

4.0 CUMULATIVE IMPACTS

This section of the Draft SEIR is a cumulative impact analysis of the proposed Project in addition to existing, approved, proposed, and reasonably foreseeable projects in the cumulative study area, as required by Section 15130 of the State CEQA Guidelines. The following discussion considers the cumulative impacts of the relevant environmental issue areas.

4.1 Cumulative Impacts

This Draft SEIR provides an analysis of overall cumulative impacts of the proposed Project taken together with other past, present, and reasonably foreseeable future projects producing related impacts. The cumulative impact analysis has two goals: (1) to determine whether the overall long-term impacts of all related projects across a broader geographic area would be cumulatively significant, and (2) to determine whether the Project itself would cause a “cumulatively considerable” (and thus significant) incremental contribution to a cumulatively significant impacts. (Reference CEQA Guidelines Sections 15064(h), 15065(c), 15130(a), 15130(b), and 15355(b); *Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, 120.)

Cumulative impacts are defined in the CEQA Guidelines 15355 as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.” A cumulative impact occurs from “the change in the environment which results from the incremental impact of the 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” (14 CCR 15355[b]).

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

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

The CEQA Guidelines identifies two basic methods for establishing the cumulative environment in which the project is to be considered: the use of a list of past, present, and probable future projects (the “list approach”) or the use of adopted projections from a general plan, other regional planning document, or

certified EIR for such a planning document (the “plan approach”). For this Draft SEIR, the list approach will be used.

4.1.1 Cumulative Impacts Approach

This Draft SEIR evaluated cumulative impacts of the proposed Project and alternatives for each resource area, using the following steps: 1) Define the geographic scope of cumulative impact analysis for each discipline, based on the potential area within which impacts of the proposed Project could combine with those of other projects; 2) Evaluate the effects of the proposed Project in combination with past and present (existing) projects in the study area; and 3) Evaluate the effects of the proposed Project with foreseeable future projects that occur within the area of geographic effect defined for each discipline.

4.1.1.1 Geographic Scope and Timeframe of the Cumulative Effects Analysis

The cumulative effects analysis involves several variables including geographic (spatial) limits, time (temporal) limits, and the specific aspects of the resource being analyzed. The geographic scope of each analysis is based on the boundaries (natural) of the resource affected as well as the topography surrounding the project site, as opposed to jurisdictional boundaries. The geographic scope of cumulative effects will often extend beyond the scope of the direct effects of a proposed project, but not beyond the scope of the direct and indirect effects of that proposed project. Each project in a given study area has an associated implementation schedule that has the potential to overlap with the construction schedule of the proposed project; this is a consideration for short-term impacts from the proposed Project. The approach to this cumulative scenario assumes that that all projects are built and operating during the operating lifetime of the proposed Project.

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

The proposed Projects impacts, for each environmental resource topic, are evaluated on top of the current baseline; the past, present (existing) and future projects near the Project site. The severity of the cumulative effects is determined by the magnitude, geographic extent, duration and regularity of the effects. The magnitude of the effect reflects the relative size or amount of the effect; the geographic extent considers how prevalent the effect may be; and the duration and frequency refer to whether the effect is a one-time event, intermittent, or long-lasting. Reasonably foreseeable projects could contribute to the cumulative effects scenario for the proposed Project depending on the degree of each particular resource impact. Cumulative impacts may be increased by foreseeable future projects that are in the immediate vicinity of the project site or by foreseeable future projects throughout the greater desert surrounding the project site.

4.1.2 Cumulative Projects

A list of cumulative existing and foreseeable future projects within Imperial County is included in Table 4-1. These projects have also been identified on Figure 4-1. These projects include projects recently constructed existing projects, under construction, approved, but currently not built projects and projects that have submitted a development application at the time of release of the NOP.

Table 4-1: Potential Cumulative Projects

No.	Project Name	Description of Project ^a	Location ^a	Status ^b
1	Laurel Cluster Solar Farms	Project applicant is seeking approval of four CUPs for the construction of four solar farms. These four projects together are known as the Laurel Cluster Solar Farms and would generate up to 325 MW. The projects may cooperate, if necessary, to meet power production requirements, including by allowing one project to utilize land designated for another project. Each project is intended to have O&M facilities and an on-site substation, but the projects may also utilize shared facilities.	Approximately 8 miles southwest of the City of El Centro and 3 miles south of Seeley.	Approved – not built
2	Calexico I-A (now Mt. Signal III)	A PV solar facility capable of producing approximately 100 MW of electricity on approximately 666 acres.	Approximately 6 miles west of the City of Calexico	Under construction
3	Calexico I-B	A PV solar facility capable of producing approximately 100 MW of electricity on approximately 666 acres.	Approximately 6 miles west of the City of Calexico.	Approved – not built
4	Calexico II-A (now Mt. Signal III)	A PV solar facility capable of producing approximately 100 MW of electricity on approximately 733 acres	Approximately 6 miles west of the City of Calexico.	Under construction
5	Calexico II-B	A PV solar facility capable of producing approximately 100 MW of electricity on approximately 732 acres.	Approximately 6 miles west of the City of Calexico	Operational
6	Campo Verde	The Campo Verde Solar Project consists of three primary components: 1) solar generation equipment and associated facilities on privately owned land (the “solar generation facility”); 2) 230 kV aboveground, electric transmission line(s) and associated facilities (gen-tie) located on both private land and public land managed by the BLM; and 3) battery storage system. The gen-tie will connect the solar generation facility with the Imperial Valley Substation.	Approximately 7 miles southwest of the City of El Centro. Generally located south of I-8, west of Drew Road, and north and east of the Westside Main Canal.	Operational
7	Centinela Solar (proposed Project site)	A PV solar facility capable of producing approximately 275 MW of electricity.	Approximately 10 to 12 miles southwest of the City of El Centro.	Operational
8	Dixieland East	The Dixieland East Solar Farm Project encompasses a total of 24 acres and includes three parcels. These parcels would be leased to the project	Approximately 11.5 miles west of the City of El Centro.	Operational

		applicant for the 20-year term of the Power Purchase Agreement with IID. This project is capable of generating up to 2 MW AC. This project is located within a Renewable Energy Overlay Zone.	Generally located between the Westside Main Canal to the east and the Dixieland Substation to the west.	
9	Dixieland West	The Dixieland West Solar Farm Project encompasses a total of 29 acres and includes one parcel of land. This parcel would be leased to the project applicant for the 20-year term of the Power Purchase Agreement with IID. This project is capable of generating up to 3 MW AC. This project is located within a Renewable Energy Overlay Zone.	Approximately 11.5 miles west of the City of El Centro. Generally bounded by W. Evan Hewes Highway to the south, vacant land to the west and north, and the Dixieland Substation on the east.	Operational
10	Drew Solar Project	The Drew Solar Project consists of a PV solar facility capable of producing approximately 100 MWAC to be sited on approximately 855 gross and 762.8 net farmable acres. The Project may be constructed at one time over approximately 18 months, or it may be built out over an approximately 10-year period. The entire Project is located on land owned by IID except for the Project’s two generation interconnection transmission lines which are proposed to extend from the south end of the Project site approximately 400 feet south across Drew Road and SR 98 connecting into the existing Drew Switchyard. One gen-tie is for solar generation and one is for energy storage.	The proposed Project site is located on approximately 6.5 miles southwest of the City of El Centro, California and 7.5 miles directly west of Calexico, California. The Project site is generally located south of Kubler Road, east of the Westside Main Canal, north of SR 98, and west of Pulliam Road.	Pending Entitlement
11	Imperial Solar South	The Imperial Solar Energy Center-South consists of the construction and operation of the 200 MW Imperial Solar Energy Center South solar energy facility; the construction and operation of the electrical transmission lines that would connect from the solar power facility to the existing Imperial Valley substation; and widening of an existing access road along the west side of the Westside Main Canal.	South of SR-98 and immediately east and west of Westside Main Canal.	Operational
12	Imperial Solar West	Imperial Solar Energy Center-West consists of two primary components: (1) the construction and operation of the 250 MW Imperial Solar Energy Center West solar energy facility; and (2) the construction and operation of the electrical transmission line and associated access/maintenance road	North of I-8 and immediately west of Westside Main Canal.	Operational

