities. The project would also result in the production of aggregate operational exceedence of CO, NO _x , and ROG. Mitigation measures are provided to reduce the impact to less than significant.
55	Coyote Wells (Wind Zero)	Yes	--	The project would exceed thresholds identified in the ICAPCD for construction related ROG levels and operational levels of ROG, NO _x , CO, and PM ₁₀ ; with the implementation of mitigation measures, short- and long- term impacts would be reduced to levels considered less than significant.
56	Granite Carroll Sand and Gravel Mine	Yes-qualitative		See general discussion in Section 5.1.4.
57-60	*Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	Yes-qualitative		See general discussion in Section 5.1.4.
62	Seeley Wastewater Treatment Plant Upgrade	Yes	--	<p>The SWWRF upgrade and associated activities will result in emissions due to construction equipment and fugitive particulate matter (dust) emissions from activity on unpaved surfaces. With comprehensive control measures such as those recommended by the mitigation measures incorporated into the MND, dust and equipment exhaust impacts would be reduced to a less than significant level.</p> <p>No significant impacts are expected from the operations of the SWWRF project, as emissions do not exceed ICAPCD significance thresholds for NO_x, CO, VOC, SO_x, and PM₁₀.</p>
63	Cahuilla Gold Project	Yes-qualitative		See general discussion in Section 5.1.4.

Source: BRG Consulting, Inc., 2011

Based on Imperial County's "moderate" nonattainment status for 1997 federal 8-hour ozone standards, Imperial County Air Pollution Control District (ICAPCD) is required to develop an 8-hour Attainment Plan for Ozone. On December 3, 2009, the U.S. EPA made a final determination that the Imperial County attained the 1997 8-Hour National Ambient Air Quality Standard (NAAQS) for Ozone. Because this determination does not constitute a re-designation to attainment under the Clean Air Act Section 107(d)(3), the designation status will remain "moderate" nonattainment for the 1997 8-hour ozone standard. However, ICAPCD is required to submit a Modified Air Quality Management Plan (AQMP) to the EPA for approval. On November 18, 2010, CARB approved the Imperial County 8-Hour Ozone Air Quality Management Plan.

5.4.1.3 *Summary of Effects of the Proposed Action*

A. Construction Impacts

As discussed in EIR/EA Section 4.4, NO_x and PM₁₀ emissions comply with ICAPCD's threshold limits and implement the requirements contained within ICAPCD's Regulation VIII-Fugitive Dust Control Measures. ICAPCD also requires standard mitigation and "discretionary" measures for construction emissions, which must be followed regardless of total construction emissions. Therefore, for purposes of CEQA no significant impacts are expected from construction grading emissions.

Section 4.4 evaluates the Proposed Action's potential to expose sensitive receptors to substantial pollutant concentrations and create objectionable odors affecting a substantial number of people. Neither were found to pose no significant air quality impacts under CEQA and no mitigation is required.

With implementation of the Tier 2+ engine technology¹, NO_x emissions would not exceed ICAPCD's threshold of 55 pounds per day. Implementation of Mitigation Measures AQ1 and AQ2 would reduce this impact to a level less than significant under CEQA.

As discussed in Section 3.4 of this EIR/EA, Imperial Valley is classified as nonattainment for Federal and State PM₁₀ standards. Aggregate construction PM₁₀ emissions are less than 35% of the quantitative PM₁₀ threshold. As such, the Proposed Action would not result in a cumulatively considerable net increase of PM₁₀ for which the project region is non-attainment under an applicable federal or state ambient air quality standard. Therefore, no significant impact under CEQA is identified for this issue area.

B. Operational Impacts

As discussed in detail in Section 4.4 of this EIR/EA, operational vehicle emissions were calculated using a vehicle trip rate of 15 vehicle trips per day. Projected air emissions for each criteria pollutant are calculated below 2.0 pounds per day and would not exceed ICAPCD significance thresholds under CEQA. Therefore, the Proposed Action would not result in a significant impact under CEQA associated with operational mobile emissions. The operational phase of the Proposed Action would not result in a considerable increase of criteria pollutants because the solar generating facility will burn no fossil fuels.

¹ For the purposes of mitigation, any construction equipment unable to comply with the applicable standards for a specific pollutant will be reanalyzed using the applicable Tier 2 equipment for engine sizes over 50 HP. These emission rates become mandatory for all equipment built starting 2001 or later (depending on engine size).

The project is consistent with future build out plans for the project site under the County's General Plan, the RTPA's Regional Transportation Plan, SB 2-the 33% RPS, as well as with the State's definition of an "eligible renewable energy resource" in Section 399.12 of the California Public Utilities Code and the definition of "in-state renewable electricity generation facility" in Section 25741 of the California Public Resources Code.

Finally, because this project requires federal agency action by the BLM and DOE, the Proposed Action would be required to demonstrate conformity for the construction phase per 50 CFR 93 for each criteria pollutant or precursor where the total of direct and indirect emissions for the criteria pollutant or precursor in a federal nonattainment or maintenance area, NO_x, PM₁₀, and PM_{2.5}, would equal or exceed specified annual emissions rates, referred to as de minimis thresholds. For ozone precursors, the de minimis thresholds depend on the severity of the nonattainment classification; for other pollutants, the threshold is set at 100 tons per year.

C. Indirect Impacts

The Proposed Action would assist in alleviating dependence on fossil fuels and would provide an overall benefit to air quality by providing a clean, renewable energy source. Table 4.4-10 depicts the estimated criteria pollutant emission rates from fossil-based generation in the California grid mix and the amount of emissions displaced by the project annually (ISE, 2010).

5.1.4.4 Cumulative Impact Analysis

This analysis is concerned with criteria air pollutants. Such pollutants have impacts that are usually (though not always) cumulative by nature. Although possible, rarely would an individual project alone result in a violation of federal or state air quality standards. However, a new source of pollution may contribute to violations of air quality standards due to existing background sources or foreseeable future projects. As discussed in Sections 3.4 and 4.4, the ICAPCD currently has two attainment plans: 1) Ozone Air Quality Management Plan (Ozone AQMP) and 2) State Implementation Plan for PM₁₀ (PM₁₀ SIP). The air quality plans prepared by the ICAPCD reflect future growth under local development plans and are intended to reduce emissions in the air basin to levels that maintain compliance with the NAAQS.

The impacts of cumulative projects were assessed in two ways. First, where an environmental document provided information on a cumulative project's effects, the impacts noted in that document were summarized in Table 5.1.4-1. Second, where the information was not available, a general assessment was made based on the type of use and the federal, state and local requirements that would apply to the cumulative project and mitigate air quality impacts. The cumulative projects include other renewable energy projects, residential, mixed-use and commercial, mining (sand and gravel and gold), and a variety of other types of projects such as upgrading generators, border fence, and a law enforcement training facility. In general, the cumulative projects would have the same types of effects as those described in Table 5.1.4-1, which summarizes information from cumulative project environmental documents.

The following provide a separate cumulative impact analyses for both CEQA and NEPA.

A. CEQA Impact Analysis

Like the Proposed Action, most of the cumulative projects are anticipated to emit air pollutants generated during construction activities associated with engine combustion gases and dust generation associated with vehicle travel on unpaved roads. The extent to which all reasonably foreseeable cumulative projects and the Proposed Action would result in significant cumulative impacts depends on their proximity and construction time schedules. The Proposed Action would be constructed from 2011-2012. Although project start dates may shift, reasonably foreseeable cumulative projects that are anticipated to be under construction, and thus contributing to construction-related air quality impacts, include the ISEC-South, Imperial Valley Solar, Dixieland Connection to IID Transmission System, Mosaic, Hallwood/Calexico Place 111 & Casino, County Center Expansion II, Atlas Storage Facility, and Desert Springs. As with the Proposed Action, the first three projects require BLM approval and are subject to general conformity requirements (50 CFR 93) for construction. Additionally, all of these cumulative projects are subject to ICAPCD construction permitting requirements, Rule 310, Operational Development Schedule Fee, and must comply with ICAPCD rules developed to meet ozone, PM_{2.5}, and PM₁₀ NAAQS as required by USEPA.

The Ozone AQMP demonstrates ozone emissions limits maintenance through 2023 using a USEPA-approved emissions budget and forecasting model that provides estimates of future year emissions.² The emissions forecast accounts for future air quality, effectiveness of new and proposed control measures, new source impacts, and progress towards clean air. The Ozone AQMP emissions forecast includes the emissions budget from the SCAG Regional Transportation Plan (RTP), which is a 30-year transportation and air quality planning document for on-road vehicles and their emissions. The RTP is updated every four years and must demonstrate conformity with federal regulations governing air pollution emissions from on-road vehicles under the CAA (50 CFR 93). The RTP forecasts air emissions from on-road vehicles based on, among other things, projected regional growth and economic conditions. The Ozone AQMP emissions forecast also includes CARB's emissions budget including construction equipment, agricultural equipment, goods movement, fuels, recreational vehicles and boats as a part of its 2007 SIP to attain the 1997 8-hour ozone and the PM_{2.5} NAAQS (CARB 2007). The Ozone AQMP notes that original emissions forecasts could not have predicted the economic downturn starting in 2008. Nor could the Department of Finance population estimates account for reduced growth based on limited resources. CARB's emissions budget for off-road vehicles, the RTP's emissions budget for on-road vehicles, and ICAPCD emissions budget for sources within its control rely on, among other things, DOF's population forecasts in developing emissions budgets. The Ozone AQMP combines the emissions budgets to project emissions forecasts through 2023, are based; and for that reason, ICAPCD concludes in the Ozone AQMP, it is possible the emissions forecast overestimates emissions.

As discussed in the PM₁₀ SIP, the sources of PM₁₀ in the SSAB are complex. Under certain conditions, even when the PM₁₀ federal standard is exceeded it is not considered a violation because the event is classified as a "qualifying exceptional event," such as high wind natural events. Furthermore, it is well documented

² The ICAPD does not have a PM_{2.5} management plan. However, ICAPCD states that measures to control ozone precursors also reduce PM_{2.5}. See also CARB's 1997 8-hour ozone and the PM_{2.5} NAAQS.

that during particular meteorological conditions, PM₁₀ from Mexico cross into Imperial County, thus contributing to elevated PM₁₀ levels (“transport episodes”). The PM₁₀ SIP provides an emissions inventory for the years 2005 through 2010. It uses USEPA-recommended technical analysis to demonstrate that the SSAB is in attainment for PM₁₀ except for a handful of dates over a three-year modeling period involving significant transport episodes. The inventory includes a comprehensive scope of conditions and activities with the potential to contribute to the air basin’s PM₁₀ ambient air conditions. As with the Ozone AQMP, the PM₁₀ SIP includes an emissions inventory that includes activities associated with the Proposed Action’s and cumulative projects construction activities and includes on-road vehicle budgets from the RTP discussed above. Before the PM₁₀ SIP was adopted, ICAPCD adopted a suite of best available control technologies (BACT) and other construction-related emissions control measures required for all construction projects designed to reduce PM₁₀ emissions. These measures are described in Section 3.4 of this EIR/EA. Each of the cumulative projects is also required to comply with the ICAPCD BACT PM₁₀ and other emissions control measures.

Although air quality impacts associated with construction emissions would be short-term, additional emissions of criteria pollutants generated from the Proposed Action along with cumulative projects could impact the air quality in the SSAB (CEQA Significance Threshold), those impacts are already accounted for in the modeling supporting the Ozone AQMP and PM₁₀ SIP, as the modeling for those plans captures future vehicular and construction equipment and demonstrate compliance with the NAAQS. Thus, the cumulative impacts associated with those projects and the Proposed Action has been demonstrated to not exceed applicable air quality thresholds. Additionally, even if not all of the cumulative projects were accounted for in the ICAPCD’s air quality plans, implementation of ICAPCD measures, to which all projects are subject, and compliance with general conformity for the federal projects (#1-29, 32-40) as discussed in Section 4.4 of this EIR/EA, would further reduce the level of air quality impacts from cumulative projects’ activities. Also, the Proposed Action’s contribution to cumulative impacts, with mitigation, would be incrementally minor and would not be cumulatively considerable.

Cumulative projects’ long-term (operations phase) emissions of criteria pollutants would depend on project type. For example, many solar, wind, and transmission line projects would have minimal operations-related air quality impacts due to relatively low intensity operations. Residential and commercial/recreational projects (#33, 34, 3, 38, 41-55, 57-62) would result in impacts associated with mobile and stationary sources including vehicular traffic from residents and visitors, recreational vehicles, space heating and cooling, water heating, and general electrical use. The mining projects (#35, 56, 63) are stationary sources and subject to air quality permits as for operations from the ICAPCD.

The operational phase of the Proposed Action would not result in a considerable increase of criteria pollutants because operational vehicle trips are small and would generate criteria pollutants below 2.0 pounds per day, which is below the level of significance under CEQA. In addition, the criteria pollutants generated by the project’s electricity demand are less than significant even when combined with vehicle trip-related criteria pollutant emissions. Therefore, the Proposed Action would not result in cumulatively considerable air quality impacts associated with operational emissions.

Furthermore, cumulative air quality impacts were analyzed in the Draft Solar Programmatic Environmental Impact Statement (see EIR DPEIS page 6-96). BLM and DOE analyzed the cumulative impacts of solar development across a six-state study area and found that air quality would be affected locally and temporarily from fugitive dust emissions during construction of solar facilities; associated particulate matter (PM) concentrations could temporarily exceed ambient air quality standards near construction areas and possibly affect visibility in pristine areas. Application of measures included in extensive dust abatement plans would substantially reduce the PM levels generated during construction. The operation of solar facilities would produce very few emissions.

A qualitative analysis of air quality impacts associated with the cumulative projects is provided in Table 5.1.4-1. Numeric data for the anticipated air quality resource impacts is not available. However, the cumulative projects will be required to comply with the applicable laws and regulations discussed in Sections 3.4.1.1 to 3.4.1.4. The cumulative projects will also incorporate air quality mitigation measures.

With mitigation, the project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. Therefore, the Proposed Action would not contribute to cumulative effects on air quality. Further, alternative energy projects, like the Proposed Action, assist with the attainment of regional air quality standards and improvement of regional air quality by providing clean, renewable energy sources. The cumulative projects are not identified as having the potential to expose sensitive receptors to substantial pollutant concentrations or create objectionable odors affecting a substantial number of people. Furthermore, with respect to alternative energy projects, these projects would provide a positive contribution to the implementation of the applicable air quality plan. The Proposed Action would not result in cumulatively significant air quality impact under the CEQA Significance Thresholds. Table 5.1.4-2 provides a comparison of the Proposed Action and Alternatives related to cumulative air quality impacts.

B. NEPA Impact Analysis

Like the Proposed Action, cumulative projects are anticipated to emit air pollutants generated during construction activities associated with engine combustion gases and dust generation from vehicle travel on unpaved roads. Some cumulative projects that are anticipated to contribute to construction-phase air quality impacts include the ISEC-South, County Center II Expansion, Atlas Storage Facility, Imperial Valley Solar, Dixieland Connection to IID Transmission System, Mosaic, Hallwood/Calexico Place 111 & Casino and Desert Springs. Although air quality impacts associated with construction emissions would be short-term, additional emissions of criteria pollutants generated from the Proposed Action along with cumulative projects could impact air quality in the SSAB. However, the Proposed Action would implement Mitigation Measures AQ1 and AQ2 and demonstrate conformity under 50 CFR 93, identified in Section 4.4 of this EIR/EA, to reduce project level emissions to below ICAPCD's thresholds of criteria pollutants; thus not exceeding federal and state air quality standards. Cumulative projects are likewise required to comply with ICAPCD's Rules and Regulations and implement standard measures similar to those identified in Mitigation Measures AQ1 and AQ2 in order to mitigate air quality impacts associated with construction emissions. The ISEC-South, Imperial Valley Solar, and Dixieland Connection to IID Transmission System projects are also required to demonstrate conformity (50 CFR 93).

As discussed immediately above, the Ozone AQMP and PM₁₀ SIP encompass vehicular and construction equipment within emissions projections and demonstrate compliance with the NAAQS. Thus, the cumulative impacts associated with cumulative projects and the Proposed Action has been demonstrated to not exceed applicable air quality thresholds. Additionally, even if not all of the cumulative projects were accounted for in the ICAPCD's air quality plans, implementation of ICAPCD measures, to which all projects are subject, and compliance with general conformity for the federal projects (#1-29, 32-40) as discussed in Section 4.4 of this EIR/EA, would further reduce the level of air quality impacts from cumulative projects' activities. Also, the Proposed Action's contribution to cumulative impacts, with mitigation, would be incrementally minor.

The Proposed Action's minimal contribution to otherwise potentially significant emission levels of criteria pollutants during operations is minor based on the general nature of the Proposed Action. The criteria pollutants generated by the project's electricity demand are minimal in comparison to coal generating electricity, even when combined with vehicle trip-related criteria pollutant emissions. Even if a significant cumulative impact did exist for air quality impacts during operation, the Proposed Action's incremental increase in criteria pollutants for operational activities would be minimal and would not contribute to a cumulatively considerable impact to the air basin, as demonstrated by the modeling supporting the applicable air quality plans.

Alternative energy projects, like the Proposed Action, assist with the attainment of regional and statewide air quality standards and improvement of air quality by providing clean, renewable energy sources. Table 5.1.4-2 provides a comparison of the Proposed Action and Alternatives related to cumulative air quality impacts.

Furthermore, cumulative air quality impacts were analyzed in the Draft Solar Programmatic Environmental Impact Statement (see EIR DPEIS page 6-96). BLM and DOE analyzed the cumulative impacts of solar development across a six-state study area and found that air quality would be affected locally and temporarily from fugitive dust emissions during construction of solar facilities; associated particulate matter (PM) concentrations could temporarily exceed ambient air quality standards near construction areas and possibly affect visibility in pristine areas. Application of measures included in extensive dust abatement plans would substantially reduce the PM levels generated during construction. The operation of solar facilities would produce very few emissions.

TABLE 5.1.4-2
Comparison of Alternatives for Cumulative Air Quality Impacts

Proposed Action	Alternative 1- Alternative Transmission Line Corridor	Alternative 2- Alternative Transmission Line Corridor	Alternative 3- Reduced Solar Energy Facility Site	Alternative 4-No Action/No Project Alternative
<i>CEQA Impact Analysis</i>				
<p>Cumulative projects will create dust emissions during construction. These cumulative projects are required to comply with ICAPCD’s Rules and Regulations to mitigate air quality impacts associated with construction emissions. Therefore, the cumulative short-term air quality impact would be mitigated through compliance with ICAPCD regulations for construction emissions and/or demonstrate general conformity (50 CFR 93). No long-term cumulative air quality impact would result under CEQA.</p>	<p>As with the Proposed Action, this alternative would result in a significant, cumulative air quality impact during the construction phase of the project only. Proposed mitigation for dust control would reduce the impact to a level less than significant. The short-term cumulative impact would be the same as the Proposed Action. No long-term cumulative air quality impact would result under CEQA.</p>	<p>As with the Proposed Action, this alternative would result in a significant, cumulative air quality impact during the construction phase of the project only. Proposed mitigation for dust control would reduce the impact to a level less than significant. The short-term cumulative impact would be the same as the Proposed Action. No long-term cumulative air quality impact would result under CEQA.</p>	<p>As with the Proposed Action, this alternative would result in a significant, cumulative air quality impact during the construction phase of the project only. Proposed mitigation for dust control would reduce the impact to a level less than significant. The short-term cumulative impact would be the same as the Proposed Action. No long-term cumulative air quality impact would result under CEQA.</p>	<p>This alternative would avoid the significant cumulative air quality impact during construction as no solar energy facility would be constructed. However, this alternative would not provide a regional air quality benefit as it would not provide an alternative, clean renewable energy source under CEQA.</p>

TABLE 5.1.4-2
Comparison of Alternatives for Cumulative Air Quality Impacts (cont'd.)

Proposed Action	Alternative 1- Alternative Transmission Line Corridor	Alternative 2- Alternative Transmission Line Corridor	Alternative 3- Reduced Solar Energy Facility Site	Alternative 4-No Action/No Project Alternative
<i>NEPA Impact Analysis</i>				
Cumulative projects will create dust emissions during construction. These cumulative projects are required to comply with ICAPCD's Rules and Regulations and/or demonstrate general conformity (50 CFR 93) to mitigate air quality impacts associated with construction emissions. Therefore, the cumulative short-term air quality impact would be mitigated through compliance with ICAPCD regulations for construction emissions. No long-term cumulative air quality impact would result under NEPA.	As with the Proposed Action, this alternative would result in a cumulative air quality impact under NEPA during the construction phase of the project only. Proposed mitigation for dust control would reduce the impact. The short-term cumulative impact would be the same as the Proposed Action. No long-term cumulative air quality impact would result under NEPA.	As with the Proposed Action, this alternative would result in a cumulative air quality impact under NEPA during the construction phase of the project only. Proposed mitigation for dust control would reduce the impact. The short-term cumulative impact would be the same as the Proposed Action. No long-term cumulative air quality impact would result under NEPA.	As with the Proposed Action, this alternative would result in a cumulative air quality impact under NEPA during the construction phase of the project only. Proposed mitigation for dust control would reduce the impact. The short-term cumulative impact would be the same as the Proposed Action. No long-term cumulative air quality impact would result under NEPA.	This alternative would avoid the cumulative air quality impact under NEPA during construction as no solar energy facility would be constructed. However, this alternative would not provide a regional air quality benefit as it would not provide an alternative, clean renewable energy source.

Source: BRG Consulting, Inc.

5.1.5 Greenhouse Gas Emissions

5.1.5.1 *Geographic Scope and Timeframe*

Because of the character of greenhouse gas emissions, and the cumulative nature of global climate change, it is not possible to trace the emissions from a particular project to particular localized environmental consequences. Therefore, as noted there, the discussion of greenhouse gas emission presented in Section 4.5 of this EIR/EA is essentially a cumulative impact assessment. That is, the Proposed Action alone would not be sufficient to change global climate, but would emit greenhouse gases and, therefore, has been analyzed as a potential cumulative impact in the context of long term global impacts and existing GHG regulatory requirements and GHG energy policies, and the project has been found to provide beneficial greenhouse gas impacts.

A separate list of reasonably foreseeable future projects was not prepared for purposes of this analysis, because GHG emission impacts are considered global effects and the Earth's atmosphere is used as the geographic scope, as such, all projects in the United States and world contribute to GHG emission impacts.

Several activities contribute to the phenomena of climate change, including emissions of GHGs from fossil fuel development, large wildfires, and activities using combustion engines; changes to the natural carbon cycle; and changes to radiative forces and reflectivity (albedo). It is important to note that GHGs will have a sustained climatic impact over different temporal scales. For example, recent emissions of carbon dioxide can influence climate for 100 years.

It may be difficult to discern whether global climate change is already affecting resources. In most cases there is more information about potential or projected effects of global climate change on resources. It is important to note that projected changes are likely to occur over several decades to a century. Therefore, many of the projected changes associated with climate change described below may not be measurable discernable within the reasonably foreseeable future.

5.1.5.2 *Existing Conditions*

The solar energy facility site was previously used agricultural production and is currently fallow land. As such, there are currently no man-made sources of GHGs on the solar energy facility site. As such, there are no existing "point source" GHG emissions at the site.

The transmission line corridor site is currently desert land under the jurisdiction of the BLM that is generally undeveloped except for existing transmission lines. There are currently no man-made sources of GHGs on the transmission line corridor site.

5.1.5.3 *Summary of Effects of the Proposed Action*

A. Short-term Construction-Related GHG Impacts

The Proposed Action would contribute a total of 2,457 metric tons of CO_{2e} due to construction activities. This is below the relevant significance thresholds. Additionally, the project would still be required to be

consistent with the intent of AB 32 and the 2008 Scoping Plan; therefore, the implementation of Mitigation Measures GHG1 and GHG2 as identified in Section 4.5 Greenhouse Gas Emissions of this EIR/EA, would result in a less than significant greenhouse gas emissions impact under CEQA.

B. Long-term Operational GHG Impacts

During the operational phase of the Proposed Action, CO₂ produced by non-generation consumption would be 6.90 MW-h x 0.301 MT/MW-h = 2.08 metric tons per day. Annually the Proposed Action would produce 759.2 metric tons per year of CO₂, which is below both the relevant significance thresholds.

With regards to the albedo effect of converting the existing fallow land into a solar energy facility site with PV or CPV solar panels, according to the Solar FPEIS (BLM, 2010), “the deployment of PV panels would effect a change in albedo, or the function of solar radiation reflected back into space by an area of the earth’s surface. On a large scale such a change could conceivably affect the radiative balance of the earth’s surface, and thus contribute to global warming, by slightly reducing the amount of sunlight reflected back to outer space, as the panels absorb more and reflect less solar energy than the underlying ground. Historical changes in earth-surface albedo, both positive and negative, have occurred from a number of other human-induced changes, for example, from the conversion of forests to farmland or from the construction of roads to buildings. The size of the effects and, with respect to global warming, would be more than compensated for by displaced fossil fuel CO₂ emissions, as discussed in the following paragraphs.

Typical surface albedo values range from 0.05 for asphalt to 0.95 for fresh snow, within a global mean planetary albedo of about 0.3 (BLM, 2010). An albedo for desert, where the project is located, ranges from 0.2 to 0.4, meaning that 20 to 40% of incident radiation is reflected back into space. Dark-colored sunlight-absorbing photovoltaic panels, by comparison typically reflect less than about 10% of incident solar radiation (albedo <0.1). Unlike GHG emissions measuring and understanding effects on the rate of albedo is less comprehensive and there currently are no quantification techniques developed to quantify these effects. As such, quantitative impacts of specific albedo effects of the Proposed Action on global climate change cannot be determined.

A recent study discussed potential impacts of the Earth’s albedo modification on climate change associated with widespread deployment of photovoltaics. By 2100, radiative forcing of the albedo effect due to photovoltaics is predicted to range from about 0.003 to 0.029 W/m². At the same time, solar energy, including that from PV, would displace a considerable amount of GHG emissions, mainly CO₂ from fossil fuels, such as coal or natural gas. Radiative forcing from displacement of GHG emissions from solar energy is estimated to range from -0.102 to -1.03 W/m² (negative values indicate a cooling effect). For comparison, 2.6 W/m², and albedo effect from previous land use changes is estimated at about -0.2 W/m². Therefore, climatic benefits resulting from widespread deployment of photovoltaics for fossil fuels far outweigh (more than 30 times larger) the unfavorable effects due to the small change in the Earth’s albedo.” As such, based on the analysis provided in the PEIS for solar energy projects, the Proposed Action would not result in a substantial direct or indirect impact to global climate change as it relates to the

albedo effect, rather, the Proposed Action would provide an overall benefit to air quality, as described in more detail below.

C. Beneficial Impacts

The Proposed Action would assist in alleviating dependence on fossil fuels and would provide an overall benefit to air quality by providing a clean, renewable energy source. Table 4.5-6 depicts the estimated criteria pollutant emission rates from fossil-based power generation in the California grid mix and the amount of emissions anticipated to be displaced by the project annually.

5.1.5.4 Cumulative Impact Analysis

The following provides a separate cumulative impact analysis for both CEQA and NEPA.

A. CEQA Impact Analysis

As noted above, by their nature, GHG emissions impacts are cumulative. As discussed in EIR/EA Section 4.5, the Proposed Action will implement Mitigation Measure AQ1 (as identified in EIR/EA Section 4.4 Air Quality) to ensure that the Proposed Action air quality impacts are less than significant under CEQA. In addition, Mitigation Measures GHG1 and GHG2 (as identified in EIR/EA Section 4.5 Greenhouse Gas Emissions) will be implemented with the Proposed Action, even though they are not required to mitigate an impact but are BMPs recommended to reduce GHG emissions associated with construction activities in order to comply with the intent of AB 32.

Furthermore, cumulative air quality impacts were analyzed in the Draft Solar Programmatic Draft Environmental Impact Statement (see DPEIS pages 6-97 and 6-98) herein incorporated by reference. Utility-scale solar energy development contributes to relatively minor GHG emissions as a result of emissions from heavy equipment, primarily used during the construction phase; vehicular emissions; and natural gas or propane combustion from backup generators. The removal of plants from within the footprint of solar facilities would reduce the amount of carbon uptake by terrestrial vegetation, but only by a small amount (about 1% of the CO₂ emissions avoided by a solar energy facility compared to fossil-fuel generation facilities [see section 5.11.4 of the DPEIS]).

As addressed in the DPEIS, utility-scale solar energy production over the next 20 years may result in fewer CO₂ emissions from utilities by offsetting emissions from new fossil fuel energy sources. CO₂ emission offsets related to increased solar energy production could range from a few percentage points to more than 20% in some of the study area states if future fossil energy production is offset by solar energy. Table 6.5-22 of the Solar DPEIS, provides a comparison of the CO₂ emissions of different generation technologies during facility operations. In the near-term, solar facilities would tend to offset facilities serving peak loads rather than baseline loads served by large fossil fuel plants. GHG emissions from future fossil fuel plants serving peak loads, typically natural-gas-fired plants, would nevertheless be offset. The addition of thermal energy or electrical storage to solar facilities could allow offsets of baseload fossil fuel plants in the long term.

Because GHG emissions are aggregated across the global atmosphere and cumulatively contribute to climate change, it is not possible to determine the specific impact on global climate change from GHG

emissions associated with a specific project. It is possible to predict, however, that increased solar energy generation could cumulatively result in fewer GHG emissions if it offsets electrical generation from new fossil fuel facilities. Furthermore, as discussed above, based on the analysis provided in DPEIS, the climatic benefits resulting from widespread deployment of photovoltaics for fossil fuels outweigh (more than 30 times larger) the unfavorable effects due to the small change in the Earth's albedo. As such, no cumulatively significant impact is identified for this issue area under CEQA.

As explained in Section 3.5.1.2, above, AB 32, SB 1078, and Executive Order S-21-09 all call for the reduction of statewide GHG emissions or an increased reliance on renewable energy sources such as the Proposed Action. The California Legislature has recently enacted the 33 percent renewable energy portfolio standard that was originally set forth in EO S-21-09 into state law. Thus, the Proposed Action is consistent with regulations or requirements adopted to implement statewide plans for the reduction or mitigation of greenhouse gas emissions.

As explained in Section 4.5.1.1.A, above, with the implementation of Mitigation Measure AQ1, as provided in Section 4.4 of this EIR/EA, the Proposed Action would contribute a total of 2,457 metric tons of CO_{2e} due to construction activities, which is well below the EPA and SCAQMD thresholds of significance (25,000 MTCO_{2e} and 10,000 MTCO_{2e}, respectively), and with implementation of GHG1 and GHG2, the Proposed Action is consistent with AB 32. Moreover, as explained in Section 4.5.1.1.B, above, the Proposed Action would produce 759.2 metric tons per year of CO₂, which is below both of the relevant significance thresholds. As explained above in Section 4.5.1.1.C, the operation of the Proposed Action would not generate an incrementally considerable amount of greenhouse gas emissions, the same is true of the other project alternatives. Therefore, the Proposed Action in combination with other closely related past, present, and reasonably foreseeable probable future projects would not result in cumulatively significant impacts, under CEQA, impacts on global climate change.

Table 5.1.5-1 provides a comparison of the Proposed Action and Alternatives related to cumulative greenhouse gas emissions impacts.

B. NEPA Impact Analysis

By its nature, GHG emissions impacts are cumulative. The analysis in Section 4.5.1.1 of this EIR/EA concluded that with the implementation of Mitigation Measure AQ1, the Proposed Action would contribute a total of 2,457 metric tons (MT) of CO_{2e} due to construction activities. Additionally, implementation of Mitigation Measures GHG1 and GHG2 would ensure that the Proposed Action is consistent with AB 32. The design features identified in Mitigation Measures GHG1 and GHG2 include BMPs recommended by CAPCOA to reduce GHG emissions associated with construction activities.

Furthermore, cumulative air quality impacts were analyzed in the DPEIS (pages 6-97 and 6-98). Utility-scale solar energy development contributes to relatively minor GHG emissions as a result of emissions from heavy equipment, primarily used during the construction phase; vehicular emissions; and natural gas or propane combustion from backup generators.

As addressed in the DPEIS, utility-scale solar energy production over the next 20 years may result in fewer CO₂ emissions from utilities by offsetting emissions from new fossil fuel energy sources. CO₂ emission offsets related to increased solar energy production could range from a few percentage points to more than 20% in some of the study area states if future fossil energy production is offset by solar energy. Table 6.5-22 of the Solar DPEIS, provides a comparison of the CO₂ emissions of different generation technologies during facility operations. In the near-term, solar facilities would tend to offset facilities serving peak loads rather than baseline loads served by large fossil fuel plants. GHG emissions from future fossil fuel plants serving peak loads, typically natural-gas-fired plants, would nevertheless be offset. The addition of thermal energy or electrical storage to solar facilities could allow offsets of baseload fossil fuel plants in the long term.

