0.0 EXECUTIVE SUMMARY

0.1 Introduction

This chapter provides an overview of the Le Conte Battery Energy Storage Project (Project) and the environmental analysis. Additional details regarding specific issues can be found in Chapter 3 of the Draft Supplemental Environmental Impact Report (SEIR). This Draft SEIR provides a thorough analysis of the potential environmental effects associated with the implementation of the proposed Project pursuant to the California Environmental Quality Act (CEQA). The Draft SEIR analysis focused upon potential environmental impacts arising from the Project. The Draft SEIR adopts this approach in order to provide a credible worst-case scenario of the impacts resulting from project implementation.

0.2 Project Summary

The proposed Project consists of the construction and operation of a Battery Energy Storage System (BESS) with up to 125 MW of electrical storage capacity to receive and store excess energy and to return this electricity to the grid at a later time when needed. The Project will be situated on approximately three to five acres within the fence line of the existing Centinela Solar Energy (CSE) site, located at 319 Brockman Road, Calexico, CA. Construction activities are expected to take approximately 12 months. Major Project components include the following: up to two buildings totaling 85,000 square feet in size; batteries and enclosures; power conversion systems; substation and overhead electric tie line; and ancillary systems.

0.3 Purpose and Use of the Draft SEIR

Imperial County has prepared this Draft SEIR to provide the public and, responsible and trustee agencies with information about the potential environmental effects of the proposed project. As set forth in the provisions of CEQA and implementing regulations, public agencies are charged with the duty to consider the environmental impacts of proposed development and to minimize these impacts where feasible while carrying out an obligation to balance a variety of public objectives, including economic, environmental, and social factors.

CEQA Guidelines §15121(a) states that an EIR is an informational document for decision-makers and the general public that analyzes the significant environmental effects of a project, identifies possible ways to minimize significant effects and describes reasonable alternatives to the project that could reduce or avoid its adverse environmental impacts. Public agencies with discretionary authority are required to consider the information in the EIR, along with any other relevant information, in making decisions on the project.

CEQA requires the preparation of an environmental impact report prior to approving any project which may have a significant effect on the environment. For the purposes of CEQA, the term "project" refers to the whole of an action which has the potential for resulting in a direct physical change or a reasonably foreseeable indirect physical change in the environment (CEQA Guidelines §15378[a]). With respect to the Le Conte Battery Energy Storage System, the County has determined that the proposed development is a "project" within the definition of CEQA.

In determining the level of environmental review needed for the proposed Project, Imperial County as the Lead Agency reviewed CEQA Guidelines §15162 Subsequent EIRs and Negative Declarations, and §15163 Supplement to an EIR. These sections of the Guidelines provide direction with regard to when additional environmental review is appropriate.

The proposed Project represents a new component that will be added to the existing approved Project that was examined in the December 2011 certified the Final Environmental Impact Report (State Clearinghouse Number 2010111056) for the Centinela Solar Energy (CSE) Project (2011 Final EIR). The BESS was not envisioned or included at the time the approved Project was put forth. Per CEQA Guidelines §15163 (a)(2) "the Lead or Responsible Agency may choose to prepare a supplement to an EIR rather than a subsequent EIR if only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation."

CEQA Guidelines §15163 provides a short-form method where only minor additions or changes to the previous EIR would be necessary to make that EIR apply in the changed situation (i.e. inclusion of the Battery Energy Storage System). §15163(b) thru (e) also provide essential interpretations of how to handle public notice, public review, and circulation of the supplement to the EIR as follows:

(b) The supplement to the EIR need contain only the information necessary to make the previous EIR adequate for the project as revised.

(c) A supplement to an EIR shall be given the same kind of notice and public review as is given to a draft EIR under §15087.

(d) A supplement to an EIR may be circulated by itself without recirculating the previous draft or final EIR.

(e) When the agency decides whether to approve the project, the decision-making body shall consider the previous EIR as revised by the supplemental EIR. A finding under §15091 shall be made for each significant effect shown in the previous EIR as revised.

Given that the proposed BESS would be located within the existing footprint of the existing CSE Solar Project, the County determined that a SEIR was the appropriate level of environmental review.

0.4 Proposed Project Characteristics

As described above, the Project is a BESS facility to be located on land previously disturbed and entirely within the boundary of the existing CSE facility. The proposed Project represents a complementary use to the CSE project. The Project will allow for efficient storage of energy available on the wholesale power grid, including renewable energy generated in the County so that it is available when needed most. The Project will use battery energy storage technology to absorb and discharge electrical energy onto the SDG&E owned power grid, which is controlled by the California Independent System Operator (CAISO). The Project's energy storage system will be similar in layout and appearance to a data center or "server farm" with rows of rack- mounted batteries housed inside one or more enclosures and consist of the following general components:

- *Batteries and Enclosures:* Banks of electrochemical batteries connected in series and parallel to provide the total energy storage capacity including associated electronics for monitoring and managing the batteries to ensure safety and the design life of the system.
- *Power Conversion Systems (PCS):* Each PCS will consist of bi-directional inverters with 480V AC output, and a medium voltage (MV) transformer which steps the voltage up to 34.5kV.
- *Substation:* AC energy from the MV transformers are aggregated at the Project substation and stepped up to 230- kilovolt (kV) by high-voltage transformer(s) and then delivered to the Drew Switchyard.
- *Ancillary Systems:* The plant ancillary systems control, protect and support the Project and its operation. They include fencing; security; lighting; fire protection; and heating, venting, and air conditioning (HVAC).

Centinela Solar Energy, LLC, the owner of the Project site and the existing CSE facility, will lease the Project site to the Applicant. The Applicant will construct, own, and operate only the proposed Project.[1] The Project will utilize certain components of the existing CSE improvements, including: a portion of the CSE Project site, rights of access, drainage features, physical security, as well as

[1] The California Subdivision Map Act is not applicable to the lease. Cal. Gov. Code § 66412.1 (the Subdivision Map Act is not applicable to the "leasing of any parcel of land, or any portion thereof, in conjunction with the construction of commercial or industrial buildings on a single parcel, unless the project is not subject to review under other local agency ordinances regulating design and improvement"). Here, the Project is subject to review and approval by ICPDS.

obtaining from CSE the right to use a portion of the 230-kV tie line owned by CSE to connect to the SDG&E Drew Switchyard.