		that would connect from the solar facility to the existing Imperial Valley substation. The development of the solar energy center is on 1,130 acres of vacant land previously utilized for agricultural purposes.		
13	Iris Cluster	The Iris Cluster Solar Farm Project involves the construction of four utility-scale PV solar facilities on four non-contiguous independent sites encompassing approximately 1,422 acres.	Easternmost boundary of the project is located approximately 2 miles west of Calexico, California.	Under construction [Iris Ferrel (not built), Iris Lyons (not built)]
14	Mount Signal Solar I	This project consists of two primary components: (1) the construction and operation of solar facility sites; and (2) the construction and operation of off-site electrical transmission infrastructure and associated interconnections. A portion of the transmission corridor traverses BLM lands.	Approximately 3 miles west of Calexico, California.	Operational
15	Ocotillo Sol	San Diego Gas & Electric filed a ROW application with the BLM for a ROW grant to construct, operate, maintain, and decommission a 100-acre solar photovoltaic facility on BLM-managed lands. The Ocotillo Sol Project would interconnect with the existing Imperial Valley Substation and generate up to 20 megawatts of electricity. In connection with its consideration of the Applicant's ROW application, the BLM will also be considering whether or not to amend the California Desert Conservation Area Plan of 1980, as amended.	Located on BLM-administered public lands, approximately 9 miles southwest of the City of El Centro.	Approved – not built
16	Wistaria Ranch Solar	The Wistaria Ranch Solar Energy Center Project is a renewable energy project employing PV or concentrated PV technology. The Applicant has filed 17 CUP applications to develop up to 17 individual solar projects or clusters of multiple solar projects on 32 parcels totaling approximately 2,793 acres. Alternatively, the Project could be built out in its entirety (i.e., all 17 CUPs, Full Build-out Scenario) at one time. Each CUP is approximately 20 MW while the entire Project (if built-out at once) is anticipated to generate 250 MW.	Approximately 6 miles southwest of the City of El Centro and 5.5 miles directly west of Calexico, California.	Under construction
17	VEGA SES Solar Project	The VEGA SES Project involves the construction of a 100 MW PV solar energy facility with an integrated 100 MW battery storage system on approximately 574 gross acres of land. Of the total 574 gross acres, approximately 555 acres would be developed with a ground mounted PV	Located approximately 9 miles southwest of the City of El Centro, California. The project site is generally located east of	Approved – not built

		solar power generating system, supporting structures, on-site substation, battery storage system, and internal access roads. The electrical energy produced by the project would be conducted through the project's substation to a proposed 230 kV generator intertie line and delivered to the IID at the proposed IID 230 kV Fern Substation. The project's power would then be transmitted by the IID to the point of interconnection with the utility which has agreed to purchase the output from the solar project pursuant to a power purchase agreement.	the Westside Main Canal, south of West Wixom Road, west of Drew Road, and north of Lyons Road.	
18	North Gila Transmission Line Project	The North Gila Transmission Line Project is a 500kV AC transmission project between southwest Arizona and southern California. The 97- mile 500kV project is a major intertie expansion between the North Gila area (southwest Arizona) and the Imperial Valley area (southern California). The proposed in-service date for the project is December 2022. The Project is being proposed by Southwest Transmission Partners, LLC and ITC Grid Development, LLC ("Project Sponsor").	Between southwest Arizona and southern California. This line would parallel the existing North Gila-Imperial Valley line (also known as the Southwest Power Link, or SWPL), with an expected minimum separation of 250 feet from the existing SWPL	Pending Entitlement
19	Westside Canal Energy Center	Battery Energy Storage System and renewable energy facility consisting of two distinct projects located on a single site. The first project, located on the western portion of the project site will be a 1,00 MW BESS, combined with roof top solar PV and ground mounted solar PV of up to 5 MW to provide auxiliary power to the BESS. The second project will consist of a 1,000 MW BESS, combined with roof tope solar PV and ground mounted solar PV of up to 5 MW to provide auxiliary power to the BESS.	The project site is located in an unincorporated area of southwest Imperial County, 4.5 miles south-southwest of Seeley.	Pending Entitlement

(a) AC = alternating current; BLM = Bureau of Land Management; CUP = conditional use permit; IID = Imperial Irrigation District; MW = megawatt; kV = kilovolts; PV = photovoltaic; ROW = right-of-way; SR = state route

(b) Project status based on communication with Imperial County staff and information provided on Imperial County Planning & Development Service's Renewable Energy GIS Mapping Application: (<http://icpds.maps.arcgis.com/apps/Viewer/index.html?appid=c6fd31272e3d42e1b736ce8542b994ae>). Accessed May 2019. Projects included in this list are based on the boundaries (natural) of the resource affected as well as the topography surrounding the project site, as opposed to jurisdictional boundaries.

4.2 Cumulative Setting Impacts and Mitigation Measure

4.2.1 Air Quality

4.2.1.1 Geographic Scope

Air quality cumulative impacts could occur if implementation of the proposed project would combine with air quality impacts of other existing, proposed, and foreseeable projects. The 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 AQMP, SIP, and requirements set forth by the ICAPCD, which apply to all cumulative projects within the SSAB. Table 4-1 lists the projects considered for the air quality cumulative impact analysis. The cumulative impacts on air quality are defined as the incremental physical impact of the proposed project when added to other closely related past, present, and reasonably foreseeable probable future projects.

4.2.1.2 Temporal Scope

The temporal scope refers to the duration over which an impact would occur: short-term or long-term. This limits when a project's impacts are to be analyzed in the cumulative effects analysis compared to those that would cause impacts at the same time as the proposed Project. Defining the temporal scope requires approximating the length of time the effects of the proposed Project will last, either individually or in combination with other anticipated effects. The temporal scope of impacts to air quality during the development of cumulative projects would occur during the short-term construction portion of the proposed Project, because short-term impacts to air quality would occur during this time period in association with the addition of construction equipment to the landscape. As the proposed Project will be a BESS, no long-term impacts to air quality are anticipated in association with the operation of the proposed Project as the operational impacts would result from limited vehicle trips for operations, maintenance, and inspection and would be substantially less than construction impacts. The very small increases in traffic volumes associated worker trips to the facilities are not anticipated to adversely impact air quality during the operational life of the Project.

4.2.1.3 Direct and Indirect Impacts

4.2.1.3.1 Construction

The projects listed in Table 4-1 are past, present and probable large-scale projects in the vicinity of the proposed Project. As such, the majority of air emissions from these projects would be generated during

construction with drastically reduced emissions occurring during operation and maintenance. Decommissioning air quality impacts would be similar to those generated during construction.

The construction phase of the proposed Project may contribute to a net increase in one or more criteria pollutants as a result of point and non-point source emissions for which the region is in non-attainment under applicable federal and state ambient air quality standards. Imperial Valley is classified as non-attainment for federal and state ozone, PM₁₀, and PM_{2.5} standards. Therefore, the Project's contribution to existing criteria pollutants could be cumulatively considerable without mitigation. However, levels of PM_{2.5}, PM₁₀ and NO_x construction emissions would be below significance thresholds resulting in less than cumulatively considerable contributions to existing criteria pollutants. The proposed Project will follow all ICAPCD requirements for grading. All on-site equipment is expected to be Tier 2 compliant. Therefore, no Project-related cumulatively considerable net increases in construction emissions would be expected. In addition, all other cumulative projects are required to comply with ICAPCD Regulation VIII and would also be assumed to implement mitigation measures to reduce their individual construction air quality emissions. In this way, each individual cumulative project would reduce construction emissions on a project-by-project basis resulting in less than cumulatively considerable contributions to existing criteria pollutants. Because the proposed Project's construction air quality emissions would fall below ICAPCD thresholds, and other cumulative projects would also mitigate construction emissions on a project-by-project basis, impacts associated with a cumulatively considerable net increase of criteria pollutant would be considered less than cumulatively considerable.

4.2.1.3.2 Operation and Maintenance and Decommissioning

Although no new employees are anticipated to be needed to operate the Project to be extremely conservative, emissions resulting from operation of the Project for all criteria pollutants were assumed to be two worker vehicle trips per day. Once in operation, the facility will use electricity from the grid resulting in air emissions. Such levels of emissions would not cause localized exceedances or contribute cumulatively to existing exceedances of the State or federal ozone, PM₁₀, or PM_{2.5} standards. Therefore, the proposed Project would not result in cumulatively considerable contributions to air quality standard violations. Operation of the proposed Project, in combination with other cumulative projects identified in Table 4-1, would not result in a cumulatively considerable net increase of criteria pollutant and operational emission impact would be considered less than cumulatively considerable. As demonstrated by the CalEEMod analysis, the operational emissions resulting from electricity usage by the Project and vehicle trips to and from the Project site would not be substantial and would be below the ICAPCD thresholds. With respect to indirect impacts, the proposed Project would assist in alleviating dependence

on fossil fuels and would provide an overall benefit to air quality by providing storage of a clean, renewable energy source.