Because GHG emissions are aggregated across the global atmosphere and cumulatively contribute to climate change, it is not possible to determine the specific impact on global climate change from GHG emissions associated with a specific project. It is possible to predict, however, that increased solar energy generation could cumulatively result in fewer GHG emissions if it offsets electrical generation from new fossil fuel facilities. Furthermore, as discussed above, based on the analysis provided in DPEIS, the climatic benefits resulting from widespread deployment of photovoltaics for fossil fuels outweigh (more than 30 times larger) the unfavorable direct and indirect effects due to the small change in the Earth's albedo.

As explained in Section 3.5.1.2, AB 32, SB 1078, and Executive Order S-21-09 all call for the reduction of statewide GHG emissions or an increased reliance on renewable energy sources such as the Proposed Action. California Legislature has recently enacted the 33 percent renewable energy portfolio standard that was originally set forth in EO S-21-09 into state law. Thus, the Proposed Action is consistent with regulations or requirements adopted to implement statewide plans for the reduction or mitigation of greenhouse gas emissions.

Table 5.1.5-1 provides a comparison of the Proposed Action and Alternatives related to cumulative greenhouse gas emissions impacts.

**TABLE 5.1.5-1
Comparison of Alternatives for Cumulative
Greenhouse Gas Emissions Impacts**

Proposed Action	Alternative 1 – Alternative Transmission Line Corridor	Alternative 2 – Alternative Transmission Line Corridor	Alternative 3 – Reduced Solar Energy Facility Site	Alternative 4 – No Action/No Project Alternative
<i>CEQA Impact Analysis</i>				
<p>Cumulative projects will generate greenhouse gas emissions during construction and operation. These cumulative projects are required to comply with ICAPCD’s Rules and Regulations to mitigate air quality impacts associated with construction emissions. This alternative would provide a benefit of reducing greenhouse gas emissions associated with the production of electricity, as it would provide an alternative, clean renewable energy source.</p>	<p>As with the Proposed Action, this alternative would result in a significant, cumulative greenhouse gas emissions impact during the construction and operation of the project. This alternative would provide a benefit of reducing greenhouse gas emissions associated with the production of electricity, as it would provide an alternative, clean renewable energy source.</p>	<p>As with the Proposed Action, this alternative would result in a significant, cumulative greenhouse gas emissions impact during the construction and operation of the project. This alternative would provide a benefit of reducing greenhouse gas emissions associated with the production of electricity, as it would provide an alternative, clean renewable energy source.</p>	<p>As with the Proposed Action, this alternative would result in a significant, cumulative greenhouse gas emissions impact during the construction and operation of the project. This alternative would provide a benefit of reducing greenhouse gas emissions associated with the production of electricity, as it would provide an alternative, clean renewable energy source.</p>	<p>This alternative would avoid the significant cumulative GHG emissions impact during construction and operation of the project as no solar energy facility would be constructed. However, this alternative would not provide the benefit of reducing greenhouse gas emissions associated with the production of electricity, as it would not provide an alternative, clean renewable energy source.</p>

TABLE 5.1.5-1
Comparison of Alternatives for Cumulative
Greenhouse Gas Emissions Impacts (cont'd.)

Proposed Action	Alternative 1 – Alternative Transmission Line Corridor	Alternative 2 – Alternative Transmission Line Corridor	Alternative 3 – Reduced Solar Energy Facility Site	Alternative 4 – No Action/No Project Alternative
<i>NEPA Impact Analysis</i>				
Cumulative projects will generate greenhouse gas emissions during construction and operation. These cumulative projects are required to comply with ICAPCD’s Rules and Regulations to mitigate air quality impacts associated with construction emissions. This alternative would provide a benefit of reducing greenhouse gas emissions associated with the production of electricity, as it would provide an alternative, clean renewable energy source.	As with the Proposed Action, this alternative would result in a cumulative greenhouse gas emissions impact during the construction and operation of the project. This alternative would provide a benefit of reducing greenhouse gas emissions associated with the production of electricity, as it would provide an alternative, clean renewable energy source.	As with the Proposed Action, this alternative would result in a cumulative greenhouse gas emissions impact during the construction and operation of the project. This alternative would provide a benefit of reducing greenhouse gas emissions associated with the production of electricity, as it would provide an alternative, clean renewable energy source.	As with the Proposed Action, this alternative would result in a cumulative greenhouse gas emissions impact during the construction and operation of the project. This alternative would provide a benefit of reducing greenhouse gas emissions associated with the production of electricity, as it would provide an alternative, clean renewable energy source.	This alternative would avoid the cumulative GHG emissions impact during construction and operation of the project as no solar energy facility would be constructed. However, this alternative would not provide benefit of reducing greenhouse gas emissions associated with the production of electricity, as it would not provide an alternative, clean renewable energy source.

Source: BRG Consulting, Inc., 2011

5.1.6 Geology/Soils and Mineral Resources

5.1.6.1 *Geographic Scope and Timeframe*

Table 5.1.6-1 lists the projects considered for the geology/soils and mineral resources cumulative impact analysis. 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. The scope is based on the fact that the geographic location of the Proposed Action is in the Salton Trough physiographic province, which is a distinct topographic and geologic structural depression resulting from large-scale regional faulting.

Potential impacts to geology, soils, and mineral resources would exist during the operation of the Proposed Action.

5.1.6.2 *Existing Conditions*

Imperial County is located in the Imperial Valley portion of the Salton Trough physiographic province of Southern California. This area is a seismically active region and may be subject to potential hazards that occur from seismic activities such as ground shaking, surface rupture, liquefaction, and landslides.

5.1.6.3 *Summary of Effects of the Proposed Action*

As is common in most of Southern California, the Proposed Action site is located within a seismically active region. Although there are a number of faults in Imperial County, no known active faults or potentially active faults are known to exist on, or in the immediate vicinity of the site. The Proposed Action site is likely to be subject to at least one moderate to major earthquake during the lifetime of the structures. However, the Proposed Action must comply with the most recent California Building Code (CBC) requirements. Compliance with the CBC requirements will reduce the effects of the Proposed Action on the existing conditions.

The site-specific geology impacts that have the potential to occur on the Proposed Action site include differential settlement and the presence of expansive and corrosive soils. These geology impacts are considered significant under CEQA. However, with the implementation of Mitigation Measure GS1, as identified in Section 4.6 of this EIR/EA, these impacts would be reduced to a level less than significant under CEQA. Mitigation Measure GS1 requires that all future grading and construction of the project site comply with the geotechnical recommendations contained in the *Geotechnical Investigation Report, Imperial Solar Energy Center West*, prepared by Landmark Consultants, Inc. (May 2010). All development on the project site shall be in accordance with Title 24, California Code of Regulations. The geotechnical report is provided on the attached CD of Technical Appendices as Appendix D of this EIR/EA.

Surface fault rupture is considered to be unlikely at the project site due to well-delineated fault lines through the Imperial Valley as shown on United States Geological Survey (USGS) and California Geological Survey maps.

TABLE 5.1.6-1

List of Projects Considered for Geology/Soils and Mineral Resources Cumulative Impact Analysis

	Project Name	Included in Geology/Soils and Mineral Resources Cumulative Impact (CI) Analysis	Rationale for Not Including Potential Project in the Geology/Soils and Mineral Resources CI Analysis?	Impacts to Geology/Soils and Mineral Resources
1	"S" Line Upgrade 230-kV Transmission Line Project	Yes	--	Project improved the existing S line resilience to effects from soils and geology conditions.
2	Imperial Valley Solar (Formerly called SES Solar Two Project)	Yes	--	<p>The 6,500-acre project site consists of approximately 6,140 acres of Federal land administered by BLM and 360 acres of private land subject to Imperial County jurisdiction. With the implementation of mitigation measures GEO-1 and/or GEO-2, impacts to geology/soils and mineral resources would be minimal:</p> <ol style="list-style-type: none"> 1. Ground motion and surface rupture should result in minimal impacts with the implementation of both GEO-1 and GEO-2. 2. Liquefaction – The ground water table within project site is approximately 50-feet below surface and because of its depth, the propensity for liquefaction does not exist. Additionally, measure GEO-1 addresses liquefaction at the project site. 3. Local Subsidence – The project site contains relatively dense soils resulting from alluvial deposits and would not likely result in subsidence due to foundation loading. With proper geotechnical engineering design and in accordance with the above identified mitigation measures, the potential for localized subsidence is minimal. 4. Expansive Soils – Based geotechnical investigations, it was determined that the alluvium, colluvium, and lakebed deposits underlain the project site would not be susceptible to expansive soils. Also underlain the project site is the Palm Springs Formation, sedimentary

Project Name	Included in Geology/Soils and Mineral Resources Cumulative Impact (CI) Analysis	Rationale for Not Including Potential Project in the Geology/Soils and Mineral Resources CI Analysis?	Impacts to Geology/Soils and Mineral Resources
			<p>formation composed of claystone, may be susceptible to expansive soils. An experienced inspector and the implementation of GEO-1 would minimal project impacts related to expansive soils.</p> <p>5. Mineral Resources – The project site is not located within a Mineral Resource Zone (MRZ) and therefore no economic viable mineral deposits are known to be present within the site boundary.</p>
3	Sunrise Powerlink Transmission Project (CACA-047658)	Yes	<p>--</p> <p>Would extend for 150 miles and traverse numerous government jurisdictions and land use types. The project would not result in significant and unavoidable impacts to geological/soils and mineral resources. Identified impacts of the proposed project would either result in adverse but less than significant impacts and/or significant impacts mitigated to below a level of significance:</p> <ol style="list-style-type: none"> 1. Would not trigger or accelerate erosion due to construction activities; 2. With mitigation, unique geologic features would not be damaged due to construction activities; 3. With mitigation, the project would not expose people or structures to potential substantial adverse effects as a result of problematic soils; 4. With mitigation, the project would not expose people or structures to potential adverse effects as a result of ground shaking and/or ground failure; 5. With mitigation, the project would not expose people or structures to potential substantial adverse effects as a result of surface fault rupture at crossings or active faults; 6. With mitigation, the project would not expose people or structures to substantial adverse effects as a result

Project Name	Included in Geology/Soils and Mineral Resources Cumulative Impact (CI) Analysis	Rationale for Not Including Potential Project in the Geology/Soils and Mineral Resources CI Analysis?	Impacts to Geology/Soils and Mineral Resources	
			<p>of slope instability created during excavation and/or grading; and</p> <p>7. With mitigation, the project would not expose people or structures to substantial adverse effects as a result of landslides, earthflows, debris flows, and/or rockfall.</p>	
4	Proposed Action-Imperial Solar Energy Center-West (CACA-51644)	Yes	--	<p>The solar energy facility site is located within an unincorporated area of Imperial County and is predominately surrounded by agriculture and government land uses. No significant impacts to geology/soils and minerals would result from the proposed project due to federal, state, and local regulations set up to ensure the minimization or prevention of related impacts. The implementation of mitigation measures would also reduce geology and soil related impacts to less than significant, while no impacts to minerals would result from the implementation of the proposed project.</p>
5	Imperial Solar Energy Center-South (CACA-51645)	Yes	--	<p>The solar energy facility site is currently used for agricultural purposes. The proposed transmission line corridor is located in the desert. The proposed access road is located along an existing dirt road that is currently used by the IID and others for access to the Westside Main Canal in the area. No significant impacts to geology/soils and minerals would result from the proposed project due to federal, state, and local regulations set up to ensure the minimization or prevention of related impacts. The implementation of mitigation measures would also reduce geology and soil related impacts to less than significant, while impacts to minerals would result from the implementation of the proposed project.</p>
6	SDG&E Proposed Photovoltaic Solar Field (CACA-051625)	Yes	--	<p>The SDG&E proposed photovoltaic solar field is located on approximately 100 acres of federal land directly adjacent to SDG&E's Imperial Valley substation.</p>

Project Name	Included in Geology/Soils and Mineral Resources Cumulative Impact (CI) Analysis	Rationale for Not Including Potential Project in the Geology/Soils and Mineral Resources CI Analysis?	Impacts to Geology/Soils and Mineral Resources
			Impacts are currently unknown because BLM is reviewing the project's POD.
7	North Gila to Imperial Valley #2 Transmission Line (CACA-51575)	No	STP is preparing a Plan of Development. NEPA analysis has not yet commenced. N/A
8	Centinela Solar Power, LLC (CACA-052092)	No	1. The POD has not been accepted by BLM and determined to be complete. 2. POD does not contain sufficient information details to analyze potential impacts of the project. N/A
9	San Diego Gas & Electric (SDG&E) East County (ECO) Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects	No	This project occurs outside the scope for cumulative projects for this resource issue. N/A
10	Dixieland Connection to IID Transmission System	Yes	-- Although the project alignment is located relatively close to three active fault zones, federal, state, and local regulatory requirements and industry standards must be met by evaluating risk and mitigating for any potential hazards through design and technique. Adherence to these regulations and standards would result in less than significant impacts to geology/soils. There are no mineral resources in the project vicinity that would be affected by the project. Approximately 63.50 acres of impacts are estimated for the project (30.03 permanent and 33.47 temporary).

Project Name		Included in Geology/Soils and Mineral Resources Cumulative Impact (CI) Analysis	Rationale for Not Including Potential Project in the Geology/Soils and Mineral Resources CI Analysis?	Impacts to Geology/Soils and Mineral Resources
11	Mount Signal Solar Farm I- (82 LV 8ME, LLC (CACA-052325)	No	<ol style="list-style-type: none"> 1. POD has not been accepted by BLM and determined to be complete. 2. POD does not contain sufficient information details to analyze potential impacts of the project. 	
12-34	*Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	No	These project sites are not located within the 5 mile geographic scope analyzed for geology/soils and mineral resource impacts.	N/A
35	U.S. Gypsum Mining	Yes		Reclaimed Quarry slopes may be subject to failures and erosion if not properly cut, developed, and stabilized. Mitigation measures have been provided to reduce the impact to less than significant. Further, the project itself is comprised of three components (Quarry, Plant, and pipeline) that are somewhat separated geographically, reducing potential cumulative effects.
36	California State Prison, Centinela	No	This project is an existing facility that has been included in the evaluation of existing conditions.	N/A
37	Recreation Activities	No	The level of qualitative data available regarding this project	N/A

Project Name	Included in Geology/Soils and Mineral Resources Cumulative Impact (CI) Analysis	Rationale for Not Including Potential Project in the Geology/Soils and Mineral Resources CI Analysis?	Impacts to Geology/Soils and Mineral Resources
		was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	
38	IV Substation (TermoElectrica US, LLC)	Yes	--
39	IV Substation (Baja California Power, Inc., aka, Intergen)	Yes	--
40	IV Substation (SDG&E)	Yes	--
41-53	*Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact	No	These project sites are not located within the 5 mile geographic scope analyzed for
			N/A

	Project Name	Included in Geology/Soils and Mineral Resources Cumulative Impact (CI) Analysis	Rationale for Not Including Potential Project in the Geology/Soils and Mineral Resources CI Analysis?	Impacts to Geology/Soils and Mineral Resources
	Analysis		geology/soils and mineral resources.	
54	Desert Springs Resort	Yes	--	Impacts to Geology/Soils are identified as less than significant upon the implementation of mitigation measure GS-1.
55	Coyote Wells (Wind Zero)	No	This project occurs outside the scope for cumulative projects for this resource issue.	N/A
56	Granite Carroll Sand and Gravel Mine	No	This project occurs outside the scope for cumulative projects for this resource issue.	N/A
57-59	*Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	No	The level of qualitative data available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
60	Pedestrian Fence 225 and Pedestrian Fence 70	No	This project occurs outside the scope for cumulative projects for this resource issue.	N/A
61	Mixed-Use Recreation	No	The level of qualitative data available regarding this project was insufficient to determine the project's potential impacts at the	N/A

Project Name	Included in Geology/Soils and Mineral Resources Cumulative Impact (CI) Analysis	Rationale for Not Including Potential Project in the Geology/Soils and Mineral Resources CI Analysis?	Impacts to Geology/Soils and Mineral Resources
		time this evaluation was prepared.	
62	Seeley Wastewater Treatment Plant Upgrade	Yes	The construction required for the SWWRF upgrades would occur primarily on Holtville silty clay.
63	Cahuilla Gold Project	No	This project occurs outside the scope for cumulative projects for this resource issue. N/A

Source: BRG Consulting, Inc., 2011

The landslide hazard on the project site is unlikely due to the regional planar topography and relatively flat topography of the site.

Construction activity associated with site development may result in water-driven erosion of soils. However, implementation of Mitigation Measure HWQ1 (see Section 4.11 – *Hydrology and Water Quality* - of this EIR/EA) will address the potential soil erosion impact. Mitigation Measure HWQ1 requires implementation of a Storm Water Pollution Prevention Plan (SWPPP) incorporating required Best Management Practices (BMPs) on the construction site.

The Proposed Action will require the use of a septic tank system on the solar energy facility site to treat domestic wastewater from the O&M building. The septic system will be required to comply with standard construction measures to ensure that soils are capable of adequately supporting the use of septic tanks. The transmission line corridor and proposed access road would not require the use of a septic tank or alternative wastewater disposal system, as these components of the Proposed Action would not generate wastewater. Therefore, the use of a septic tank system is not anticipated to have a substantial effect on soils and geology in the area.

The Proposed Action is currently fallow agricultural land and is not utilized for mineral resource production. No known mineral resources occur within the project site and the project site does not contain mapped mineral resources (USGS, 1983). As such, the Proposed Action would not adversely affect the availability of any known mineral resources within the project site. Thus, no significant impact under CEQA has been identified for this issue area.

5.1.6.4 Cumulative Impact Analysis

The following provides a separate cumulative impact analysis for both CEQA and NEPA.

A. CEQA Impact Analysis

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 under CEQA if the Proposed Action would be impacted by geologic hazard(s) and if the impact could combine with offsite geologic hazards to be cumulatively considerable. None of the projects identified within the geographic scope of potential cumulative impacts will intersect or be additive to the Proposed Action's 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 on the project site. Therefore, the Proposed Action would not result in a cumulative geology/soils impact for mineral resources. Table 5.1.6-2 provides a comparison of the Proposed Action and Alternatives related to cumulative geology/soils and mineral resources impacts.

B. NEPA Impact Analysis

As discussed above under the CEQA Impact Analysis, geologic and soil conditions are typically site specific and can be addressed through appropriate engineering practices. None of the projects identified in the geographic scope of potential cumulative impacts will intersect or be additive to the Proposed Action's site-specific geology and soils impacts, because they occur outside of the boundaries of the project site; therefore, no cumulative impacts under NEPA are identified for geology/soils.

With regards to Mineral Resources, no mineral resources are located on the project site. Therefore, the Proposed Action would not result in a cumulative geology/soils impact for mineral resources. Table 5.1.6-2 provides a comparison of the Proposed Action and Alternatives related to cumulative geology/soils and mineral resources impacts.

**TABLE 5.1.6-2
Comparison Of Alternatives For Cumulative
Geology/Soils And Mineral Resources Impacts**

Proposed Action	Alternative 1 – Alternative Transmission Line Corridor	Alternative 2 – Alternative Transmission Line Corridor	Alternative 3 – Reduced Solar Energy Facility Site	Alternative 4 – No Action/No Project Alternative
<i>CEQA Impact Summary</i>				
Implementation of the Proposed Action, in conjunction with applicable cumulative projects as it relates to geology/soils, and mineral resources, will not result in a cumulative impact under CEQA.	As with the Proposed Action, this alternative would not result in a significant, cumulative geology/soils and mineral resources impact under CEQA.	As with the Proposed Action, this alternative would not result in a significant, cumulative geology/soils and mineral resources impact under CEQA.	As with the Proposed Action, this alternative would not result in a significant, cumulative geology/soils and mineral resources impact under CEQA.	As with the Proposed Action, this alternative would not result in a significant, cumulative geology/soils and mineral resources impact under CEQA.
<i>NEPA Impact Summary</i>				
The Proposed Action would not result in a cumulative geology/soils and mineral resources impact under NEPA.	As with the Proposed Action, this alternative would not result in a cumulative geology/soils and mineral resources impact under NEPA.	As with the Proposed Action, this alternative would not result in a cumulative geology/soils and mineral resources impact under NEPA.	As with the Proposed Action, this alternative would not result in a cumulative geology/soils and mineral resources impact under NEPA.	As with the Proposed Action, this alternative would not result in a cumulative geology/soils and mineral resources impact under NEPA.

Source: BRG Consulting, Inc., 2011

5.1.7 Cultural Resources

5.1.7.1 *Geographic Scope and Timeframe*

Table 5.1.7-1 lists the projects considered for the cultural resources cumulative impact analysis. With regards to establishing the proper geographic scope and timeframe, the Council on Environmental Quality (CEQ) guidance states “if the boundaries are defined too broadly, the analysis becomes unwieldy; if they are defined too narrowly, significant issues may be missed, and decision-makers would be incompletely informed about the consequences of their actions” (CEQ 1997:v “Considering Cumulative Effects Under the National Environmental Policy Act”). In addition, guidance provided by the EPA states that, “For non-ecological resources, other geographic areas, such as historic districts (for cultural resources) or metropolitan areas (for economics), should be used” (EPA 315-R-99-002/May 1999:9). With this guidance in mind, the geographic scope for the analysis of cumulative impacts related to cultural resources within the Mount Signal area is the southwestern section of the high water mark of ancient Lake Cahuilla within the Yuha Basin. More specifically, the geographic scope is defined as the area within one mile of the 40-foot (40’) contour of ancient Lake Cahuilla between the international border with Mexico (about five miles south) and five miles north of the northern end of the solar fields. The northern and southern most endpoints include areas east beyond one-mile of the 40-foot contour and extend to the agricultural fields/desert divide.

The ancient Lake Cahuilla shoreline is viewed as a primary economic attraction for regional hunter/gatherer and foragers during the Late Prehistoric Period (about 1,500-450 years ago). Whether the settlement pattern is based on small temporary camps as suggested by Weide (1976) or relatively permanent villages as argued by Wilke (1978), the cycles of infilling and drying of Lake Cahuilla appear to have been the major reason for shifts in land use patterns in southeastern California. A number of cultural resource studies have documented the importance of the Yuha Basin and the potential of cultural resources along the 40’ contour within this region (Ritter 1975a, 1975b, 1975c, Desautels 1972, Brooks et al. 1977, Gallegos 1979, Schaefer 1981, Weide and Parker 1974). Investigations by Gallegos (1979) and Schaefer (1981) found that cultural resources sites are clustered along the 40’ contour of Lake Cahuilla and the Pinto Wash area with fewer sites in the non-shoreline and non-wash-oriented tablelands of West Mesa. According to Schaefer (1981), the most culturally sensitive zone was between the 40’ and 50’ contour. Dominant site types below-40’ zone were small temporary camps and sherd scatters; a higher density of small lithic scatters was found above the 50’ contour. Temporary camps containing pottery and isolated ceramics were considered scarce more than 50’ above mean sea level (AMSL) (Schaefer 1981).

In considering historic districts per the CEQ guidance as the scope of the cumulative impacts, several archaeological districts related to Lake Cahuilla have been considered based on the elevation and site type data. Two proposed districts are encompassed within the geographic scope of the cumulative analysis for cultural resources.

TABLE 5.1.7-1
List of Projects Considered for Cultural Resources Cumulative Impact Analysis

Project Name		Included in Cultural Resources Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Cultural Resources CI Analysis?	Impacts to Cultural Resources
1	"S" Line Upgrade 230-kV Transmission Line Project	No	No cultural resources impacted	N/A
2	Imperial Valley Solar (Formerly called SES Solar Two Project)	Yes	--	149 cultural resources will be impacted for proposed project
3	Sunrise Powerlink Transmission Project (CACA-047658)	Yes	--	33 cultural resources will be impacted.
4	Proposed Action-Imperial Solar Energy Center-West (CACA-51644)	Yes	--	3 cultural resources will be impacted.
5	Imperial Solar Energy Center-South (CACA-51645)	Yes	--	One cultural resource will be impacted
6	SDG&E Proposed Photovoltaic Solar Field (CACA-051625)	No	The level of quantitative data available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
7	North Gila to Imperial Valley #2 Transmission Line (CACA-51575)	No	STP is preparing a Plan of Development. NEPA analysis has not yet commenced.	N/A

Project Name		Included in Cultural Resources Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Cultural Resources CI Analysis?	Impacts to Cultural Resources
8	Centinela Solar Power, LLC (CACA-052092)	No	The level of quantitative data available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
9	San Diego Gas & Electric (SDG&E) East County (ECO) Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects	No	This project occurs outside the scope for cumulative projects for this resource issue.	N/A
10	Dixieland Connection to IID Transmission System	Yes	--	13 cultural resources will be impacted.
11	Mount Signal Solar Farm I- (82 LV 8ME, LLC (CACA-052325)	No	The level of quantitative data available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A

Project Name		Included in Cultural Resources Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Cultural Resources CI Analysis?	Impacts to Cultural Resources
12-29	*Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
30	LADWP and OptiSolar Power Plant	No	Applicant Withdrawn	N/A
31	Orni 18, LLC Geothermal Power Plant	No	This project occurs outside the scope for cumulative projects for this resource issue.	N/A
32	U.S. Naval Air Facility El Centro	No	Assumed training activities are conducted in areas with no cultural resources so no cultural resources will be impacted.	N/A
33	Recreation Activities	No	Assumed designated routes have no cultural resources so no cultural resources will be impacted	N/A
34	Recreation Activities	No	Assumed designated routes have no cultural resources so no cultural resources will be impacted	N/A

Project Name		Included in Cultural Resources Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Cultural Resources CI Analysis?	Impacts to Cultural Resources
35-36	*Please Refer to Table 5-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
37	Recreation Activities	No	Assumed designated routes have no cultural resources so no cultural resources will be impacted	N/A
38	IV Substation (TermoElectrica US, LLC)	Yes	--	Impacted 4 cultural resources
39	IV Substation (Baja California Power, Inc., aka, Intergen)	Yes	--	Impacted 4 cultural resources
40	IV Substation (SDG&E)	Yes	--	Impacted 3 cultural resources
41-60	*Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
61	Mixed Use-Recreation	No	Assumed designated routes have no cultural resources so no cultural resources will be impacted	N/A
62-63	*Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A

Source: BRG Consulting, Inc., 2011

The Lake Cahuilla High Water Mark Archaeological District is located within one-half mile of and above the 40' AMSL contour. This district is characterized by prehistoric archaeological sites reflecting subsistence activities focused on lacustrine resources. Contributing elements to the district include prehistoric sites that 1) are located along and above the 40' contour shoreline of the former Lake Cahuilla; 2) have the potential to contain well preserved cultural deposits and/or features; and 3) have an assemblage with a range of artifacts (URS 2009). The district would be significant under criterion D/4 of the NRHP and the CRHR, respectively, due to its potential to provide information about lithic technology, chronology, subsistence practices, and settlement patterns. The period of significance would be the Late Prehistoric Period and it can be assumed more specifically that the sites were occupied between 1,250 BP and 230 BP based on past research regarding the timing of the high water mark (Apple 1997). The sites within the district may represent a single cultural affiliation and would be culturally distinct from sites located further northwest along the Lake Cahuilla shoreline or those sites on the eastern Lake Cahuilla shoreline. For example, the sites located within the Southwest Lake Cahuilla Recessional Shoreline District (approximately 30 miles north of the proposed project) are characterized by fish traps and sandstone enclosures, none of which were identified within the proposed Lake Cahuilla High Water Mark Archaeological District.

The second proposed archaeological district is located below the 40' contour and extends to at least 0.7 miles below the 40' contour. Sites that characterize the district include sparse lithic scatters, higher density lithic scatters, ceramic and lithic scatters, and temporary camps. Sites below the high water mark are considered important in the study of cultural change because they represent activities that are undertaken after one of the immediate recessions of the lake, or more likely, the final recession (Schaefer 1986). These site types imply the continued use and occupation as the shoreline was receding. The sites represent a roughly contemporary use of a relatively limited duration during the Late Prehistoric Period. Further research is needed to more narrowly define that time period. This district would be significant under criterion D/4 of the NRHP and the CRHR, respectively, due to its potential to answer questions about lithic technology, subsistence practices, and settlement patterns as the lake was receding (Zepeda-Herman et al 2011). The sites within the district below the 40' contour would also be significantly different than other sites within the Yuha Basin. For example, the sites within the Yuha Basin Discontiguous District are comprised of lithic scatters, cairns, and trails and are associated with the Paleoindian Period (URS 2009). The Yuha Basin Discontiguous District is along the 150' contour and located approximately three miles west of the Proposed Action.

Both districts are good representations of past Lake Cahuilla shoreline activities. All of the area of potential effect (APE) is contained within the geographic scope of this cumulative impacts analysis. Instead of limiting the analysis to these proposed districts, the geographic scope was expanded to one mile around the 40' contour to be more conservative and err on the side of caution in assessing the cumulative impacts of past, present, and future projects on cultural resources in the vicinity of the Proposed Action. It is noted that the BLM NEPA Handbook advises that "The geographic scope of cumulative effects will often extend beyond the scope of the direct effects, but not beyond the scope of the direct and indirect effects of the Proposed Action and alternatives" (BLM NEPA Handbook § 6.8.3.2.). The Proposed Action's direct and indirect impacts are within the APE. Nevertheless, the geographic scope has been expanded beyond the

area of potential effect to be more conservative and err on the side of caution in assessing the cumulative impacts of past, present, and future projects on cultural resources in the vicinity of the Proposed Action.

5.1.7.2 Existing Conditions

As discussed in EIR/EA Section 3.7, 16 sites are located within the Proposed Action APE and at least 893 cultural resources sites, including temporary camps, lithic scatters, ceramic and lithic scatters, ceramic scatters, rock features, trails or trail markers, historic period sites, and prehistoric isolates have been located within the southern two-thirds of the cumulative effects geographic scope of the APE (Table 5.1.7-2). The record search data for the northern third of the cumulative effects geographic scope was not available at the time of this writing. Assuming that 893 cultural resources represent 66% of the total of known cultural resources in the cumulative effects geographic scope, the total number of known cultural resources could be estimated to be 1,353.

TABLE 5.1.7-2
Summary of Cultural Resources within the Geographic Scope

Site Type	Number*
Temporary camp	103
Ceramic and lithic scatters	113
Lithic scatters	175
Ceramic scatters	29
Trails or trail markers	15
Rock features (cairns, hearths) or sleeping circles	29
Historic period sites (canals, trash scatters, Evan Hewes Hwy)	58
Prehistoric isolates	371
TOTAL	893

Note: * These numbers represent known cultural resources in only two-thirds of the total geographic scope.

5.1.7.3 Summary of Effects of the Proposed Action

As discussed in EIR/EA Section 4.7, 16 sites are located within the Proposed Action APE. Direct impacts to the cultural resources within the APE for the Proposed Action would be avoided through project design with the exception of three sites [CA-IMP-11502 (SR-4), CA-IMP-11473 (S-7), and CA-IMP-11474 (S-8)]. The BLM has determined that these three archaeological sites are not eligible for listing on the NRHP because the sites are sparse scatters located in highly disturbed agricultural fields.

There is a potential for indirect effects to sites adjacent to the Proposed Action APE due to increased traffic during construction. It is also possible that grading within the construction area could increase the amount of runoff during heavy rainfall events. There are ten sites that are in the vicinity of the direct impacts of the Proposed Action that may be indirectly affected by the Proposed Action. However, Mitigation Measure CR2 (Temporary Protective Fencing and Erosion Control) would ensure that project impacts do not rise to the level of significance pursuant to CEQA.

During construction and operational repair periods of the Proposed Action, grading, excavation, and trenching would be required to repair buried utilities or other buried infrastructure. Subsurface excavation activities always have some potential to impact previously unknown archaeological subsurface resources. However, Mitigation Measure CR3 (Work Stoppage and Mitigation of Previously Unknown Archaeological Resources) would ensure that project impacts do not rise to the level of significance pursuant to CEQA. Furthermore, Mitigation Measure CR4 (Work Stoppage with Discovery of Previously Unknown Human Remains and Compliance with NAGPRA) would ensure that potential project impacts to previously unknown human remains do not rise to the level of significance pursuant to CEQA.

With the implementation of Mitigation Measures CR2 through CR4, as identified in Section 4.7 of this EIR/EA, cultural resource impacts would be reduced to a level less than significant under CEQA.

In addition, the BLM proposes to avoid effects to the significant values of archaeological resources in the APE for direct impacts by implementing management or protective measures as described in Section 4.7.3, Project Conditions, of this EIR/EA.