0.5 Regional Setting

The topography of the Imperial Valley is relatively flat. The valley floor slopes gently to the north (less than 0.5 percent) from an elevation of sea level at Calexico to approximately 225 feet below sea level at the Salton Sea. The Project area is located in the Colorado Desert Physiographic province of southern California. The dominant feature of the Colorado Desert province is the Salton Trough, a geologic structural depression resulting from large-scale regional faulting. The trough is bounded on the northeast by the San Andreas Fault and the southwest by faults of the San Jacinto Fault Zone. Annual rainfall in this arid region is less than 3 inches per year with four months of average summertime temperatures above 100ºF. Winters temperatures are mild, seldom reaching freezing.

The overall CSE facility site is located on the western and southern fringe of developed agricultural lands in the County. Land uses surrounding the overall CSE project site include existing solar development, agricultural lands and the U.S. International Border with Mexico located approximately one mile to the south; the BLM California Desert Conservation Area Plan Utility Corridor N within the Yuha Basin, agricultural lands, and Westside Main Canal to the west; agricultural lands with a few rural residences, mobile homes and Mount Signal Slough are located approximately 500 feet to the east; and agricultural lands, the abandoned Mt. Signal Café, a few mobile homes and abandoned farm labor camp housing are located to the north along SR 98 and Brockman Road. SR 98 aligns east-west through the overall CSE site dividing the northern parcels from the southernmost parcels on the CSE facility.

0.6 Project Location

The Project will be located within the fence line of the CSE site on land wholly owned by CSE (APN 052-190-041). **Figure 2-3** (Chapter 2) provides an overview of the Project site plan and the immediate surrounding area and site location are shown on **Figure 2-4** (Chapter 2). The Project facility is proposed to be located immediately adjacent to the east side of the existing SDG&E Drew Switchyard within the western portion of the overall CSE project site just south of SR 98, and west of the existing CSE solar panels. The CSE site is bounded by Fisher Road to the north, Mandrapa Road and Westside Main Canal on the west, Rockwood Road to the east, and the Woodbine Lateral Four sits just south of the CSE southern limits. California State Route (SR 98) bisects the overall CSE site from east to west and Brockman Road bisects the site from north to south.

0.7 Project Objectives

The primary purpose of the Project is to reliably and economically receive, store and return up to 125 MW of electric energy to the electric grid. Charging energy will be provided from the electric grid which will include solar energy currently produced by projects interconnected at the Drew and IV substations. The Project will electrically connect to the adjacent San Diego Gas & Electric (SDG&E) Drew Switchyard which is directly connected to the Imperial Valley substation.

The Project is consistent with the goals and policies of the County General Plan and is consistent with the purpose of the zone in which it will be sited. The County General Plan's goals include:

"…support[ing] the safe and orderly development of renewable energy while providing for the protection of environmental resources" and "support[ing] development of renewable energy resources that will contribute to and enhance the economic vitality of Imperial County[.]" (Imperial County Renewable Energy Transmission Element, 2015)

The Project will help achieve these goals by making renewable energy projects more efficient by capturing and transmitting energy that might otherwise go unused. The following objectives have been identified for the proposed Project:

- Assist the State in achieving the Renewable Portfolio Standard (RPS) and greenhouse gas (GHG) emissions reduction objectives by constructing a BESS;
- Provide a new economic and reliable means of capturing, storing and managing renewable energy (up to 125 MW) that would otherwise be lost;
- Provide benefits to Imperial County, the region and the State of California including construction jobs, property and sales taxes, and increased energy efficiency;
- Receive solar-generated electricity during times of excess generation or times of low energy demand and store that power for release when the customer deems it to be more valuable thus increasing the effectiveness of Imperial County renewable energy projects; and
- Locate the Project on available land previously disturbed during construction of the CSE project, therefore minimizing environmental and land impacts.

0.8 Environmental Impacts

0.8.1 Impacts Not Further Considered in this SEIR

This Draft SEIR addresses the potential environmental effects of the proposed projects and was prepared following input from the public and the responsible and affected agencies through the Draft SEIR scoping

process as discussed previously. The contents of this Draft SEIR were established based on the findings in the Initial Study/Notice of Preparation (IS/NOP) and public and agency input. Based on the findings of the IS/NOP, a determination was made that an EIR was required to address potentially significant environmental effects on the following resources:

- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Noise
- Transportation

Impacts to the following resources were discussed in the IS/NOP and determined to have no impacts that require analysis in the EIR. Additionally, no comments were received during circulation of the IS/NOP indicating that the lead agency's determination of no impact to following resources was inappropriate:

- Aesthetics
- Agriculture and Forestry Resources
- Energy
- Greenhouse Gas Emissions
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Population and Housing
- Public Services
- Recreation
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire

No further discussion of these topics is warranted. For a complete analysis of these impacts, please refer to Appendix A of this document.

0.8.2 Impacts of the Proposed Project

0.8.2.1 Less than Significant Impacts (Including Significant Impacts that can be Mitigated, Avoided, or Substantially Lessened)

Table ES-1 presents those impacts of the proposed Project that were determined to be less than significant by themselves, or less than significant with implementation of mitigation measures. Less than significant cumulative impacts are also included in this table. Sections 3.1 through 3.7 and Chapter 3 of this SEIR present detailed analysis of these impacts and describe the means by which the mitigation measures listed in Table ES-4 would reduce impacts to a less than significant level.