Decommissioning air quality impacts would be similar to those generated during construction. During decommissioning, the proposed Project will follow all ICAPCD requirements for fugitive dust control. All on-site equipment is expected to be Tier 2 compliant. Therefore, no Project-related cumulatively considerable net increases in construction emissions would be expected during decommissioning. In addition, all other cumulative projects are required to comply with ICAPCD Regulation VIII and would also be assumed to implement mitigation measures to reduce their individual decommissioning air quality emissions. In this way, each individual cumulative project would reduce decommissioning emissions on a project-by-project basis resulting in less than cumulatively considerable contributions to existing criteria pollutants. Therefore, impacts associated with violating air quality standards or contributing to existing or project air quality violations are considered less than significant.

Mitigation Measure

No additional Mitigation Measures required.

Level of Significance After Mitigation

As discussed, Section 3.1, Air Quality, the Project's construction contribution to PM_{10} is below a level of significance. However, when combined with other cumulative projects, the construction PM_{10} emissions would likely exceed daily thresholds, which is considered a potentially significant cumulative impact. The cumulative projects, during the construction phases, would be required to comply with ICAPCD's Regulation VIII for dust control. The ICAPCD would require compliance with the various dust control measures and could, additionally be required to prepare and implement operational dust control plans as approved by the ICAPCD, which is a component of ICAPCD's overall framework of the AQAP for the SSAB, that sets forth a comprehensive program that will lead the SSAB into compliance with all federal and state air quality standards. Therefore, the Project would not contribute to long-term cumulatively considerable air quality impacts and would not result in cumulatively significant air quality impacts.

4.2.2 Biological Resources

4.2.2.1 Geographic Scope

Cumulative impacts to biological resources include the proposed Project's impacts as well as those likely to occur as a result of other existing, proposed and reasonably foreseeable projects.

The cumulative impact analysis setting covers areas containing biological resources in the Imperial Valley area. Imperial Valley is part of the Pacific Migration Flyway, which is an important environment for raptors and migratory birds. This area also covers non-migratory birds, such as burrowing owls, as well as other wildlife and plant species in the Project Area. Biological resources discussed in Section 3.2 that were not considered sensitive or that would not have cumulatively considerable impacts are not discussed in this section as a cumulative discussion would not provide useful information for the public or decision makers. Cumulative impacts on biological resources in the area largely consist of conversion of agricultural land as part of utility-scale solar power generation facilities. The cumulative impacts on biological resources are defined as the incremental impacts of the proposed Project when added to other closely related past, present, and reasonably foreseeable probable future projects. The geographic scope for cumulative biological impacts is Imperial County as a whole. Imperial County ranks high on the list of California counties in terms of urbanization. As urbanization increases within Imperial County, so do cumulative impacts to biological resources.

4.2.2.2 Temporal Scope

The temporal scope refers to the duration over which an impact would occur, either short-term or long-term; for example, only during the months of construction, only during operation and maintenance, or both phases. This limits the projects whose biological impacts are included in the cumulative effects analysis to those that would cause impacts to biological resources concurrently with the proposed Project. Determining the temporal scope of impacts requires an estimation of the temporality of the individual or combined effects. The temporal scope of impacts to biological resources during the development of cumulative projects would be the through the end of project decommissioning, because any direct or indirect effects of the Project would only occur during the life of the Project.

4.2.2.3 Direct and Indirect Impacts

Existing cumulative conditions were reviewed along with past and reasonably foreseeable future actions in the Project area. The proposed Project site is located entirely within the existing CSE facility footprint. The site was graded and cleared during construction of the CSE facility. Prior to this, the site was actively farmed. No sensitive plant or wildlife species were observed within the proposed Project footprint in the 2011 BTR. Burrowing owl burrows were identified south of the site along the Westside Main Canal.

4.2.2.3.1 Construction

The proposed Project site is located entirely within the existing CSE facility footprint. The site was graded and cleared during construction of the CSE facility. Prior to this, the site was actively farmed. Due to this disturbed nature of the area, construction of the proposed Project is not anticipated to result in

considerable cumulative impacts on federal and/or state listed species, raptors, migratory birds, or sensitive vegetation communities.

Burrowing Owls

The 20011 BTR identified 51 active burrowing owl burrows. None of these burrows were located within the proposed Project site. Compensatory mitigation was required as part of the 2011 FEIR for the CSE facility. Also, Mitigation Measure BIO-4 describes burrowing owl mitigation consistent with the CDFG mitigation guidelines for burrowing owls (CDFG, 1995). CDFW approved the 2012 CSE Burrowing Owl Mitigation Plan.

Burrowing owls are relatively widespread in the Imperial Valley area, though habitat fragmentation has occurred around urban areas. Though the number of active burrows within the cumulative project areas is unknown, these projects may directly and indirectly impact burrowing owls. Site-specific pre-construction surveys are required to determine extent of cumulative project impacts on burrowing owls. As some cumulative projects listed in Table 4-1 have not completed these surveys, it is not possible to provide a meaningful quantitative analysis of direct impacts to burrowing owls and active burrows. Indirect impacts due to the cumulative projects may include conversion of foraging habitat to other land uses. Considering the results of the BTR, the disturbed nature of the proposed Project site, the implementation of Mitigation Measure BIO-4, and the compensatory mitigation requirements of the 2011 FEIR, it is expected that the addition of the Proposed Project within the existing CSE footprint would not result in a cumulative considerable impact to burrowing owl.

Raptors

Raptors and raptor nests can be found throughout the Imperial Valley. Raptor species and their nests are protected under California Fish and Game Code 3503.5, 3503, and 3513. Similar to burrowing owls, the number of nesting raptors within the cumulative impact analysis area is not available for this analysis. Mitigation Measure BIO-6 requires that Project construction occur outside of raptor nesting season. If nesting season cannot be avoided, the Project will require a pre-construction clearance survey conducted by an approved biologist. This survey would include a 500-foot no work buffer zone around any raptor nest until the fledglings have left the nest. Mitigation measures like BIO-6 are anticipated to be standard for the cumulative projects in the area. Also, Mitigation Measure BIO-7 describes the ABPP that was prepared for the CSE facility. The conservation measures in the ABPP would apply to the construction, operation, and maintenance activities for the proposed Project site. With the implementation of these two

mitigation measures, the proposed Project would not result in a cumulatively considerable impact to nesting raptors when combined with other cumulative projects.

Migratory Birds

The proposed Project and the other cumulative project may directly impact migratory birds through vehicle strikes/collisions, reduction in habitat, or destruction of nests. Indirect impacts of cumulative projects may include disturbance to migratory birds through increase noise and light.

Mitigation Measure BIO-7 describes the ABPP that was prepared for the CSE facility. The conservation measures in the ABPP would apply to the construction, operation, and maintenance activities for the proposed Project site. With the implementation of this mitigation measure, the proposed Project would not result in a cumulatively considerable adverse impact to migratory birds when combined with other cumulative projects.

Non-Native Invasive Species

The Project and the cumulative projects may result in the introduction and/or increased density of non-native invasive plant species through soil disturbance. Mitigation Measure BIO-2 of the 2011 FEIR described the Weed Management Plan for the CSE facility. The plan includes a discussion of specific weeds identified in the CSE facility footprint that would be targeted for eradication or control, as well as weed control measures to be implemented during construction, operation, and maintenance of the CSE facility. The Weed Management Plan developed for the CSE facility will also apply to the proposed Project facility, which is entirely within the CSE facility footprint. Cumulative projects are required to implement similar mitigation to minimize the risk of introducing or increasing non-native invasive plant species in the area. With the implementation of BIO-2, the proposed Project would not result in a cumulatively considerable adverse impact from non-native invasive species when combined with other cumulative projects.

4.2.2.3.2 Operation and Maintenance

The proposed Project is located entirely within the CSE facility boundary. Due to this location, impacts during operation and maintenance are currently ongoing in the area. These impacts include lighting and traffic associated with the operation and maintenance of the solar array. Additional light and traffic due to the proposed Project is not expected to be considerable compared to the existing CSE facility activities. Impacts during operation of the proposed Project are anticipated to be minimal and therefore would not result in cumulatively considerable adverse impacts to biological resources.

4.2.2.3.3 Decommissioning

Impacts associated with decommissioning activities would be similar to construction impacts. Decommissioning the proposed BESS facility would not result in a cumulative considerable impact to biological resources.

Mitigation Measure

No additional Mitigation Measures required.