5.1.7.4 Cumulative Impact Analysis

A. CEQA Impact Analysis

In order to assess cumulative effects and whether the Proposed Action's incremental effect when added to other past, present, and reasonably foreseeable future actions within the geographic scope would be adverse and cumulatively considerable, a quantification of cumulative cultural resource impacts from the past, present, and foreseeable future projects was prepared. As shown in Table 5.1.7-2, there would be the potential for impacts to 210 cultural resource sites from the 8 other projects within the defined geographic scope of the cumulative analysis. This represents 16% of the estimated total number (n=1353) of cultural resources within the geographic scope. Under CEQA, the lead agency cannot approve the project if there is a significant impact without feasible mitigation measures to reduce project impacts to a level less than significant, or by adoption of appropriate findings. As with the Proposed Action, 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 are important for their potential contribution to knowledge of history (Criterion D/4), mitigation measures to collect scientific value from archaeological cultural resources include systematic data recovery. Implementation of the mitigation measures would reduce the cumulative impacts of these projects. There would be no net loss of the cumulative value/context of the cultural resources within the geographic scope as the required mitigation would assure that the sites' archaeological resource value be exhausted through the data recovery programs.

Table 5.1.7-3 provides a comparison of the Proposed Action and Alternatives related to cumulative cultural resources impacts.

BLM and DOE have analyzed the cumulative impacts of solar development on cultural resources for a six-state study area in the southwest United States, including Imperial County, California. The analysis from the studies performed in BLM and DOE's Draft Solar Programmatic Environmental Impact Statement state:

In the event "that cultural resources are unexpectedly encountered during construction activities, provisions should be in place (e.g., a historic properties treatment plan, mitigation and monitoring plan) to address the appropriate evaluation and treatment of such cultural resource discoveries. Areas rich in cultural resources would be avoided if possible. Cumulative effects on cultural resources from foreseeable development in the six-state region are expected to be small because of the relatively small fraction of total land disturbed. Solar energy development could be a major contributor to these impacts.

However, for the most part, solar facilities could, and would wherever possible, be sited away from areas rich in cultural resources. Such areas would include individual properties (sites, structures, features, traditional cultural properties) and districts listed in the NRHP, National Historic Landmarks, National Historic Trails, and prehistoric and historic sites possessing significant scientific, heritage, or educational values. (DEIR PEIS pages 6-98 and 6-99).

Consistent with the Draft Solar Programmatic EIS, the Proposed Action has been sited away from areas rich in cultural resources by constructing the solar field on previously disturbed agricultural lands. Additionally, the Proposed Action was designed to avoid and minimize impacts to sites within the proposed Lake Cahuilla High Water Mark Archaeological District and the area below the 40-foot elevation or the high water mark.

Irrespective of whether or not other individual or cumulative projects' cumulative impacts are considered significant within the geographic scope of cumulative cultural impacts for the Proposed Action, CEQA requires the focus to be on whether the project's contribution to cumulative impacts or its incremental effect is considerable, respectively. For all of the reasons discussed above, the Proposed Action's contribution to potentially significant cumulative impacts to cultural resources is not considerable for purposes of CEQA.

B. NEPA Impact Analysis

The CEQ regulations, which implement NEPA, require assessment of cumulative impacts in the decision-making process for federal projects. The CEQ regulations for the implementation of NEPA define cumulative effects consistent with the Supreme Court's reading of NEPA in *Kleppe v. Sierra Club*, 427 U.S. 390, 413-414 (1976). "Cumulative impact" is defined in CEQ's NEPA regulations as the "impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions ..." 40 CFR 1508.7 (emphasis added).

Agencies are not required to list or analyze the effects of individual past actions unless such information is necessary to describe the cumulative effect of all past actions combined. Agencies retain substantial discretion as to the extent of such inquiry and the appropriate level of explanation. *Marsh v. Oregon Natural Resources Council*, 490 U.S. 360, 376-77 (1989). Generally, agencies can conduct an adequate

cumulative effects analysis by focusing on the current aggregate effects of past actions without delving into the historical details of individual past actions. (GUIDANCE ON THE CONSIDERATION OF PAST ACTIONS IN CUMULATIVE EFFECTS ANALYSIS, 6/24/2005 CEQ).

In order to assess cumulative effects and whether the Proposed Action's incremental effect when added to other past, present, and reasonably foreseeable future actions within the geographic scope would be adverse and cumulatively considerable, a quantification of cumulative cultural resource impacts from the past, present, and foreseeable future projects was prepared. As shown in Table 5.1.7-2, there would be the potential for impacts to 210 cultural resource sites from the 8 other projects within the defined geographic scope of the cumulative analysis. This represents 16% of the estimated total number (n=1353) of cultural resources within the geographic scope. Because the cultural resources within the geographic scope are important for their potential contribution to knowledge of history (Criterion D/4), mitigation measures associated with the development of each cumulative project, like the Proposed Action, would be expected to require to document and to collect information of scientific value from archaeological cultural resources impacted by those actions. Such recovery measures would reduce the cumulative impacts of these projects by preserving the information value of the potentially impacted cultural resources. There would be no net loss of the cumulative value/context of the cultural resources within the geographic scope.

Based on the detailed analysis provided above under the CEQA Impact Analysis, for purposes of NEPA, the Proposed Action would not result in a cumulative effect to cultural resources. Table 5.1.7-3 provides a comparison of the Proposed Action and Alternatives related to cumulative cultural resources impacts.

TABLE 5.1.7-3
Comparisons of Alternatives for Cumulative Cultural Resources Impacts

Proposed Action	Alternative 1 – Alternative Transmission Line Corridor	Alternative 2 – Alternative Transmission Line Corridor	Alternative 3 – Reduced Solar Energy Facility Site	Alternative 4 – No Action/No Project Alternative
<i>CEQA Impact Analysis</i>				
<p>The Proposed Action would not directly impact any cultural resource site and indirectly impact 10 cultural resources sites. However, with the implementation of Mitigation Measures CR2 through CR4 these impacts would be reduced to a level less than significant under CEQA. Therefore, implementation of the Proposed Action, in conjunction with applicable cumulative projects as it relates to cultural resources, would not result in a significant cumulative impact under CEQA.</p>	<p>This alternative would not directly impact any cultural resources sites and indirectly impact 12 cultural resources sites. Therefore, the cumulative impact associated with this alternative would be slightly greater than the Proposed Action. However, with the implementation of Mitigation Measures CR2 through CR4 these impacts would be reduced to a level less than significant under CEQA. Therefore, implementation of this alternative, in conjunction with applicable cumulative projects as it relates to cultural resources would not result in a significant cumulative impact under CEQA.</p>	<p>There are a total of 27 cultural resources sites located within the APE for this alternative. This alternative would directly impact four newly identified sites and two previously identified sites. In addition, this alternative would indirectly impact eight cultural resources sites. However, with the implementation of Mitigation Measures CR1 through CR4 these impacts would be reduced to a level less than significant under CEQA. Therefore, implementation of this alternative, in conjunction with applicable cumulative projects as it relates to cultural resources, would not result in a significant cumulative impact under CEQA.</p>	<p>There are a total of 12 cultural resources sites within the APE for this alternative. However, this alternative would not directly impact any cultural resources sites but would indirectly impact these sites. However, similar to the Proposed Action, with the implementation of Mitigation Measures CR2 through CR4 these impacts would be reduced to a level less than significant under CEQA. Therefore, implementation of the Proposed Action, in conjunction with applicable cumulative projects as it relates to cultural resources, would not result in a significant cumulative impact under CEQA.</p>	<p>This alternative would avoid any impact to cultural resources sites as no development would occur under the Alternative 4- No Action/No Project Alternative.</p>

TABLE 5.1.7-3
Comparisons of Alternatives for Cumulative Cultural Resources Impacts (cont'd.)

Proposed Action	Alternative 1 – Alternative Transmission Line Corridor	Alternative 2 – Alternative Transmission Line Corridor	Alternative 3 – Reduced Solar Energy Facility Site	Alternative 4 – No Action/No Project Alternative
<i>NEPA Impact Analysis</i>				
<p>Cultural resources recommended eligible for the National Register of Historic Places (NRHP) would be avoided and protected from direct impacts. Sites that can be protected from direct impacts, but are within 50 feet (50'), including buffer areas, of proposed construction activities would be identified and labeled as Environmentally Sensitive Areas (ESAs). Therefore, implementation of the Proposed Action, in conjunction with the conditions imposed by the Bureau of Land Management (BLM) on the undertaking, would result in no adverse effect on cumulative projects as it relates to cultural resources and would not result in a cumulative adverse effect under the National Environmental Policy Act (NEPA).</p>	<p>Cultural resources recommended eligible for the NRHP would be avoided and protected from direct impacts. Sites that can be protected from direct impacts, but are within 50', including buffer areas, of proposed construction activities would be identified and labeled as ESAs. Therefore, implementation of Alternative 1, in conjunction with the above conditions imposed by the BLM on the undertaking, would result in no adverse effect on cumulative projects as it relates to cultural resources and would not result in a cumulative adverse effect under NEPA.</p>	<p>Cultural resources recommended eligible for the NRHP would be avoided and protected from direct impacts. Sites that can be protected from direct impacts, but are within 50', including buffer areas, of proposed construction activities would be identified and labeled as ESAs. Therefore, implementation of the Alternative 2, in conjunction with the above conditions (including the development of a MOA) imposed by the BLM on the undertaking, would result in no adverse effect on cumulative projects as it relates to cultural resources and would not result in a cumulative adverse effect under NEPA.</p>	<p>Cultural resources recommended eligible for the NRHP would be avoided and protected from direct impacts. Sites that can be protected from direct impacts, but are within 50', including buffer areas, of proposed construction activities would be identified and labeled as ESAs. Therefore, implementation of the Alternative 3, in conjunction with the above conditions imposed by the BLM on the undertaking, would result in no adverse effect on cumulative projects as it relates to cultural resources and would not result in a cumulative adverse effect under NEPA.</p>	<p>This alternative would avoid any effects to cultural resources as no development would occur under the No Action/No Project Alternative.</p>

Source: BRG Consulting, Inc., 2011

5.1.8 Noise

5.1.8.1 *Geographic Scope and Timeframe*

Table 5.1.8-1 lists the projects considered for the noise cumulative impact analysis. The geographic scope for considering cumulative noise impacts on sensitive receptors is the area immediately surrounding the potentially sensitive receptors in the vicinity of the Proposed Action solar energy facility site. The nearest sensitive receptor (areas of habitation) to the project site is the Imperial Lakes planned water skiing community located approximately 0.5 miles north of project site. This development consists of two water ski lakes surrounded by mobile homes. The geographic scope for considering noise impacts on sensitive receptors for the construction and operation of the transmission lines is approximately one-mile. With regards to potential impacts to sensitive biological resources, please refer to Section 5.2.1.12 Biological Resources.

There would be noise increases during the operation of the Proposed Action, and these would cease at the end of the lease term, at which time the solar energy facility site would be restored to its pre-project condition. Accordingly, the timeframe is the operation period of the Proposed Action. The timeframe for noise impacts for the construction period of the Proposed Action is the approximately one year Proposed Action construction period.

5.1.8.2 *Existing Conditions*

As discussed in EIR/EA Section 3.8, ambient noise levels were measured at two noise-monitoring locations. The measurements collected reflect ambient sound levels representative of the extremely rural agricultural setting of the Proposed Action. The major source of existing noise at the first noise monitoring location was entirely from background community and far-field noise. The major source of existing noise at the second noise monitoring location was entirely from distant traffic activity along Interstate 8.

Also, as discussed in EIR/EA Section 3.8 and in Table 3.8-5, existing roadway noise levels were established for one road and Evan Hewes Highway. Due to the undeveloped and vacant nature of the project site, there is currently no source of groundborne vibration on the site.

5.1.8.3 *Summary of Effects of the Proposed Action*

During the construction phases of the Proposed Action, short-term noise will be generated associated with the operation of various construction equipment. However, construction activities must adhere to the construction time periods of 7 a.m. to 7 p.m., Monday through Friday, and 9 a.m. to 5 p.m. Saturday. No commercial construction operations are permitted on Sunday or holidays. Furthermore, construction equipment noise exceedances above the 75 dBA Leq noise threshold would not be significant as there are no sensitive receptors within or immediately adjacent to the project site as the closest community to the project site is 0.5 miles away. Therefore, short-term noise generated during construction activities is not considered a significant impact under CEQA.

An exceedance of 0.5 dBA is indicated on Dunaway Road between Interstate 8 and the project access points. However, the exceedance is below the 3.0 dBA CEQA screening threshold. Therefore, the Proposed Action's contribution to off-site roadway noise levels is not considered a significant impact under CEQA.

TABLE 5.1.8-1
List of Projects Considered for Noise Cumulative Impact Analysis

Project Name		Included in Noise Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Noise CI Analysis?	Impacts to Noise
1-3	*Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
4	Proposed Action-Imperial Solar Energy Center-West (CACA-51644)	Yes	--	Noise generated during construction would be short-term and would not exceed the 75 dBA Leq noise threshold. Furthermore, no operational noise would occur because all onsite fixed uses would be required to meet the operational noise standards of the County of Imperial. Therefore, the Proposed Action would not result in significant noise impacts and no mitigation is required.
5	Proposed Action-Imperial Solar Energy Center-South (CACA-51645)	No	This project occurs outside the scope for cumulative projects for this resource issue.	
6-9	*Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
10	Dixieland Connection to IID Transmission System	Yes	--	All noise related impacts have been identified as less than significant and therefore, would not require the implementation of any mitigation measures.

Project Name	Included in Noise Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Noise CI Analysis?	Impacts to Noise
11-37	*Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	No	These projects occur outside the scope for cumulative projects for this resource issue.
38	IV Substation (TermoElectrica US, LLC)	Yes	-- There is a potential for noise impacts associated with operation of the transmission lines from corona (the electrical breakdown of air into charged particles) caused by the electrical field at the surface of the conductors. Modern transmission lines are designed so that they operate below the corona inception voltage during dry weather conditions and therefore would result in relatively low (35 dBA DNL or less) noise output beyond the edge of the ROW. During periods of rain, noise levels would be less than 39 dBA at the edge of the ROW.
39	IV Substation (Baja California Power, Inc., aka, Intergen)	Yes	-- There is a potential for noise impacts associated with operation of the transmission lines from corona (the electrical breakdown of air into charged particles) cause by the electrical field at the surface of the conductors. Modern transmission lines are designed so that they operate below the corona inception voltage during dry weather conditions and therefore would result in relatively low (35 dBA DNL or less) noise output beyond the edge of the ROW. During periods of rain, noise levels would be less than 39 dBA at the edge of the ROW.
40	IV Substation (SDG&E)	Yes	-- Noise impacts associated with the project were not identified; additional project specific information is required.
41-63	*Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	No	These projects occur outside the scope for cumulative projects for this resource issue.

Source: BRG Consulting, Inc., 2011

Operational noise with implementation of the Proposed Action would be minimal. Noise from the solar energy facility during operations will be limited to light duty vehicle traffic for security patrols, maintenance staff and solar panel wash crews. The operation of high voltage transmission lines and transformers generates a low level of noise. The sound level that light auto traffic, transformer, and transmission lines generate is 55 dB, 40 dB, and 20 dB, respectively. These types of activities generate less sound compared to conversational speech, which generates 60 dB, and they do not exceed any noise level limits (see Section 4.8.1.1). All onsite fixed uses within the Proposed Action would be required to meet the operational noise standards of the County of Imperial Codified Ordinances Division 7 Noise Abatement and Control. The Proposed Action would comply with this ordinance. Therefore, onsite operational noise is not considered a significant impact under CEQA.

The Proposed Action is expected to generate a total of 15 vehicle trips per day during the operational phase. The vehicle trips per day would be minimal due to the minimal amount of workers (four full-time employees) required for the Proposed Action during operations. As such, the Proposed Action is not expected to result in a significant off-site traffic generated noise impact under CEQA.

5.1.8.4 Cumulative Impact Analysis

The following provides a separate cumulative impact analysis for both CEQA and NEPA.

A. CEQA Impact Analysis

As described in Table 5.1.8-1, there are four projects within a one-mile radius of the proposed transmission line, which are considered as part of the cumulative noise impact analysis because the only noise sensitive receptor is located approximately 0.5 miles away from the project site. Therefore, only these projects, in conjunction with the proposed project, could potentially contribute to a cumulative noise impact for this sensitive receptor (the Imperial Valley Lakes planned community). Three of the cumulative projects are existing transmission lines located within Utility Corridor “N.” These transmission lines have the potential for noise impacts associated with operation of the transmission lines from corona (the electrical breakdown of air into charged particles) caused by the electrical field at the surface of the conductors. However, modern transmission lines are designed so that they operate below the corona inception voltage during dry weather conditions and therefore would result in relatively low (35 dBA DNL or less) noise output beyond edge of the ROW. The proposed Dixieland Connection to IID Transmission System project is also located within a one-mile radius of the proposed transmission line. However, all noise related impacts have been identified as less than significant and no mitigation is required. As described in Section 4.2.1.1, because the transmission line corridor would extend through undeveloped desert lands, there are no sensitive receptors in the area, and thus there would be no significant construction or operational cumulative noise impacts.

No cumulative projects are located near enough to the solar energy facility portion of the Proposed Action site to contribute to cumulative noise impacts. Cumulative projects that are not located within the immediate vicinity of the sensitive receptors near the solar energy facility portion of the Proposed Action site are outside of the geographic scope of the consideration of cumulative noise impacts. Therefore, construction (short-term) and operational (long-term) noise generated by the solar energy facility portion of the Proposed Action would not contribute to cumulative noise impacts because the projects are spaced

far enough apart that the noise generated by one project will not substantially combine with the noise of another project. Accordingly, cumulative projects would not result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project (i.e., above 75 dB Leq measured at nearest sensitive receptor) (noise modeling conducted for cumulative traffic does not show noise levels exceeding applicable standards (see EIR/EA Section 4.8).

See Sections 4.12 and 5.1.12 of this EIR/EA discussing implementation of the mitigation measures for burrowing owl and sensitive bird species, showing there would be no cumulative noise impact under CEQA to these sensitive biological receptors. Table 5.1.8-2 provides a comparison of the Proposed Action and Alternatives related to cumulative noise impacts.

B. NEPA Impact Analysis

The construction phase is planned to take 17 months and would begin in September 2011. This would place the construction phase from September 2011 through January 2013. The midpoint of the construction would occur around the summer of 2012. Therefore, the construction phase opening day is taken as year 2012. For each roadway segment analyzed, the worst case average daily traffic volume (ADT) from construction-related traffic and observed/predicted speeds are shown, along with the corresponding reference noise level at 50-feet (in dBA). Additionally, the line-of-sight distance from the roadway centerline to the 60 through 75 CNEL contours are provided as an indication of the worst-case unobstructed theoretical traffic noise contour placement.

As discussed in Section 4.8 of this EIR/EA no substantial project-related construction traffic noise increases would occur under the existing conditions (Year 2010) because there would be minimal or no project traffic. In the Year 2012, an exceedance of 0.5 dBA is indicated on Dunaway Road between Interstate 8 and the project access. However, the exceedance is below the 3.0 dBA CEQA screening threshold.

As described in Table 5.1.8-2, there are four cumulative projects located within a one-mile radius of the proposed transmission line. Three of the cumulative projects are existing transmission lines located within Utility Corridor "N." These transmission lines have the potential for noise impacts associated with operation of the transmission lines from corona (the electrical breakdown of air into charged particles) caused by the electrical field at the surface of the conductors. However, modern transmission lines are designed so that they operate below the corona inception voltage during dry weather conditions and therefore would result in relatively low (35 dBA DNL or less) noise output beyond edge of the ROW. The proposed Dixieland Connection to IID Transmission System project is also located within a one-mile radius of the proposed transmission line. However, like the Proposed Action, the proposed Dixieland project is far from sensitive receptors, such that even if project construction schedules were to overlap construction noise attenuate such that cumulative noise impact would not result in a significant effect to a sensitive receptor.

As shown in Figure 5-1, there are no cumulative projects identified within the immediate vicinity of the solar energy facility portion of the Proposed Action nor are there cumulative projects identified immediately adjacent to the above mentioned sensitive receptors that would contribute to cumulative adverse noise impacts.

Construction of the Proposed Action would result in a short-term incremental increase in noise levels within the area; however, this incremental increase would be minimal with regards to proximity of sensitive resources as the nearest sensitive receptor is ½-mile away and noise would attenuate over that distance. The Proposed Action's short-term construction related noise levels would not be added to other projects proposed in the region since the distance of the cumulative projects in relation to the Proposed Action is outside of the geographical range for creating a cumulative noise impact.

It should be noted that the Noise Element of the General Plan identifies sensitive species such as bird species as sensitive receptors. As discussed in Section 3.12 of this EIR/EA, burrowing owls and other sensitive birds were observed within the solar facility site. See Section 4.12 of this EIR/EA for a detailed discussion on cumulative impacts to burrowing owls and other sensitive bird species (non-human sensitive receptor) and mitigation measures that will avoid, minimize, or mitigate potential impacts.

Operation of the facility is scheduled to begin in early 2013. Noise from the solar energy facility during operations will be limited to light duty vehicle traffic for security patrols, maintenance staff and solar panel wash crews. The operation of high voltage transmission lines and transformers generate a low level of noise. Noise generated during operation of transmission lines and transformers is at the quiet end of the noise spectrum (Table 4.8-5 in Section 4.8 of this EIR/EA). The Proposed Action would be required to comply with the County of Imperial Codified Ordinances Division 7 Noise Abatement and Control. This ordinance governs fixed operational noise within the proposed development area (below the 70 dBA noise level for the "Manufacturing, all other industrial including agriculture and extraction" zone). As such, onsite operational noise would not exceed the standards of the County of Imperial Noise Ordinance. The Proposed Action's incremental increase in ambient noise levels during operation of the facility would be minor. In addition, the Proposed Action is expected to generate a total of 15 vehicle trips per day during the operational phase. The vehicle trips per day would be minimal due to the minimal amount of workers (four full-time employees) required for the Proposed Action during operations. Table 5.1.8-2 provides a comparison of the Proposed Action and Alternatives related to cumulative noise impacts.

TABLE 5.1.8-2
Comparison of Alternatives for Cumulative Noise Impacts

Proposed Action	Alternative 1- Alternative Transmission Line Corridor	Alternative 2- Alternative Transmission Line Corridor	Alternative 3- Reduced Solar Energy Facility Site	Alternative 4-No Action/No Project Alternative
<i>CEQA Impact Analysis</i>				
Implementation of the Proposed Action, in conjunction with applicable cumulative projects as it relates to noise, will not result in a cumulative impact under CEQA.	As with the Proposed Action, this alternative would not result in a significant, cumulative noise impact under CEQA.	As with the Proposed Action, this alternative would not result in a significant, cumulative noise impact under CEQA.	As with the Proposed Action, this alternative would not result in a significant, cumulative noise impact under CEQA.	As with the Proposed Action, this alternative would not result in a significant, cumulative noise impact under CEQA.
<i>NEPA Impact Analysis</i>				
Implementation of the Proposed Action, in conjunction with applicable cumulative projects as it relates to noise, will not result in a cumulative impact under NEPA.	As with the Proposed Action, this alternative would not result in a cumulative noise impact under NEPA.	As with the Proposed Action, this alternative would not result in a cumulative noise impact under NEPA.	As with the Proposed Action, this alternative would not result in a cumulative noise impact under NEPA.	As with the Proposed Action, this alternative would not result in a cumulative noise impact under NEPA.

Source: BRG Consulting, Inc., 2011

5.1.9 Agricultural Resources

5.1.9.1 *Geographic Scope and Timeframe*

Table 5.1.9-1 lists the projects considered for the agricultural resources cumulative impact analysis. The rationale for inclusion or non-inclusion of each cumulative project as it relates to agricultural resources is presented in Table 5.1.9-1. 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. The timeframe considered is the life of the project since the land could be returned to agriculture after the project is dismantled.

5.1.9.2 *Existing Conditions*

The 1,130 gross acre (1,056 net buildable acres) solar energy facility portion of the project site is located on privately-owned land, previously utilized for agricultural production. According to the 2004 FMMP, the site contains approximately 1,048.4 acres of land designated as Farmland of Local Importance.

5.1.9.3 *Summary of Effects of the Proposed Action*

The Proposed Action will result in the temporary loss of 1,048.4 acres of agricultural lands designated as Farmland of Local Importance. In addition, the Proposed Action is consistent with certain Agricultural Element Goals and Objectives of the County of Imperial General Plan, but mitigation is required for the project. A Land Evaluation Site Assessment analysis has been prepared in accordance with the methodology recommended by the California Department of Conservation and the conversion of existing land on the project site to other uses has been determined to be significant under CEQA. Mitigation Measure AR1, as identified in Section 4.9 of this EIR/EA, would be required to either procure Agricultural Conservation Easements on a 2 to 1 basis for all 1,048.4 acres, of similar quality farmland, outside of the path of development, pay an in-lieu mitigation fee, or fully restore the solar site to a state suitable for agriculture upon completion of the project. Restoration of the solar site to a state suitable for agriculture upon completion of the project is proposed as a project design feature, and would also be included as a Condition of the Conditional Use Permit. As discussed in Section 4.9, implementation of Mitigation Measure AR1 would reduce this impact to a less than significant level under CEQA.

5.1.9.4 *Cumulative Impact Analysis*

The following provides a separate cumulative impact analysis for both CEQA and NEPA.

A. CEQA Impact Analysis

Continuing development within the County of Imperial will 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. As discussed above, the Proposed Action will result in the temporary loss of 1,048.4 acres of Important Farmland. With the implementation of Mitigation Measure AR1, this impact would be reduced to a level less than significant. The cumulative projects identified in Table 5.1.9-1 for which acreages of impacts are available would impact approximately 8,076 acres of farmland; for other projects, quantitative information was not available and therefore was not included within this evaluation. As

TABLE 5.1.9-1
List of Projects Considered for Agricultural Resources Cumulative Impact Analysis

	Project Name	Included in Agricultural Resources Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Agricultural Resources CI Analysis?	Impacts to Agricultural Resources (acres)
1	"S" Line Upgrade 230-kV Transmission Line Project	Yes	--	*Approximately Zero
2	Imperial Valley Solar (Formerly called SES Solar Two Project)	Yes	--	1,931
3	Sunrise Powerlink Transmission Project (CACA-047658)	Yes	--	36.2
4	Proposed Action-Imperial Solar Energy Center-West (CACA-51644)	Yes	--	1,048.4 ¹
5	Imperial Solar Energy Center-South (CACA-51645)	Yes	--	820.7 ¹
6	SDG&E Proposed Photovoltaic Solar Field (CACA-051625)	No	The project site is not located on agricultural land.	
7	North Gila to Imperial Valley #2 Transmission Line (CACA-51575)	No	The POD does not contain sufficient information details to analyze potential impacts of the project.	
8	Centinela Solar Power, LLC (CACA-052092)	No	<ol style="list-style-type: none"> 1. The POD has not been accepted by BLM and determined to be complete. 2. POD does not contain sufficient information details to analyze potential impacts of the project. 	
9	San Diego Gas & Electric (SDG&E) East County (ECO) Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects	No	ECO Substation components would not be located on land that is actively being farmed. The only exception is the 138-kV transmission line components, which would traverse approximately 1,750 linear feet of Ketchum Ranch land. Impacts were determined to be less than significant.	

	Project Name	Included in Agricultural Resources Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Agricultural Resources CI Analysis?	Impacts to Agricultural Resources (acres)
			<p>Construction and decommissioning of the Tule Wind Project would not interfere with active agricultural operations or convert farmland to agricultural use (No Impact).</p> <p>Construction activities would not interfere with active agricultural operations (No Impact).</p>	
10	Dixieland Connection to IID Transmission System	Yes	--	Permanent: 2.49 Temporary: 8.11
11	Mount Signal Solar Farm I-82LV 8ME, LLC (CACA-052325)	No	1. POD has not been accepted by BLM and determined to be complete. 2. POD does not contain sufficient information details to analyze potential impacts of the project.	1,375
12	Superstition Solar 1	No	The project site is not located on agricultural land.	
13-15	Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	No	The level of quantitative data available regarding these projects was insufficient to determine the potential impacts at the time this evaluation was prepared.	
16-21	Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	No	The development applications for these projects were received after the NOP was published.	
22	IV Solar Company	No	The project site not located on agricultural land.	
23	Chocolate Mountain	No	The level of quantitative data available regarding this project was	

Project Name		Included in Agricultural Resources Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Agricultural Resources CI Analysis?	Impacts to Agricultural Resources (acres)
			insufficient to determine the project's potential impacts at the time this evaluation was prepared.	
24	Ocotillo Express	No	The project site is not located on agricultural land.	
25-29	Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	No	The level of quantitative data available regarding these projects was insufficient to determine the potential impacts at the time this evaluation was prepared.	
30	LADWP and OptiSolar Power Plant	No	The project site is not located on agricultural land.	
31	Orni 18, LLC Geothermal Power Plant	Yes	--	19
32-37	Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	No	The project sites are not located on agricultural land.	
38	IV Substation (TermoElectrica US, LLC)	No	Existing transmission line, no new impact to agricultural resources would occur.	
39	IV Substation (Baja California Power, Inc., aka, Intergen)	No	Existing transmission line, no new impact to agricultural resources would occur.	
40	IV Substation (SDG&E)	No	Existing transmission line, no new impact to agricultural resources would occur.	
41	Las Aldeas Specific Plan	Yes	--	683
42	Linda Vista	Yes	--	80
43	Desert Village #6	Yes	--	55
44	Commons	Yes	--	85
45	Imperial Valley Mall	Yes	--	160
46	Miller Burson	Yes	--	160
47	Courtyard Villas	Yes	--	24

Project Name		Included in Agricultural Resources Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Agricultural Resources CI Analysis?	Impacts to Agricultural Resources (acres)
48	Willow Bend (East) & Willow Bend (West)	Yes	--	74
49	Lotus Ranch	Yes	--	213
50	Mosaic	Yes	--	201
51	Hallwood/Calexico Place 111 & Casino	Yes	--	231.8
52	Calexico Mega Park	Yes	--	133.3
53	County Center II Expansion	Yes	--	160
54	Desert Springs Resort	Yes	--	539
55-57	Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	No	The project sites are not located on agricultural land.	
58	Mixed-Use Development	Yes	--	36
59-62	Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	No	The project sites are not located on agricultural land.	
63	Cahuilla Gold Project	No	The level of quantitative data available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	

Note: * = Approximately Zero because agricultural operations can continue under transmission lines.

1= Temporary impact to agricultural resources

Source: BRG Consulting, Inc., 2011

discussed in Section 3.9 of this EIR/EA, in 2008 Imperial County had a total of 1,208,509 acres of agriculture land. As discussed in the 1993 Imperial County General Plan, approximately 46,000 acres in agricultural areas in Imperial County would be designated as Urban Area. As such, for those projects that quantitative information was not available, it is assumed that any conversion of agricultural land associated with these projects would be required to be consistent with the General Plan.

As with the Proposed Action, 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 545,612 acres in 2006.

In the County, the amount of agricultural land in production in any one year varies widely. As discussed in Section 5.2.1.12, 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 in Table 5.1.9-1 falls well within the annual variation of out-of-production/fallowed farmland.

The cumulative impact associated with agricultural conversion is approximately 1.4% of all County-wide important farmland.

For all of these reasons, the contribution of the Proposed Action to any potentially significant loss of farmland, if any, would not be considerable. The incremental impact of the loss of approximately 1,048.4 acres would be mitigated via full restoration of the solar site 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. Table 5.1.9-2 provides a comparison of the Proposed Action and Alternatives related to cumulative agricultural resources impacts.

B. NEPA Impact Analysis

No portion of the Proposed Action located within BLM lands is utilized for agriculture, nor is the land designated by BLM as agricultural lands. As discussed in Section 4.2 of this EIR/EA, the portion of the Proposed Action located within BLM lands is located entirely within the CDCA-designated Utility Corridor "N." The Proposed Action is designed to be consistent with the CDCA Plan, Yuha Desert ACEC Management Plan, and FTHL RMS. As such, development of the Proposed Action would not convert farmland to non-agricultural use or conflict with existing zoning for agriculture use. Therefore, the transmission line and access road components of the Proposed Action would not cumulatively impact agricultural resources located on BLM lands.

As discussed above in the CEQA Cumulative Impacts, the Proposed Action will result in the temporary loss of 1,048.4 acres of Important Farmland within Imperial County jurisdiction. Implementation of Mitigation Measure AR1 would compensate for the loss of agricultural land and reduce the project's cumulative impact within the County. The cumulative projects identified in Table 5.1.9-1 for which acreages of impacts are available would impact approximately 8,076 acres of farmland. For the other projects, quantitative information was not available at the time this EIR/EA was prepared; therefore, this information was not

included within this evaluation. As with the Proposed Action, 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 545,612 acres in 2006. Within the County the amount of agricultural land in production in any one year varies widely. As discussed in Section 5.2.1.12, 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 in Table 5.1.9-1 falls well within the annual variation of out-of-production/fallowed farmland. As concluded above, the incremental impact of the loss of approximately 1,048.4 acres would be mitigated via full restoration of the solar site 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. Table 5.1.9-2 provides a comparison of the Proposed Action and Alternatives related to cumulative agricultural resources impacts.