Table ES-1: Summary of Proposed Project Impacts - Less Than Significant or Less Than Significant with Mitigation

Impact	Mitigation Measure
Air Quality (Project and Cumulative)	None required
Biological Resources (Project and Cumulative)	Measures BIO-1 through BIO-4
Cultural Resources (Project and Cumulative)	Measures CR-1 through CR-6
Geology and Soils (Project and Cumulative)	Measures GEO-1 through GEO-11
Hazards and Hazardous Materials (Project and Cumulative)	None required
Noise (Project and Cumulative)	None required
Traffic and Transportation (Project and Cumulative)	None required

0.8.2.2 Growth Inducement

CEQA Guidelines Section 15126.2(d) indicates a project could be identified as growth-inducing if it "could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment." Also, the EIR must discuss the characteristics of a project that could encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. Growth can be induced in a number of ways, such as through the elimination of obstacles to growth, the stimulation of economic activity within the region, or the establishment of policies or other precedents that directly or indirectly encourage additional growth. Induced growth would be considered a significant impact if it can be demonstrated that the potential growth, directly or indirectly, significantly affects the environment.

The elimination of either physical or regulatory obstacles to growth can be considered a growth-inducing effect, though not necessarily a significant one. A physical obstacle to growth typically involves the lack of public service infrastructure. The extension of public service infrastructure, including roadways, water mains, and sewer lines, into areas that are not currently provided with these services could induce new development. The Project would not involve the construction of new roadways or utility lines.

Regarding employment, the proposed Project would not induce substantial growth of the limited number of workers (temporary or permanent) and their origin. Up to 50 daily workers would be present on-site during construction (during peak construction activity). It is anticipated that the workforce for the proposed Project would be available within the existing regional workforce versus the potential for in-migration to occur as a result of the proposed Project, which could result in the increased demand for housing and local services. The Project would store excess electrical energy when electricity production exceeds demand and returning this electricity to the grid at a later time when demand is high to accommodate and support existing demand and projected growth, but it would not foster any new growth.

0.8.2.3 Significant and Unavoidable Environmental Impacts

CEQA Guidelines Section 15126.2(b) requires discussion of any significant impacts that cannot be avoided, even with the implementation of feasible mitigation measures. Potential impacts from the Project would be reduced to less than significant levels after the incorporation of proposed mitigation measures, as discussed in Chapter 3. No significant and unavoidable impacts were identified in this Draft SEIR.

0.8.2.4 Significant Irreversible Environmental Changes

CEQA Guidelines Section 15126.2(c) requires a discussion of any significant irreversible environmental change that would be caused by a proposed project. Generally, a project would result in significant irreversible changes if:

- The primary and secondary impacts would generally commit future generations to similar uses (such as highway improvement that provides access to a previously inaccessible area)
- The project would involve a large commitment of nonrenewable resources (CEQA Guidelines Section 15126.2(c))
- The project would involve uses in which irreversible damage could result from any potential environmental accidents associated with the project

Development of the Project would involve the consumption of some non-renewable, locally limited natural resources, and/or slowly renewable natural and energy resources (i.e., fossil fuels, lumber, and water) associated with construction activities. The Project would incorporate a number of sustainable practices that reduce the consumption of energy; nonetheless, construction activities related to the Project would result in an irretrievable commitment of nonrenewable energy resources, primarily in the form of fossil fuels, natural gas, and gasoline and diesel for automobiles and construction equipment. During Project operation, minimal amounts of oil, gas, and other non-renewable resources would be used associated with maintenance activities, including fuel for vehicles traveling to and from the project site on

an infrequent basis. However, assuming that those commitments occur in accordance with the adopted goals, policies, and implementation measures of the Imperial County General Plan, as a matter of public policy, those commitments have been determined to be acceptable. The Imperial County General Plan ensures that any irreversible environmental changes associated with those commitments will be minimized. Therefore, the non-renewable resources demand by the Project is not considered to be significant.

CEQA Guidelines also require a discussion of the potential for irreversible environmental damage caused by environmental accidents associated with the Project. While the Project would result in the use, transport, storage, and disposal of minor amounts of hazardous materials during construction and operation, as described Section 3.5, Hazards and Hazardous Materials, all such activities would comply with applicable local, State and Federal laws related to the use, storage and transport hazardous materials, which significantly reduces the likelihood and severity of accidents that could result in irreversible environmental damage. The Project itself does not include any uniquely hazardous uses that would require any special handling or storage. Further, the Project does not contain any industrial uses that would use or store acutely hazardous materials.

0.9 Alternatives to the Proposed Project

CEQA Guidelines Section 15126.6(e)(1) requires that an environmental impact report describe and analyze a range of reasonable alternatives to a project. These alternatives should feasibly attain most of the basic objectives of the project while avoiding or substantially lessening one or more of the significant environmental impacts of the project. An EIR need not consider every conceivable alternative to a project, nor is it required to consider alternatives that are infeasible. Consistent with CEQA Guidelines Section 15126.6(b), the discussion of alternatives in the Draft SEIR focused on those alternatives which are capable of avoiding or substantially lessening any significant effects of the project.

0.9.1 Alternatives Eliminated from Further Consideration

Alternatives may be eliminated from detailed consideration in an EIR if they fail to meet most of the project objectives, are infeasible, or do not avoid or substantially reduce any significant environmental effects (*CEQA Guidelines*, Section 15126.6[c]). Alternatives that are remote or speculative, or the effects of which cannot be reasonably predicted, also do not need to be considered (*CEQA Guidelines*, Section 15126[f][2]). Imperial County considered alternatives to reduce Project impacts on air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, noise and transportation (please refer to Chapter 3 of this Draft SEIR for more information on these issue areas). Per CEQA, the lead agency may make an initial determination as to which alternatives are feasible and warrant further

consideration and which are infeasible. The following alternatives were initially considered but were eliminated from further consideration in this EIR because the alternatives do not meet project objectives or were infeasible.

0.9.1.1 Off-Site Location

This alternative would involve the development of the proposed Project on another site located within Imperial County. Although undetermined at this time, due to the solar resources, existing and planned electricity transmission infrastructure and limited topography, the alternative project site would likely remain in the desert region of Imperial County, similar to the proposed Project site. Under this alternative, is it assumed that the Project would still involve construction of an up to 125 MW BESS and up to two buildings totaling 85,000 square feet in size (batteries and enclosures; power conversion systems; substation and overhead electric tie line; ancillary systems approximately) on three to five acres. Similar to the proposed Project, it is also assumed that this alternative would require Conditional Use Permit (CUP) approvals to allow installation and operation of: an approximately 85,000 square foot building to contain electrochemical batteries, racks and related building and electrical control systems; inverters, an on-site substation and an overhead 230 kV electric line.