Level of Significance After Mitigation

With the implementation of the Mitigation Measures identified in Section 3.2, impacts to biological resources would be reduced to less than significant levels. Cumulative impacts would be less than cumulatively considerable following mitigation.

4.2.3 Cultural Resources

4.2.3.1 Geographic Scope

The cumulative impact analysis geographic scope used in the 2011 FEIR was also used for this Draft SEIR. The scope 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 contour of ancient Lake Cahuilla between the Yuha Wash and the international border with Mexico. Two proposed districts are encompassed by the geographic scope: the Lake Cahuilla High-Water Mark Archaeological District and a proposed archaeological district located below the 40-foot contour and extending to at least 0.7 miles below the 40-foot contour. Both districts would be significant under criterion D/4 of the NRHP and the CRHR and are good representations of past Lake Cahuilla shoreline activities. The geographic scope was expanded to one mile around the 40-foot contour to be conservative and err on the side of caution in assessing the cumulative impacts of past, present, and reasonably foreseeable future projects on cultural resources in the vicinity of the Project.

The Lake Cahuilla High-Water Mark Archaeological District is within one-half mile of and above the 40-foot mean sea level contour. The district would be significant under criterion D/4 of the NRHP and the CRHR 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. The district is characterized by prehistoric archaeological sites reflecting subsistence activities focused on lacustrine resources. As described in the 2011 FEIR, contributing elements to the Lake Cahuilla High-Water Mark Archaeological District include

prehistoric sites that 1) are located along and above the 40-foot 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. A single cultural affiliation may be represented by the sites in this district and may be culturally distinct from sites located northwest along the Lake Cahuilla shoreline or located on the eastern shoreline.

The second proposed archaeological district is located below the 40-foot contour and extends to at least 0.7 miles below the 40-foot contour. Sites in this district represent a roughly contemporary use during a limited duration in the Late Prehistoric Period and include sparse lithic scatters, higher density lithic scatters, ceramic and lithic scatters, and temporary camps. Sites below the high-water mark are important as they reflect cultural change during recession of the lake. This district would be significant under criterion D/4 of the NRHP and the CRHR due to its potential to answer questions about lithic technology, subsistence practices, and settlement patterns as the lake was receding. The sites within the district below the 40-foot contour would also be significantly different than other sites within the Yuha Basin

4.2.3.2 Temporal Scope

The temporal scope of the cumulative impact analysis for cultural resources would begin at construction initiation and end after the decommissioning activities have ceased. Any direct or indirect effects of the Project would only occur during the life of the Project. Short-term impacts would occur during construction and decommissioning of the Project, likely only during earth-moving and ground disturbing activities. Long-term impacts to cultural resources would occur due to changes during the operational life of the Project.

4.2.3.3 Direct and Indirect Impacts

The cumulative impact of the Project on cultural resources was defined as the incremental impact of the Project on cultural resources when added to other closely related past, present, and reasonably foreseeable future projects in the area. Existing cumulative conditions were reviewed along with past and reasonably foreseeable future actions in the Project Area. The proposed Project site is located entirely within the existing CSE facility footprint. The site was graded and cleared during construction of the CSE facility. Prior to this, the site was actively farmed. No recorded or known sites are located within the proposed Project footprint. The analysis assessed potential impacts to individual resources as well as the inventory of cultural resources within the geographic scope.

The surveys for the 2011 FEIR identified 43 cultural sites within the APE. An additional 893 cultural resource sites were identified in previous studies within the geographic scope (BRG Consulting, 2011).

These resources include temporary camps, lithic scatters, ceramic and lithic scatters, ceramic scatters, rock features, trails or trail markers, historic period sites, and prehistoric isolates. It was assumed in the 2011 FEIR that the northern third of the geographic scope would also have cultural resources proportionate to the southern area, which would provide an estimated total of 1,353 cultural resources in the entire geographic scope.

Past projects in the area have disturbed, damaged, or destroyed cultural resources. The cultural and historic landscape has changed over time. In the past, this resulted in the loss of potential knowledge about the destroyed cultural resources. More recently, mitigation measures such as construction monitoring, evaluation of discovered resources, and avoidance or data recovery have helped to reduce the impact to previously unknown cultural resources.

4.2.3.3.1 Construction

The 2011 FEIR estimated that 1,396 cultural sites were located within the geographical scope. Of these sites, an estimated 1,353 sites were outside the APE, and 43 sites occur within the APE. The projects listed in Cumulative Project List in Table 4-1 may have impacted or may have the potential to impact the cultural sites in the APE.

The Project site is within the CSE facility and was previously actively farmed. The site was cleared and graded during construction of the CSE facility. The Project is not expected to contribute to direct impacts to the identified cultural resources in the APE as it was designed to avoid the known cultural resources. A low probability exists that buried archaeological deposits would be uncovered during construction of the Project. Other past, present, and reasonably foreseeable future projects also have the potential to impact buried and/or unknown cultural resources. Impacts to those resources could contribute to the cumulative impact on cultural resources in the region. If unanticipated resources are discovered during Project construction, mitigation measures will be implemented to minimize or avoid impacts to those resources.

This Project, along with other past, present, and future development in the region could result in a cumulatively considerable impact on cultural resources. However, the potential impacts from the Project would not make a considerable contribution to those cumulative impacts after implementation of the mitigation measures described in Section 3.3.4.

4.2.3.3.2 Operation and Maintenance

The proposed Project is located entirely within the CSE facility and was designed to avoid known cultural resources. Due to this location, ongoing operation and maintenance activities are currently taking place in the surrounding area for the solar array. These impacts include increased traffic during maintenance of the

solar array. No additional ground disturbance is anticipated during operation of the Project, however. Additional traffic due to the proposed Project is not expected to be considerable compared to the existing CSE facility activities and is not anticipated to impact cultural resources through new ground disturbance. Therefore, the Project would not result in cumulatively considerable adverse impacts to cultural resources.

4.2.3.3.3 Decommissioning

Impacts associated with decommissioning activities would be similar to construction impacts, though it is unlikely that any unanticipated resources would be discovered during decommissioning activities as resources would have likely been discovered during construction of the Project. Decommissioning the proposed Project would therefore not result in a cumulative considerable impact to cultural resources with the implementation of the proposed mitigation measures. In addition, restoration of the Project site to conditions similar to pre-construction would substantially reduce or eliminate any effect the Project may have had on culturally important landscapes, views, or past/traditional uses of the area.

Mitigation Measure

No additional Mitigation Measures required.

Level of Significance After Mitigation

The proposed Project site is located within the footprint of the CSE solar array facility. Cumulative impacts on cultural resources were assessed for the facility in the 2011 FEIR and mitigation measures were proposed. With the implementation of the Mitigation Measures presented in Section 3.3, cumulative impacts resulting from the construction, operation, and decommissioning of the Project are considered less than cumulatively considerable.

4.2.4 Geology and Soils

4.2.4.1 Geographic Scope

The geographic scope for the cumulative geology and soils setting is the Imperial Valley portion of the Salton Trough physiographic province of Southern California, however cumulative impacts to geology, soils, and seismicity is somewhat limited because geologic and seismic hazards can vary considerably from site to site and tend to be more site specific. Project-specific impacts within the geographic scope are based on the soil characteristics and topography of each site.

4.2.4.2 Temporal Scope

The temporal scope of impacts associated with the proposed Project includes both short and long-term impacts to geology and soils during the construction and operation and maintenance periods. Short-term impacts related to construction are related to ground disturbing activities such as grading and excavation to install or remove the building foundation. Long term impacts associated with the project include potential damage to proposed BESS facility due to seismic hazards that could occur over the operational life of the Project.

4.2.4.3 Direct and Indirect Impacts

4.2.4.3.1 Construction, Operation and Maintenance and Decommissioning

Rupture or Ground Shaking

The proposed Project, as discussed in this SEIR, did not identify any potential significant impacts as the hazards present, primarily seismic, would be ameliorated through implementation of building code standards and current geotechnical practices. Other projects in the cumulative setting also share similar seismic hazards; however, the nature of these projects do not represent cumulatively significant impacts to geologic and soil resources following a seismic event as the effects would be site-specific based on-site specific underlying conditions and proximity to the source of the seismic event. The Project site is located in a seismically active area which would make it susceptible to seismic ground shaking in the event of an earthquake. Exposure of the site to strong seismic ground shaking is a potentially significant site-specific impact. Mitigation Measure GEO-1 requires structures to be designed in conformance with the current California Building Code, current Uniform Building Code or the standards of care established by the Structural Engineers Association of California and the County of Imperial building requirements. The proposed Project would have a less than cumulatively considerable contribution to ground shaking impacts and result in a less than cumulatively considerable impact.