**TABLE 5.1.9-2
Comparison of Alternatives for Cumulative
Agricultural Resources Impacts**

Proposed Action	Alternative 1- Alternative Transmission Line Corridor	Alternative 2- Alternative Transmission Line Corridor	Alternative 3- Reduced Solar Energy Facility Site	Alternative 4-No Action/No Project Alternative
<i>CEQA Impact Analysis</i>				
The Proposed Action would impact 1,048.4 acres of agricultural lands designated as Farmland of Local Importance. The cumulative impact would total 10,089 acres.	The cumulative impact would be the same as the Proposed Action.	The cumulative impact would be the same as the Proposed Action.	Due to a reduced solar energy facility site, this alternative would reduce the agricultural impact to approximately 1,038.13 acres. Therefore, the cumulative impact to agricultural resources would be less than the Proposed Action.	This alternative would reduce the agricultural impact by 1,048.4 acres as the site would not be developed.
<i>NEPA Impact Analysis</i>				
The Proposed Action would impact 1,048.4 acres of agricultural lands designated as Farmland of Local Importance. The cumulative impact would total 10,089 acres.	The cumulative impact would be the same as the Proposed Action.	The cumulative impact would be the same as the Proposed Action.	Due to a reduced solar energy facility site, this alternative would reduce the agricultural impact to approximately 1,038.13 acres. Therefore, the cumulative impact to agricultural resources would be less than the Proposed Action.	This alternative would reduce the agricultural impact by 1,048.4 acres as the site would not be developed.

Source: BRG Consulting, Inc., 2011

5.1.10 *Health, Safety and Hazardous Materials/Fire and Fuels Management*

5.1.10.1 *Geographic Scope and Timeframe*

Table 5.1.10-1 lists the projects considered for the health, safety and hazardous materials/fire and fuels management cumulative impact analysis. The geographic scope considered for cumulative impacts from health, safety and hazardous materials/fire and fuels management is the area within 1 mile of the boundary of the Proposed Action site. One mile is the standard American Society of Testing and Materials (ASTM) standard search distance for hazardous materials. This one mile standard distance was also applied to other potential safety risks associated with fire and fuels management.

5.1.10.2 *Existing Conditions*

According to the Phase I ESA, the Proposed Action site contains some areas where hazardous materials may be present. These include the potential presence of pesticides/herbicide residue, scattered trash and debris, and fill material. Miscellaneous trash and debris was observed throughout the entire solar facility site. The Proposed Action site was previously used for agricultural purposes, which may present a hazard if there is contamination from pesticides and herbicides. However, the Proposed Action site is not included on a list of hazardous materials sites based on the ASTM Standard Practice E2247-08 database search conducted as part of the Phase I ESA.

5.1.10.3 *Summary of Effects of the Proposed Action*

Potential hazardous materials currently on or near the solar energy facility portion of the project site include pesticides and herbicides, scattered trash and debris, and fill material. There is a potential for residual low-level concentrations of pesticides and herbicides to be present in soil and/or groundwater. However, the Federal Insecticide, Fungicide, and Rodenticide Act authorizes the legitimate application of herbicides and pesticides used in accordance with manufacturer prescribed and labeled instructions. Under FIFRA, all pesticides that are distributed or sold in the United States must be registered (licensed) by EPA. As a result of regulations implemented under Section 307(a) of the Clean Water Act and the State Porter-Cologne Act, pesticide and herbicide applications are trending away from legacy chemicals that can take years to degrade. Therefore, the potential presence of low concentrations of agricultural chemicals on the solar energy facility site is considered to be insignificant.

As described above, the Proposed Action site contains scattered trash and debris. In addition, during project construction and operation of the solar facility, herbicides will be used for weed management. These are considered potentially significant impacts. However, with implementation of Mitigation Measures HM1 and HM2, as identified in Section 4.10 of this EIR/EA, these impacts would be reduced to below a minimum level. Mitigation HM1 would require all trash and debris within the project site to be disposed of off-site, in accordance with current, local, and federal disposal regulations. Mitigation Measure HM2 would require the approval of a weed control plan by the County of Imperial Agricultural Commissioner prior to application of herbicides on the solar facility. In addition, as discussed further in Section 4.12 of this EIR/EA, for the portion of the project site within BLM lands, invasive plant species would be prevented, controlled,

TABLE 5.1.10-1
List of Projects Considered for Health, Safety and Hazardous Materials/Fire and Fuels Management Cumulative Impact Analysis

Project Name		Included in Health, Safety and Hazardous Materials/Fire and Fuels Management Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Health, Safety and Hazardous Materials/Fire and Fuels Management CI Analysis?	Impacts to Health, Safety and Hazardous Materials/Fire and Fuels Management
1	"S" Line Upgrade 230-kV Transmission Line Project	No	The S Line upgrade replaces existing poles and lines and would not result in impacts to health and safety/hazardous materials.	N/A
2	Imperial Valley Solar (Formerly called SES Solar Two Project)	Yes	--	The 6,500-acre project site consists of approximately 6,140 acres of Federal land administered by BLM and 360 acres of private land subject to Imperial County jurisdiction. During construction, operations, and decommissioning, the project may result in potential risks to public health related airborne dust; equipment and vehicle emissions; use, handling, storage, and disposal of hazardous materials; and disturbance of contaminated materials. During operations, the project may result in risks associated with the use and storage of quantities of hydrogen on the site, potential spills of hazardous materials, transportation of hazardous materials seismic ground shaking, and site security. These impacts, however, would be reduced with the implementation of mitigation measures, project design features, and other measures to levels less than significant. No mitigation, project design features, or other

Project Name	Included in Health, Safety and Hazardous Materials/Fire and Fuels Management Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Health, Safety and Hazardous Materials/Fire and Fuels Management CI Analysis?	Impacts to Health, Safety and Hazardous Materials/Fire and Fuels Management
			measures have been identified for health and safety because the project would not result in significant impacts.
3	Sunrise Powerlink Transmission Project (CACA-047658)	Yes	-- Would extend for 150 miles and traverse numerous government jurisdictions and land use types. No significant and unavoidable impacts have been identified with health, safety and hazardous materials associated with project. Any impacts associated with the project would be reduced to levels less than significant with the implementation of mitigation measures.
4	Proposed Action-Imperial Solar Energy Center-West (CACA-51644)	Yes	-- The solar energy facility site is located within an unincorporated area of Imperial County and is predominately surrounded by agriculture and government land uses. Implementation of the project would result in significant impacts on health, safety, and hazardous materials, however, with the implementation of mitigation measures, these levels would be reduced to less than significant.
5	Imperial Solar Energy Center-South (CACA-51645)	Yes	-- The solar energy facility site is currently used for agricultural purposes. The proposed transmission line corridor is located in the desert. The proposed access road is located along an existing dirt road that is currently used by the IID and others for access to the Westside Main Canal in the area. Implementation of the project would result in significant impacts on health, safety, and hazardous materials, however, with the implementation of mitigation measures, these levels would be reduced to less than significant.
6-8	*Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact	No	The level of qualitative data available regarding these projects was insufficient

Project Name	Included in Health, Safety and Hazardous Materials/Fire and Fuels Management Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Health, Safety and Hazardous Materials/Fire and Fuels Management CI Analysis?	Impacts to Health, Safety and Hazardous Materials/Fire and Fuels Management	
	Analysis		to determine the project's potential impacts at the time this evaluation was prepared.	
9	San Diego Gas & Electric (SDG&E) East County (ECO) Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects	No	This project occurs outside the scope for cumulative projects for this resource issue.	N/A
10	Dixieland Connection to IID Transmission System	Yes	--	The resultant impacts of the proposed project are identified as less than significant and therefore, no mitigation measures are required.
11	Mount Signal Solar Farm I- (82 LV 8ME, LLC (CACA-052325)	No	The level of qualitative data available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
12-21	*Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
22	IV Solar Company	No	The level of qualitative data available regarding this project was insufficient to	

Project Name	Included in Health, Safety and Hazardous Materials/Fire and Fuels Management Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Health, Safety and Hazardous Materials/Fire and Fuels Management CI Analysis?	Impacts to Health, Safety and Hazardous Materials/Fire and Fuels Management
			determine the project's potential impacts at the time this evaluation
23-29	*Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	No	These projects occur outside the scope for cumulative projects for this resource issue. N/A
30	LADWP and OptiSolar Power Plant	No	Applicant withdrawn N/A
31	Orni 18, LLC Geothermal Power Plant	No	This project occurs outside the scope for cumulative projects for this resource issue. N/A
32	U.S. Naval Air Facility El Centro	No	This project is an existing facility that has been included in the evaluation of existing conditions. N/A
33-34	*Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	No	These projects occur outside the scope for cumulative projects for this resource issue. N/A
35	U.S. Gypsum Mining	No	This project occurs outside the scope for cumulative projects for this resource issue. N/A

Project Name		Included in Health, Safety and Hazardous Materials/Fire and Fuels Management Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Health, Safety and Hazardous Materials/Fire and Fuels Management CI Analysis?	Impacts to Health, Safety and Hazardous Materials/Fire and Fuels Management
36	California State Prison, Centinela	No	This project is an existing facility that has been included in the evaluation of existing conditions.	N/A
37	Recreation Activities	No	The efforts associated with ongoing OHV recreation activities do not include expansion or changes in the existing activities that would result in adverse effects to hazards.	N/A
38	IV Substation (TermoElectrica US, LLC)	Yes	--	Transmission line workers and recreational visitors may be exposed to magnetic field exposure. However, exposure data suggest that temporary exposure would not result in adverse health impacts. Also, there may be a small increase in asthma due to air pollutant emissions.
39	IV Substation (Baja California Power, Inc., aka, Interger)	Yes	--	Transmission line workers and recreational visitors may be exposed to magnetic field exposure. However, exposure data suggest that temporary exposure would not result in adverse health impacts. Also, there may be a small increase in asthma due to air pollutant emissions.

Project Name		Included in Health, Safety and Hazardous Materials/Fire and Fuels Management Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Health, Safety and Hazardous Materials/Fire and Fuels Management CI Analysis?	Impacts to Health, Safety and Hazardous Materials/Fire and Fuels Management
40	IV Substation (SDG&E)	No	This project is an existing transmission line that has been included in the evaluation of existing conditions.	N/A
41-63	*Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A

Source: BRG Consulting, Inc., 2011

and treated through an Integrated Pest Management approach per the *Vegetation Treatments on Bureau of Land Management Lands in 17 Western States Programmatic Environmental Report* (PER 2007). A *Final Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States Programmatic Environmental Impact Statement* (PEIS, 2007).

During project construction and after construction of the transmission line corridor, maintenance is required regarding weed control on BLM lands, as identified in Mitigation Measure B2. To minimize the introduction and spread of weed species and use of herbicides, a weed management plan will be developed and implemented on the project components (transmission line corridor and access road) located on BLM lands.

Prior to construction, a Hazardous Material Management Program (HMMP) will be developed and implemented. The HMMP will be in accordance with federal and state requirements. The HMMP will be in accordance with Federal and State requirements. At a minimum, the HMMP will include procedures for hazardous material handling, use and storage; emergency response; spill control and prevention; employee training; and, record keeping and reporting. Due to these provisions, a less than significant impact is identified related to the transport and use of hazardous materials during construction and operation of the Proposed Action.

No significant fire hazard impact would occur with implementation of the Proposed Action because a Fire Protection Prevention Plan consistent with federal, state, and local standards for fire protection will be implemented. The Plan will address construction and operation activities for the project, and establish standards and practices that will minimize the risk of fire danger, and in the case of fire, provide for immediate suppression and notification. The Fire Protection and Prevention Plan will address spark arresters, smoking and fire rules, storage and parking areas, use of gasoline-powered tools, road closures, use of a fire guard, and fire suppression equipment and training requirements. All areas used for dispensing or storage of gasoline, diesel fuel or other oil products will be cleared of vegetation and other flammable materials. These areas would be posted with signs identifying they are “No Smoking” areas. A less than significant fire hazard impact under CEQA would occur with implementation of the Proposed Action.

The potential impact of the proposed transmission line on human health is considered less than significant due to its proposed location within a designated utility corridor and the rural agricultural setting of the surrounding area.

The proposed facility presents an unlikely target for an intentionally destructive act and has an extremely low probability of attack. Preventative measures (fences, gates, lighting) and safeguards (cameras and gatehouse) for the facility would restrict vehicle access and deter intentionally destructive acts. As such, no significant environmental impacts would be expected from physical damage to the Proposed Action or from loss of power delivery.

5.1.10.4 Cumulative Impact Analysis

The following provides a separate cumulative impact analysis for both CEQA and NEPA.

A. CEQA Impact Analysis

Other than the Dixieland project, which the proposed transmission line would run parallel to the Proposed Action's transmission line, there are no cumulative projects close to the Proposed Action site that would contribute to cumulative adverse health, safety and hazardous materials/fire and fuels management impacts. A less than significant health, safety and hazardous materials/fire and fuels management impact has been identified for the Dixieland project, because the Applicant for the Proposed Action will coordinate with the IID during construction and operation based on the potential road and corridor sharing to further minimize cumulative impacts. In addition, cumulative projects that are not located within 1 mile of the boundary of the Proposed Action site would be outside of the geographic scope of the consideration of an impact. Thus, development of the Proposed Action would not contribute to a significant, cumulative health, safety and hazardous materials/fire and fuels management impact. Furthermore, the health, safety and hazardous materials/fire and fuels management conditions are limited to the Proposed Action site and would be mitigated with implementation of Mitigation Measures HM1 and HM2, as identified in Section 4.10 of this EIR/EA; Mitigation Measure B2, as identified in Section 4.12 of this EIR/EA; and, the implementation of an HMMP and FPPP. The Mitigation Measures, as well as the HMMP and FPPP would reduce the Proposed Action's impacts to a very low level. Thus, the Proposed Action's incremental contribution to any potential cumulative impacts would not be considerable. Table 5.1.10-2 provides a comparison of the Proposed Action and Alternatives related to cumulative health, safety and hazardous materials/fire and fuels management impacts.

B. NEPA Impact Analysis

As discussed above, IID's Dixieland project is the only cumulative project with the potential to contribute to cumulative adverse health, safety and hazardous materials/fire and fuels management impacts. Projects that are not located within 1 mile of the boundary of the Proposed Action site would be outside of the geographic scope of the consideration of an impact from hazardous materials sites. Furthermore, the health, safety and hazardous materials/fire and fuels management conditions are limited to the Proposed Action site and would be mitigated with implementation of Mitigation Measures HM1 and HM2, as identified in Section 4.10 of this EIR/EA; Mitigation Measure B2, as identified in Section 4.12 of this EIR/EA; and, the implementation of an HMMP and FPPP. Thus, the Proposed Action's incremental contribution to cumulative impacts is minimal and mitigated. Table 5.1.10-2 provides a comparison of the Proposed Action and Alternatives related to cumulative health, safety and hazardous materials/fire and fuels management impacts.

TABLE 5.1.10-2
Comparison of Alternatives for Cumulative
Impacts Relating to Health, Safety and Hazardous Materials/
Fire and Fuels Management

Proposed Action	Alternative 1- Alternative Transmission Line Corridor	Alternative 2- Alternative Transmission Line Corridor	Alternative 3- Reduced Solar Energy Facility Site	Alternative 4-No Action/No Project Alternative
<i>CEQA Impact Analysis</i>				
The potential cumulative impacts to Health, Safety and Hazardous Materials/Fire and Fuels Management of the Proposed Action plus cumulative projects would be mitigated to less than significant levels under CEQA..	As with the Proposed Action, the potential cumulative impacts associate with this Alternative to Health, Safety and Hazardous Materials/Fire and Fuels Management of the Proposed Action plus cumulative projects would be mitigated to less than significant levels under CEQA.	As with the Proposed Action, the potential cumulative impacts associate with this Alternative to Health, Safety and Hazardous Materials/Fire and Fuels Management of the Proposed Action plus cumulative projects would be mitigated to less than significant levels under CEQA.	As with the Proposed Action, the potential cumulative impacts associate with this Alternative to Health, Safety and Hazardous Materials/Fire and Fuels Management of the Proposed Action plus cumulative projects would be mitigated to less than significant levels under CEQA.	This alternative would not result in a significant, cumulative impact to health, safety and hazardous materials/fire and fuel management.
<i>NEPA Impact Analysis</i>				
No cumulative impact under NEPA to health, safety and hazardous materials/fire and fuel will result with the implementation of the Proposed Action.	As with the Proposed Action, this Alternative would not result in a cumulative impact under NEPA to health, safety and hazardous materials/fire and fuel management.	As with the Proposed Action, this Alternative would not result in a cumulative impact under NEPA to health, safety and hazardous materials/fire and fuel management.	As with the Proposed Action, this Alternative would not result in a cumulative impact under NEPA to health, safety and hazardous materials/fire and fuel management.	This alternative would not result in a cumulative impact under NEPA to health, safety and hazardous materials/fire and fuel management.

Source: BRG Consulting, Inc., 2011.

5.1.11 Hydrology and Water Quality

5.1.11.1 *Geographic Scope and Timeframe*

Table 5.1.11-1 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 Hydrological Unit as defined by the Colorado Basin RWQCB Basin Plan (2006), which is the scope of the Proposed Action and alternatives' direct and indirect effects.

5.1.11.2 *Existing Conditions*

As discussed in section 3.11, the existing land use for the solar energy facility site is land previously used for agricultural production. The existing drainage patterns at the solar energy facility site indicates that onsite storm runoff ponds in many locations, with any excess gradually flowing east towards the Westside Main Canal. Existing irrigation ditches and culverts around the perimeter of many of the fields also convey runoff. There are two locations where offsite flows from the Yuha Desert enter the Proposed Action solar energy facility site. These locations are breaches through the agricultural berm that defines the western boundary of the solar energy facility site.

There are two locations where offsite flows from the Yuha Desert enter the Proposed Action solar energy facility site. These locations are breaches through the agricultural berm that defines the western boundary of the site. The breaches are referred to as the north and south breaches. The north breach cannot be repaired, as offsite runoff would then pond on the land west of the site. However, the south breach will be repaired, and flow will be routed south to the offsite wash that parallels the southern border of the solar energy facility site.

The majority of the solar energy facility site is in an area determined to be outside of the 0.2% annual chance floodplain. A portion of the solar energy facility site, south of Interstate 8 is located in Zone A, which is an area subject to 1% annual chance of a flood.

The impaired waterbodies listed on the 303(d) list include the New River and Salton Sea. Groundwater in the area is not used for municipal or domestic supply and there are no nearby wells.

5.1.11.3 *Summary of Effects of the Proposed Action*

As discussed in Section 4.11 of this EIR/EA, the transmission line corridor portion of the Proposed Action will not result in significant hydrology and water quality impacts for the following reasons: (1) the proposed transmission line will not change in current topography; (2) the proposed transmission line would result in a minimal impervious footprint due to the minimal area required for transmission pole and tower footings; and, (3) access roads will remain pervious.

The runoff on the solar energy facility portion of the Proposed Action site would be intercepted and collected at various points. Drainage infrastructure would include detention basins, under-panel detention, and existing drains and culverts. The proposed onsite drainage will be designed to replicate the existing condition.

TABLE 5.1.11-1
List of Projects Considered for Hydrology and Water Quality Cumulative Impact Analysis

Project Name		Included in Hydrology and Water Quality Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Hydrology and Water Quality CI Analysis?	Impacts to Hydrology and Water Quality
1	"S" Line Upgrade 230-kV Transmission Line Project	No	The project replaces existing poles along the existing S Line transmission facility.	N/A
2	Imperial Valley Solar (Formerly called SES Solar Two Project)	Yes	--	<p>With the implementation of mitigation measures addressing construction and operation phases, Project Design Features, and other measures, impacts to hydrology and water quality resources would be mitigated to levels considered to be less than significant. The projected water use for the project is estimated to be approximately 33,550 gallons per day (gpd) or approximately 32.7 acre feet (af) per year. To meet the increased water demands, the applicant committed to financing an upgrade to the Seeley Wastewater Treatment Plant (SWWTP) to meet water needs for the project. Additionally, the applicant would construct a pipeline from the SWWTP to the project site to make approximately 200,000 gpd available to the project.</p> <p>This project is located on approximately 6,500 acres of vacant land; 6,140 ac of which are on federal land administered by BLM and 360 ac are privately owned land.</p>
3	Sunrise Powerlink Transmission Project (CACA-047658)	Yes	--	Implemented mitigation measures would result in impacts less than significant to hydrology and water quality. Impacts associated with construction activities were found to be less than significant or less than significant with the implementation of mitigation measures. Primary source of construction related impacts are access roads and transmission towers due to the potential of disturbing sediments and releasing contaminants

Project Name	Included in Hydrology and Water Quality Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Hydrology and Water Quality CI Analysis?	Impacts to Hydrology and Water Quality
			that could enter surface water or groundwater. These impacts, however, would be mitigated to levels less than significant. Impacts associated with operations would primarily be related to the towers which could obstruct flows or be, themselves, subject to damage from flooding or erosion. As with construction, any impacts found to be significant with operations would be mitigated to levels less than significant.
4	Proposed Action-Imperial Solar Energy Center-West (CACA-51644)	Yes	<p>--</p> <p>The Proposed Action would not result in a significant hydrology impact. Onsite drainage will be designed to replicate the existing conditions and the project site will maintain all existing condition points of discharge. The construction of drainage infrastructure will reduce peak flow rates.</p> <p>Contamination associated with urban non-point source pollution could enter the on-site detention basins as a result of construction or post-construction related activities. However, implementation of the mitigation measure identified in the EIR/EA would reduce the impact to a level less than significant.</p>
5	Imperial Solar Energy Center-South (CACA-51645)	Yes	<p>--</p> <p>The ISEC South project would not result in a significant hydrology impact. Onsite drainage will be designed to replicate the existing conditions and the project site will maintain all existing condition points of discharge. The construction of drainage infrastructure will reduce peak flow rates.</p> <p>Contamination associated with urban non-point source pollution could enter the on-site detention basins as a result of construction or post-construction related activities. However, implementation of the mitigation measure identified in the EIR/EA would reduce the impact to a level less than significant.</p>

Project Name		Included in Hydrology and Water Quality Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Hydrology and Water Quality CI Analysis?	Impacts to Hydrology and Water Quality
6	SDG&E Proposed Photovoltaic Solar Field (CACA-051625)	Yes-qualitative	--	See general discussion in Section 5.1.11.4.
7	North Gila to Imperial Valley #2 Transmission Line (CACA-51575)	Yes –qualitative.	The level of quantitative data available regarding this project was insufficient to determine the project’s potential impacts at the time this evaluation was prepared.	See general discussion in Section 5.1.11.4
8	Centinela Solar Power, LLC (CACA-052092)	Yes	--	The results of the initial study found no impacts related to Hydrology and Water Quality. However, BLM is in the process of drafting NEPA document and consequently additional project-specific information is required.
9	San Diego Gas & Electric (SDG&E) East County (ECO) Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects	No	This project occurs outside the scope of cumulative projects for this resource issue.	N/A
10	Dixieland Connection to IID Transmission System	Yes	--	Although the project alignment is located within the Salton Sea Transboundary Watershed, which has been identified as a Class I (impaired) watershed, the project would not violate any water quality standards or waste discharge requirements and thus, would result in less than a significant impact. Construction activities resulting in storm water runoff or wastewater would have to be managed in accordance with an approved SWPPP. Because other project related impacts are also

	Project Name	Included in Hydrology and Water Quality Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Hydrology and Water Quality CI Analysis?	Impacts to Hydrology and Water Quality
				<p>identified as less than significant, no mitigation measures are required.</p> <p>Approximately 63.50 acres of impacts are estimated for the project (30.03 permanent and 33.47 temporary).</p>
11	Mount Signal Solar Farm I- (82 LV 8ME, LLC (CACA-052325))	No – but impacts would likely be similar to those identified in cumulative impact analysis.	<ol style="list-style-type: none"> 1. POD has not been accepted by BLM and determined to be complete. 2. POD does not contain sufficient information details to analyze potential impacts of the project, but impacts would likely be similar to the qualitative impacts addressed in Section 5.1.11.4.. 	N/A
12-21	*Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	Yes – qualitative.	--	See general discussion in Section 5.1.11.4.
22	IV Solar Company	Yes – qualitative.	--	See general discussion in Section 5.1.11.4.
23	Chocolate Mountain	Yes – qualitative.	--	See general discussion in Section 5.1.11.4.
24	Ocotillo Express	No	This project occurs outside the scope of	N/A

Project Name	Included in Hydrology and Water Quality Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Hydrology and Water Quality CI Analysis?	Impacts to Hydrology and Water Quality
		cumulative projects for this resource issue.	
25-31	*Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	Yes - qualitative	The level of quantitative data available regarding these projects was insufficient to determine the potential impacts at the time this evaluation was prepared.
32	U.S. Naval Air Facility El Centro	No	This project is an existing facility that has been included in the evaluation of existing conditions.
33-34	*Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	No	This project is an existing facility that has been included in the evaluation of existing conditions.
35	U.S. Gypsum Mining	No	The efforts associated with ongoing recreation activities do not include expansion or changes in the existing activities that would result in new adverse effects to hydrology or water quality.
			See general discussion in Section 5.1.11.4 relative to geothermal projects.
			N/A
			These are part of the Imperial Valley Solar Project. Per the FEIS, impacts to surface water, flooding, surface water quality, and groundwater quality have been mitigated such that impacts are not adverse. Project mitigation includes a Drainage Erosion and Sedimentation Control Plan, compliance with Industrial Facility SWPPP, NPDES General Permit for Construction Activity, Waste Discharge Requirements for evaporation ponds, and Storm Water Damage Monitoring and Response Plan.
			This project occurs outside the scope for cumulative projects for this resource issue.

Project Name		Included in Hydrology and Water Quality Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Hydrology and Water Quality CI Analysis?	Impacts to Hydrology and Water Quality
36	California State Prison, Centinela	No	This project is an existing facility that has been included in the evaluation of existing conditions.	N/A
37	Recreation Activities	No	The efforts associated with ongoing OHV recreation activities do not include expansion or changes in the existing activities that would result in new adverse effects to hydrology or water quality.	N/A
38	IV Substation (TermoElectrica US, LLC)	Yes	--	Impacts directly associated with project plant operations include a reduction in the flow of water to the New River due to water extractions from the Zaragoza Oxidation Lagoons and alteration of water quality of the New River.
39	IV Substation (Baja California Power, Inc., aka, Intergen)	Yes	--	Impacts directly associated with project plant operations include a reduction in the flow of water to the New River due to water extractions from the Zaragoza Oxidation Lagoons and alteration of water quality of the New River.
40	IV Substation (SDG&E)	Yes	--	Additional project specific information is required.
41	Las Aldeas Specific Plan	Yes	--	The proposed project will alter existing surface drainage patterns and increase impervious surfaces by constructing buildings, roadways, parking lots, and other concrete/asphalt surfaces on the site. Placing portions of existing drains underground could affect efficiency of flows where gradient or

Project Name	Included in Hydrology and Water Quality Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Hydrology and Water Quality CI Analysis?	Impacts to Hydrology and Water Quality
			capacity changes, leading to potential flood conditions. Implementation of the mitigation measures identified in the EIR would reduce the impact to hydrology below the level of significance.
42	Linda Vista	Yes - qualitative	See general discussion in Section 5.1.11.4.
43	Desert Village #6	Yes - qualitative	See general discussion in Section 5.1.11.4.
44	Commons	Yes	<p>--</p> <p>Runoff from the Imperial Valley Commons can be safely collected and conveyed during a 10-year storm event and protected from flooding during a 100-year storm using the basin design concepts and preliminary drainage system presented in the Hydrology Study prepared for the project.</p> <p>The proposed project would not substantially degrade water quality while satisfying local stormwater runoff requirements nor substantially degrade or deplete groundwater resources or interfere substantially with groundwater recharge.</p> <p>The construction of the detention basin and preparation of and compliance with the SWPPP would ensure that the project did not cause substantial flooding, erosion, or siltation in either the construction or post-construction period.</p>
45-49	*Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	Yes - qualitative	<p>These projects are all within the City of El Centro. In accordance with the City's Conservation and Open Space Element, under the City's NPDES storm water permit, "all development and significant redevelopment must be implemented with runoff control measures" (BMPs). "Proposed development projects (both public and private) within El Centro must incorporate structural and non-structural BMPs to preclude significant water quality impact from non-point source pollutants." Based on the City's NPDES permit, it is</p>

	Project Name	Included in Hydrology and Water Quality Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Hydrology and Water Quality CI Analysis?	Impacts to Hydrology and Water Quality
				<p>expected that cumulative water quality impacts would not be significant or considerable.</p>
50	Mosaic	Yes		<p>Because a majority of the project site is currently undeveloped, proposed development will create an increase in impervious surface area and there will be a corresponding level of increased stormwater runoff volumes. However, the development of the site will not cause any diversion to or from the existing condition watershed.</p> <p>Contamination associated with urban non-point source pollution could enter the on-site detention basins as a result of construction or post-construction-related activities, resulting in potentially significant water quality impacts. However, implementation of mitigation measures identified in the EIR would reduce impacts to below a level of significance.</p> <p>No significant impact regarding flooding.</p>
51	Hallwood/Calexico Place 111 & Casino	Yes	--	<p>Implementation of the proposed project has the potential to result in a violation of water quality standards in local surface waters through sedimentation/siltation or emissions from construction related activities. This issue is considered a significant impact but would be reduced to a level less than significant with implementation of mitigation measures.</p> <p>The implementation of the proposed project will result in an increased amount of impervious surfaces on the project site, which creates the potential for runoff during a storm event to transport pollutants to local surface waters. As such, the implementation of the proposed project will result in a significant long-term impact to surface water quality. This issue</p>

Project Name	Included in Hydrology and Water Quality Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Hydrology and Water Quality CI Analysis?	Impacts to Hydrology and Water Quality
			<p>is considered a significant impact but would be reduced to a level less than significant with implementation of mitigation measures.</p> <p>No significant impact regarding flooding.</p>
53	County Center II Expansion	Yes	<p>--</p> <p>The proposed project would include the construction of hardscape surfaces associated with the various uses on the project site. Because a majority of the project site is currently undeveloped, proposed development will create an increase in impervious surface area and there will be a corresponding level of increased stormwater runoff volumes. This is considered a significant impact but would be reduced to a level less than significant with implementation of mitigation measures.</p> <p>In addition, short-term and long-term water quality impacts are anticipated. This is considered a significant impact but would be reduced to a level less than significant with implementation of mitigation measures.</p>
54	Desert Springs Resort	Yes	<p>--</p> <p>Impacts to water quality, upon the implementation of mitigation measure HWQ-1 would be reduced to a level less than significant.</p>
55	Coyote Wells (Wind Zero)	No	<p>This project occurs outside the scope for cumulative projects for this resource issue.</p> <p>N/A</p>
56-60	* Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact	Yes - qualitative	<p>--</p> <p>See general discussion in Section 5.1.11.4.</p>

Project Name		Included in Hydrology and Water Quality Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Hydrology and Water Quality CI Analysis?	Impacts to Hydrology and Water Quality
	Analysis			
61	Mixed Use Recreation	No	The efforts associated with ongoing OHV recreation activities do not include expansion or changes in the existing activities that would result in new adverse effects to hydrology or water quality.	N/A
62	Seeley Wastewater Treatment Plant Upgrade	Yes	--	At this time, it is uncertain whether the SWWRF upgrade and associated activities would result in significant impacts to water. Additional hydrologic studies are required.
63	Cahuilla Gold Project	No	The level of quantitative data available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was	This project will result in a hydrology impact; however, with the installation of a construction buffer and preparation of a SWPPP, the project would not result in a significant impact.

Source: BRG Consulting, Inc., 2011

According to hydrograph analyses, the proposed improvements at the Proposed Action solar energy facility site will not result in significant increases in peak flow rates and volumes. Implementation of the Proposed Action would not contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems.

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map, the majority of the solar energy facility site is in an area determined to be outside of the 0.2% annual chance floodplain. A portion of the solar energy facility site, south of Interstate 8 is located in Zone A, which is an area subject to 1% annual chance of a flood. Based on a floodplain analysis, the Proposed Action will not increase floodplain elevations. After the engineered berm is constructed, all of the 100-year runoff in the Yuha Wash will be routed easterly to an existing weir to receive flows into the Westside Main Canal. The Proposed Action will not place housing within a 100-year flood hazard area or impede flood flow. As such, the potential flood hazard associated with a 100-year floodplain or failure of a dam is considered less than significant under CEQA. There is no potential for the project site to be inundated by seiches, tsunamis, or mudflows, because the site is more than two miles away from the nearest lake and over 100 miles from the Pacific Ocean.