Based on the known general conditions in the Imperial County area and Project as proposed (being located within the boundary of an existing solar development), an off-site location in the area is likely to have more significant impacts after mitigation than the Project in the areas of : agriculture and forestry resources, air quality, biological resources, Hydrology/Water Quality, Cultural Resources, and Land Use/Planning. In addition, an alternative site for the Project is not considered to be "potentially feasible," as there is no suitable site within the control of the Applicant. Further, it is unknown at this time if another point of interconnection to the utility power grid would be available for this Project if it were relocated. Given the size of the BESS facility, the project objectives, and the need co-locate the BESS in proximity to existing electric infrastructure, it is impractical and infeasible to propose the Project on an off-site location, and still proceed within a reasonably similar timeframe. Therefore, the off-site location alternative has been eliminated from further consideration in this draft SEIR.

0.9.1.2 Flow Battery Alternative

This alternative would involve the use of flow battery technology at the proposed Project development site in place of lithium-ion battery technology. A flow battery is a type of electrochemical cell where chemical energy is provided by two chemical components dissolved in liquids contained within the system and separated by a membrane. A flow battery can be used like a fuel cell where the spent fuel is extracted, and new fuel is added to the system or like a rechargeable battery where an electric power

source drives regeneration of the fuel. While it has technical advantages over conventional rechargeable batteries, such as potentially separable liquid tanks and near unlimited longevity, current implementations are comparatively less powerful and require more sophisticated electronics (Energy Storage Association, 2019).

Similar to the proposed Project, this battery technology would receive, store and return electric energy to the electric grid. Charging energy will be provided from the electric grid which will include solar energy currently produced at the CSE site. The batteries would be housed in a battery energy storage facility within the existing CSE solar development. Flow battery technology could require additional facility equipment to operate which could increase the potential for impacts during the short-term construction phase, to air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, noise and transportation due to a possibly larger required facility footprint. In addition, flow batteries include expensive fluids that are also corrosive or toxic.

As noted above, alternatives may be eliminated from detailed consideration in an EIR if they fail to meet most of the project objectives, are infeasible, or do not avoid or substantially reduce any significant environmental effects. Therefore, the flow battery alternative was eliminated from further consideration because:

- It would not substantially reduce the significant environmental impacts associated with aesthetics, agriculture resources, air quality and biological resources;
- It would fail to meet the applicant's objectives for the proposed project; and
- It is infeasible because this technology is unproven in commercial operation with uncertain performance.

0.9.1.3 Lead Acid Battery Alternative

This alternative would involve the use of lead-acid batteries at the proposed Project development site in place of lithium-ion battery technology. Lead-acid battery technology is the earliest and most widely used type of rechargeable battery and are the common technology used for automotive (starting, lighting, ignition) applications due to costs and high durability. The proposed Project will use lithium-ion battery technology because it offers the best mix of performance specifications, such as high charge and discharge efficiency, low self-discharge, high energy density, and long cycle life. In contrast, the use of lead-acid batteries for higher power applications with intermittent loads are less common due to a shorter life cycle and also due to size and weight of the battery. Additionally, lead-acid batteries are composed of

a Lead-dioxide cathode, a sponge metallic Lead anode and a Sulphuric acid solution electrolyte. This heavy metal element makes them toxic and improper disposal can be hazardous to the environment.

Similar to the proposed Project, this battery technology would receive, store and return electric energy to the electric grid. Charging energy will be provided from the electric grid which will include solar energy currently produced at the CSE site. The batteries would be housed in a battery energy storage facility within the existing CSE solar development. The potential for increased impacts during the short-term construction phase, however, could occur to air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, noise and transportation. Lithium-ion battery technology has a higher comparative energy density in comparison to lead-acid batteries, thus more energy can be stored in a lithium-ion battery using the same physical space. As such, in order to obtain the same storage capacity as the proposed Project, a lead-acid battery storage facility would likely require a larger building footprint, which could increase associated environmental impacts during construction. In addition, the capacity and efficiency of lithium-ion batteries would be greater than that of a lead-acid battery facility making this alternative infeasible due to performance limitations.

As noted above, alternatives may be eliminated from detailed consideration in an EIR if they fail to meet most of the project objectives, are infeasible, or do not avoid or substantially reduce any significant environmental effects. Therefore, the lead acid battery alternative was eliminated from further consideration because:

- It would not substantially reduce the significant environmental impacts associated with aesthetics, agriculture resources, air quality and biological resources;
- It would fail to meet the applicant's objectives for the proposed project; and
- It is infeasible because lead-acid battery performance is not consistent with the anticipated market operations of the Project.

0.9.2 Alternatives Selected for Analysis

In accordance with the provisions of CEQA Guidelines Section 15126.6, the Draft SEIR considers three alternatives (Table ES-2) in addition to the proposed Project. The existing CSE facility allows for flexibility in siting the Project's physical components described above (enclosure(s), substation and tie line) within the existing CSE site. Accordingly, the following (mutually exclusive) alternative site plans are included as described below. Tables ES-3 provides a comparison of the alternatives and relative impacts of each alternative. Figure 2-2 (Chapter 2) illustrates the overall location of each alternative

location for the proposed Project. Figures 2-7 and Figure 2-9 (Chapter 2) illustrate the West Alterative and East Alternative, respectively.