Liquefaction/Unstable Soils

Development of the proposed Project would be subject to soils susceptible to liquefaction. Liquefaction and unstable soil hazards are very site specific and are not cumulatively additive but rather depend on local conditions as well as the characteristics of the overlying improvements. Cumulative impacts could occur from a seismic event if a potential hazard were identified at a large consolidated critical facility located near a populated area. However, no such facility exists or is planned within the development area where the proposed Project site is located. Implementation of Mitigation Measure GEO-2 through Mitigation Measure GEO-11 would reduce potential structural damage caused by liquefaction/unstable

soils that may be present on the Project site. Through engineering, proper drainage and observation in the field, impacts resulting from constructing the BESS on soils susceptible to liquefaction can be mitigated to less than significant and would not have a cumulatively considerable contribution to liquefaction impacts potentially occurring at other project sites. Therefore, the proposed Project would have a less than cumulatively considerable contribution to exposure to expansive soils and result in a less than cumulatively considerable impact.

Erosion

Implementation of site-specific SWPPPs and BMPs would reduce erosion potential from the Project site. Impacts from erosion or loss of top soil for other cumulative projects may require site specific analysis to determine the soils permeability, slope angle and length, extent of groundcover, and human influence on the sites however all those in the cumulative setting would be required to adhere to similar erosion control requirements found in the Imperial County Grading Ordinance, Title 9 Division 10, as would the proposed Project. The proposed Project would have a less than cumulatively considerable contribution to soil erosion impacts. Likewise, cumulative impacts associated with soil erosion would be less than cumulatively considerable.

Expansive Soils

The Project area could be subject to direct impacts resulting from potential swelling forces and reduction in soil strength resulting from saturation. These impacts are assessed on a project-by-project basis and are site specific in nature. Therefore, the proposed Project would not create any expansive soil impacts nor would expansive soil impacts be cumulative in nature. The development of the BESS would have a less than cumulatively considerable contribution to exposure to expansive soils and result in a less than cumulatively considerable impact.

Paleontology

Construction activities on the Project site would occur on a previously developed solar field. As described in the 2011 FEIR, the CSE facility was developed over a large area that had been previously disturbed by agricultural activities. Deposits near the ground surface (approximately five feet in depth) were subject to disking, tilling, and planting for years, effectively compromising any fossil deposits that may have once been present. No direct impacts to paleontological resources are anticipated in association with operation and maintenance of the Project. With implementation of Mitigation Measure GEO-12, direct and indirect impacts to paleontological resources during construction, operation and decommissioning of the proposed Project would be reduced to less than significant. These impacts are assessed on a project-by-project basis and are site specific in nature and would not have a cumulatively considerable

contribution to paleontological resource impacts potentially occurring at other project sites. Therefore, the proposed Project would have a less than cumulatively considerable contribution to paleontological resource impacts and result in a less than cumulatively considerable impact.

Mitigation Measure

No additional Mitigation Measures required.

Level of Significance After Mitigation

Project-specific impacts are mitigated on a project-by-project basis. Following implementation of Mitigation Measures GEO-1 through Mitigation Measures GEO-12, geology and soils impacts would be reduced to less than cumulatively considerable levels.

4.2.5 Hazards and Hazardous Materials

4.2.5.1 Geographic Scope

The cumulative impact analysis setting for hazards and hazardous waste is a one-mile radius around the Project site. A one-mile radius is a standard American Society of Testing Materials (ASTM) standard search distance for hazardous materials.

4.2.5.2 Temporal Scope

The timeframe used in the cumulative impact analysis for hazards and hazardous waste included a short-term and long-term period. The short-term impacts would occur during construction and decommissioning of the Project and are associated with the use, transport, storage, and disposal of hazardous materials during this period. Long-term impacts are associated with impacts during the operational life of the Project and would be associated with the prolonged exposure to hazards or hazardous materials/waste.

4.2.5.3 Direct and Indirect Impacts

The Project site is located within the footprint of the CSE solar array facility. Seven past, present, or reasonably foreseeable future projects were located within the one-mile radius of the Project site and the two alternative sites:

- Calexico I-A (now Mt. Signal; under construction)
- Calexico I-B (approved – not built)
- Drew Solar Project (pending entitlement)
- Wistaria Ranch Solar (under construction)

- Imperial Solar South (operational)
- Mount Signal Solar (operational)
- Iris Cluster [Under construction [Iris Ferrel (not built), Iris Lyons (not built)]]

Cumulative impacts associated with hazards and hazardous wastes were assessed for the facility in the 2011 FEIR and mitigation measures were proposed. The Project and cumulative projects listed above have the potential to contribute to cumulative adverse effects related to hazards and hazardous materials. These impacts would be localized and site-specific, however. Mitigation measures have been developed for the Project and the seven cumulative projects that have been approved or are under construction to minimize risk and impacts related to hazardous wastes. It is anticipated that the other cumulative projects will implement similar mitigation measures in environmental documents. With the implementation of the mitigation measures and those presented in Section 3.5, cumulative impacts related to hazards and hazardous materials resulting from the construction, operation, and decommissioning of the Project are considered less than cumulatively considerable.

4.2.5.3.1 Construction

The Project site is located entirely within the existing CSE facility footprint. The site was graded and cleared during construction of the CSE facility. Prior to this, the site was actively farmed. Much of the area within the one-mile radius of the Project site was previously farmed. It is likely that aerial and ground application of pesticides and the application of chemical fertilizers took place historically in the area and resulted in low-level concentrations of these products in the soil and/or groundwater in the region. The Phase I ESA did not discover any spills or accidental releases of agricultural chemicals in the one-mile radius of the Project site. The Project and likely the other cumulative projects will use herbicide during construction to control weed growth. Herbicide application would be performed in accordance with all recommended application procedures on the herbicide product label as well as in cooperation with the County Agricultural Commissioner. BMPs would be implemented that will include a weed control plan which will be developed and approved by the County Agricultural Commissioner prior to herbicide application. No large residential or commercial areas are within the Project site or within the one-mile radius. Construction activities associated with the Project and the cumulative projects nearby are not expected to expose a significant number of people to herbicides or pesticides. No cumulative impact related to chemical residues is anticipated.

It is anticipated that the cumulative projects within the one-mile buffer will require BMPs that address herbicide application, if applicable. Due to the implementation of these BMPs, it is anticipated that impacts from herbicide use during construction will not result in a cumulative impact.

No onsite hazards were identified at the Project site. Mitigation measures were included in the Project to address any previously unidentified onsite hazards if discovered during construction. The Mount Signal and Calexico FEIR identified onsite potential hazards, including oils (insulating and lubricating), various solvents/detergents, and gasoline. These materials would be stored in 55-gallon drums protected from environmental conditions. If quantities greater than 55-gallons would be required, the Mount Signal/Calexico projects would develop a Hazardous Material Management Program (HMMP). The HMMP would include information on hazardous material handling, use, and storage; emergency response procedures; spill control and prevention; employee training; and record keeping and recording protocols. These projects would be required to comply with requirements of the Imperial County Fire Department, Imperial County Office of Emergency Services, DTSC, and CUPA as well. A Phase II ESA was included as a mitigation measure for these projects to determine the extent of hydrocarbon contamination within the project study area associated with a farm shop. The other cumulative projects within the one-mile radius studied do not yet have published environmental documents but will require BMPs to address remediation and corrective measures necessary related to onsite hazards. Due to the implementation of these BMPs, it is anticipated that impacts related to onsite hazards during construction will not result in a cumulative impact.

No hazardous material sites were identified during database searches within the one-mile radius of the Project. Due to this, the Project is not anticipated to result in cumulative impacts related to hazardous materials when combined with the cumulative projects.

Hazardous materials will be transported, used, stored, and disposed of during the Project as well as during the construction of the other cumulative projects in a one-mile radius. No acutely toxic hazardous materials would be required during construction of the Project or cumulative projects. Also, none of the hazardous materials to be used are anticipated to pose a significant potential risk. Transportation, use, storage, and disposal of hazardous materials are required to be in compliance with applicable laws and regulations. BMPs will be implemented for the Project that address the safe handling of hazardous material. Hazardous materials will be disposed of at a facility authorized to accept such materials. As mentioned above, the Mount Signal and Calexico projects would require the use and storage of various hazardous materials onsite. If quantities greater than 55-gallons would be required, the Mount Signal/Calexico projects would develop a HMMP, which would include information on hazardous material handling, use, and storage. These projects would be required to comply with requirements of the Imperial County Fire Department, Imperial County Office of Emergency Services, DTSC, and CUPA as well. Construction activities would also comply with OSHA regulatory requirements. The other cumulative projects within the one-mile radius studied do not yet have published environmental

documents but will require BMPs to address the transport, use, storage, and disposal of hazardous materials. The impacts from the transport, use, storage, and disposal of hazardous materials during construction associated with the Project and the cumulative projects combined are not anticipated to result in a cumulative impact.