Contamination associated with urban non-point source pollution (e.g., grease, oils, sediment, and heavy metals) could enter the on-site detention basins as a result of construction or post-construction related activities. The project applicant would obtain permit coverage under the appropriate National Discharge Pollution Discharge Elimination System (NPDES) general permit, and comply with the Federal Clean Water Act, Section 402(p)(1) and 40 CFR 122.26, and implemented Order No. 90-42 of the California Regional Water Quality Control Board. In addition, implementation of Mitigation Measure HWQ1, as identified in Section 4.11 of this EIR/EA, will reduce water quality impacts by requiring, among other things, the use of Best Management Practices, efficient design, and maintenance of the drainage infrastructure.

A significant impact to ACE, CDFG and RWQCB jurisdictional water resources is anticipated from construction of the transmission line. However, with the implementation of Mitigation Measure B8, this impact will be reduced to a level less than significant under CEQA. Mitigation Measure B8 would mitigate the jurisdictional resources impact through mitigation ratios. In addition, a Section 1600 Streambed Alteration Agreement would need to be authorized for the impact to CDFG resources. See Section 4.12 Biological Resources for a full analysis of the Proposed Action's impact to jurisdictional waters.

Cumulative impact to groundwater quality is not evaluated as groundwater in the area is not used for municipal or domestic supply and there are no nearby wells. In addition, the project will not generate or dispose of runoff in a manner that would impact groundwater. All water in the County is supplied by the Imperial Irrigation District, which has rights to 3.2 MAFY of Colorado River water. The existing site is currently vacant and does not use water. Approximately 200 acre feet of water will be used to decommission the facility. A majority of this water use is related to dust suppression activities and the grading activities required to restore the facility to an agricultural use. When compared to the 15 acre feet per acre per year of water required for agricultural use, the 200 acre feet required to re-establish agricultural use for the entire site is minimal. The Applicant for this project currently has an agreement with IID, for IID to continue to

service the site with water. IID In addition, the Proposed Action does not propose to use the groundwater as a water source; therefore groundwater supplies would not be affected.

5.1.11.4 Cumulative Impact Analysis

The following provides a separate cumulative impact analysis for both CEQA and NEPA.

A. CEQA Impact Analysis

The construction of the solar energy facility portion of the Proposed Action is 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 Proposed Action. Therefore, substantial short-term cumulative water quality impacts may occur during simultaneous construction of the Proposed Action and other cumulative projects identified in Table 5.1.11-1. 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 Proposed Action, each of the cumulative projects would be required to comply with the Construction General Permit.

A qualitative analysis of cumulative water quality impacts associated with storm water runoff during construction activities is provided. Numeric data for construction-related storm water discharge is not available for the majority of the construction projects considered in this analysis; nor was the Proposed Action's impacts with respect to this issue area quantified numerically. The methodology is based on the comprehensive regulatory structure of the Construction General Permit, which would apply to each of the identified cumulative projects because each exceeds the one-acre size threshold for coverage under the CGP. The Statewide Construction General Permit requires development and implementation of rain event action plans, adherence to numeric effluent limits, monitoring, and reporting, as well as implementation of numeric action plans in certain cases. Further, the Construction General Permit requires post-construction storm water runoff site planning to achieve onsite water balance. 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. The State Water Board found that "discharges in compliance with this General Permit will not result in the lowering of water quality standards" and that compliance with the General Permit "will result in improvements in water quality." Order No. 2009-0009-DWQ, page 2.

The Proposed Action is not expected to result in long-term operations-related impacts related to water quality. The Proposed Action would mitigate potential water quality impacts by implementing site design, source control, and treatment control BMPs. All of the cumulative projects would require compliance with some type of water quality plan, policy, or permit. Examples, include the SWRCB's National Discharge Pollution Discharge Elimination System (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 California Regional Water Quality Control Board. The cities, such as El Centro, and Imperial County have NPDES permits in place that require all development and significant redevelopment projects to incorporate structural and non-structural BMPs to preclude significant water quality impact from non-point source pollutants. (El Centro General Plan, Conservation/Open Space Element, page COS-3; Imperial County Engineering Design

Guidelines Manual (retention basins to capture rainfall) and Imperial County Water Element and Conservation and Open Space Element of the General Plan, and Imperial County Land Use Ordinance, Title 9 Divisions 10 and 22. Quantitative information for cumulative projects considered for long-term water quality impacts was not available; however, the impacts of cumulative projects were assessed in two ways. First, where an environmental document provided information on the cumulative project's effects, the impacts noted in that document were summarized in Table 5.1.11-1.

Second, where the information was not available, a general assessment was made based on the type of use and the federal, state and local requirements that would apply to the cumulative project and mitigate water quality impacts. The cumulative projects include other renewable energy projects, residential, mixed-use and commercial, mining (sand and gravel and gold), and a variety of other types of projects such as upgrading generators, border fence and a law enforcement training facility. In general, the cumulative projects would have the same types of effects as those described in Table 5.1.11.1, which summarizes information from cumulative project environmental documents. These types of effects are, in summary: increased impervious surfaces, increased erosion, increased sediment load (although sediment load on sites in agricultural use are generally decreased with development), and increased and additional surface water pollutants. As described in the Regulatory Framework, Section 3.11.1, a number of laws, policies and regulations control water quality impacts of development and reduce the impacts to mandated levels. With implementation of SWRCB, CRRWQCB, BLM, County and City policies, plans, and ordinances governing land use activities that may degrade or contribute to the violation of water quality standards, cumulative impacts with regard to water quality would be considered less than significant under CEQA.

One type of renewable energy project warrants some additional discussion. Projects 25-29 and 31 on Table 5.1.11.1 are geothermal projects. Geothermal projects will have similar impacts to those identified above for many of the power plant facilities and the access roads and those impacts will also be mitigated through compliance with laws, ordinances and regulations. Geothermal projects also have the potential to discharge fluids from drilling operations and to impact groundwater if fresh water aquifers are not adequately protected from contamination by hot saline brine (County of Imperial General Plan, Geothermal/Alternative Energy and Transmission Element, 2006). As described in the Geothermal/Alternative Energy and Transmission Element of the Imperial County General Plan, a "wide variety of federal, state, and local agencies regulate and monitor geothermal exploration and development in Imperial County" (on page 16). The Region 7 RWQCB issues permits for discharges that could affect water quality, including discharges from drilling operations. On non-federal land, the California Division of Oil, Gas, and Geothermal Resources oversees the wells for discovery and production of geothermal resources (Public Resources Code, Section 3700). Geothermal operations on federal lands are governed by the Geothermal Steam Act of December 24, 1970 (Public law 91-5810). In addition, geothermal projects in Imperial County require a Conditional Use Permit. With the regulatory and permitting scheme applicable to geothermal development, the impacts of the cumulative geothermal projects are expected to be mitigated to less than significant levels.

Another project is the Cahuilla Gold Project, based on the initial study prepared for this project, a hydrology impact was identified for this project. However, with the installation of a construction buffer and

preparation of a Stormwater Pollution Prevention Plan (SWPPP) the project would not result in a significant impact.

Based on a review of the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map, the majority of the project site and the majority of the cumulative projects listed in 5.1.11-1 are not located within Zone X, which is an area determined to be outside of the 0.2% annual chance floodplain. However, a portion of the solar energy facility site of the Proposed Action and six of the cumulative projects listed on 5.1.11-1 (Granite Carroll Sand and Gravel Mine, Imperial Valley Solar, Black Rock Unit #1 2 3, Coyote Wells (Wind Zero), SDG&E Proposed Photovoltaic Solar Field, and Ocotillo Express) are within or near flood Zone A, 100-year floodplain. However, construction of these projects is required to comply with federal, state, and local regulations regarding development within a 100-year floodplain. As such, the Proposed Action would not result in a significant cumulative flooding hazard impact. Table 5.1.11-2 provides a comparison of the Proposed Action and Alternatives related to cumulative hydrology and water quality impacts.

B. NEPA Impact Analysis

The project site is currently obtains water service from IID and the Applicant has obtained an agreement to continue to receive water from IID for this project. According to the IID 2009 Annual Water Report, IID in 2009 had perfected rights to 2,600,000 acre feet of water from the Colorado River. Of this allocated amount IID delivered 2,350,793 acre feet in 2009. As described in Section 4.11.1.1, a more than adequate water supply is available for the solar energy facility portion of the Proposed Action. Therefore, there are no water supply impacts associated with the Proposed Action and there will likewise not be a contribution to a cumulative water supply impact. The construction of the solar energy facility portion of the Proposed Action is 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 Proposed Action. Therefore, substantial short-term cumulative water quality impacts may occur during simultaneous construction of the Proposed Action and other cumulative projects identified in Table 5.1.11-1. However, compliance with the SWRCB's National Discharge Pollution Discharge Elimination System (NPDES) general permit for activities associated with construction would reduce water quality impacts. As with the Proposed Action, each of the cumulative projects would be required to comply with the Construction General Permit. The State Water Resources Control Board has determined that the Construction General Permit provides sufficient and appropriate management requirements to protect the quality of receiving waters from discharges of storm water from construction sites.¹ Order No. 2009-0009-DWQ, Fact Sheet, page 7. Because the proposed project, and each of the cumulative projects, must comply with the permit, cumulative construction activities will not adversely impact receiving waters.

The Proposed Action is not expected to result in long-term operations-related impacts related to water quality. The Proposed Action 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 National Discharge Pollution Discharge Elimination System (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

¹ The Regional Water Quality Control Board has the authority to require that a specific construction project obtain an individual permit if the Construction General Permit will not adequately protect water quality.

implemented Order No. 90-42 of the California Regional Water Quality Control Board. Other Cumulative Projects would require compliance with a City or County NPDES permit. For example, as described earlier, the City of El Centro requires structural and non-structural BMPs to preclude significant water quality impact from non-point source pollutants. (El Centro General Plan, Conservation/Open Space Element, page COS-3). 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, cumulative water quality impacts associated with the operation of the Proposed Action would be reduced. Because the Project will not result in long-term water quality impacts, it will not contribute to cumulative impacts. In addition, the comprehensive regulatory regime for operational water quality effects will prevent adverse cumulative impacts.

Based on a review of the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map, the majority of the project site and the majority of the cumulative projects listed in 5.1.11-1 are not located within Zone X, which is an area determined to be outside of the 0.2% annual chance floodplain. However, a portion of the solar energy facility site of the Proposed Action and six of the cumulative projects listed on 5.1.11-1 (Granite Carroll Sand and Gravel Mine, Imperial Valley Solar, Black Rock Unit #1 2 3, Coyote Wells (Wind Zero), SDG&E Proposed Photovoltaic Solar Field, and Ocotillo Express) are within or near flood Zone A, 100-year floodplain. However, construction of these projects is required to comply with federal, state, and local regulations regarding development within a 100-year floodplain. The Cumulative Projects will be constructed in a manner that prevents adverse flooding. The Cumulative Projects must be designed to manage increases in peak flow rates and volumes; in some cases, mitigation may require additional flood control structures. Because the Project will not result in long-term flooding impacts, it will not contribute to cumulative impacts. In addition, the comprehensive regulatory regime for development, including prevention of flooding impacts from the cumulative projects, will prevent adverse cumulative impacts. Table 5.1.11-2 provides a comparison of the Proposed Action and Alternatives related to cumulative hydrology and water quality impacts.

TABLE 5.1.11-2
Comparison of Alternatives for Cumulative Hydrology and Water Quality Impacts

Proposed Action	Alternative 1- Alternative Transmission Line Corridor	Alternative 2- Alternative Transmission Line Corridor	Alternative 3- Reduced Solar Energy Facility Site	Alternative 4-No Action/No Project Alternative
<i>CEQA Impact Analysis</i>				
<p>Implementation of the Proposed Action, in conjunction with applicable cumulative projects as it relates to hydrology and water quality, will result in a cumulative short-term impact during construction. Compliance with NPDES general permit regulations, 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 California Regional Water Quality Control Board will mitigate the short-term cumulative impacts. Implementation of site design, source control, and treatment control BMP's for operation of cumulative projects will ensure no long-term impacts occur.</p>	<p>As with the Proposed Action, this alternative would result in a significant, cumulative water quality impact under CEQA during the construction phase of the project only. The short-term cumulative impact would be the same as the Proposed Action. No long-term cumulative hydrology or water quality impact would result.</p>	<p>As with the Proposed Action, this alternative would result in a significant, cumulative water quality impact under CEQA during the construction phase of the project only. The short-term cumulative impact would be the same as the Proposed Action. No long-term cumulative hydrology or water quality impact would result.</p>	<p>As with the Proposed Action, this alternative would result in a significant, cumulative water quality impact under CEQA during the construction phase of the project only. The short-term cumulative impact would be the same as the Proposed Action. No long-term cumulative hydrology or water quality impact would result.</p>	<p>This alternative would not result in a significant, cumulative impact under CEQA to hydrology and water quality as the proposed project would not be constructed.</p>

TABLE 5.1.11-2
Comparison of Alternatives for Cumulative
Hydrology and Water Quality Impacts (cont'd.)

Proposed Action	Alternative 1- Alternative Transmission Line Corridor	Alternative 2- Alternative Transmission Line Corridor	Alternative 3- Reduced Solar Energy Facility Site	Alternative 4-No Action/No Project Alternative
<i>NEPA Impact Analysis</i>				
<p>Implementation of the Proposed Action, in conjunction with applicable cumulative projects as it relates to hydrology and water quality, will result in a cumulative short-term impact during construction. Compliance with NPDES general permit regulations, 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 California Regional Water Quality Control Board will mitigate the short-term cumulative impacts. Implementation of site design, source control, and treatment control BMP's for operation of cumulative projects will ensure no long-term impacts occur under NEPA.</p>	<p>As with the Proposed Action, this alternative would result in a cumulative water quality impact during the construction phase of the project only. The short-term cumulative impact would be the same as the Proposed Action. No long-term cumulative hydrology or water quality impact would result under NEPA.</p>	<p>As with the Proposed Action, this alternative would result in a cumulative water quality impact during the construction phase of the project only. The short-term cumulative impact would be the same as the Proposed Action. No long-term cumulative hydrology or water quality impact would result under NEPA.</p>	<p>As with the Proposed Action, this alternative would result in a cumulative water quality impact during the construction phase of the project only. The short-term cumulative impact would be the same as the Proposed Action. No long-term cumulative hydrology or water quality impact would result under NEPA.</p>	<p>This alternative would not result in a cumulative impact to hydrology and water quality as the proposed project would not be constructed.</p>

Source: BRG Consulting, Inc., 2011.

5.1.12 Biological Resources

5.1.12.1 *Geographic Scope and Timeframe*

Table 5.1.12-1 lists the projects considered for the biological resources cumulative impact analysis. For each reasonably foreseeable cumulative project, information about the project's potential effects and any assumptions made as it relates to biological resource impacts is presented in Table 5.1.12-1.

The geographic scope for considering cumulative impacts on flat-tailed horned lizard (FTHL) includes the creosote bush-white burr sage scrub and desert wash vegetation communities contiguous to and within the Yuha Basin FTHL Management Area (MA). Within the Proposed Action vicinity, the BLM California Desert District administers three separate management areas for FTHL; the Proposed Action occurs in the Yuha Basin FTHL MA (BLM 2003). FTHL may also occupy or use areas adjacent to the Yuha Basin FTHL MA with suitable habitat. FTHL use creosote bush white-burr sage scrub and desert vegetation for cover and foraging. However, the frequency with which FTHL migrate or travel between MAs is unknown; for these reasons, the geographic scope for considered cumulative impacts includes the Yuha Basin FTHL MA and suitable habitat, which includes creosote sage scrub and desert wash vegetation.

The geographic scope for considering cumulative impacts for migratory birds, including raptors, is the Imperial Valley, which is part of the Pacific Migration Flyway for birds migrating between as far south as South America and as far north as the arctic circle, and serves as an important stopover site for many species for rest and foraging, and, for some, as breeding grounds.

Although burrowing owls and some raptors do not migrate along the Pacific Migration Flyway, the species occur throughout the Imperial Valley; therefore, the Imperial Valley is the geographic scope considered for the evaluation of cumulative impacts for burrowing owl. The evaluation includes a discussion of impacts to nesting/burrowing habitat, which occurs throughout the Imperial Valley, as well as a more focused discussion on impacts to the species' foraging habitat, which includes creosote bush white-burr sage scrub vegetation and agricultural land.

Biological resources addressed in Section 4.12 but not discussed in this Section 5.1.12 Cumulative Impacts/Biological Resources are generally not evaluated for cumulative effects because the impacted resource is not considered sensitive, e.g., Tamarisk thicket and fallow agricultural fields, or the Proposed Action's contribution to impacts with respect to the resource is not cumulatively considerable and is incrementally so minor, that a cumulative discussion would not provide useful information for the public or decisionmakers, for example impacts to Thurber's pilostyles. In some instances, as discussed below, an effect on a resource is evaluated in the analysis of another impacts. For example, loss of FTHL habitat discussed in this section also addresses creosote shrub scrub vegetation community. Also, cumulative plus Proposed Action impacts to bird species discussed in Section 4.12 are addressed in the evaluation of cumulative impacts for migratory birds, raptors, and burrowing owl.

TABLE 5.1.12-1

List of Potential Projects Considered for Biological Resources Cumulative Impact Analysis

	Project Name	Included in Biological Resources Cumulative Impact (CI) Analysis?	Impacts to Biological Resources	Additional Information
1	"S" Line Upgrade 230-kV Transmission Line Project	Yes	Impacts to the burrowing owl, FTHL, and migratory birds. Mitigation reduces impacts to less than significant.	For 18 miles of transmission line, there are approximately 108 acres of disturbance. Approximately 2.15 acres is on BLM lands and the rest is on private land. Approximately 2.15 acres are within the FTHL MA.
2	Imperial Valley Solar (Formerly called SES Solar Two Project)	Yes	<p>Disturbance to approximately 6,000 acres of FTHL suitable habitat with compensatory mitigation for approximately 6,619.9 acres.</p> <p>Loss of approximately 312 acres of CDFG jurisdictional streambeds and 92.8 acres of Sonoran creosote bush scrub (SCBS) within the FTHL MA;. Compensatory land for SCBS with include 312 ac compensatory habitat for loss of CDFG jurisdictional streambeds.</p> <p>Conversion of approximately 6,500 acres of land – mitigation is required. Approximately 6,375.76 acres of BLM land.</p>	<p>Potential impacts to BUOW, migratory birds.</p> <p>Incorporate mitigation measures required by the USFWS-approved Raven Management Guidelines and the BUOW mitigation plan. Implement the Avian Power Line Interaction Committee's <i>Suggested Practices for Avian Protection on Power Lines</i> (APLIC 2006) and <i>Mitigating Bird Collisions with Power Lines</i> (APLIC 2004)</p>

	Project Name	Included in Biological Resources Cumulative Impact (CI) Analysis?	Impacts to Biological Resources	Assumptions
3	Sunrise Powerlink Transmission Project (CACA-047658)	Yes	<p>During construction, the project would temporarily disturb approximately 982 acres of sensitive vegetation (353 acres of non-sensitive vegetation) and would permanently impact approximately 441 acres of sensitive vegetation (48 acres of non-sensitive vegetation). During operation, the project would cause permanent (displacement of vegetation with project features such as towers or permanent access roads) impacts to vegetation communities. In total, the project would permanently impact approximately 441 acres of sensitive vegetation (48 acres of non-sensitive vegetation).</p>	<p>266 ac. permanent and 85.1 ac. temporary impacts to FTHL inside the FTHL management area;</p> <p>55.6 ac. permanent and 341.5 ac. temporary impacts to FTHL outside the FTHL management area; mitigation through habitat restoration and off-site compensatory habitat</p> <p>Potential impacts migratory birds; mitigation by implementing APLIC guidelines (1994 and 2006), and Raven Control Plan.</p> <p>Potential impacts to BUOW; mitigation by implementing CDFG 1993/1995 BUOW Guidelines.</p>
5	Imperial Solar Energy Center-South (CACA-51645)	Yes	<p>The project plans a 120 foot wide ROW from the project site, along BLM land to the Imperial Valley Substation in order to accommodate the transmission corridor. The transmission line ROW corridor, within BLM lands comprises approximately 82.7 acres. The Imperial Solar Energy Center-South Project would permanently impact up to 2.8 acres and temporarily impact up to 7.3 acres, for a total of 10.1</p>	<p>FTHL habitat impacts mitigated through habitat restoration and off-site compensatory habitat</p> <p>Potential impacts to BUOW; mitigated through CDFG 1993/1995 Guidelines, Raven Control Plan.</p> <p>Potential impacts to migratory birds; mitigated through ABPP, APLIC (2006).</p>

Project Name	Included in Biological Resources Cumulative Impact (CI) Analysis?	Impacts to Biological Resources	Assumptions
			acres of FTHL habitat within the MA.
6	SDG&E Proposed Photovoltaic Solar Field (CACA-051625)	Yes	Approximately 100 acres of FTHL habitat within the Yuha Basin MA would be disturbed. Entire project on BLM land and subject to BLM FTHL RMS.
7	North Gila to Imperial Valley #2 Transmission Line (CACA-51575)	Yes	Approximately three acres would be impacted in the FTHL MA.
8	Centinela Solar Power, LLC (CACA-052092)	Yes	<p>Transmission line connects to the IV Substation via the Yuha Desert MA for FTHL. Approximately 6 permanent acres of impact; approximately 32 temporary acres of impact. Impacts to non-wetland jurisdictional waters. Total approximate ROW acreage is 80 acres of BLM land.</p> <p>Impacts to BUOW, Mountain plovers and SWFL and other migratory birds.</p>
9	San Diego Gas & Electric (SDG&E) East County (ECO) Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects	No	This project is not included in the cumulative biological impacts discussion because the site is located outside of the FTHL habitat area and Proposed Action's geographic scope for impacts to BUOW and migratory birds and the habitats they use in Imperial Valley.

Project Name		Included in Biological Resources Cumulative Impact (CI) Analysis?	Impacts to Biological Resources	Assumptions
10	Dixieland Connection to IID Transmission System	Yes	Lies in the Yuha Basin ACEC in the Yuha Desert Management Area for flat-tailed horned lizards and Western burrowing owl and migratory birds (impacts to be mitigated).	This project shares the access route and alignment with ISEC West’s preferred alternative route; therefore, would not contribute additional habitat impacts in addition to those already considered for the ISEC West project.
11	Mount Signal Solar Farm I-82LV 8ME, LLC (CACA-052325)	Yes—qualitative.	Lies in the Yuha Basin ACEC in the Yuha Desert Management Area for flat-tailed horned lizard.	Potential impacts to BUOW, migratory birds. See general discussion in section 5.1.12.
12	Superstition Solar 1	Yes--qualitative	The project site is located outside of the geographic scope for Proposed Action’s FTHL cumulative impacts (Yuha Desert FTHL MA) and also outside the West Mesa FTHL MA.	Potential impacts to BUOW, migratory birds. See general discussion in section 5.1.12.
13	Bethel Solar X, Inc.	Yes—qualitative.	The project site is located several miles east of Yuha Desert FTHL MA. The project site is not located on FTHL habitat.	Potential impacts to BUOW, migratory birds. See general discussion in section 5.1.12.
14	Energy Source Solar I, LLC	Yes—qualitative.	The project site is located outside of the geographic scope for Proposed Action’s FTHL cumulative impacts (Yuha Desert FTHL MA), but FTHL have been recorded at this site.	Potential impacts to BUOW, migratory birds. See general discussion in section 5.1.12.
15	Energy Source Solar II, LLC	Yes—qualitative.	The project site is located outside of the geographic scope for Proposed Action’s FTHL	Potential impacts to BUOW, migratory birds. See general discussion in section 5.1.12.

	Project Name	Included in Biological Resources Cumulative Impact (CI) Analysis?	Impacts to Biological Resources	Assumptions
			cumulative impacts (Yuha Desert FTHL MA)	
16 - 21	*Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	Yes-- qualitative	No known FTHL impacts.	Potential impacts to FTHL, BUOW, migratory birds. See general discussion in section 5.1.12.
22	IV Solar Company	Yes-- qualitative	The project site is located outside of the Yuha Desert FTHL MA.	Potential impacts to BUOW and migratory birds See general discussion in section 5.1.12.
23	Chocolate Mountain	Yes-- qualitative	The project site is located outside of the Yuha Desert FTHL MA.	Potential BUOW and migratory bird effects. See general discussion in section 5.1.12.
24	Ocotillo Express	Yes	The project site is located outside of the Yuha Desert FTHL MA; however, it is within the range of the FTHL and surveys show them on site. Impacts will be mitigated. Impacts to BUOW. There are nesting GOEA in the nearby Coyote Mountains.	Potential migratory bird effects. See general discussion in section 5.1.12.
25 - 29	*Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for	Yes	These project sites are located on agricultural land; therefore, impacts to BUOW and foraging habitat.	See section 5.1.12 for discussion of potential impacts to migratory birds.

	Project Name	Included in Biological Resources Cumulative Impact (CI) Analysis?	Impacts to Biological Resources	Assumptions
	the Cumulative Impact Analysis		No FTHL impact because project sites are located several miles from the closest FTHL MA.	
30 - 32	*Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	Yes-- qualitative	The project site is located outside of the Yuha Desert FTHL MA.	Potential impacts to BUOW and migratory birds. See general discussion in section 5.1.12.
33	Recreation Activities	Yes-- qualitative	This recreation area is located in the West Mesa FTHL MA; thus, is not located in the Proposed Action's geographic scope (Yuha Desert FTHL MA).	See general discussion in section 5.1.12 for qualitative discussion of potential impacts to BUOW and migratory birds.
34	Recreation Activities	Yes-- qualitative	The efforts associated with ongoing OHV recreation activities do not include expansion or changes in the existing activities.	Continued operations have potential to affect FTHL, BUOW, migratory birds in the Yuha MA. See general discussion in section 5.1.12.
35	U.S. Gypsum Mining	Yes-- qualitative	The project site is not located within the Yuha Desert FTHL MA.	Ongoing activities may affect migratory birds as provided in general discussion in section 5.1.12.
36	California State Prison, Centinela	Yes-- qualitative	The project site is not located within the Yuha Desert FTHL MA. Ongoing activities may affect migratory birds.	See general discussion in section 5.1.12.

Project Name		Included in Biological Resources Cumulative Impact (CI) Analysis?	Impacts to Biological Resources	Assumptions
37	Recreation Activities	Yes-- qualitative	The efforts associated with ongoing OHV recreation activities do not include expansion or changes in the existing activities. However, operations have potential to affect FTHL, BUOW, migratory birds.	See general in section in section 5.1.12.
38	IV Substation (TermoElectrica US, LLC)	Yes-- qualitative	Existing transmission line. operations have potential to affect FTHL, BUOW, migratory birds.	See general discussion in section 5.1.12.
39	IV Substation (Baja California Power, Inc., aka, Intergen)	Yes-- qualitative	Existing transmission line. operations have potential to affect FTHL, BUOW, migratory birds.	See general discussion in section 5.1.12.
40	IV Substation (SDG&E)	Yes-- qualitative	Existing transmission line. operations have potential to affect FTHL, BUOW, migratory birds.	See general discussion in section 5.1.12.
41 - 60	*Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	Yes-- qualitative	These projects are not located within the Yuha Desert FTHL MA. Potential to affect FTHL, BUOW and migratory birds.	See general discussion in section 5.1.12.

Project Name		Included in Biological Resources Cumulative Impact (CI) Analysis?	Impacts to Biological Resources	Assumptions
61	Mixed-Use Recreation	Yes-- qualitative	The efforts associated with ongoing OHV recreation activities do not include expansion or changes in the existing activities. However, operations have potential to affect FTHL, BUOW, migratory birds in the Yuha MA.	See general discussion in section 5.1.12.
62	Seeley Wastewater Treatment Plant Upgrade	Yes-- qualitative	This project is not located within the Yuha Desert FTHL MA.	Potential BUOW and migratory birds. See general discussion in section 5.1.12.
63	Cahuilla Gold Project	Yes-- qualitative	This project is not located within the Yuha Desert FTHL MA.	Potential BUOW and migratory birds. See general discussion in section 5.1.12.

Source: BRG Consulting, Inc., 2011

5.1.12.2 Existing Conditions

As described in EIR/EA Section 3.12, seven vegetation communities were mapped within the survey area, including creosote bush-white burr sage scrub, desert wash (smoke tree woodland and big galleta shrub steppe mix), mesquite thicket, tamarisk thicket, open water, fallow agricultural fields (upland mustard), and active agricultural fields. Priority plant species observed on-site include Brown turbans, Salton milkvetch, Thurber's pilostyles, and Parish's desert thorn. The vegetation areas and survey results are described in greater detail in EIR/EA Section 3.12.2.1 and Table 3.12-2.

The wildlife species observed on-site were typical of the desert scrub, desert wash, and agricultural habitats, which provide cover, foraging, and breeding habitat for a variety of native wildlife species. Animals observed onsite within the Proposed Action, Alternative 1-Alternative Transmission Line Corridor, Alternative 2-Alternative Transmission Line Corridor and Alternative 3-Reduced Solar Energy Facility Site are listed in Attachment 3 of the biological technical report (Appendix I-1 of this EIR/EA). Sensitive animal species observed throughout the site include the flat-tailed horned lizard, burrowing owl, loggerhead shrike, and Crissal thrasher.

No Army Corps of Engineers (ACE) wetland areas were identified within the survey area. All ACE jurisdictional areas delineated are preliminary considered non-wetland waters made up of ephemeral drainages. Some features occurring within the survey area would be non jurisdictional (farm ditches) or potentially not subjected to (small washes) ACE jurisdiction. Non-wetland waters within the project survey area include a number of ephemeral drainages that range in size from single-thread channels to broad compound channel areas of the Yuha Wash system.

A complete discussion of the existing biological resources can be found in EIR/EA Section 3.12.2.

5.1.12.3 Summary of Effects of the Proposed Action

The Proposed Action includes the construction of the solar energy facility (R-1) and installation of monopoles and an associated access road within the transmission corridor (IVW-2 and IVW-2B). For purposes of cumulative impacts analysis, this section focuses on the potential cumulative effects of the Proposed Action plus cumulative projects to sensitive vegetation communities; flat-tailed horned lizard and its habitat, which includes desert scrub and desert wash; and burrowing owl, raptors, migratory birds and other sensitive non-migratory bird species in the Imperial Valley. A complete discussion of impacts and mitigation measures for these Biological Resources is presented in EIR/EA Section 4.12.

As described above, the Proposed Action has the potential to result in biological resources impacts. However, with the implementation of Mitigation Measures B1 through B8 as identified in Section 4.12 of this EIR/EA, these impacts would be reduced to a level of less than significant under CEQA.

5.1.12.4 Cumulative Impact Analysis

A. CEQA Impact Analysis

Sensitive Vegetation Communities

The potential for the introduction and establishment of invasive plant species on BLM lands would be prevented, controlled, and treated through an Integrated Pest Management approach per the *Vegetation Treatments on Bureau of Land Management Lands in 17 Western States Programmatic Environmental Impact Statement (PER 2007)*. Renewable energy projects and transmission line projects 1 – 29 and recreational activities 34 are under the jurisdiction of the BLM, and therefore subject to the PEIS.

Regional land designations also provide protection for wildlife species and biological resources. The CDCA encompasses 25 million acres of land in southern California that were designated by the Federal Lands and Policy Management Act. The BLM directly administers approximately 10 million acres of the CDCA. The CDCA Plan-designated ACEC Management Plan was prepared to give additional protection to unique cultural resources and wildlife values found in the region, while also providing for multiple use management. In addition, as discussed below, the BLM's management of the California Desert Conservation Area and the Yuha Basin ACEC provides additional protections to wildlife and their habitats. Also, the BLM's FTHL Rangewide Management Strategy limits the loss of FTHL habitat within FTHL MAs, as well as private lands that are "connected to" federal projects under CEQ NEPA regulations. The County of Imperial General Plan also has provisions to protect biological resources, as described in Table 3.12-1.

Projects subject to BLM jurisdiction, including the Yuha Basin ACEC Management Plan include 3, 5, and 34. Projects subject to Imperial County General Plan consistency review include 1, 2, 7, 8, 11, 14-31, 50, 53-56, and 63.

Flat-Tailed Horned Lizard

The California Desert Conservation Area (CDCA) encompasses 25 million acres of land in southern California that were designated by the Federal Lands and Policy Management Act. The BLM directly administers approximately 10 million acres of the CDCA. The CDCA Plan-designated Yuha Basin Area of Critical Environmental Concern (ACEC) Management Plan was prepared to give additional protection to unique cultural resource and wildlife values found in the region, while also providing for multiple use management. The County of Imperial General Plan also has provisions to protect biological resources, as described in Table 3.12-1.