Table ES-2: Alternative Site Plans

Alternative	Project Area	Building Area	Electric Tie-Line
No Project Alternative	--	--	--
West Alternative (West of existing CSE Control Building)	3 acres + Tie Line (APN 052-190-010)	1 or 2 buildings totaling approximately 85,000 square feet	Shared with existing CSE + approximately 350 feet of new tie line
East Alternative (East of existing CSE Control Building)	3 acres + Tie Line (APN 052-190-010)	1 or 2 buildings totaling approximately 85,000 square feet	Shared with existing CSE + approximately 1,300 feet of new tie line

Table ES-3: Comparison of Alternatives

Environmental Resource	No Project Alternative	West Alternative	East Alternative
Air Quality/ GHG	Fewer (short-term), Greater (long-term)	Greater	Greater
Biological Resources	Similar	Greater	Greater
Cultural Resources	Similar	Greater	Greater
Geology and Soils	Fewer	Greater	Greater
Hazards and Hazardous Materials	Fewer	Similar	Similar
Noise	Fewer	Similar	Greater
Transportation	Fewer	Similar	Similar
Meets Project Objectives?	No	Yes	Yes

0.9.2.1 Alternative 1 – No Project Alternative

CEQA Guidelines Section 15126.6(e)(1) requires that a No Project Alternative be analyzed in order to allow the decision-makers to compare the impacts of approving a proposed project with the impacts of not approving the proposed project. Under this alternative, the proposed BESS will not be constructed nor will a new CUP be requested. The Project site will remain in its existing state as undeveloped land within the CSE project site to the east of the Drew Switchyard.

0.9.2.1.1 Avoid or Substantially Lesson Project Impacts

The No Project Alternative would result in fewer short-term impacts to air quality, geology and soils, hazards and hazardous materials, noise and transportation, but would result in greater long-term impacts associated with air quality and GHG emissions.

0.9.2.1.2 Attains Project Objectives

The No Project Alternative would not meet any of the Project objectives.

0.9.2.1.3 Comparative Conclusion

The No Project Alternative would avoid some impacts associated with the proposed Project's short-term, long-term, and cumulative impacts. Long-term air quality and GHG impacts would be greater with the No Project Alternative. In addition, this alternative would not meet any of the Project's objectives.

0.9.2.2 Alternative 2 – West Alternative

Alternative 2 is located in the area immediately west of the existing CSE Control Building or Operations and Maintenance (O&M) Building (see **Figure 2-7** in Chapter 2), which serves as both an office for the CSE facility and a maintenance shop/warehouse. This location (APN 052-190-010) will accommodate up to two BESS buildings totaling 85,000 square feet within the existing CSE site. If one building is ultimately constructed, the proposed single-story BESS footprint will measure approximately 275 feet by 375 feet. Existing gravel access roads within the CSE site will be used to access the Alternative 2 site. Wiring from the battery energy storage system will be connected to the existing CSE substation, located immediately south of SR 98, approximately mid-way between Pulliam Road and Brockman Road, via an overhead gen-tie line approximately 350 feet in length.

0.9.2.2.1 Avoid or Substantially Lesson Project Impacts

The West Alternative would result in similar impacts to hazards and hazardous materials, noise and transportation. As previously described, there would be slightly greater potential for impacts to cultural resources as well as geology and soils under the West Alternative due to increased ground disturbance, as the West Alternative would require a gen-tie of approximately 350 feet in length to connect to the CSE substation. The proposed Project, in comparison would be located adjacent to the SDG&E Drew Switchyard and interconnect via an approximately 150-foot gen-tie to connect to the existing shared gen-tie line currently delivering energy from the CSE site. Additionally, the increased gen-tie length under the West Alternative has the potential to slightly extend the construction phase resulting in slightly greater short-term air quality/GHG impacts. With the increased gen-tie length under the West Alternative, in comparison to the proposed Project, there would also be a slightly greater risk to avian species with regards to collisions with the proposed BESS and its associated equipment. As such, the West Alternative would have greater impacts when compared to the proposed Project.

0.9.2.2.2 Attains Project Objectives

The West Alternative would meet all of the Project objectives.

0.9.2.2.3 Comparative Conclusion

Development of the West Alternative would result in generally similar associated impacts as compared to the proposed Project's short-term, long-term, and cumulative impacts to hazards and hazardous materials, noise, and transportation. However, the West Alternative would result in greater impacts resulting from short-term impacts to Air Quality/GHG, cultural resources, as well as geology and soils. The West Alternative would also result in slightly greater short-term and long-term biological impacts. This alternative would meet the Project's objectives.

0.9.2.3 Alternative 3 – East Alternative

Alternative 3 is located in the area immediately east of the existing CSE O&M Building (see **Figure 2-9** in Chapter 2). This location (APN 052-190-010) will also accommodate up to two BESS buildings totaling 85,000 square feet within the existing CSE site. If one building is ultimately constructed, the proposed single-story BESS footprint will measure approximately 230 feet by 440 feet. Existing gravel access roads within the CSE site will be used to access the Alternative 2 site. Wiring from the battery energy storage system will be connected to the existing CSE substation, via an overhead gen-tie line approximately 1,300 feet in length. The gen-tie line will parallel the existing internal gravel road in route to the substation.

0.9.2.3.1 Avoid or Substantially Lesson Project Impacts

The East Alternative would result in similar impacts to hazards and hazardous materials and transportation. As previously described, there would be slightly greater potential for impacts to cultural resources as well as geology and soils under the East Alternative due to increased ground disturbance, as the East Alternative would require a gen-tie of approximately 1,300 feet in length to connect to the CSE substation. The proposed Project, in comparison would be located adjacent to the SDG&E Drew Switchyard and interconnect via an approximately 150-foot gen-tie to connect to the existing shared gen-tie line currently delivering energy from the CSE site. Additionally, the increased gen-tie length under the East Alternative has the potential to slightly extend the construction phase resulting in slightly greater short-term air quality/GHG impacts. With the increased gen-tie length under the East Alternative, in comparison to the proposed Project, there would also be a slightly greater risk to avian species with regards to collisions with the proposed BESS and its associated equipment. Additionally, the closest receptor property line location to the East Alternative development location is approximately 300 feet to the east along SR 98. This would be located at a closer distance in comparison to the property line of nearest the operational noise sources for the proposed Project, which is an existing residential structure located approximately 1,000 feet northwest (between Drew Road and SR 98) of the proposed Project

center, outside of CSE facility boundary and opposite SR 98. In contrast, under the proposed Project, the site of development is buffered from this property line by SR 98, the existing Drew substation and vegetation aligning the roadway. The east property boundary next to the East Alternative is zoned Commercial. According to the County noise limits, commercial property is limited to 55 decibels (dBA) at night, whereas agricultural property is limited to 70 dBA at all times of the day and night. With the lower noise level limit and shorter distance to the property line, the East alternative has an increased chance of exceeding the County noise limits. In order to meet the limits, low-noise equipment may need to be specified and construction activities may need additional mitigation under the East Alternative. In contrast, under the proposed Project, the site of development is buffered from this property line by SR 98, the existing Drew substation and vegetation aligning the roadway. There would be no buffer between the East Alternative and the nearest property line. Although both the East Alternative and proposed Project would be required to adhere to all applicable noise standards related to construction activities, as identified by Imperial County standards, noise impacts under development of the East Alternative have a greater likelihood of resulting in noise impacts.