4.2.5.3.2 Operation and Maintenance

During operation of the Project, herbicides would likely be used to control weeds at the Project site and at the cumulative project sites. BMPs would be implemented that will include a weed control plan which will be developed and approved by the County Agricultural Commissioner prior to herbicide application. Herbicides would be applied in accordance with product application procedures as well as in coordination with the County Agricultural Commissioner. Herbicide use during operation of the Project and cumulative projects is not expected to result in a cumulative impact.

During operation, the Project and cumulative projects will require the transport, use, storage, and disposal of small quantities hazardous materials to be used onsite for general maintenance activities. Spill containment systems would be required and would be designed to contain oil in the event of a leak. Appropriate containers would be required for the storage of hazardous materials at each cumulative project site. Transport, use, storage, and disposal of hazardous materials during operation of the Project and cumulative projects would be required to be in compliance with standards and regulations of the Imperial County Fire Department, Imperial County Office of Emergency Services, the DRSC, and CUPA. A HMMP or similar plan would be developed for the Project and cumulative projects. BMPs would be required to minimize spill and leak risks associated with use, handling, and storage of hazardous materials at the Project site and cumulative project sites by requiring that hazardous materials and hazardous wastes be handled in accordance with applicable regulations. Any hazardous waste would be required to be transferred to a disposal facility authorized to accept such materials. Due to this, impacts from the transport, use, storage, and disposal of hazardous materials during operation of the Project are not expected to result in a cumulative impact when combined with the cumulative projects in the one-mile radius.

4.2.5.3.3 Decommissioning

Decommissioning the Project and the other cumulative projects will result in the generation of large quantities of solid and industrial wastes. Efforts would be made to recycle any commercially viable materials. Other materials would be disposed of at an authorized facility. Decommissioning activities would be required to comply with all laws and standards of applicable regulatory agencies. These regulations would reduce the risks associated with decommissioning the projects. Hazardous material transport, use, storage, and disposal would cease after decommissioning activities have ended. Due to

this, the Project and cumulative projects are not anticipated to result in a cumulative impact related to hazardous materials during decommissioning.

Mitigation Measure

No additional Mitigation Measures required.

Level of Significance After Mitigation

With the implementation of the Mitigation Measures identified in Section 3.5, hazards and hazardous materials impacts would be reduced to less than significant levels. Cumulative impacts would be less than cumulatively considerable following mitigation.

4.2.6 Noise

4.2.6.1 Geographic Scope

Cumulative impacts to noise could occur if construction of the proposed project would combine with noise impacts of other cumulative local or regional projects. In order to exceed the Imperial County Construction Noise Standards limit of 75 dBA, construction would have to be within approximately 200 feet of a sensitive receptor. A conservative distance of 1/2 mile (1,320) from the nearest sensitive receptors from the proposed Project sites is used to identify other construction projects that could have a potential to cumulatively affect noise levels at the nearest sensitive receptors.

4.2.6.2 Temporal Scope

The timeframe refers the duration over which an impact would occur: short-term or long-term. Short-term noise impacts would occur during the construction and decommissioning periods in association with the addition of construction equipment. Long-term noise impacts were eliminated from the Draft SEIR scope of analysis based on the findings made in the IS/NOP published for the proposed Project.

4.2.6.3 Direct and Indirect Impacts

4.2.6.3.1 Construction, Operation and Maintenance and Decommissioning

The nearest residence (405 Drew Road) to the proposed Project is 1,000 feet from the center of the Project site. Construction noise, if attenuated out to the residence at 1,000 feet, would result in a conservative noise level estimate of about 69 dBA L_{eq} during the loudest of construction activities that would occur. Construction noise at these levels would be below Imperial County's Construction Noise Standard limit of 75 dBA. The Drew Solar Project (#9 on Figure 4-1) is located within a half mile of the nearest sensitive receptor. Though the Drew Solar Project is adjacent to the nearest sensitive receptor, the

project center is located 3,000 feet away. Construction activities would be spread out across the project site, and cumulative construction noise would generally attenuate to levels well below the limit of 75 dBA by the property line. The Drew Solar Project is required to meet the Imperial County Construction Noise Standard limits, and the proposed Project is only expected to generate 69 dBA L_{eq} during the loudest construction activities. Therefore, it would not cumulatively affect noise levels at the nearest sensitive receptor. Other sites are located further away from sensitive receptors, which would further attenuate noise levels. Furthermore, the proposed Project and nearby projects would be required to adhere to all applicable noise standards related to construction activities, as identified by Imperial County standards. Accordingly, no significant cumulative impact would result from the cumulative scenario to which the Project's incremental impact could contribute.

For the proposed Project, no significant noise impacts have been identified. Operation of the other cumulative projects listed in Table 4-1 could result in the long-term stationary source noise levels that exceed applicable standards at nearby sensitive receptors and/or result in substantial increases in ambient noise levels. However, given that the Project facilities would be constructed within the A-2, A2-R and A-3 zones, and components of the Project associated with noise during operation would be located at significant distances from the residential properties, long-term operational noise levels are not expected to exceed normally acceptable noise levels for these zones. Thus, the incremental contribution of the Project to significant cumulative noise impacts would not be cumulatively considerable.

Mitigation Measure

No additional Mitigation Measures required.

Level of Significance After Mitigation

Cumulative impacts would be less than cumulatively considerable.

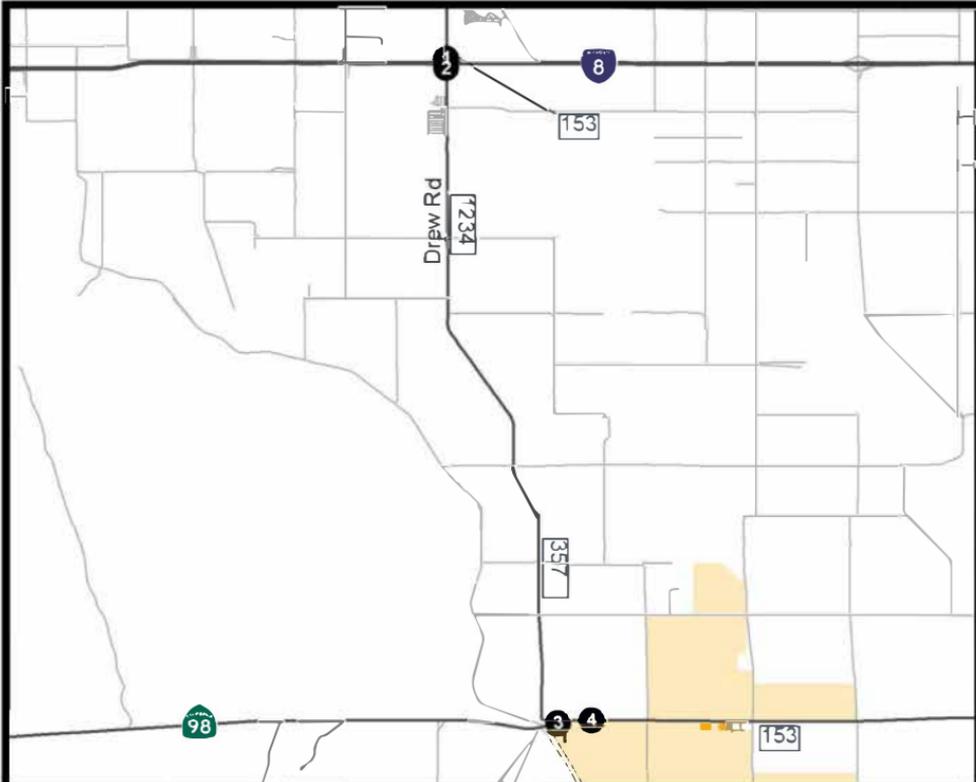
4.2.7 Transportation

4.2.7.1 Geographic Scope

Construction of the proposed Project combined with traffic impacts of other cumulative local or regional projects would constitute cumulative impacts to traffic. Included in this analysis discussion are projects that would increase traffic on the same intersections or roadway segments as the proposed Project. The cumulative identified below describes other planned projects in the immediate area around the Project site (i.e. projects that are generally located south of I-8 and adjacent to Drew Road). Those projects already constructed or now in construction have not been included as the construction impacts will have been completed by this Project's construction year. Most of the cumulative projects have completed technical

studies including traffic generation information. Information for each cumulative project is included below with text identifying if a cumulative project was observed to be under construction. Cumulative generated trips are shown in **Figure 4-2** and include the following projects:

1. Big Rock Solar and Laurel Solar - These four projects together are known as the Laurel Cluster Solar Farms and would generate up to 325 MW of electricity. The sites are generally located west of Drew Road and south of I-8. The construction phase is calculated to generate 668 daily trips with 207 AM peak hour trips and 207 PM peak hour trips.
2. Drew Solar - The Drew Solar Project consists of a PV solar facility capable of producing approximately 100 MWAC to be sited on approximately 855 gross and 762.8 net farmable acres. The Project may be constructed at one time over approximately 18 months, or it may be built out over an approximately 10-year period. The site is generally located west of Drew Road and south of I-8. The construction phase is calculated to generate 436 daily trips with 147 AM peak hour trips and 147 PM peak hour trips.
3. The VEGA SES Project - involves the construction of a 100 MW PV solar energy facility with an integrated 100 MW battery storage system on approximately 574 gross acres of land. Of the total 574 gross acres, approximately 555 acres would be developed with a ground mounted PV solar power generating system, supporting structures, on-site substation, battery storage system, and internal access roads. Located approximately 9 miles southwest of the City of El Centro, California. The project site is generally located east of the Westside Main Canal, south of West Wixom Road, west of Drew Road, and north of Lyons Road. The construction phase is calculated to generate 374 daily trips with 187 AM peak hour trips and 187 PM peak hour trips.
4. Iris Cluster - The Iris Cluster Solar Farm Project involves the construction of four utility-scale PV solar facilities on four non-contiguous independent sites encompassing approximately 1,422 acres. The project is located adjacent to SR-98 near Calexico. Most of the project is built.
5. Ocotillo Sol - San Diego Gas & Electric filed a ROW application with the BLM for a ROW grant to construct, operate, maintain, and decommission a 100-acre solar photovoltaic facility on BLM managed This project is located east of the study area, and will not impact the study segments or intersections.



Legend

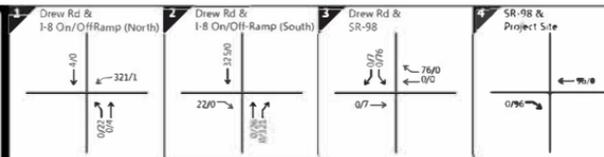
- Intersection
- Road
- Proposed Battery Energy Storage System
- Centinela Solar Energy Site

123 - Daily Traffic
 123/456 - AM/PM Volumes



0 5,000 10,000
 Feet

Graphic created by KOA, 2019



Source: KOA, 2019



Figure 4-2
 Cumulative Trips

4.2.7.2 Temporal Scope

The timeframe refers the duration over which an impact would occur: short-term or long-term. Short-term traffic impacts would occur during the construction and decommissioning phases in association with the addition of workers traveling to and from the site as well as construction equipment. Long-term traffic impacts were eliminated from the Draft SEIR scope of analysis based on the findings made in the Le Conte Energy Storage Traffic Impact Study (KOA, 2019) due to the fact the Project will not have workers on-site once operational. Cumulative projects in the area largely consist of utility-scale solar power generation facilities. The nature of these projects is such that, like the proposed Project, they would create some construction traffic, but would have minimal traffic associated with operations and maintenance. The proposed Project would not result in significant impacts on transportation and traffic. Even during construction, increased traffic associated with personnel and delivery of equipment and materials would not significantly affect road capacity or traffic volumes, given the remote locations of the sites of this Project and the low amount of existing traffic.

4.2.7.3 Direct and Indirect Impacts

4.2.7.3.1 Existing with Project Plus Cumulative Conditions

This section documents the addition of construction traffic plus cumulative projects onto year 2019 conditions to document the scenario if the Project and the cumulative projects were constructed immediately over 12 months. **Figure 4-3** shows the Existing with Construction plus Cumulative Project traffic volumes in the study area.

Segments

Roadway segment analysis was conducted for the study area's specified segments. A determination of the level of service for the designated roadway segments was made using ADT counts. Table 4.1 below displays these levels of service.

Table 4-2: Existing Year with Project Plus Cumulative Conditions Roadway Segment Analysis

Roadway Segment	Lanes/Class	LOS E Capacity	Existing		
			ADT	V/C	LOS
Drew Road	2-Ln Collector	16,200	1,638	0.10	A
SR 98	State Hwy (2 U)	20,900	2,147	0.10	A

Source: KOA, 2019

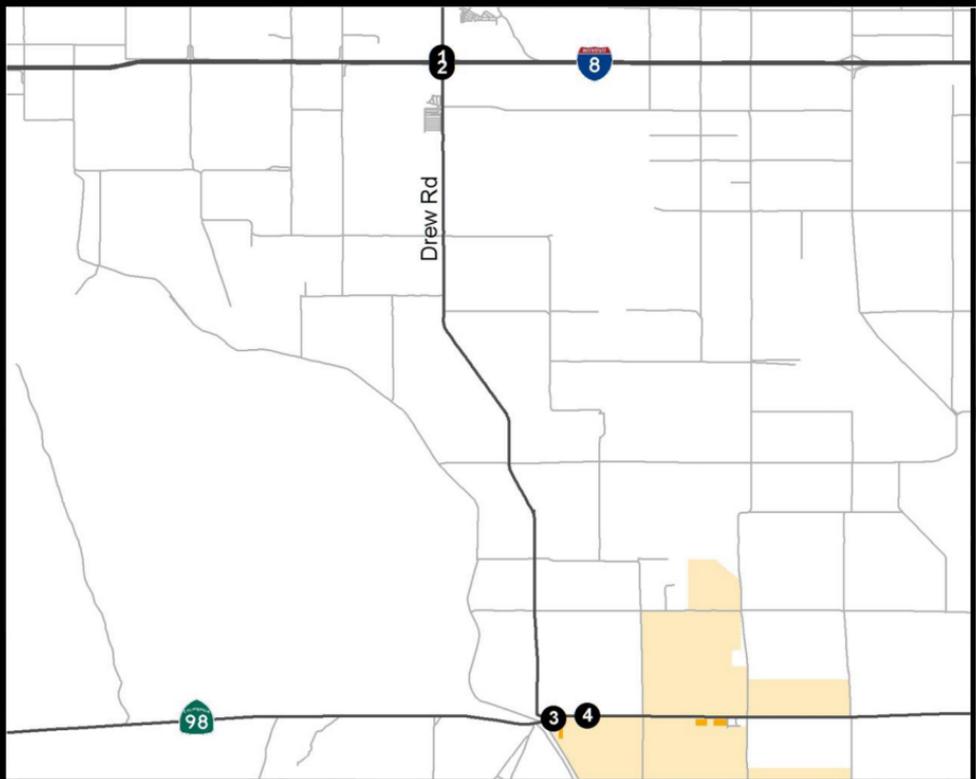
Table 4.2 displays the operation at each intersection with the project traffic added to the Existing Year scenario. Intersection LOS calculations are shown in Appendix G. **Figure 4-4** shows the Existing Year with Project Plus Cumulative AM/PM Peak Hour Volumes.