Flat-tailed Horned Lizard receives protection via the BLM's FTHL RMS. The Flat-tailed Horned Lizard Interagency Coordinating Committee (ICC)'s *FTHL RMS (2003)* designated five Management Areas (MAs) to help focus conservation and management of FTHL key populations. The BLM has designated the Yuha Basin Management Area, the area in which the project transmission line would be located, as a management unit.

As shown in Table 5.1.12-2, the habitat disturbances that have occurred since the adoption of the FTHL Rangelwide Management Strategy (RMS) and those that could result from the Proposed Actions and the reasonably foreseeable projects are estimated to impact a total of 364.9 acres of the 60,200-acre Yuha Basin MA. These habitat disturbances constitute approximately 0.6 percent of the 1% of habitat disturbance allowable within the Yuha Basin MA. These impacts, still under the 1% threshold for impacts acreage, will be mitigated in accordance with the RMS, thereby reducing cumulative impacts to a level less than significant level under CEQA.

TABLE 5.1.12-2
Approved or Proposed Actions in the Imperial Valley

Project Name (Project Proponent)	Impacts to Private Lands (acres)	Impacts to BLM Land (acres)	Impacts to Yuha FTHL MA (acres)
Existing disturbance			88
Sunrise Powerlink			45
"S" Line Upgrade 230-kV Transmission Line Project (Imperial Irrigation District)	106	2	2
Imperial Valley Solar (Stirling Energy Systems Two, LLC)	-	6,571	93
ISEC Solar South (CSOLAR)	837.5	10.1	10.1
Proposed Action-ISEC Solar West (CSOLAR)	1071.5	13.7	13.7
SDG&E Photovoltaic Solar Field	-	100	100
North Gila to Imperial Valley #2 (Southwest Transmission Partners)	-	450	3
Dixieland to IV Substation Line (Imperial Irrigation District)			N/A ¹
Centinela (LS Power) Footnote ³		80	10.1
Total	2,015	7,226.8	364.9

Source: Recon Environmental, Inc., 2010.

1. This project shares the access route and alignment with ISEC West's preferred alternative route; therefore, would not contribute significant additional habitat impacts in addition to those already considered for the ISEC West project.
2. All other projects listed in Table 5.0-1 are either located outside the geographic scope of cumulative effects analysis for the biological resources or are assumed to have similar impacts and are evaluated qualitatively below.

Renewable energy projects 1-8, 10, 11, 24 33, 34, 37, 61 are under the jurisdiction of the BLM CDCA and will be reviewed for impacts to FTHL in Yuha Desert MAs and required to mitigate per BLM's RMS policies.

Based on the USFWS determination not to list the FTHL, the success of BLM's FTHL RMS, and analysis above, the Proposed Action plus reasonably foreseeable cumulative projects' impacts to FTHL and its habitat are considered less than significant for purposes of CEQA.

Burrowing Owl

Burrowing owl is primarily restricted to the western United States and Mexico. Habitat for the burrowing owl includes dry, open, short-grass areas often associated with burrowing mammals (Haug et al. 1993). In Imperial County it can be found in desert scrub, grassland, and agricultural areas, where it digs its own or occupies existing burrows.

Urbanization has greatly reduced the amount of suitable habitat for this species. Other contributions to the decline of this species include the poisoning of squirrels and prairie dogs, and collisions with automobiles. A survey effort carried out between 1991 and 1993 indicated that major population densities remain in the Central and Imperial valleys (DeSante et al. 1996), where this species is a year-round resident in Imperial County. Despite recent population declines, the Imperial Valley population is considered the most important viable population in California.

Based on the focused burrowing owl surveys, two active burrowing owl burrows were observed during 2010 focused breeding season surveys within the fallow agricultural fields north of Interstate 8 (RECON 2010b). The creosote bush-white burr sage scrub vegetation along the Proposed Action transmission line and the fallow agricultural fields within the proposed solar energy facility offer suitable foraging habitat for this species. The 1993 Burrowing Owl Consortium Guidelines provide mitigation measures which apply to the project. Mitigation Measures B5 and B1 provide for mitigation of specific project impacts, as discussed in Section 4.12. Mitigation Measure B5 requires the project applicant to prepare a Burrowing Owl Mitigation and Monitoring Plan and includes compensation for losses of foraging habitat. Permanent loss of creosote bush-white burr sage scrub vegetation would be mitigated with compensatory land under Mitigation Measure B1.

Cumulative projects may impact burrowing owls through direct impacts to burrowing owls and their burrows or through direct contact. Burrowing owls are relatively widespread throughout the Imperial Valley and although habitat may be fragmented around urban sites is considered one metapopulation. Aggregations occur in association with such features as abandoned rodent burrows or agricultural culverts. Due to ephemeral burrow selection characteristics of burrowing owls, site-specific preconstruction surveys are required to determine to what extent a project would have direct impacts on owls in burrows or to foraging habitat associated with burrows. As a result, it is not possible to provide a meaningful quantitative analysis of direct impacts to burrowing owls and their burrows.

Burrowing Owls are protected by the California Department of Fish and Game mitigation guidelines for burrowing owl (1995) 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. BLM also considers burrowing owls a sensitive species, and generally follows CDFG recommendations for burrowing owl issues occurring under BLM jurisdiction.

All cumulative projects are subject to the CDFG guidance documents detailing protections for burrowing owl. Generally, the requirements are imposed via CEQA, with CDFG as a responsible agency encouraging the lead agency to adopt its guidance. As noted, the BLM generally looks to CDFG for guidance on BUOW matters; however, the migratory bird protection office of USFWS also reviews protection plans for burrowing owls and other avian species as the federal agency with expertise for this resource.

If a project determined through reconnaissance or pre-construction surveys that such impacts may occur, a federal, state or local project applicant would be required to implement avoidance and minimization measures as required for the Proposed Action and described in Mitigation Measure B5. Direct impacts to active burrows would also require compensatory mitigation and monitoring according to the CDFG guidelines (1993 and 1995). Direct operational impacts from projects that may result in bird strikes or electrocution would be required to develop a Burrowing Owl Mitigation and Monitoring Program.

Furthermore, the burrowing owl is protected by the Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703 et seq.), notwithstanding that the Imperial Valley population is resident. The MBTA is enforced by U.S. Fish and Wildlife Service (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. California Fish and Game Code 3513 is the State equivalent of the MBTA and is enforced by the Department of Fish and Game. Raptors and active raptor nests receive protected under California Fish and Game Code 3503.5, 3503. All cumulative projects are subject to the laws protecting bird species listed above.

The CDCA Plan-designated Yuha Basin Area of Critical Environmental Concern (ACEC) Management Plan provides protections to burrows and nests for those cumulative projects located in this ACEC. The County of Imperial General Plan also has provisions to protect biological resources, as described in Table 3.12-1. Burrowing owl is a BLM-designated sensitive species and a State species of special concern; known cumulative projects that require BLM and/or discretionary approval from the County of Imperial must comply with 1993 Consortium/1995 CDFG Staff Report requirements, as is the Proposed Action, and reasonably foreseeable cumulative projects are expected to be required provide similar protections.

It is anticipated that many of the cumulative projects would also have indirect impacts to burrowing owls through conversion of foraging habitat, such as creosote bush-white burr sage scrub vegetation and agricultural fields. Although the habitat value of native desert scrub and agricultural fields is not equal, it is anticipated that BLM policies to protect desert scrub land for FTHL within the Yuha Basin MAs and agricultural practices and County practices encouraging continued agricultural land use will protect a substantial portion of burrowing owl's foraging habitat in the Imperial Valley.

Agricultural Fields

In the Imperial Valley, foraging within the Imperial Valley Agricultural Complex surrounds El Centro and spans from Mexico to the Salton Sea. In 2009, the Imperial County Agricultural Crop and Livestock Report (Imperial County 2009) reported approximately 353,128 acres of field crops being grown within this large agricultural complex, including primarily alfalfa hay, Bermuda grass hay, Kleingrass hay, pastured crops, Sudan grass hay, and wheat. An additional 62,237 acres of primarily alfalfa and Bermuda grass were grown as seed crops (Imperial County 2010), totaling over 415,365 acres of alfalfa and grass crops. However, as documented in Table 5.1.12- 3, the amount of land in agricultural production varies widely from year to year.

TABLE 5.1.12-3
Agricultural Crop History For 2005–2009 in the Imperial Valley

Year	(Acres)	Variation (Acres)
2009	415,365	(14,558)
2008	476,882	43,959
2007	413,717	(16,206)
2006	436,074	6,151
2005	407,577	(22,346)
	Average 429,923	

Source: Imperial County (2006–2010)

1 Estimated Habitat Available During Winter Months; Variation from Prior Year;
Variation from Average

As discussed in Section 5.1.9, it is reasonably foreseeable that approximately 8,000 acres of agricultural land will be converted to non-agricultural uses by cumulative projects. That loss is well within the annual variation of amount of land in agricultural production. Also, as discussed in Section 4.9, State and local regulations and policies protect against the unnecessary conversion of farmland, and compensatory mitigation for so doing under County policies.

Desert Scrub

Also, as discussed above, BLM maintains a 1% disturbance limit to land within Yuha FTHL Management Area in accordance with the “Flat-tailed Horned Lizard Rangelwide Management Strategy”, 2003. The Proposed Action plus cumulative projects are estimated to impact approximately 0.5% of the Yuha FTHL MA. The BLM’s management policy ensures that 99% of Yuha FTHL MA are left open and in their natural state, and will likely continue to provide foraging habitat for burrowing owl.

As with the Proposed Action, discussed in Section 4.12 of this EIR/EA, cumulative projects that cause disturbance to creosote bush-white burr sage scrub within the Yuha Basin FTHL MA will be required to offset losses of potentially suitable foraging habitat for burrowing owl in accordance with CDFG Guidelines. CEQA also requires all feasible mitigation for disturbance to reduce significant impacts to this native vegetation community. Table 5.1.12 shows projects within BLM land and projects subject to CEQA.

The amount of foraging habitat for burrowing owl is under some degree of pressure from renewable energy and transmission projects. However, given the general stability of land in agricultural production within the Imperial Valley and BLM's protective policies regarding its one million + acres of land in the Valley, the Proposed Action's plus cumulative projects' impacts on burrowing owl foraging habitat is less than significant under CEQA.

It is reasonable to assume that any projects determined to have potential impacts to burrowing owl will be required to implement CDFG Guidelines discussed above. The measures are designed to reduce to the extent feasible ground disturbing projects' impacts to the species. Measures to protect nesting and young in the nest are the most restrictive. Cumulative impacts to burrows require mitigation burrows at a 2:1 ratio as discussed in Section 4.12; destruction of burrows is permitted under limited circumstances and effectiveness monitoring is required. For these reasons, it is expected that cumulative projects' impacts to the species nesting/burrowing habitat would be minimal. Even if cumulative effects to nesting and young were more substantial, the Proposed Action's impact would be minor because it is temporary and expected to occur only during ground-disturbing activities associated with the project construction phase.

Additional measures addressing collision risk and other risks from project operations are addressed under the Migratory Bird discussion, primarily through the implementation of an ABPP.

Foreseeable agricultural field loss is within annual fluctuations for County crop production. The Proposed Action plus reasonably foreseeable cumulative projects' impacts to burrowing owl foraging habitat is minor because less than one percent is expected to be lost to development.

For all of these reasons, cumulative impacts to burrowing owl will not rise to the level of significance and the Proposed Action's cumulative contribution to any such cumulative impact is not cumulatively considerable.

Migratory Birds

The Pacific Flyway is a major north-south migration route for birds that travel between North and South America. In Southern California, birds typically use the coast and inland areas. The Pacific Coast route is used by gulls, ducks, and other water birds. The longest and most important route of the Pacific Flyway is that originating in northeastern Alaska. This route, that includes most waterfowl and shorebirds, passes through the interior of Alaska and then branches such that large flights continue southeast into the Central and Mississippi flyways or they may turn in a southwestern direction and pass through the interior valleys of California ending or passing through the Salton Sea (Birdnature 2010). The southward route of long-distance migratory land birds of the Pacific Flyway that typically overwinter south of the United States, extends through the interior of California to the mouth of the Colorado River and on to their winter quarters that may be located in western Mexico (USGS 2006). Migration timing varies from species to species and for some, there is little documentation of the timing; for others, the arrival and departure has been well documented species by species (Unitt 2004).

Cumulative projects and the Proposed Action may have direct impacts to migratory birds via direct impacts during construction and operations and maintenance phases via, e.g., vehicle strikes or nest crushing. Indirect impacts may occur via noise and lighting impacts, making mating calls hard to hear or frightening birds from foraging activities.

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 migratory birds. The MBTA is enforced by U.S. Fish and Wildlife Service (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. California Fish and Game Code 3513 is the State equivalent of the MBTA and is enforced by the Department of Fish and Game. Raptors and active raptor nests receive protected under California Fish and Game Code 3503.5, 3503. All cumulative projects are subject to the laws protecting bird species listed above.

Regional land designations also provide protection for wildlife species and biological resources. The Yuha Basin ACEC Management Plan and County of Imperial General Plan also provide protections for projects subject to BLM and County review.

In addition to these federal, state and local laws that require, among other things, projects subject to CEQA are required to implement all feasible measures to reduce direct or indirect impacts on migratory birds through mechanisms such as an ABPP and/or an incidental take permit(s) under the Federal or State ESAs. An ABPP or similar plan to protect avian species, such as a habitat conservation plan under ESA section 10(a) or Cal F&G Code §2081(b) or § 2885) would, among other things, define required pre-construction surveys and construction-phase biological monitoring designed to minimize disturbances to vegetation to the maximum extent practicable and avoid direct impacts to any active migratory bird nests. An ABPP would specify pre-construction nest surveys and establish the appropriate avoidance buffers. Additionally, an ABPP would establish the need for the presence of a biological monitor during construction, such as vegetation clearing to monitor birds' foraging and behavior within the project area to identify any potential nesting conflicts during the course of construction.

The amount of foraging habitat for migratory birds is under some degree of pressure from renewable energy and transmission projects. However, given the general stability of land in agricultural production within the Imperial Valley and BLM's protective policies regarding its one million + acres of land in the Valley, the Proposed Action's plus cumulative projects' impacts on migratory birds' foraging habitat is less than significant under CEQA.

Implementation of the Habitat Restoration Plan, through which the applicant will restore, when feasible, temporarily disturbed land to its previous state, and implementation of a Weed Management Plan and Raven Control Plan, which are general requirements for most construction projects, will further reduce impacts to migratory birds by maintaining native vegetation, minimizing use of pesticides, and controlling predators.

For these reasons, cumulative impacts to migratory birds would not rise to the level of significance. And, with implementation of biological mitigation measures designed to protect native vegetation communities and to avoid and minimize impacts on all wildlife species and specifically bird species, the Proposed Action would not have a cumulative considerable contribution to any cumulative impact to migratory birds.

Impacts to Salton Sea

The Proposed Action will result in a long-term fallowing of agricultural land as a result of conversion of the site for solar use. Other cumulative projects previously identified in Table 5.1.9-1, which are proposed on privately-owned agricultural land, will also result in such conversion. Unlike a permanent conversion of agricultural land to urban or industrial use, the proposed solar project is only a long-term fallowing because the project is required to restore the site back to agricultural use pursuant to the terms of its lease. The project site is a fallow agricultural field that does not currently use water.

However, once the project is converted from a fallow agricultural field to a solar energy facility site, the project will contribute relatively clean water to the New River and the Salton Sea from periodic panel washing runoff and stormwater collection systems. The BMP to control the rate of water runoff and reduce water quality impacts are discussed in Section 4.11 of the EIR/EA, with a focus on the use of specially designed detention ponds that allow sediments and other types of pollutants to settle to the bottom prior to release of the water downstream, eventually into the Salton Sea. Therefore, the Proposed Action in conjunction with the cumulative projects listed on Table 5.1.12-1 would not result in cumulatively significant impacts under CEQA to the Salton Sea.

Table 5.1.12-4 provides a comparison of the Proposed Action and Alternatives related to cumulative biological resources impacts CEQA.

B. NEPA Impact Analysis

As described above, the Proposed Action has the potential to result in direct and indirect biological resources impacts. However, the implementation of Mitigation Measures B1 through B8, as identified in Section 4.12 of this EIR/EA, will reduce these impacts.

Based on the analysis provided in the CEQA Impact Analysis, the Proposed Action would comply with the federal and state laws, regulations, and guidelines mentioned above, which, through the implementation of Mitigation Measures B1-B8, reduce the Proposed Action's impacts on biological resources. Similarly, the reasonably foreseeable cumulative projects' effects to biological resources considered in this evaluation are required to comply with the legal frameworks set forth above. Compliance with these regulations and policies, as well as CEQA and BLM FLMPA regulations, as applicable, will reduce cumulative projects' impacts on the identified biological resources considered in this cumulative evaluation. . This conclusion is supported by the cumulative impacts analysis for biological resources in the Draft Solar Programmatic Environmental Impact Statement (see Solar DPEIS page 6-96). In that report, BLM and DOE found that the cumulative impacts on wildlife and aquatic biota from foreseeable development in the six-state region covered by the DPEIS would be small provided mitigation measures to preserve important habitat and migration corridors are implemented (or sufficient alternative lands are set aside as compensation).

Cumulative impacts to individual plant and animal species are presented below.

Sensitive Vegetation Communities

The potential for the introduction and establishment of invasive plant species on BLM lands would be prevented, controlled, and treated through an Integrated Pest Management approach per the *Vegetation Treatments on Bureau of Land Management Lands in 17 Western States Programmatic Environmental Impact Statement (PER 2007)*.

Renewable energy projects and transmission line Projects 1 – 29 and recreational activities 34 are under the jurisdiction of the BLM, and therefore subject to the PEIS.

Regional land designations also provide protection for wildlife species and biological resources. The CDCA encompasses 25 million acres of land in southern California that were designated by the Federal Lands and Policy Management Act. The BLM directly administers approximately 10 million acres of the CDCA. The CDCA Plan-designated ACEC Management Plan was prepared to give additional protection to unique cultural resource and wildlife values found in the region, while also providing for multiple use management. In addition, as discussed below, the BLM's management of the California Desert Conservation Area and the Yuha Basin ACEC provides additional protections to wildlife and their habitats. Also, the BLM's FTHL Rangelwide Management Strategy limits the loss of FTHL habitat within FTHL MAs, as well as private lands that are "connected to" federal projects under CEQ NEPA regulations. The County of Imperial General Plan also has provisions to protect biological resources, as described in Table 3.12-1.

Projects subject to BLM jurisdiction, including the Yuha Basin ACEC Management Plan include 3, 5, and 34. Projects subject to Imperial County General Plan consistency review include 1, 2, 7, 8, 11, 14-31, 50, 53-56, and 63.

Flat-Tailed Horned Lizard

As shown in Table 5.1.12-2, the habitat disturbances that have occurred since the adoption of the FTHL Management Strategy and those that could result from the Proposed Actions and the reasonably foreseeable projects are estimated to impact a total of 364.9 acres of the 60,200-acre Yuha FTHL MA. These habitat disturbances constitute approximately 0.6 percent of the 1% of habitat disturbance allowable within the Yuha FTHL MA. These impacts, still under the 1% threshold for impacts acreage, will be mitigated in accordance with the RMS, thereby reducing impacts to a level less consistent with the BLM's FTHL management strategy.

Flat-tailed Horned Lizards receive protection via the BLM's FTHL RMS. Flat-tailed Horned Lizard Interagency Coordinating Committee (ICC)'s *FTHL RMS (2003)* designated five MAs to help focus conservation and management of FTHL key populations. The BLM has designated the Yuha Basin, the area in which the project transmission line would be located, as a management unit. A detailed discussion of the requirements of the FTHL RMS within MAs is provided in Section 4.1.12 of this EIR/EA.

The CDCA encompasses 25 million acres of land in southern California that were designated by the Federal Lands and Policy Management Act. The BLM directly administers approximately 10 million acres of the CDCA. The CDCA Plan-designated Yuha Basin ACEC Management Plan was prepared to give additional protection to unique cultural resource and wildlife values found in the region, while also providing for multiple use management. The County of Imperial General Plan also has provisions to protect biological resources, as described in Table 3.12-1.

Renewable energy projects 1-8, 10, 11, 24 33, 34, 37, 61 are under the jurisdiction of the BLM CDCA and will be reviewed for impacts to FTHL in Yuha Desert MAs and required to mitigate per BLM's RMS policies.

Based on the USFWS determination not to list the FTHL, the success of BLM's FTHL RMS, and analysis above, the Proposed Action plus reasonably foreseeable cumulative projects' impacts to FTHL and its habitat are considered consistent with the BLM's FTHL RMS for the Yuha Basin MA. Additionally, the permanent protection of sensitive lands provided through conservation easements or DOI's NFWS program are important management tools as pressures for multiple uses on BLM lands increase.

Burrowing Owl

The CEQA analysis above discusses cumulative projects' potential direct and indirect impacts to burrowing owls. The BLM, State agencies, and local lead CEQA agencies require minimization and mitigation measures for direct and indirect impacts to burrowing owl and its habitat as in the Proposed Action Mitigation Measure B5. Table 5.1.12-1 indicates projects subject to BLM and/or federal, State, and local jurisdiction.

Burrowing Owls are protected by the California Department of Fish and Game mitigation guidelines for burrowing owl (1995) 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. BLM also considers burrowing owls a sensitive species, and generally follows CDFG recommendations for burrowing owl issues occurring under BLM jurisdiction.

The CDCA Plan-designated Yuha Basin ACEC Management Plan was prepared to give additional protection to unique cultural resource and wildlife values found in the region, while also providing for multiple use management. The County of Imperial General Plan also has provisions to protect biological resources, as described in Table 3.12-1. Furthermore, the burrowing owl is protected by the Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703 et seq.), and Fish and Game Code 3513, 3503.5, 3503. All cumulative projects are subject to the laws protecting bird species including burrowing owl.

Like the Proposed Action, it is anticipated that many of the cumulative projects would have indirect impacts to burrowing owls through conversion of foraging habitat, such as creosote bush-white burr sage scrub vegetation and agricultural fields. As discussed in Section 4.12 and above, disturbance to creosote bush-white burr sage scrub vegetation requires compensation at the ratios shown in Table 4.12-13. In Imperial Valley Agricultural Complex it is estimated that approximately 8,000 acres of agricultural land will

be converted to non-agricultural uses by cumulative projects. That loss is well within the annual variation of amount of land in agricultural production. Also, as discussed in Section 4.9, State and local regulations and policies require compensatory mitigation for conversion of farmland, as is the case with the Proposed Action.

It is reasonable to assume that any projects determined to have potential impacts to burrowing owl will be required to implement CDFG Guidelines discussed above, unless they are superseded. The measures are designed to reduce to the extent feasible ground disturbing projects' impacts to the species. Measures to protect nesting and young in the nest are the most restrictive. Cumulative impacts to burrows require mitigation burrows at a 2:1 ratio as discussed in Section 4.12; destruction of burrows is permitted under limited circumstances and effectiveness monitoring is required. For these reasons, it is expected that cumulative projects' impacts to the species nesting/burrowing habitat would be minimal. Even if cumulative effects to nesting and young were more substantial, the Proposed Action's impact would be minor because it is temporary and expected to occur only during ground-disturbing activities associated with the project construction phase.

Additional measures addressing collision risk and other risks from project operations are addressed under the Migratory Bird discussion, primarily through the implementation of an ABPP.

With regard to burrowing owl foraging habitat, as discussed above in the CEQA analysis, and foreseeable agricultural field loss is within annual fluctuations for County crop production. The Proposed Action plus reasonably foreseeable cumulative projects' impacts to burrowing owl foraging habitat is minor because less than one percent is expected to be lost to development.

Migratory Birds

As discussed above in the CEQA analysis, cumulative projects and the Proposed Action may have direct impacts to migratory birds via, e.g., vehicle strikes or nest crushing. Indirect impacts may occur via noise and lighting impacts, making mating calls hard to hear or frightening birds from foraging activities. Each cumulative project would be subject to an array of federal, state and local laws that require, among other things, that the projects either show that they would have no direct or indirect impacts on migratory birds or implement specific measures to address direct and indirect impacts to avian species (e.g., ABPP and/or an incidental take permit(s)). An ABPP (or similar plan to protect avian species, such as a habitat conservation plan under ESA section 10(a) or Cal F&G Code §2081(b) or § 2885) would, among other things, define required pre-construction surveys and construction-phase biological monitoring designed to minimize disturbances to vegetation to the maximum extent practicable and avoid direct impacts to any active migratory bird nests. An ABPP would specify pre-construction nest surveys and establish the appropriate avoidance buffers. Additionally, an ABPP would establish the need for the presence of a biological monitor during construction, such as vegetation clearing to monitor birds' foraging and behavior within the project area to identify any potential nesting conflicts during the course of construction.

Implementation of the Habitat Restoration Plan, through which the applicant will restore, when feasible, temporarily disturbed land to its previous state, and implementation of a Weed Management Plan and

Raven Control Plan will further reduce impacts to migratory birds by maintaining native vegetation, minimizing use of pesticides, and controlling predators.

The amount of foraging habitat for migratory birds is under some degree of pressure from renewable energy and transmission projects. However, given the general stability of land in agricultural production within the Imperial Valley and BLM's protective policies regarding its one million + acres of land in the Valley, the Proposed Action's plus cumulative projects' impacts on migratory birds' foraging habitat is

Through the implementation of these measures, the Proposed Action and cumulative projects will greatly reduce cumulative impacts on migratory birds by minimizing direct bird strikes and electrocution; through indirect disturbances to habitat components such as ambient noise and light; and avoiding interference with breeding and nesting. Additionally, the Proposed Action and, to the extent applicable, cumulative projects, will implement biological mitigation measures designed to protect native vegetation communities and avoid and minimize impacts on all wildlife species and specifically bird species. Therefore, the Proposed Action's incremental contribution to any cumulative impact to migratory birds would be minimal.

Impacts to Salton Sea

The Proposed Action will result in a long-term fallowing of agricultural land as a result of conversion of the site for solar use. Other cumulative projects previously identified in Table 5.1.9-1, which are proposed on privately-owned agricultural land, will also result in such conversion. Unlike a permanent conversion of agricultural land to urban or industrial use, the proposed solar project is only a long-term fallowing because the project is required to restore the site back to agricultural use pursuant to the terms of its lease. The project site is a fallow agricultural field that does not currently use water.

However, once the project is converted from a fallow agricultural field to a solar energy facility site, the project will contribute relatively clean water to the New River and the Salton Sea from periodic panel washing runoff and stormwater collection systems. The BMP to control the rate of water runoff and reduce water quality impacts are discussed in Section 4.11 of the EIR/EA, with a focus on the use of specially designed detention ponds that allow sediments and other types of pollutants to settle to the bottom prior to release of the water downstream, eventually into the Salton Sea. Therefore, the Proposed Action in conjunction with the cumulative projects listed on Table 5.1.12-1 would not result in a cumulative impact to the Salton Sea.

TABLE 5.1.12-4
Comparison of Alternatives for Cumulative
Biological Resources Impacts

Proposed Action	Alternative 1- Alternative Transmission Line Corridor	Alternative 2- Alternative Transmission Line Corridor	Alternative 3- Reduced Solar Energy Facility Site	Alternative 4-No Action/No Project Alternative
<i>CEQA Impact Analysis</i>				
Implementation of the Proposed Action, in conjunction with applicable cumulative projects as it relates to biological resources will not result in a significant cumulative impact under CEQA.	As with the Proposed Action, this alternative would not result in a significant cumulative impact to biological resources under CEQA.	As with the Proposed Action, this alternative would not result in a significant cumulative impact to biological resources under CEQA.	As with the Proposed Action, this alternative would not result in a significant cumulative impact to biological resources under CEQA.	This alternative would avoid any impact to biological resources, as no development would occur under this alternative.
<i>NEPA Impact Analysis</i>				
Implementation of the Proposed Action, in conjunction with applicable cumulative projects as it relates to biological resources will not result in a cumulative impact under NEPA.	As with the Proposed Action, this alternative would not result in a cumulative impact to biological resources under NEPA.	As with the Proposed Action, this alternative would not result in a cumulative impact to biological resources under NEPA.	As with the Proposed Action, this alternative would not result in a cumulative impact to biological resources under NEPA.	This alternative would avoid any impact to biological resources, as no development would occur under this alternative.

Source: BRG Consulting, Inc., 2011

5.1.13 Paleontological Resources

5.1.13.1 *Geographic Scope and Timeframe*

Table 5.1.13-1 lists the projects considered for the paleontological resources cumulative impacts analysis. The rationale for inclusion or non-inclusion of each cumulative project as it relates to paleontological resources is presented in Table 5.1.13-1. The geographic scope for the analysis of cumulative impacts related to paleontological resources within the Seeley area is the southwestern section of the high water mark of ancient Lake Cahuilla within the Yuha Basin. More specifically, the geographic scope is defined as the area within one mile of the 40' contour of ancient Lake Cahuilla between the Yuha Wash and the international border with Mexico. This area is composed of soft, unconsolidated aeolian sands and gravels and is crossed by braided washes. The environmental setting of the area northwest of the geographic scope changes in topography and consists of the Yuha Butte and appears to be an area of less active washes. The areas east and northeast consist of agricultural fields. Lakebed deposits of ancient Lake Cahuilla have yielded fossil remains and collectively may provide information about pre-historic conditions associated with the numerous expansions and contractions of the lake. In addition to fossil remains of aquatic and amphibious species that would have inhabited the lakebed itself and the shoreline, the lake would have attracted terrestrial and avian species for water, foraging, reproduction, and migration.

Instead of limiting the analysis to the 40' contour, the geographic scope was expanded to one mile around the 40' contour to be more conservative and err on the side of caution in assessing the cumulative impacts of past, present and future projects on paleontological resources in the vicinity of the Proposed Action. It is noted that the BLM NEPA Handbook advises that "The geographic scope of cumulative effects will often extend beyond the scope of the direct effects, but not beyond the scope of the direct and indirect effects of the proposed action and alternatives" (BLM NEPA Handbook §6.8.3.2.). The Proposed Action's direct and indirect impacts are within the area of potential effect. Nevertheless, the geographic scope has been expanded beyond the area of potential effect to be more conservative and err on the side of caution in assessing the cumulative impacts of past, present and future projects on paleontological resources in the vicinity of the Proposed Action.

The cumulative impact to paleontological resources in the geographic scope of the Proposed Action is defined as the incremental physical impact to such resources of the Proposed Action when added to other closely related past, present, and reasonably foreseeable probable future projects.

5.1.13.2 *Existing Conditions*

The site of the Proposed Action (which includes the solar energy facility and transmission corridor) is located in the Imperial Valley portion of the Salton Trough physiographic province of Southern California. The site and surrounding Imperial Valley is directly underlain by geologic units comprised of quaternary lake deposits of the ancient Lake Cahuilla. Lakebed deposits of ancient Lake Cahuilla have yielded fossil remains from numerous localities in Imperial Valley. These include extensive freshwater shell beds, fish, seeds, pollen, diatoms, foraminifera, sponges, and wood.