0.9.2.3.2 Attains Project Objectives

The East Alternative would meet all of the Project objectives.

0.9.2.3.3 Comparative Conclusion

Development of the East Alternative would result in generally similar associated impacts as compared to the proposed Project's short-term, long-term, and cumulative impacts to hazards and hazardous materials as well as transportation. However, the East Alternative would result in greater impacts resulting from short-term impacts to Air Quality/GHG, cultural resources, as well as geology and soils. The East Alternative would also result in slightly greater short-term and long-term noise and biological impacts. This alternative would meet the Project's objectives.

0.9.2.4 Environmental Superior Alternative

As reviewed in the comparative analysis in Chapter 5, the Environmentally Superior Alternative for the proposed Project would be the No Project Alternative. This alternative would avoid all potentially significant impacts that would occur under the proposed Project. This alternative would also result in fewer short-term impacts to air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, noise, and transportation, as compared to the proposed Project, but the failure to construct a BESS facility to support renewable energy production results in increased impacts in the long-term to air quality and GHG emissions.

Section 15126.6 of the State CEQA Guidelines requires an EIR must identify an "environmentally superior" alternative; if the "no project" alternative is the environmentally superior alternative, then the EIR must identify which of the other alternatives is environmentally superior.

The West Alternative would result in slightly greater overall impacts compared to the proposed Project. As previously described the closest receptor property line location to the West Alternative development location is approximately 1,500 feet to the east, adjacent to the south side of SR 98. This would be located at a further distance in comparison to the existing residential structure located approximately 1,000 feet northwest (between Drew Road and SR 98) of the proposed Project center, outside of CSE facility boundary and opposite SR 98. However, both the West Alternative and proposed Project would be required to adhere to all applicable noise standards related to construction activities, as identified by Imperial County standards. The West Alternative would require a gen-tie of approximately 350 feet in length to connect to the CSE substation. The proposed Project, in comparison would be located adjacent to the SDG&E Drew Switchyard and interconnect via an approximately 150-foot gen-tie to connect to the existing shared gen-tie line currently delivering energy from the CSE site. As such, the West Alternative would result in greater impacts resulting from short-term impacts to Air Quality/GHG due to a potentially lengthened construction schedule. Potential impacts to undiscovered cultural resources, as well as paleontological resources (geology and soils) would be greater under the West Alternative due to the longer transmission length. Due to the lengthier gen-tie line, the West Alternative would also result in slightly greater short-term and long-term biological impacts from potential impacts to avian species.

Development of the East Alternative would result in generally similar associated impacts as compared to the proposed Project's short-term, long-term, and cumulative impacts to hazards and hazardous materials as well as transportation. However, the East Alternative would result in greater impacts resulting from short-term impacts to Air Quality/GHG, cultural resources, as well as geology and soils. The East Alternative would also result in slightly greater short-term and long-term noise and biological impacts. As previously described the closest receptor property line location to the East Alternative development location is approximately 300 feet to the east along SR 98. This would be located at a further distance in comparison to the existing residential structure located approximately 1,000 feet northwest (between Drew Road and SR 98) of the proposed Project center, outside of CSE facility boundary and opposite SR 98. In contrast, under the proposed Project, the site of development is buffered from this property line by SR 98, the existing SDG&E Drew Switchyard and vegetation aligning the roadway. There would be no buffer between the East Alternative and the nearest property line. The east property boundary next to the East Alternative is zoned Commercial. According to the County noise limits, commercial property is limited to a lower noise limit than agricultural land and would require additional mitigation on operational

noise sources. Due to the East Alternative's proximity to the property line, construction activities may need additional mitigation to meet the county noise limits. In addition, the East Alternative would require construction of an approximate 1,300-foot gen-tie line to connect into the existing CSE substation. As previously mentioned, the proposed Project, in comparison, will interconnect into the existing adjacent SDG&E Drew Switchyard by tapping into an existing shared 230 kV gen-tie line currently delivering energy from the CSE site. Although both the East Alternative and proposed Project would be required to adhere to all applicable noise standards related to construction activities, as identified by Imperial County standards, construction and operational noise impacts under development of the East Alternative have a greater likelihood of resulting in noise impacts. The East Alternative would result in greater impacts resulting from short-term impacts to Air Quality/GHG due to a potentially lengthened construction schedule. Potential impacts to undiscovered cultural resources, as well as paleontological resources (geology and soils) would be greater under the East Alternative due to the longer transmission length. Due to the lengthier gen-tie line, the East Alternative would also result in slightly greater short-term and long-term biological impacts from potential impacts to avian species

As such, the proposed Project is comparatively the environmentally superior alternative.

0.10 Areas of Controversy

Imperial County (County) is the lead agency for the proposed Project. In accordance with CEQA Guidelines § 15082, the County prepared and distributed a Notice of Preparation (NOP) of a SEIR on March 14, 2019. This notice was circulated to the public, local, state, federal agencies and other interested parties to solicit comments on the proposed project. The NOP is provided in Appendix A of the Draft SEIR. An Initial Study was prepared for the proposed Project and circulated for public review at the same time as the NOP. The Initial Study is also included in Appendix A in the Draft SEIR. Public and agency comments raised in response to the NOP were considered during the preparation of the Draft SEIR. Comments and issues are summarized in Table 1-2 (Chapter 1) of the Draft SEIR.