Table 4-3: Existing Year with Project Plus Cumulative Conditions Peak Hour Intersection Analysis

#	Intersection	Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	Drew Road / I-8 WB Ramps	MSSC	C	17.6	B	10.0
2	Drew Road / I-8 EB Ramps	MSSC	B	13.6	C	16.5
3	Drew Road / SR-98	MSSC	A	10.0	B	12.6
4	Site Driveway / SR 98	MSSC	A	7.5	B	10.9

Source: KOA, 2019

Note: 1 = Delay is in seconds/vehicle, 2 = Level of Service

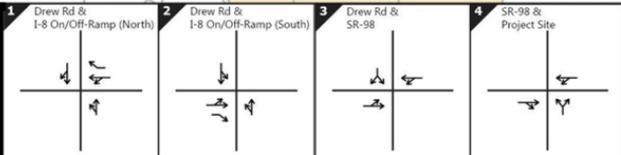


Legend

- Intersection
- Road
- Proposed Battery Energy Storage System
- Centinela Solar Energy Site

123 - Daily Traffic

123/456 - AM/PM Volumes



Source: KOA, 2019

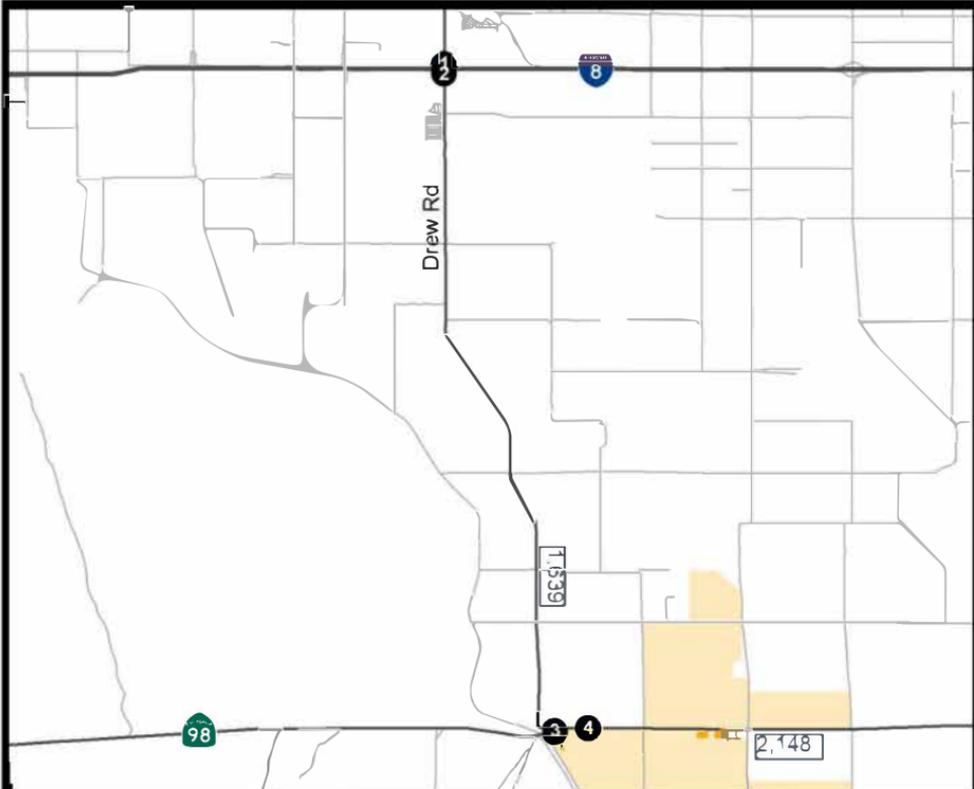


0 5,000 10,000
Feet

Graphic created by KOA, 2019



Figure 4-3
Existing Year with Project
Hour Volumes



Legend

- Intersection
- Road
- Proposed Battery Energy Storage System
- Centinela Solar Energy Site

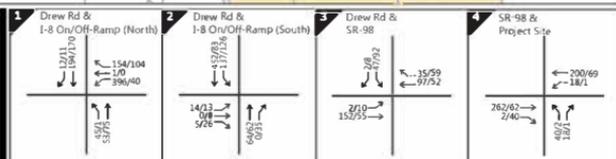
123 - Daily Traffic

123/456 - AM/PM Volumes



0 5,000 10,000
Feet

Graphic created by KOA, 2019



Source: KOA, 2019



Figure 4-4
Existing Year with Project
Plus Cumulative A.M./P.M.
Peak Hour Volumes

4.2.7.3.2 Project Opening Year with Project Plus Cumulative Conditions

This section documents the addition of construction traffic plus cumulative projects onto year 2021 conditions to document the scenario if the project and the cumulative projects were constructed at the same year as this project. **Figure 4-5** shows the Opening Year with Construction plus Cumulative Project traffic volumes in the study area.

Segments

A roadway segment analysis was conducted for the study area's specified segments. Using ADT counts, the level of service for the designated roadway segments was determined. Table 4-3 below displays these levels of service.

Table 4-4: Opening Year with Project Plus Cumulative Conditions Roadway Segment

Roadway Segment	Lanes/Class	LOS E Capacity	Existing		
			ADT	V/C	LOS
Drew Road	2-Ln Collector	16,200	1,651	0.13	A
SR 98	State Hwy (2 U)	20,900	2,218	0.10	A

Source: KOA, 2019

Intersections

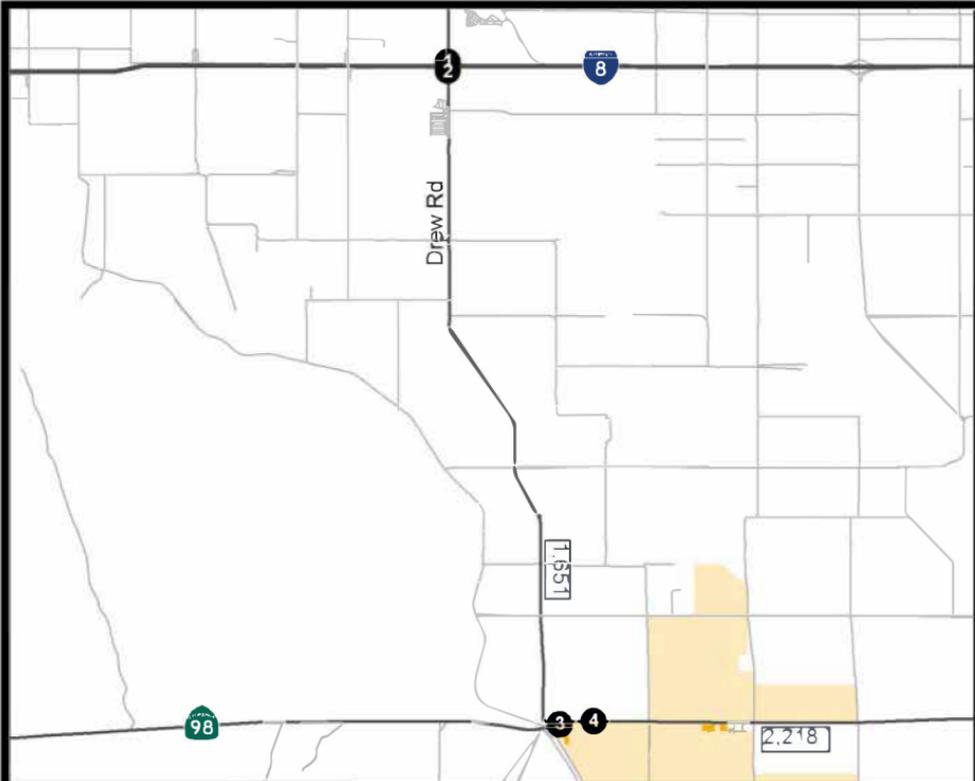
Table 4-4 displays the operation at each intersection with the project traffic added to the Existing Year scenario. The table indicates that there are no study area intersections would operate at an unacceptable LOS (i.e., LOS D or worse) during the peak AM or PM hours. Intersection LOS calculations are shown in Appendix G.

Table 4-5: Opening Year with Project Plus Cumulative Conditions Roadway Segment

#	Intersection	Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	Drew Road / I-8 WB Ramps	MSSC	C	18.1	A	9.8
2	Drew Road / I-8 EB Ramps	MSSC	B	13.6	B	13.3
3	Drew Road / SR-98	MSSC	A	9.7	B	11.0
4	Site Driveway / SR 98	MSSC	A	9.7	B	11.0

Source: KOA, 2019

Note: 1 = Delay is in seconds/vehicle, 2 = Level of Service



Legend

- Intersection
- Road
- Proposed Battery Energy Storage System
- Centineia Solar Energy Site

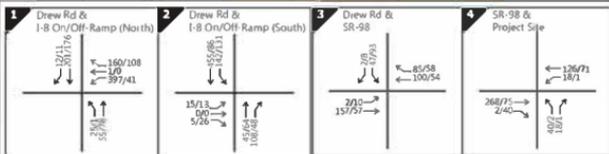
123 - Daily Traffic

123/456 - AM/PM Volumes



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Feet

Graphic created by KOA, 2019



Source: KOA, 2019



Figure 4-5
Project Opening Year
with Project Plus
Cumulative Volumes

Mitigation Measure

Compliance with the goals, policies, and implementation of measures from the Imperial County General Plan is required. No additional mitigation measures are proposed.

Level of Significance After Mitigation

Compliance with the goals, policies, and implementation of measures from the Imperial County General Plan, impacts to transportation would be reduced to less than significant levels.

Cumulative impacts would be less than cumulatively considerable following mitigation.