TABLE 5.1.13-1
List of Projects Considered for Paleontological Resources Cumulative Impact Analysis

Project Name		Included in Paleontological Resources Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Paleontological Resources CI Analysis?	Impacts to Paleontological Resources
1	"S" Line Upgrade 230-kV Transmission Line Project	Yes	--	No paleontological resources impacted.
2	Imperial Valley Solar (Formerly called SES Solar Two Project)	Yes	--	The paleontological formations on the project site that have moderate to high sensitivity could be adversely affected during construction as a result of disturbance by grading or construction activities. However, impacts to paleontological resources would be reduced with implementation of mitigation measures identified in the FEIS. No impacts to paleontological resources are anticipated during the operation of the project.
3	Sunrise Powerlink Transmission Project (CACA-047658)	Yes	--	Potential to impact paleontological resources with a high sensitivity rating during construction. However, impacts to paleontological resources would be reduced to a level less than significant with implementation of mitigation measures identified in the EIR/EIS.
4	Proposed Action-Imperial Solar Energy Center-West (CACA-51644)	Yes	--	<p>Paleontological resources potentially located on the project site could be adversely affected during construction of the solar energy facility and transmission lines as a result of disturbance by grading or construction activities; unauthorized, unmonitored excavations; unauthorized collection of fossil materials; dislodging of fossils from their preserved environment; and/or, physical damage of fossil specimens. However, with the implementation of mitigation measures, paleontological resource impacts during construction would not be significant.</p> <p>No significant impacts to paleontological resources are anticipated during operation of the Proposed Action.</p>

Project Name		Included in Paleontological Resources Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Paleontological Resources CI Analysis?	Impacts to Paleontological Resources
5	Imperial Solar Energy Center-South (CACA-51645)	Yes	--	<p>Paleontological resources potentially located on the project site could be adversely affected during construction of the solar energy facility and transmission lines as a result of disturbance by grading or construction activities; unauthorized, unmonitored excavations; unauthorized collection of fossil materials; dislodging of fossils from their preserved environment; and/or, physical damage of fossil specimens. However, with the implementation of mitigation measures, paleontological resource impacts during construction would not be significant.</p> <p>No significant impacts to paleontological resources are anticipated during operation of the ISEC South project.</p>
6	SDG&E Proposed Photovoltaic Solar Field (CACA-051625)	No	The level of qualitative data available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
7	North Gila to Imperial Valley #2 Transmission Line (CACA-51575)	No	STP is preparing a Plan of Development. NEPA analysis has not yet commenced.	N/A
8	Centinela Solar Power, LLC (CACA-052092)	No	The level of qualitative data available regarding this project was insufficient to	N/A

Project Name	Included in Paleontological Resources Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Paleontological Resources CI Analysis?	Impacts to Paleontological Resources
		determine the project's potential impacts at the time this evaluation was prepared.	
9	No	This project occurs outside the scope for cumulative projects for this resource issue.	N/A
10	Yes	--	One paleontological resource was previously identified within a 1-mile radius of the project site. Fossils collected at this resource include freshwater invertebrates and terrestrial vertebrates and were identified within Quaternary lake deposits associated with ancient Lake Cahuilla. Sensitivity to paleontological resources in Quaternary lake deposits is considered high. Implementation of mitigation measures would reduce the impact to a level less than significant.
11	No	The level of qualitative data available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
12-29	No	These projects occur outside the scope for	N/A
		*Please Refer to Table 5.0-1 for a complete list of Potential Projects	

Project Name	Included in Paleontological Resources Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Paleontological Resources CI Analysis?	Impacts to Paleontological Resources	
	Considered for the Cumulative Impact Analysis		cumulative projects for this resource issue.	
30	LADWP and OptiSolar Power Plant	No	Applicant Withdrawn	N/A
31	Orni 18, LLC Geothermal Power Plant	No	This project occurs outside the scope for cumulative projects for this resource issue.	N/A
32	U.S. Naval Air Facility El Centro	No	This project occurs outside the scope for cumulative projects for this resource issue.	N/A
33	Recreation Activities	Yes	--	Because OHV use is permitted, such activity has the potential to impact paleontological resources.
34	Recreation Activities	Yes	--	This area is located within the Yuha Desert ACEC. This region is rich with paleontological resources and recreational activities such as OHV use may result in impacts to paleontological resources.
35-37	*Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
38	IV Substation (TermoElectrica US, LLC)	Yes	--	Potential to impact paleontological resources. The applicant would commit to stringent monitoring and mitigation requirements to protect paleontological resources. Several features of the projects' design and construction methods are intended to reduce the amount of surface disturbance and therefore the potential impacts on environmental resources. These include locating the support structures (steel lattice

Project Name	Included in Paleontological Resources Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Paleontological Resources CI Analysis?	Impacts to Paleontological Resources	
			towers, crossing structures, and steel monopoles) so that new access roads can be kept as short as possible; using existing access roads to the maximum extent possible; and using a helicopter to place lattice tower assemblies onto footings to reduce the amount of ground disturbance that would otherwise be caused by the use of lay-down areas and operation of cranes.	
39	IV Substation (Baja California Power, Inc., aka, Intergen)	Yes	--	Potential to impact paleontological resources. The applicant would commit to stringent monitoring and mitigation requirements to protect paleontological resources. Several features of the projects' design and construction methods are intended to reduce the amount of surface disturbance and therefore the potential impacts on environmental resources. These include locating the support structures (steel lattice towers, crossing structures, and steel monopoles) so that new access roads can be kept as short as possible; using existing access roads to the maximum extent possible; and using a helicopter to place lattice tower assemblies onto footings to reduce the amount of ground disturbance that would otherwise be caused by the use of lay-down areas and operation of cranes.
40	IV Substation (SDG&E)	No	No paleontological resources impact identified	N/A
41-63	*Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A

Source: BRG Consulting, Inc., 2011

Lake Cahuilla deposits have also yielded vertebrate fossils, including teeth and bones of birds, horses, bighorn sheep, and reptiles. Therefore, the paleontological sensitivity of these lakebed deposits within the project site boundary is considered to be high.

In addition, the BLM uses a Potential Fossil Yield Classification (PFYC) System that classifies the paleontological resource sensitivity for geologic units and assists in determining proper mitigation approaches for surface disturbing activities. The PFYC uses five classes, with Class 1 being Very Low Potential and Class 5 being Very High Potential. According to the BLM's PFYC System, the lakebed deposits of ancient Lake Cahuilla located within the project site is identified as Class 4b. Class 4b is defined by the BLM as an area underlain by geologic units with high potential to yield fossils but have lowered risks of human-caused adverse impacts and/or lowered risk of natural degradation due to alluvial material, or other conditions that may lessen or prevent potential impacts to the bedrock resulting from the activity. Management concern for paleontological resources in Class 4 is moderate to high, depending on the proposed action. For the Proposed Action, the management concern for paleontological resources is considered to be high.

5.1.13.3 Summary of Effects of the Proposed Action

Paleontological resources potentially located on the project site could be adversely affected during construction and decommissioning of the solar energy facility and transmission lines as a result of disturbance by grading or construction activities; unauthorized, unmonitored excavations; unauthorized collection of fossil materials; dislodging of fossils from their preserved environment; and/or, physical damage of fossil specimens. In addition, the potential for paleontological resources to be impacted as a result of increased accessibility to the project site is low because access to the site would be fenced and limited to personnel accessing the site and construction and operation activities would only occur within the boundaries of the project site. However, with the implementation of Mitigation Measures PR1 through PR6 (as identified in EIR/EA Section 4.13 Paleontological Resources), paleontological resource impacts during construction would be mitigated and would not be significant under CEQA.

No significant impacts under CEQA to paleontological resources are anticipated during operation of the Proposed Action.

5.1.13.4 Cumulative Impact Analysis

The following provides a separate cumulative impact analysis for both CEQA and NEPA.

A. CEQA Impact Analysis

Cumulative development in the Imperial Valley portion of the Salton Trough physiographic province of Southern California has the potential to directly or indirectly destroy or otherwise impact paleontological resources. A substantial impact would be deemed to have occurred if a project, or the projects cumulatively would directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. As discussed above, there is a potential for paleontological resources on the project site to be impacted during construction of the Proposed Action. However, the impact to paleontological resources would be mitigated with implementation of Mitigation Measures PR1 through PR6, as identified in

EIR/EA Section 4.13 of this EIR/EA. Mitigation Measure PR1 will require that a paleontological field survey, consistent with BLM Guidelines, be performed before any ground disturbing activities commence. This survey will determine additional mitigation measures, as necessary. It will also guide the development of a Monitoring Plan under Mitigation Measure PR2. Upon completion of all field work, including survey and monitoring, Mitigation Measure PR3 will require a written final report consistent with BLM Guidelines. When the final report with the specimen inventory and the signed receipt of confirmation of museum deposition are accepted by the BLM, mitigation for paleontological resources related to the project will be considered completed under Mitigation Measure PR4. Mitigation Measure PR5 will ensure that fossil specimens and data will remain property of the Federal government, and will be placed in approved repositories. Mitigation Measure PR6 will require workers to be trained on how to identify paleontological resources and follow procedures to avoid and minimize impacts to paleontological resources.

State law prohibits intentional destruction of paleontological resources and requires reasonable mitigation for impacts on paleontological resources that occur as a result of development on public lands. It cannot be stated with certainty that projects identified with potential cumulative impacts to paleontological resources would be required to minimize or mitigate for any such impacts because until site-specific paleontological surveys are performed, or potentially even until construction begins, it is impossible to know what paleontological resources may be associated with a given site. Although there is currently not sufficient information to evaluate the extent of cumulative projects' impacts to paleontological resources, the Proposed Action's incremental contribution to any cumulative paleontological resources impact would be minimal due to implementation of Mitigation Measures PR1 through PR6. With implementation of Mitigation Measures PR1 through PR6, the Proposed Action's impacts are reduced to such an extent that they would not have a considerable contribution to a cumulative impact to paleontological resource, if any. With avoidance of impacts, and/or recovery of fossil materials and field data as well as confirmed museum deposition, the Proposed Action's incremental contribution to any cumulative impact is less than significant under CEQA. Table 5.1.13-2 provides a comparison of the Proposed Action and Alternatives related to cumulative paleontological resources impacts under CEQA.

B. NEPA Impact Analysis

Cumulative development in the Imperial Valley portion of the Salton Trough physiographic province of Southern California has the potential to directly or indirectly destroy or otherwise impact paleontological resources. As discussed above, there is a potential for paleontological resources on the project site to be impacted during construction of the Proposed Action. However, the impact to paleontological resources would be mitigated with implementation of Mitigation Measures PR1 through PR6, as identified in EIR/EA Section 4.13 of this EIR/EA. Mitigation Measure PR1 will require that a paleontological field survey, consistent with BLM Guidelines, be performed before any ground disturbing activities commence. This survey will determine additional mitigation measures, as necessary. It will also guide the development of a Monitoring Plan under Mitigation Measure PR2. Upon completion of all field work, including survey and monitoring, Mitigation Measure PR3 will require a written final report consistent with BLM Guidelines. When the final report with the specimen inventory and the signed receipt of confirmation of museum deposition are accepted by the BLM, mitigation for paleontological resources related to the project will be considered completed under Mitigation Measure PR4. Mitigation Measure PR5 will ensure that fossil specimens and

data will remain property of the Federal government, and will be placed in approved repositories. Mitigation Measure PR6 will require workers to be trained on how to identify paleontological resources and follow procedures to avoid and minimize impacts to paleontological resources.

State law prohibits intentional destruction of paleontological resources and requires reasonable mitigation for impacts on paleontological resources that occur as a result of development on public lands. It cannot be stated with certainty that projects identified with potential cumulative impacts to paleontological resources would be required to minimize or mitigate for any such impacts because until site-specific paleontological surveys are performed, or potentially even until construction begins, it is impossible to know what paleontological resources may be associated with a given site. Although there is currently not sufficient information to evaluate the extent of cumulative projects' impacts to paleontological resources, the Proposed Action's incremental contribution to any cumulative paleontological resources impact would be minimal due to implementation of Mitigation Measures PR1 through PR6. With implementation of Mitigation Measures PR1 through PR6, the Proposed Action's impacts are reduced and the Proposed Action's would not result in incremental contribution to a cumulative paleontological resources impact under NEPA. Table 5.1.13-2 provides a comparison of the Proposed Action and Alternatives related to cumulative paleontological resources impacts under NEPA.

TABLE 5.1.13-2
Comparison Of Alternatives For Cumulative
Paleontological Resources Impacts

Proposed Action	Alternative 1- Alternative Transmission Line Corridor	Alternative 2- Alternative Transmission Line Corridor	Alternative 3- Reduced Solar Energy Facility Site	Alternative 4-No Action/No Project Alternative
<i>CEQA Impact Analysis</i>				
Implementation of the Proposed Action and Mitigation Measures PR1 – PR6, in conjunction with applicable cumulative projects as it relates to paleontological resources will not result in a significant cumulative impact under CEQA.	As with the Proposed Action, this alternative as mitigated by implementation of Mitigation Measures PR1 – PR6 would not result in a significant, cumulative impact to paleontological resources under CEQA.	As with the Proposed Action, this alternative as mitigated by implementation of Mitigation Measures PR1 – PR6 would not result in a significant, cumulative impact to paleontological resources under CEQA.	As with the Proposed Action, this alternative as mitigated by implementation of Mitigation Measures PR1 – PR6 would not result in a significant, cumulative impact to paleontological resources under CEQA.	This alternative would avoid any impact to paleontological resources, as no development would occur under this alternative.
<i>NEPA Impact Analysis</i>				
Implementation of the Proposed Action and Mitigation Measures PR1 – PR6, in conjunction with applicable cumulative projects as it relates to paleontological resources will not result in a cumulative impact under NEPA.	As with the Proposed Action, this alternative as mitigated by implementation of Mitigation Measures PR1 – PR6 would not result in a cumulative impact to paleontological resources under NEPA.	As with the Proposed Action, this alternative as mitigated by implementation of Mitigation Measures PR1 – PR6 would not result in a cumulative impact to paleontological resources under NEPA.	As with the Proposed Action, this alternative as mitigated by implementation of Mitigation Measures PR1 – PR6 would not result in a cumulative impact to paleontological resources under NEPA.	This alternative would avoid any impact to paleontological resources, as no development would occur under this alternative.

Source: BRG Consulting, Inc., 2011

5.1.14 Socioeconomics and Environmental Justice

5.1.14.1 *Geographic Scope and Timeframe*

Table 5.1.14-1 lists the projects considered for the socioeconomics and environmental justice cumulative impact analysis. The geographic scope of cumulative impacts related to socioeconomics and environmental justice is Imperial County. This is an appropriate area to consider because the impacts of the Proposed Action on socioeconomic factors such as public services and benefits would be manifested in Imperial County. The geographic scope for the labor force would be the Counties of Imperial, San Diego, Riverside, and San Bernardino. This is the appropriate geographic for cumulative labor force impacts because those Counties comprise a two-hour commute radius, and workers are unlikely to commute from further distances.

The cumulative impacts timeframe is the construction phase of the Proposed Action in the short term, and the operational phase in the long term.

5.1.14.2 *Existing Conditions*

According to the employment characteristics from the California Employment Development Department, in June 2010, Imperial County's civilian labor force was estimated to be 76,400 persons. Of this number, 55,300 were employed and 21,100 were unemployed. The unemployment rates (not seasonally adjusted) for Imperial County, the State of California, and the United States for June 2010 were 27.6 percent, 12.2 percent, and 9.6 percent, respectively. Imperial County's unemployment rate substantially exceeds that of the State of California and the United States.

The three largest sectors with the largest employment in Imperial County are agriculture, government, trade, transportation and utilities. Like many other sectors in Imperial County, these three sectors have experienced job loss due to the recent downturn in the economy.

The project site is located within Imperial County Census Tract 012301, which had a total 2000 population of 5,202. The census tract has a predominately Hispanic or Latino ethnic composition of the overall population. The median household income in this census tract is \$25,982. As such, this census tract is considered a low-income and minority neighborhood.

The City of El Centro is the closest city to the Proposed Action site, located approximately 12 miles east of the Proposed Action Site. The City of El Centro has a median household income of \$33,161 and the percentage of the population not in the labor force is 44.2%. The next closest city to the Proposed Action site is the City of Calexico, located approximately 16 miles southeast of the Proposed Action site. The median household income for the City of Calexico is \$28,929 and the percentage of the population not in the labor force is 47.1%. The percentage of families living in poverty in the City of El Centro and City of Calexico are 20.6% and 22.6% respectively. Similar to the census tract where the Proposed Action is located, the cities in the vicinity of the Proposed Action site are considered low-income and minority neighborhoods.

TABLE 5.1.14-1
List of Projects Considered for Socioeconomic Conditions and Environmental Justice
Cumulative Impact Analysis

Project Name		Included in Socioeconomic Conditions and Environmental Justice Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Socioeconomic Conditions and Environmental Justice CI Analysis?	Impacts to Socioeconomic Conditions and Environmental Justice
1	"S" Line Upgrade 230-kV Transmission Line Project	Yes	--	The proposed project would increase electric reliability by upgrading the structural capacity of the transmission line to meet regulations and future demand and by providing enhanced infrastructure, and indirectly induce planned growth. Improved dependability of the electrical service to the area serves planned residences and businesses and provides additional service for future needs. No existing housing or residents would be displaced by the proposed project.
2	Imperial Valley Solar (Formerly called SES Solar Two Project)	Yes	--	Because the majority of the construction workforce currently resides within Imperial, San Diego, San Bernardino, and Riverside Counties, construction, operation, and decommissioning of the project would have little impact with respect to inducing substantial population growth. Inducement of substantial population growth either directly or indirectly by the project would not be adverse. The labor force would be within commuting distance of the project site. As such, it is anticipated that a majority of construction workers would commute to the site daily from their existing residences. No new housing construction would be required. Furthermore, the project would not displace any people or necessitate construction of replacement housing elsewhere.

	Project Name	Included in Socioeconomic Conditions and Environmental Justice Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Socioeconomic Conditions and Environmental Justice CI Analysis?	Impacts to Socioeconomic Conditions and Environmental Justice
3	Sunrise Powerlink Transmission Project (CACA-047658)	Yes	--	<p>The Sunrise Powerlink Transmission Project would result in socioeconomics/environmental justice impacts due to the following:</p> <ol style="list-style-type: none"> 1. Project construction and/or transmission line presence would cause a substantial change in revenue for businesses, tribes, or government. 2. Construction would disrupt the existing utility systems or cause a collocation accident. 3. Project construction and operation would increase the need for public services and facilities. 4. Visual impact would constitute a significant and unmitigable environmental impact to a high-minority group (Barona Reservation). 5. Air quality impact would constitute a significant and unmitigable environmental impact to a high-minority group (Barona Reservation).
4	Proposed Action-Imperial Solar Energy Center-West (CACA-51644)	Yes	--	<p>Based on the available housing stock, there are anticipated to be more than enough vacant homes to support any project-related immigration. As such, the construction of the Proposed Action would place a negligible, temporary demand on housing, which is not considered a significant impact. The project would not displace any residents or traverse an established community because the project would be located on agricultural land and within a designated utility corridor. Furthermore, the project will provide beneficial effects on the surrounding area by proving social and environmental benefits, promoting stable electricity prices, reducing reliance on imported fuels, protecting public health, and benefits to communities with minority or low-</p>

Project Name	Included in Socioeconomic Conditions and Environmental Justice Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Socioeconomic Conditions and Environmental Justice CI Analysis?	Impacts to Socioeconomic Conditions and Environmental Justice
			income populations by creating local employment opportunities.
5	Imperial Solar Energy Center-South (CACA-51645)	Yes	--
			Based on the available housing stock, there are anticipated to be more than enough vacant homes to support any project-related immigration. As such, the construction of the ISEC South project would place a negligible, temporary demand on housing, which is not considered a significant impact. The ISEC South project would not displace any residents or traverse an established community because the project would be located on agricultural land and within a designated utility corridor. Furthermore, the ISEC South project will provide beneficial effects on the surrounding area by proving social and environmental benefits, promoting stable electricity prices, reducing reliance on imported fuels, protecting public health, and benefits to communities with minority or low-income populations by creating local employment opportunities.
6	SDG&E Proposed Photovoltaic Solar Field (CACA-051625)	No	The level of qualitative data available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.
7	North Gila to Imperial Valley #2 Transmission Line (CACA-51575)	No	STP is preparing a Plan of Development. NEPA analysis has not yet commenced.

	Project Name	Included in Socioeconomic Conditions and Environmental Justice Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Socioeconomic Conditions and Environmental Justice CI Analysis?	Impacts to Socioeconomic Conditions and Environmental Justice
8	Centinela Solar Power, LLC (CACA-052092)	No	The level of qualitative data available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	
9	San Diego Gas & Electric (SDG&E) East County (ECO) Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects	Yes	--	The project would not displace substantial numbers of people or existing housing. Beneficial effects would result such as a change in revenue for businesses, tribes or governments. Property tax revenues from project presence would benefit public agencies. The construction and operation of the project would not result in disproportionately high or adverse effects on minority or low-income populations.
10	Dixieland Connection to IID Transmission System	Yes	--	No significant permanent environmental impacts would result from this project. Potentially significant impacts can be fully mitigated to a less-than-significant level. Therefore, no permanent adverse human health effects or permanent adverse environmental effects are likely to affect any population near the project site. No permanent impacts to low-income or minority groups are anticipated.
11-15	*Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	No	The level of qualitative data available regarding these projects was insufficient to determine the potential impacts at	

Project Name	Included in Socioeconomic Conditions and Environmental Justice Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Socioeconomic Conditions and Environmental Justice CI Analysis?	Impacts to Socioeconomic Conditions and Environmental Justice
		the time this evaluation was prepared.	
16-21	No	*Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	The development applications were received after the NOP was published.
22-31	No	*Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	The level of qualitative data available regarding these projects was insufficient to determine the project's potential impacts at the time this evaluation was prepared.
32	No	U.S. Naval Air Facility El Centro	Existing facility. No additional socioeconomic and environmental justice impacts.
33	No	Recreation Activities	The level of qualitative data available regarding this project was insufficient to determine the project's potential impacts at the time

Project Name	Included in Socioeconomic Conditions and Environmental Justice Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Socioeconomic Conditions and Environmental Justice CI Analysis?	Impacts to Socioeconomic Conditions and Environmental Justice
			this evaluation was prepared.
34	Recreation Activities	No	The level of qualitative data available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.
35	U.S. Gypsum Mining	Yes	<p>--</p> <p>The project relies on water supply wells located in the Ocotillo/Coyote Wells Groundwater Basin which includes several communities. These communities rely on the Ocotillo/Coyote Wells groundwater basin as their sole source of potable water. The project anticipates increasing groundwater pumping from these existing wells. Several areas within the affected region have minority and low-income census tracts. However, the areas of direct impacts relative to Water Supply have both a minority population and a low-income population well below the respective County percentages. Therefore, no disproportionate effects on minority or low-income communities have been identified.</p> <p>The project would contribute 140 new jobs through direct employment and also contribute to the economic well-being of Imperial County through secondary effects such as commerce and increased consumer spending in local communities.</p>

Project Name		Included in Socioeconomic Conditions and Environmental Justice Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Socioeconomic Conditions and Environmental Justice CI Analysis?	Impacts to Socioeconomic Conditions and Environmental Justice
36	California State Prison, Centinela	No	Existing facility. No additional socioeconomic conditions and environmental justice impacts.	
37	Recreation Activities	No	The level of qualitative data available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	
38	IV Substation (TermoElectrica US, LLC, aka Sempra)	Yes	--	<p>Temporary impacts from noise and dust emissions during transmission line construction and more long-term impacts from noise in the vicinity of the transmission lines would not contribute to high and adverse impacts to the general population or to disproportionately high and adverse impacts to minority and low-income populations in any block group.</p> <p>Environmental justice impacts due to power plant emissions would not contribute to high and adverse impacts to general population or to disproportionately high and adverse impacts to minority and low-income populations in any block group because emissions were found to be negligible.</p>
39	IV Substation (Baja California Power, Inc., aka, Intergen)	Yes	--	Temporary impacts from noise and dust emissions during transmission line construction and more long-term impacts from noise in the vicinity of the transmission lines would not

Project Name	Included in Socioeconomic Conditions and Environmental Justice Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Socioeconomic Conditions and Environmental Justice CI Analysis?	Impacts to Socioeconomic Conditions and Environmental Justice
			<p>contribute to high and adverse impacts to the general population or to disproportionately high and adverse impacts to minority and low-income populations in any block group. Environmental justice impacts due to power plant emissions would not contribute to high and adverse impacts to general population or to disproportionately high and adverse impacts to minority and low-income populations in any block group because emissions were found to be negligible.</p>
40	IV Substation (SDG&E)	No	Existing line. No additional socio-economic conditions and environmental justice impacts.
41-49	*Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	No	The level of qualitative data available regarding these projects was insufficient to determine the project's potential impacts at the time this evaluation was prepared.
50	Mosaic	Yes	<p>--</p> <p>The proposed project site is primarily vacant with the exception of one mobile home. However, the project would not require a large amount of existing residences or people to be displaced and no replacement housing is necessary. Therefore, no impact is identified for the issue area.</p> <p>The proposed project involves approval of a Specific Plan, which will ensure that public services and facilities are</p>

Project Name	Included in Socioeconomic Conditions and Environmental Justice Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Socioeconomic Conditions and Environmental Justice CI Analysis?	Impacts to Socioeconomic Conditions and Environmental Justice
			provided to serve development and the service needs of future residents.
51	Hallwood/Calexico Place 111 & Casino	Yes	<p>--</p> <p>The proposed project would result in the development of commercial highway uses and a casino resort complex/hotel, which will increase local employment opportunities. As discussed in the EIR, “in-migration” is when new workers, who had previously lived and worked outside the region, move to a location that is closer to their new place of employment. This phenomenon is not anticipated to occur because the unemployment rate in Calexico is already high, which indicates that most of the people who would work at the proposed project site already live within the area. Therefore, the proposed project would not alter the growth rate of the human population planned for the area.</p> <p>Furthermore, the project site is currently vacant. No existing residences would be displaced and no replacement housing is necessary for the development of the proposed project. Therefore, implementation of the proposed project would not result in a significant impact to housing/population.</p>
52	Calexico Mega Park	Yes	<p>--</p> <p>The proposed project would not displace homes or people. Although the proposed project would provide more jobs, this would not likely induce anymore population growth than is already expected, and thus, the project would result in less than significant impacts on population and housing.</p>
53	County Center II Expansion	Yes	<p>--</p> <p>The proposed project is the expansion of the County Center II and will include the development of government, institutional, and commercial uses. “In-migration” is when new workers, who had previously lived and worked outside the region, move to a location that is closer to their new place of</p>

Project Name	Included in Socioeconomic Conditions and Environmental Justice Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Socioeconomic Conditions and Environmental Justice CI Analysis?	Impacts to Socioeconomic Conditions and Environmental Justice
			<p>employment. This phenomenon is not anticipated to occur because the unemployment rate in Imperial County is already high, which indicates that most of the people who would potentially work at the project site already live within the area. Therefore, the proposed project would not alter the growth rate of the human population planned for the area.</p> <p>Furthermore, the project site is currently developed with the County Center II and used for agricultural production. No existing residences would be displaced and no replacement housing is necessary for the development of the proposed project. Therefore, the implementation of the proposed project would not result in a significant impact to population/housing.</p>
54	Desert Springs Resort	Yes	--
55	Coyote Wells (Wind Zero)	Yes	<p>Implementation of the proposed project will not result in a significant population and housing impact. The project would not divide an established community, and the project would not place a significant demand on housing or result in a significant permanent increase in population.</p> <p>As Imperial County has a high unemployment rate, the project would likely be staffed by a portion of the currently unemployed work force of the county. The increase in employment opportunities that would result from implementation of the proposed project is anticipated to be a beneficial impact to employment.</p> <p>The proposed project would not induce substantial population growth as it does not contain a permanent residential component or act as a desirable component of a future residential community.</p>

Project Name	Included in Socioeconomic Conditions and Environmental Justice Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Socioeconomic Conditions and Environmental Justice CI Analysis?	Impacts to Socioeconomic Conditions and Environmental Justice
56-61	No	The level of qualitative data available regarding these projects was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	
62	Yes	--	Because of the limited population in the town of Seeley, construction workers would most likely be from larger nearby cities such as El Centro. While there is limited housing in the town of Seeley, workers could easily commute from cities and towns within the El Centro region. Because of the limited number of workers required during for the project, and the available works and high unemployment rate, it is expected that there would be no potentially significant socioeconomic impacts.
63	No	The level of qualitative data available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	

Source: BRG Consulting, Inc., 2011

5.1.14.3 *Summary of Effects of the Proposed Action*

As identified in Section 4.14 of this EIR/EA, the Proposed Action would not trigger any other development that would place socioeconomic/environmental justice burdens on the County of Imperial and nearby cities.

The Proposed Action is expected to consist of 285 workers during the temporary construction phase. The construction activities are expected to require approximately 17 months. During operations and maintenance of the proposed facilities, approximately four fulltime personnel would be required. Some of the workers would be recruited locally and available through the existing labor pool, and some would be specialized technical workers from outside of the local area. Most workers are expected to stay in local hotels or rental housing units. Based on the available regional housing stock, there are anticipated to be more than enough vacant homes to support any project-related immigration under the Proposed Action. The California Department of Finance estimates Imperial County's housing vacancy rate was 10.91 percent on January 1, 2010, which equated to over 6,100 vacant housing units. Therefore, based on the available regional housing stock, there are anticipated to be more than enough vacant homes to support any project-related immigration under the Proposed Action. Thus, the construction of the Proposed Action would place a negligible demand on housing, which is not considered a significant impact under CEQA. Additionally, the Proposed Action would not displace any existing housing or displace any people, necessitating the construction of replacement housing elsewhere.

The Proposed Action would be constructed in an uninhabited area. The portion of the project site within the County of Imperial was previously used for agricultural production, but has been fallow for many years and the transmission line corridor is located on existing BLM land that is currently designated as a utility corridor. Therefore, the Proposed Action would not displace people or existing housing. In addition, the proposed transmission line would be constructed within an area on BLM land currently designated as a utility corridor and would not physically divide any community. Therefore, no significant impact is identified for this issue area.

Imperial County predominately consists of minority and low-income individuals. However, the Proposed Action is considered a public benefit and would not result in effects to the minority population residing within and surrounding the Imperial County area. The Proposed Action would not displace any residents or traverse an established community because the project would be located on land previously used for agricultural production and within a designated utility corridor.

The construction and operation of the solar energy facility is considered a public benefit by providing employment opportunities to low-income and minority populations in the area. The placement of the Proposed Action in this portion of the County would not result in adverse effects or impacts that are appreciably more severe in magnitude or are predominately borne by any segment of the population, such as household population with low income or a minority population in comparison with a population that is not low income or minority.

The Proposed Action will provide beneficial effects on the surrounding area by providing social and environmental benefits, promoting stable electricity prices, reducing reliance on imported fuels, protecting public health, and benefits to communities with minority or low-income populations by creating local employment opportunities.

5.1.14.4 *Cumulative Impact Analysis*

The following provides a separate cumulative impact analysis for both CEQA and NEPA.

A. CEQA Impact Analysis

Imperial County has been hard hit by the recent downturn in the economy. The Proposed Action, in conjunction with other cumulative projects would benefit Imperial County in the short-term by creating local construction work, and in the long-term with work associated with the operation of projects. Like the Proposed Action, it is anticipated that some of the workers needed for the construction and operation of the cumulative projects would be recruited locally and available through the existing labor pool, and some would be specialized technical workers from outside the local area. Imperial County has an unemployment rate of 28.3 percent, which is currently higher than the unemployment rate of the State of California and United States. By creating employment demand, the Proposed Action and cumulative projects could have similar beneficial impacts on local employment, potentially working to reduce the unemployment rate in Imperial County. Given the current unemployment rate in the County, the cumulative projects are not expected to create any distortions in the labor market.

Similarly, the current housing vacancy rate for Imperial County is 12.3%. As noted above, the proposed project would require approximately 285 construction workers during the temporary construction period and four employees during the long-term operation of the project. The cumulative projects are anticipated to require similar levels of construction and operation workers. However, as with the unemployment rate, due to the high vacancy rate in Imperial County, no substantial adverse impacts on housing or the displacement of residents would occur with implementation of the Proposed Action as there is likely sufficient vacant housing to meet demand associated with project construction and operation. Additionally, it is anticipated that many of the construction and operational workers would commute to the project site.

Similar to the Proposed Action, the majority of the cumulative projects listed on Table 5.1.14-1 would be constructed in uninhabited areas that would not displace people or existing housing and would not physically divide any community. As such, the cumulative projects would not result in impacts that are appreciably more severe in magnitude or are predominately borne by any segment of the population, such as household populations with low income or a minority population in comparison with a population with not low income or minorities. Rather, similar to the Proposed Action, the cumulative projects will provide employment opportunities to the low income and minority population of Imperial County and is anticipated to improve the existing unemployment rate for Imperial County.

Therefore, the Proposed Action is anticipated to contribute to beneficial socioeconomic effects and would not contribute to any cumulative adverse socioeconomic and environmental justice impacts under CEQA

in Imperial County. Table 5.1.14-2 provides a comparison of the Proposed Action and Alternatives related to cumulative socioeconomics and environmental justice impacts under CEQA.

B. NEPA Impact Analysis

No direct or indirect impacts on the labor pool, housing or communities would occur with implementation of the Proposed Action, nor would the Proposed Action result in the displacement of any residents or impacts that are predominately borne by any segment of the population. Moreover, based on the analysis provided above under the CEQA Impact Analysis, the Proposed Action is anticipated to contribute to beneficial socioeconomic effects and would not contribute to a cumulative socioeconomic and environmental justice impact in Imperial County. Table 5.1.14-2 provides a comparison of the Proposed Action and Alternatives related to cumulative socioeconomics and environmental justice impacts under NEPA.