0.11 Issues to be Resolved

Section 15123(b)(3) of the CEQA Guidelines requires that an EIR contain issues to be resolved, which includes the choice among alternatives and whether or how to mitigate significant impacts. The following major issues are to be resolved:

- Determine whether the SEIR adequately describes the environmental impacts of the proposed project;
- Choose among alternatives;

- Determine whether the recommended mitigation measures should be adopted or modified; and
- Determine whether additional mitigation measures need to be applied to the proposed Project.

0.12 Summary of Environmental Impacts and Mitigation Measures

Table ES-4 below summarizes the environmental impacts of the proposed Project, mitigation measures, and level of significance after mitigation identified and analyzed in Chapter 3 of this SEIR. Refer to the appropriate SEIR section for additional information and Table ES-4 for a summary of applicable mitigation measures.

Table ES-4: Summary of Environmental Impacts and Mitigation Measures

Impact	Level of Impact/Significance Before Mitigation	Mitigation Measure	Level of Impact/Significance After Mitigation
Air Quality/Greenhouse Gases			
Impact 3.1-1: Would the project conflict with or obstruct implementation of the applicable air quality plan?	Less than Significant	None required	Less than Significant
Impact 3.1-2: Would the project violate any air quality standard or result in a cumulatively considerable net increase in an existing or projected air quality violation?	Less than Significant	None required	Less than Significant
Impact 3.1-3: Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Less than Cumulatively Considerable	None required	Less than Cumulatively Considerable
Impact 3.1-4: Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Less than Cumulatively Considerable	None required	Less than Cumulatively Considerable
Biological Resources			
Impact 3.2-1: Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	Potentially Significant	**MM BIO-1: Noxious, Invasive and Non-Native Weeds** To minimize the introduction and spread of weed species the Project shall continue to implement relevant elements of the previously approved CSE facility Weed Management Plan, including a discussion of specific weeds identified on site that will be targeted for eradication or control as well as a variety of measures that will be undertaken during construction and operations and maintenance activities to prevent the introduction and spread of new weed species as a result of the project.	

Impact 3.2-1: Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	Potentially Significant	**MM BIO-2: Nesting Raptors** Raptors and active raptor nests are protected under California Fish and Game Code 3503.5, 3503, 3513. To prevent direct and indirect noise impact to nesting raptors such as red-tailed hawk, the following measures should be implemented: • To the extent practicable, grading and clearing within the proposed Project site should take place outside the raptors' breeding season of February 1 to July 15. • If construction occurs between February 1 and July 15, an approved biologist shall conduct a pre-construction clearance survey for nesting raptors in suitable nesting habitat (e.g., tall trees or transmission towers) that occurs within 500 feet of the Project site. If any active raptor nest is located, the nest area will be flagged, and a 500-foot buffer zone delineated, flagged, or otherwise marked. No work activity may occur within this buffer area, until an approved biologist determines that the fledglings are independent of the nest. **MM BIO-3: Migratory Birds and Other Sensitive Non-Migratory Bird Species** **Construction Conservation Measures** • Apply APLIC design guidelines for overhead utilities (APLIC 2006) by incorporating recommended or other methods that enhance the visibility of the lines to avian species. • All overhead electric lines shall be designed to be raptor-safe in accordance with the Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 2006 (Avian Power Line Interaction Committee [APLIC] 2006).	Less than Significant

		Operations and Maintenance Measures • Preparation of a Raven Control Plan that avoids introducing water and food resources in the Project site. • Incorporate APLIC guidelines for overhead utilities as appropriate to minimize avian collisions with Gen-tie Line facilities (APLIC 2006). • Minimize noise. • Minimize use of outdoor lighting. • Implement measures of the CSE facility post—construction avian monitoring plan including the Wildlife Mortality Reporting Program. **MM BIO-4: Burrowing Owl** Burrowing owls are known to occur in and along the active agricultural fields adjacent to the existing CSE facility site. The following measures will avoid, minimize, or mitigate potential impact to burrowing owl during construction activities: 1. To the extent practicable, grading and clearing within the project site should take place between September 1 and January 31 to avoid impacts to any breeding burrowing owls. Occupied burrows on the Project site shall not be removed during the nesting season (February 1 through August 31) unless a qualified biologist verifies through non-invasive methods that either (a) the birds have not begun egg-laying and incubation; or (b) that juveniles from the occupied burrows are foraging independently and are capable of independent survival. If grading and clearing within the project site is to begin during the breeding season (February 1 through August 31), the following measures (#2 through #4 below) will be implemented.	

		2. Within 30-days prior to initiation of grading and clearing, pre-construction clearance surveys for this species shall be conducted by qualified and agency-approved biologists to determine the presence or absence of this species within the grading area. The proposed grading areas shall be clearly demarcated in the field or via GPS by the project engineers and Designated Biologist prior to the commencement of the pre-construction clearance survey. The surveys shall follow the protocols provided in the CSE Burrowing Owl Survey Protocol and Mitigation Guidelines. 3. When removal of occupied burrows is unavoidable, the following mitigation measures shall be implemented outside of the breeding season. Passive relocation methods are to be used by the biological monitors to move the owls out of the impact zone. This includes covering or excavating all burrows and installing one-way doors into occupied burrows. This will allow any animals inside to leave the burrow but will exclude any animals from re-entering the burrow. A period of at least one week is required after the relocation effort to allow the birds to leave the impacted area before excavation of the burrow can begin. The burrows should then be excavated and filled in to prevent their reuse. The removal of active burrows on-site requires construction of new burrows or the enhancement of existing unsuitable burrows (i.e., enlargement or clearing of debris) at a mitigation ratio of 2:1 at least 50 meters from the impacted area and must be constructed as part of the above-described relocation efforts. 4. As the project construction schedule and details are finalized, an approved biologist shall verify that the Burrowing Owl (BUOW) Mitigation and Monitoring Plan will be updated and detail the approved, site-specific methodology proposed to minimize and mitigate impacts to this species. Passive relocation, destruction of burrows, and construction of artificial burrows can only be completed upon	