TABLE 5.1.14-2
Comparison Of Alternatives For Cumulative
Socioeconomics And Environmental Justice Impacts

Proposed Action	Alternative 1 – Alternative Transmission Line Corridor	Alternative 2 – Alternative Transmission Line Corridor	Alternative 3 – Reduced Solar Energy Facility Site	Alternative 4 – No Action/No Project Alternative
<i>CEQA Impact Summary</i>				
Implementation of the Proposed Action, in conjunction with applicable cumulative projects as it relates to socioeconomics and environmental justice, will not result in a cumulative impact under CEQA.	As with the Proposed Action, this alternative would not result in a significant, cumulative socioeconomics and environmental justice impact under CEQA.	As with the Proposed Action, this alternative would not result in a significant, cumulative socioeconomics and environmental justice impact under CEQA.	As with the Proposed Action, this alternative would not result in a significant, cumulative socioeconomics and environmental justice impact under CEQA.	As with the Proposed Action, this alternative would not result in a significant, cumulative socioeconomics and environmental justice impact under CEQA.
<i>NEPA Impact Summary</i>				
Implementation of the Proposed Action, in conjunction with applicable cumulative projects as it relates to socioeconomics and environmental justice, will not result in a cumulative impact under NEPA.	As with the Proposed Action, this alternative would not result in a cumulative socioeconomics and environmental justice impact under NEPA.	As with the Proposed Action, this alternative would not result in a cumulative socioeconomics and environmental justice impact under NEPA.	As with the Proposed Action, this alternative would not result in a cumulative socioeconomics and environmental justice impact under NEPA.	As with the Proposed Action, this alternative would not result in a cumulative socioeconomics and environmental justice impact under NEPA.

Source: BRG Consulting, Inc., 2011

5.1.15 Recreation

5.1.15.1 *Geographic Scope and Timeframe*

Table 5.1.15-1 lists the projects considered for the recreation cumulative impact analysis. The geographic scope for the analysis of cumulative impacts related to recreation includes the local and regional recreation facilities in the County of Imperial and the impact of the Proposed Action such facilities when added to other closely related past, present, and reasonably foreseeable probable future projects.. This is the appropriate geographic scope because the Proposed Action is located entirely within the County of Imperial and is not expected to have direct or indirect effects on recreation beyond the County.

5.1.15.2 *Existing Conditions*

As discussed in EIR/EA Section 3.15, the proposed solar energy facility site is located on private land previously utilized for agricultural use in the County of Imperial and is not designated or zoned for recreation use. The transmission line corridor would be located within an area currently designated by the BLM as Utility Corridor “N.” The entire transmission line corridor is located within the Yuha Desert. The CDCA Plan designates this area as Multiple-Use L (Limited Use), which is suitable for recreation “...which generally involves low to moderate use densities.” The Limited Use designation also limits all motorized travel to designated routes. Based on the Western Colorado Desert Routes of Travel Designations, there are only limited use routes designated within the Utility Corridor “N.”

In addition, California State Parks administers several recreational areas located in the general vicinity of the overall project site. These are the Anza-Borrego Desert State Park, the Ocotillo Wells State Vehicular Recreation Area, and the Heber Dunes State Recreation Area. These recreational areas are 12.2, 30, and 14.6 miles away from the proposed project site, respectively.

The majority of the land in Imperial County is designated as Open Space/Recreation according to the County’s General Plan Land Use Map. The open space and recreation areas under BLM management in Imperial County are designated as “open” or “limited use.” In open areas, all forms of cross-county travel are permitted within the posted boundaries; however, in limited use areas, vehicle travel is limited to approved/signed routes of travel and no cross-country vehicle travel is allowed. Table 3.15-1 describes the recreation areas in the vicinity of the project site.

5.1.15.3 *Summary of Effects of the Proposed Action*

The Limited Use designation of the transmission line corridor and access road within BLM lands are suitable for recreation, but limits all motorized travel to designated routes. Utility Corridor “N” does include designated limited routes that can be used for OHV recreation. Transmission lines and the proposed access road would not limit the use of these routes. With the installation of the transmission line corridor and access road within the designated Utility Corridor “N”, the Proposed Action would not preclude the surrounding BLM lands to be used for recreational uses, such as OHV recreation, and impacts to recreational uses would be de minimis. As such, the construction of the transmission line corridor and access road proposed under the Proposed Action would result in short-term and relatively minor impacts associated with OHV recreation.

TABLE 5.1.15-1
List of Projects Considered for Recreation Resources Cumulative Impact Analysis

Project Name		Included in Recreation Resources Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Recreation Resources CI Analysis?	Impacts to Recreation Resources
1	"S" Line Upgrade 230-kV Transmission Line Project	Yes	--	The proposed project would not increase the demand for parks or other recreations facilities. The proposed project does not include recreational facilities and would not have an adverse effect on surrounding areas.
2	Imperial Valley Solar (Formerly called SES Solar Two Project)	Yes	--	<p>Because the project would result in the conversion of over 6,000 acres of land, a disruption of recreational activities established in Federal, State, and local recreational areas would result. Identified direct, indirect, short- and long- term impacts include impacts to:</p> <ul style="list-style-type: none"> • off highway vehicle (OHV) Open Routes; • the Anza Trail Corridor Historical context <p>Impacts associated with the conversion of recreation land uses would result in unavoidable adverse impacts after the implementation of mitigation measures.</p>
3	Sunrise Powerlink Transmission Project (CACA-047658)	Yes	--	The proposed project would result in temporary impacts associated with construction resulting in a reduction of access or visitation to recreation and wilderness areas. Operational impacts would result in unavoidable adverse impacts to wilderness. Presence of the transmission line within State wilderness areas is inconsistent with the definition of wilderness and would require re-designation of affected wilderness lands, thereby resulting in significant, unmitigable impacts. Additionally, the proposed project would traverse six open space preserves, the Trans-County Trail, and the Pacific Crest Trail (PCT) significantly diminishing the character and value of these recreational resources and permanently precluding recreational activities should project structures be sited on trails.

Project Name		Included in Recreation Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Recreation CI Analysis?	Impacts to Recreation Resources
4	Proposed Action-Imperial Solar Energy Center-West (CACA-51644)	Yes	--	Because no significant recreation impacts have been identified for this project, no mitigation measures have been proposed.
5	Imperial Solar Energy Center-South (CACA-51645)	Yes	--	Because no significant recreation impacts have been identified for this project, no mitigation measures have been proposed.
6	SDG&E Proposed Photovoltaic Solar Field (CACA-051625)	Yes	--	Located on approximately 100 acres of Federal land directly adjacent to SDG&E's IV Substation.
7	North Gila to Imperial Valley #2 Transmission Line (CACA-51575)	No	The level of qualitative data available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
8	Centinela Solar Power, LLC (CACA-052092)	Yes	--	Located on approximately 2,067 acres of privately owned agricultural land in the western portion of Imperial County near the IV Substation. The proposed transmission line corridor will follow the 230-kV lines from the international border going north.
9	San Diego Gas & Electric (SDG&E) East County (ECO) Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects	No	These projects occur outside the scope for cumulative projects for this resource issue.	N/A
10	Dixieland Connection to IID Transmission System	Yes	--	The proposed project would result in construction operations within an area that is used for limited recreation, including hiking, camping, off-road-vehicle use, and horseback riding. The permanent components of the Proposed Action would not interfere with the continuation of these uses and the maintenance road may result in increased exploration by

	Project Name	Included in Recreation Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Recreation CI Analysis?	Impacts to Recreation Resources
				recreation users. Because interruptions to recreation use would only be temporary, the proposed project would not have a potentially adverse effect on recreational resources or create any new demand for such resources.
11	Mount Signal Solar Farm I- (82 LV 8ME, LLC (CACA-052325))	Yes	--	Located on 1,375 acres of privately owned land located 2.5 to 7.5 miles west of Calexico in southern Imperial County. ROW is located within BLM lands.
12-15	*Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	No	The level of qualitative data available regarding these projects was insufficient to determine the potential impacts at the time this evaluation was prepared.	N/A
16-21	*Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	No	The development applications were received after the NOP was published.	N/A
22	IV Solar Company	Yes	--	Located on 1,375 acres of privately owned land located 2.5 to 7.5 miles west of Calexico in southern Imperial County. ROW is located within BLM lands. Additional project specific information is needed.
23	Chocolate Mountain	No	The level of qualitative data available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A

Project Name		Included in Recreation Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Recreation CI Analysis?	Impacts to Recreation Resources
24	Ocotillo Express	Yes	--	The project site is public land that is available for limited recreational use, including dispersed recreation opportunities such as hiking, camping, and biking. Nearby areas area also used for recreational purposes, including BLM wilderness areas and Anza-Borrego Desert State Park.
25-29	*Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	No	The level of qualitative data available regarding these projects was insufficient to determine the potential impacts at the time this evaluation was prepared.	N/A
30	LADWP and OptiSolar Power Plant	No	Applicant Withdrawn	N/A
31	Orni 18, LLC Geothermal Power Plant	No	The level of qualitative data available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A
32	U.S. Naval Air Facility El Centro	No	The level of qualitative data available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A

Project Name		Included in Recreation Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Recreation CI Analysis?	Impacts to Recreation Resources
33	Recreation Activities	No	The efforts associated with ongoing recreation activities do not include expansion or changes in the existing activities that would result in new adverse effects to recreational uses.	N/A
34	Recreation Activities	No	The efforts associated with ongoing recreation activities do not include expansion or changes in the existing activities that would result in new adverse effects to recreational uses.	N/A
35	U.S. Gypsum Mining	Yes	--	The Plant site totals approximately 473 acres with 309 disturbed/developed acres prior to 1998. The Quarry consists of 2,048 acres, approximately 1,668 acres of private land, and 380 acres of unpatented placer mining claims on Federal land currently administered by BLM. Recreational land uses within project vicinity include dispersed recreational opportunities (hiking, backpacking, horseback riding, and camping) at Fish Creek Wilderness Area and Anza-Borrego Desert State Park. However, continued quarrying activities in the canyon would not significantly affect recreational opportunities on these adjacent public lands and therefore, require no mitigation measures be implemented. Because the potential effects of proposed project would be similar to existing Quarrying

	Project Name	Included in Recreation Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Recreation CI Analysis?	Impacts to Recreation Resources
				activities, there would not be a substantial change from baseline conditions resulting in less than significant impacts.
36	California State Prison, Centinela	No	This project is an existing facility that has been included in the evaluation of existing conditions.	N/A
37	Recreation Activities	No	The efforts associated with ongoing OHV recreation activities do not include expansion or changes in the existing activities that would result in new adverse effects to recreational uses.	N/A
38	IV Substation (TermoElectrica US, LLC)	Yes	--	The Western Colorado Desert Routes and Travel Designation Plan identifies the recreational activities that are allowed in the Yuha Basin ACEC; recreational uses are limited to camping and off-road activity is restricted to county roads. There are no designated camping areas within 10 miles of the proposed transmission line routes.
39	IV Substation (Baja California Power, Inc., aka, Intergen)	Yes	--	The Western Colorado Desert Routes and Travel Designation Plan identifies the recreational activities that are allowed in the Yuha Basin ACEC; recreational uses are limited to camping and off-road activity is restricted to county roads. There are no designated camping areas within 10 miles of the proposed transmission line routes.
40	IV Substation (SDG&E)	Yes	--	Additional project specific information is required.

Project Name	Included in Recreation Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Recreation CI Analysis?	Impacts to Recreation Resources
41-49 *Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	No	The level of qualitative data available regarding these projects was insufficient to determine the project’s potential impacts at the time this evaluation was prepared.	N/A
50 Mosaic	Yes	--	The project site is used primarily for agricultural purposes. It is located in the town of Heber and is within the Heber Urban Area Plan. The project site and is designated as Low-Density Residential and General Commercial land use and the townsite of Heber is primarily an “Urban Area.” There are no identified recreational land uses within the boundary of the project and therefore would not result in impacts to recreational uses.
51 Hallwood/Calexico Place 111 & Casino	Yes	--	The proposed project would result in the development of commercial highway uses and a casino resort complex/hotel. No residential uses are proposed under the proposed project. As such, inclusion of parkland into the development is not required. Such uses may be included in the development of the proposed project with the use of the detention basins as fields for occasional recreation use. However, the use of the detention basins would not have an adverse physical effect on the environment. Therefore, a less than significant impact is identified for the issue areas identified for recreation. Furthermore, the project site does not currently contain any recreation areas or parks and will not result in the removal of recreational facilities. Therefore, implementation of the proposed project would not have a significant impact on existing recreational facilities in the community.

Project Name		Included in Recreation Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Recreation CI Analysis?	Impacts to Recreation Resources
52	Calexico Mega Park	Yes	--	The proposed project could potentially amplify the use of existing City Parks due to increased population growth as a result of new jobs generated from new commercial construction. The anticipated project, however, would not generate enough of a population growth that would require construction or expansion of recreational facilities.
53	County Center II Expansion	Yes	--	The project site consists of 240 acres of land with an 80 acre portion of the site currently developed by existing County Center II facilities (approximately 74 acres) and Imperial County Office of Education facilities (approximately 6 acres). The remaining 160-acre portion is currently undeveloped and used for agricultural production. Surrounding land uses are agricultural with a few agricultural-related residences located within these areas. Because this project will not have an impact to recreational resources, no mitigation measures have been identified.
54	Desert Springs Resort	Yes	--	The majority of 1,105-acres project site is currently used for agricultural production or has been utilized for agriculture. The remainder is currently undeveloped and vacant and is identified as fallow and/or disturbed desert areas. Surrounding land uses include government/special use areas to the north and west, the Fillaree Canal to the east, the Westside main Canal to the southeast, and agriculture land to the south. Because this project will not have an impact to recreational resources, no mitigation measures have been identified.
55	Coyote Wells (Wind Zero)	Yes	--	The Imperial County General Plan Parks and Recreations Element requires the provision of five net acres of parkland for every 1,000 residents. Based on the project's potential population at buildout, the proposed project would not require additional parkland. Further, the Coyote Wells Specific Plan project proposes 204.5 acres of open space preservation area and 380.6 acres of private recreational area. Permitted uses

	Project Name	Included in Recreation Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Recreation CI Analysis?	Impacts to Recreation Resources
				within the open space preservation area would include picnic grounds, a tourist center with parking, and designated archaeological points of interest. The project impacts associated with an increase in the demand for parks and recreation facilities would be less than significant and therefore, require no mitigation measures.
56-61	*Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	No	The level of qualitative data available regarding these projects was insufficient to determine the potential impacts at the time this evaluation was prepared.	N/A
62	Seeley Wastewater Treatment Plant Upgrade	Yes	--	No recreation areas occur on site and no recreational areas are located within 1,000 feet of the facility.
63	Cahuilla Gold Project	No	The level of qualitative data available regarding this project was insufficient to determine the project's potential impacts at the time this evaluation was prepared.	N/A

Source: BRG Consulting, Inc., 2011

The solar energy facility within privately owned land of the Proposed Action does not involve the construction of recreation facilities. Furthermore, the Proposed Action is the construction and operation of a solar energy facility and would not contain a residential component. As discussed in EIR/EA Section 6.1.2 Growth Inducing Impacts, the Proposed Action does not involve the development of permanent residences that would result in a direct population growth in the area. The construction workforce for the Proposed Action is expected to reach a peak of approximately 285 temporary workers. The Proposed Action would require the employment of four full-time personnel and one security guard for the operation of the solar energy facility. As such, the Proposed Action would not induce substantial growth in the area. As such, development of the Proposed Action would not require a need for the construction or expansion of recreational facilities. Therefore, the project would not have an impact with regard to recreational facilities.

5.1.15.4 *Cumulative Impact Analysis*

The following provides a separate cumulative impact analysis for both CEQA and NEPA.

A. CEQA Impact Analysis

As discussed above under the Effects of the Proposed Action, the Proposed Action would not affect the recreational uses of the surrounding BLM lands. These BLM lands would remain available for recreational activities that are permitted within their specified use designations. Furthermore, the solar energy facility portion of the Proposed Action does not involve the construction of recreation facilities. The Proposed Action would not contain a residential component that would increase the use of an existing neighborhood or regional park or other recreational facilities such that substantial physical deterioration would occur. Therefore, the Proposed Action would not result in a cumulative impact to recreation. Table 5.1.15-2 provides a comparison of the Proposed Action and Alternatives related to cumulative recreation impacts.

B. NEPA Impact Analysis

As discussed above under Effects of the Proposed Action, the location of project components would be consistent with intended land use designations set forth by BLM's CDCA Plan. The proposed transmission line structures will be located in areas within Yuha Desert designated specifically for utility structures (Utility Corridor "N") and will be grouped together in order to prevent them from being scattered throughout BLM lands. Activities for OHV uses are currently allowed on lands adjacent to Utility Corridor "N" designated areas and those areas would not be affected by the Proposed Action. Similarly, the entire transmission corridor site and access roads will also be located within areas designated by the CDCA as Multiple-Use areas which allow low to moderate density uses and restrict motorized travel to designated routes. The Proposed Action would adhere to assigned land use designations and consequently would not contribute to cumulative Recreation impacts. Table 5.1.15-2 below summarizes the Proposed Action and Alternatives related to cumulative Recreation impacts.

TABLE 5.1.15-2
Comparison of Alternatives for Cumulative Recreation Impacts

Proposed Action	Alternative 1- Alternative Transmission Line Corridor	Alternative 2- Alternative Transmission Line Corridor	Alternative 3- Reduced Solar Energy Facility Site	Alternative 4-No Action/No Project Alternative
<i>CEQA Impact Analysis</i>				
Implementation of the Proposed Action, in conjunction with applicable cumulative projects as it relates to recreation, will not result in a significant cumulative impact under CEQA.	As with the Proposed Action, this alternative would not result in a significant, cumulative impact to recreation under CEQA.	As with the Proposed Action, this alternative would not result in a significant, cumulative impact to recreation under CEQA.	As with the Proposed Action, this alternative would not result in a significant, cumulative impact to recreation under CEQA.	As with the Proposed Action, this alternative would not result in a significant, cumulative impact to recreation under CEQA.
<i>NEPA Impact Analysis</i>				
Implementation of the Proposed Action, in conjunction with applicable cumulative projects as it relates to recreation, will not result in a cumulative impact under NEPA.	As with the Proposed Action, this alternative would not result in a cumulative recreation impact under NEPA.	As with the Proposed Action, this alternative would not result in a cumulative recreation impact under NEPA.	As with the Proposed Action, this alternative would not result in a cumulative recreation impact under NEPA.	As with the Proposed Action, this alternative would not result in a cumulative recreation impact under NEPA.

Source: BRG Consulting, Inc., 2011.

5.1.16 Special Designations

5.1.16.1 *Geographic Scope and Timeframe*

Table 5.1.16-1 lists the projects considered for the special designations cumulative impact analysis. The geographic scope for considering cumulative impacts on Special Designations areas is the Yuha Basin Area of Critical Environmental Concern (ACEC). As discussed in Section 3.16, the project site for the Proposed Action, Alternative 1-Alternative Transmission Line Corridor, Alternative 2-Alternative Transmission Line Corridor and Alternative 3-Reduced Solar Energy Facility Site does not have any special designations involving Wilderness, Wilderness Study Areas, donated lands, National Wild and Scenic Rivers and BLM-designated range allotments or pasture, therefore no direct or indirect impacts to these certain resources would occur and they will not be discussed further in this section.

5.1.16.2 *Overview of Existing Conditions and the Effects of the Proposed Action*

As discussed in EIR/EA Section 3.16, the area covered by the Proposed Action does not have any of the following special designations: Wilderness, Wilderness Study Areas, donated lands, National Wild and Scenic Rivers, and BLM designated range allotments or pasture for wildlife or livestock. However, the Proposed Action transmission line corridor site is located within the Yuha Basin ACEC under BLM jurisdiction.

As discussed in EIR/EA Section 4.12 Biological Resources, the BLM manages all land uses within the ACEC in order to minimize impacts to this sensitive area. The Proposed Action is an allowable use under the CDCA, as the proposed ROW for the transmission line corridor and access road falls within the CDCA designated Utility Corridor "N." Proposed impacts to biological resources discussed in EIR/EA Section 4.12.2 are in conformance with the CDCA and the integrity and intent of the Conservation Plan would be maintained with implementation of the project. Therefore, the Proposed Action would not conflict with the management goals of Yuha Basin ACEC.

According to the BLM National Historic Trails and National Scenic Trails Map, dated April 2010, no national scenic and historic trails are located within the project site. The closest trail is the Juan Bautista de Anza National Historic Trail located approximately 3.2 miles northeast of the Proposed Action. As discussed in Section 4.1, this electricity generating portion of the project site is not visible from the trail. Portions of the project's transmission line towers, however, are potentially visible from this trail. As discussed in EIR/EA Section 4.1 Visual Resources, impacts associated with those towers would only slightly affect the views of the Juan Batista de Anza National Historic Trail and would be similar to the towers that currently exists in the area that are visible from the trail.

5.1.16.3 *Cumulative Impact Analysis*

The following provides a separate cumulative impact analysis for both CEQA and NEPA.

TABLE 5.1.16-1
List of Projects Considered for Special Designations Cumulative Impact Analysis

Project Name		Included in the Special Designations Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Special Designations CI Analysis?	Impacts to Special Designations
1	"S" Line Upgrade 230-kV Transmission Line Project	Yes	--	The "S" Line upgrade would install approximately (+/-) 285 new double-circuit steel poles to replace the existing wood poles supporting a single 230-kV circuit. No significant impact to special designations would occur because the project would upgrade (i.e., replace) equipment within the existing "S" line transmission corridor.
2	Imperial Valley Solar (Formerly called SES Solar Two Project)	Yes	--	<p>This project is not in or adjacent to any designated Wilderness Area. Therefore, the project would not affect any designated Wilderness Areas or otherwise conflict with the management goals established for Wilderness Areas in the CDCA Plan.</p> <p>The proposed project will not take any land from the Yuha Desert ACEC and, because it is across I-8, it is not expected to adversely affect this ACEC in the context of its special land use designation.</p> <p>Other than the potential effects to the Juan Bautista de Anza National Historic Trail on and immediately adjacent to the project site, the project would not impact the Yuha Desert ACEC.</p> <p>There are no designated Special Areas on or in the vicinity of the project site. Therefore, the project will not impact any designated Special Areas.</p>
3	Sunrise Powerlink Transmission Project (CACA-047658)	Yes	--	<ul style="list-style-type: none"> • Construction activities would temporarily reduce access and visitation to recreation or wilderness areas. • Presence of a transmission line in a designated wilderness or wilderness study area would result in loss of wilderness land.

Project Name		Included in the Special Designations Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Special Designations CI Analysis?	Impacts to Special Designations
4	Proposed Action-Imperial Solar Energy Center-West (CACA-51644)	Yes	--	The Proposed Action is an allowable use under the CDCA, as the proposed ROW falls within the CDCA designated "Utility Corridor N." Proposed impacts to resources discussed in EIR/EA Section 4.12.2 are in conformance with the CDCA and maintains the integrity and intent of the Conservation Plan. Therefore, the Proposed Action would not conflict with the management goals of any special designation area.
5	Imperial Solar Energy Center-South (CACA-51645)	Yes	--	The ISEC South project is an allowable use under the CDCA, as the proposed ROW falls within the CDCA designated Utility Corridor "N." Proposed impacts to resources are in conformance with the CDCA and maintains the integrity and intent of the Conservation Plan. Therefore, the ISEC South project would not conflict with the management goals of any special designations area. However, the ISEC South project may have a direct impact on visual resources by slightly affecting views of the Juan Bautista de Anza Trail.
6	SDG&E Proposed Photovoltaic Solar Field (CACA-051625)	No	The BLM did not have complete POD as of the NOP date. The project was considered speculative and therefore, not viable at the time. Multiple PODs have been requested by BLM with the project shrinking each time.	

Project Name		Included in the Special Designations Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Special Designations CI Analysis?	Impacts to Special Designations
7	North Gila to Imperial Valley #2 Transmission Line (CACA-51575)	No	STP is preparing a Plan of Development. NEPA analysis has not yet commenced.	
8	Centinela Solar Power, LLC (CACA-052092)	No	1. POD has not been accepted by BLM and determined to be complete. 2. POD does not contain sufficient information details to analyze potential impacts of the project.	
9	San Diego Gas & Electric (SDG&E) East County (ECO) Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects	No	This project occurs outside the scope for cumulative projects for this resource issue.	
10	Dixieland Connection to IID Transmission System	Yes	--	The CDCA designates the Yuha Basin as an ACEC and BLM has designated the area south of I-8 as a Flat-tailed Horned Lizard Management Area. Project impacts to FTHL and other sensitive biological resources would occur during construction and operation of the proposed facilities, primarily along the transmission line corridor south of I-8. In addition to FTHL, potential impacts were also identified to burrowing owls and other sensitive wildlife species, and to potential jurisdictional wetlands and other waters of the U.S. and state. Implementation of mitigation measures would reduce the impacts to less than significant.

Project Name		Included in the Special Designations Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Special Designations CI Analysis?	Impacts to Special Designations
11	Mount Signal Solar Farm I- (82 LV 8ME, LLC (CACA-052325)	No	1. POD has not been accepted by BLM and determined to be complete. 2. POD does not contain sufficient information details to analyze potential impacts of the project.	
12-15	*Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	No	These projects occur outside the scope for cumulative projects for this resource issue.	
16-21	*Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	No	The development applications were received after the NOP was published.	
22-33	*Please Refer to Table 5.0-1 for a complete list of Potential Projects Considered for the Cumulative Impact Analysis	No	These projects occur outside the scope for cumulative projects for this resource issue.	
34	Recreation Activities	No	Existing recreation area. No new conflicts	

Project Name		Included in the Special Designations Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Special Designations CI Analysis?	Impacts to Special Designations
			with the management goals of any special designation area.	
35	U.S. Gypsum Mining	No	This project occurs outside the scope for cumulative projects for this resource issue.	
36	California State Prison, Centinela	No	This project occurs outside the scope for cumulative projects for this resource issue.	
37	Recreation Activities	No	Existing recreation area. No new conflicts with the management goals of any special designation area.	
38	IV Substation (TermoElectrica US, LLC)	No	This project is an existing transmission line that has been included in the evaluation of existing conditions.	
39	IV Substation (Baja California Power, Inc., aka, Intergen)	No	This project is an existing transmission line that has been included in the evaluation of existing conditions.	
40	IV Substation (SDG&E)	No	This project is an existing transmission	

Project Name	Included in the Special Designations Cumulative Impact (CI) Analysis?	Rationale for Not Including Potential Projects in the Special Designations CI Analysis?	Impacts to Special Designations
		line that has been included in the evaluation of existing conditions.	
41-60	No	These projects occur outside the scope for cumulative projects for this resource issue.	
61	No	Existing facility. No new conflicts with the management goals of any special designation area.	
62	No	This project occurs outside the scope for cumulative projects for this resource issue.	
63	No	This project occurs outside the scope for cumulative projects for this resource issue.	

Source: BRG Consulting, Inc., 2011

A. CEQA Impact Analysis

The Proposed Action is an allowable use under the CDCA. As discussed in EIR/EA Section 4.12.2, proposed impacts to biological resources are in conformance with the CDCA and the integrity and intent of the Conservation Plan would be maintained. Furthermore, the Proposed Action would not have impacts on Wilderness, Wilderness Study Areas, donated lands, National Wild and Scenic Rivers, BLM designated range allotments or pasture for wildlife or livestock. The Proposed Action may have a direct impact on Visual Resources by slightly affecting views of the Juan Bautista de Anza National Historic Trail, which is analyzed further in EIR/EA Section 4.1 Visual Resources. This impact is considered to be minor, because of the large distance of five miles between the Juan Bautista de Anza National Historic Trail and the Project Site. Additionally, the impacts of the Proposed Action on views from the Trail would be very similar to pre-existing impacts on Trail views. Of the cumulative projects analyzed in Table 5.1.16-1, only the Imperial Valley Solar (Formerly called SES Solar Two Project) is expected to have an impact on the Juan Bautista de Anza National Historic Trail. Therefore, the cumulative impacts on the Trail are not expected to be major, because the view from the trail is already affected by pre-existing transmission towers.

The Proposed Action is located within the Yuha Basin ACEC. The Proposed Action is an allowable use under the CDCA, as the proposed ROW for the transmission line corridor falls within the CDCA designated Utility Corridor "N." Proposed impacts to biological resources discussed in EIR/EA Section 4.12.2 are in conformance with the CDCA and the integrity and intent of the Conservation Plan would be maintained. Therefore, the Proposed Action would not conflict with the management goals of any special designation area. Furthermore, as discussed in EIR/EA Section 5.1.12 Biological Resources, the CDCA Plan-designated Yuha Basin ACEC Management Plan was prepared to give additional protection to unique cultural resource and wildlife values found in the region, while also providing for multiple use management. The County of Imperial General Plan also has provisions to protect biological resources, as described in Table 3.12-1. The Proposed Action would comply with these and other laws, regulations and guidelines and therefore would not contribute substantially to a cumulative biological resources impact, specifically to the ACEC. Similarly, the cumulative actions within the geographic scope of the Proposed Action 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. Because the identified laws, regulations and guidelines are implemented at the federal, State, and local level through NEPA, CEQA, and local planning compliance, they form comprehensive protection scheme for the biological resources within the ACEC identified in Section 4.12.

For purposes of CEQA, cumulative impacts on the Trail are less than significant. Table 5.1.16-2 provides a comparison of the Proposed Action and Alternatives related to cumulative special designations impacts.

B. NEPA Impact Analysis

As discussed in Section 3.16, the project site for the Proposed Action does not have any lands with special designations including Wilderness, Wilderness Study Areas, donated lands, National Wild and Scenic Rivers and BLM-designated range allotments or pasture. As a result, the Proposed Action would not otherwise contribute to any cumulative impacts to any Wilderness, Wilderness Study Areas, donated lands, National Wild and Scenic Rivers or BLM-designated range allotments or pasture.

The Proposed Action is located within the Yuha Basin ACEC. The Proposed Action is an allowable use under the CDCA, as the proposed ROW for the transmission line corridor falls within the CDCA designated Utility Corridor “N.” Proposed impacts to biological resources discussed in EIR/EA Section 4.12.2 are in conformance with the CDCA and the integrity and intent of the Conservation Plan would be maintained. Therefore, the Proposed Action would not conflict with the management goals of any special designation area. Furthermore, as discussed in EIR/EA Section 5.1.12 Biological Resources, the CDCA Plan-designated Yuha Basin ACEC Management Plan was prepared to give additional protection to unique cultural resource and wildlife values found in the region, while also providing for multiple use management. The County of Imperial General Plan also has provisions to protect biological resources, as described in Table 3.12-1. The Proposed Action would comply with these and other laws, regulations and guidelines and therefore would not contribute substantially to a cumulative biological resources impact, specifically to the ACEC. Similarly, the cumulative actions within the geographic scope of the Proposed Action 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. Because the identified laws, regulations and guidelines are implemented at the federal, State, and local level through NEPA, CEQA, and local planning compliance, they form comprehensive protection scheme for the biological resources within the ACEC identified in Section 4.12.

According to the BLM National Historic Trails and National Scenic Trails Map, dated April 2010, no national scenic and historic trails are located within the project site. The Proposed Action may have a direct impact on Visual Resources by slightly affecting views from the Juan Bautista de Anza National Historic Trail, which is analyzed further in EIR/EA Section 4.1 Visual Resources. As discussed in Section 4.1, this trail is not visible from the project site. However, there is the potential that people could have a view of transmission towers from this trail. The proposed transmission towers would be similar in appearance to other towers that currently exist in the area. Of the cumulative projects analyzed in Table 5.1.16-1, only the Imperial Valley Solar (formerly called the SES Solar Two Project) is expected to have an impact on the Juan Bautista de Anza National Historic Trail.

Therefore, the Proposed Action would not contribute, incrementally, to cumulative impacts on any resources within the CDCA or the National Historic Trails and National Scenic Trails. Table 5.1.16-2 provides a comparison of the Proposed Action and Alternatives related to cumulative special designations impacts.

TABLE 5.1.16-2
Comparison Of Alternatives For Cumulative
Special Designations Impacts

Proposed Action	Alternative 1- Alternative Transmission Line Corridor	Alternative 2- Alternative Transmission Line Corridor	Alternative 3- Reduced Solar Energy Facility Site	Alternative 4-No Action/No Project Alternative
<i>CEQA Impact Analysis</i>				
Implementation of the Proposed Action, in conjunction with applicable projects as it relates to special designations, will not result in a significant cumulative impact under CEQA.	As with the Proposed Action, this alternative would not result in significant, cumulative impacts to any special designation areas under CEQA.	As with the Proposed Action, this alternative would not result in significant, cumulative impacts to any special designation areas under CEQA.	As with the Proposed Action, this alternative would not result in significant, cumulative impacts to any special designation areas under CEQA.	The No Action Alternative will maintain the status quo and will not result in any impacts to special designation areas.
<i>NEPA Impact Analysis</i>				
Implementation of the Proposed Action, in conjunction with applicable cumulative projects as it relates to special designations, will not result in a cumulative impact under NEPA.	As with the Proposed Action, this alternative would not result in cumulative impacts to any special designation areas under NEPA.	As with the Proposed Action, this alternative would not result in cumulative impacts to any special designation areas under NEPA.	As with the Proposed Action, this alternative would not result in cumulative impacts to any special designation areas under NEPA.	The No Action Alternative will maintain the status quo and will not result in any impacts to special designation areas.

Source: BRG Consulting, Inc., 2011.