		prior approval by and in cooperation with the California Department of Fish and Wildlife (CDFW). 5. These measures shall be implemented, if passive relocation of some burrows are determined to be an unfavorable alternative for BUOW and occupied burrows are near construction activities. During the BUOW nesting season (February 1 to August 31), the qualified biologist shall establish and mark a 250-foot non-disturbance buffer circle around the burrow. The buffer shall be staked and roped-off prior to initiating any construction activity. No activity shall take place within the avoidance buffer area to ensure that disturbance to nesting birds does not occur. Any disturbance to nesting BUOW would require prior consultation, approval and mitigation in accordance with California Fish and Game requirements. 6. Disturbing nesting BUOW that may cause changes of behavior, plugging the burrow entrance or causing the burrow to collapse could effectively destroy the nest, and as such, require a State permit. 7. If an active, non-breeding BUOW burrow is detected during preconstruction surveys, prior to onsite construction related activities, the qualified biologist shall establish and flag an avoidance buffer circle around the burrow area at a 160-foot radius. <u>Compensation</u> • On-site or off-site mitigation will occur as determined in the compensatory mitigation plan developed for the CSE facility and approved 2012 Burrowing Owl Mitigation Plan (Appendix C).	

Impact 3.2-2: Would the project interfere substantially with the movement of any resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	Less than Significant	None required	Less than Significant
Impact 3.2-3: Would the project conflict with any local policies or ordinance protecting biological resource, such as a tree preservation policy or ordinance?	Less than Significant	None required	Less than Significant
Cumulative Impacts to Biological Resources: Implementation of the proposed Project is included in the footprint of the existing CSE facility. Cumulative impacts on special status species, sensitive natural communities, and protected waters within the CSE facility site were previously assessed and mitigation measures were identified. No new impacts would occur as a result of the Project.	Less than Cumulatively Considerable	None required	Less than Significant
Cultural Resources			
Impact 3.3-1: Would the project cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	Less than Significant	None required	Less than Significant

Impact 3.3-2: Would the project cause a substantial adverse change in the significance of archaeological resource pursuant to § 15064.5?	Potentially Significant	**MM CR-1:** To the extent practicable, the Project will be engineered and designed to avoid any cultural resources eligible for listing in the California Register of Historical Resources (CRHR) and National Register of Historic Places (NRHP). Such resources will be mitigated as specified in accordance with the approved historic properties treatment plan for the CSE facility site. **MM CR-2:** Cultural resources sites eligible for listing in the CRHR or NRHP adjacent to Project features but not directly impacted by construction shall be avoided during construction. **MM CR-3:** The areal limits of construction activities shall be predetermined, with activity confined within those limits. **MM CR-4:** A cultural monitor shall be present during grading and excavation in areas on the Project site where construction or restoration surface-disturbing activities are required. **MM CR-5:** If subsurface deposits believed to be cultural in origin are discovered during construction, all work must halt within a 50-foot radius of the discovery. A qualified professional archaeologist shall be retained to evaluate the significance of the find. A Native American monitor, following the Guidelines for Monitors/Consultants of Native American Cultural, Religious, and Burial Sites established by the Native American Heritage Commission, may also be required. Work at the discovery site shall be suspended until the archaeologist conducts sufficient research and data collection to make a determination that the resource is either: 1) not cultural in origin; or 2) not potentially significant or eligible for listing on the NRHP or CRHR. If a potentially-eligible resource is encountered, then the archaeologist, lead	Less than Significant

		agency, and project proponent shall arrange for either 1) total avoidance of the resource, if feasible; or 2) test excavations to evaluate eligibility for the CRHR and, if eligible, data recovery as mitigation.	
Impact 3.3-3: Would the project disturb any human remains, including those interred outside of dedicated cemeteries?	Potentially Significant	**MM CR-6:** In the event that evidence of human remains is discovered, construction activities within 50 feet of the discovery shall be halted or diverted and the Imperial County Coroner will be notified (Section 7050.5 of the Health and Safety Code). If the Coroner determines that the remains are Native American, the Coroner will notify the Native American Heritage Commission which will designate a Most Likely Descendant (MLD) for the Project (Section 5097.98 of the Public Resources Code). The designated MLD then has 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains (AB 2641). If the landowner does not agree with the recommendations of the MLD, the NAHC can mediate (Section 5097.94 of the Public Resources Code). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (Section 5097.98 of the Public Resources Code). This will also include either recording the site with the California Native American Heritage Commission (NAHC) or the appropriate Information Center; using an open space or conservation zoning designation or easement; or recording a document with the county in which the property is located (AB 2641).	Less than Significant
Cumulative Impacts to Archaeological Resources: Implementation of the proposed Project, in combination with past, present and probable large-scale projects in the vicinity of the Project location, has the potential to result in impacts to archaeological and historic resources. However, impacts are addressed on a project-by-project basis.	Less than Significant	None Required	Less than Significant

Geology and Soils			
Impact 3.4-1: Would the Project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	Less than Significant	None required	Less than Significant
ii) Strong seismic ground shaking?	Potentially Significant	**MM GEO-1:** The Project shall be designed in accordance with California Building Code, Uniform Building Code or the standards of care established by the Structural Engineers Association of California and the County of Imperial building requirements. Standards subsequent geotechnical investigations on the final project design.	Less than Significant

iii) Seismic-related ground failure including liquefaction?		**MM GEO-2:** The Project contractor shall implement ground improvement measures prior to construction, such as deep soil mixing (cement), vibro-compaction, vibro-replacement, geopiers, stone columns, compaction grouting, or deep dynamic compaction. **MM GEO-3:** Concrete mixes shall have a maximum water cement ratio of 0.45 and a minimum compressive strength of 5,000 psi (minimum of 7 sacks Type II/V cement per cubic yard). **MM GEO-4:** All concrete placement and curing operations shall follow the American Concrete Institute manual recommendations. Improper curing techniques and/or high slump (high water-cement ratio) could cause excessive shrinkage, cracking or curling. Concrete slabs shall be allowed to cure adequately before placing vinyl or other moisture sensitive floor covering. **MM GEO-5:** The final design of the Project foundation shall include proper drainage to inhibit water infiltration into foundation soils. Drainage shall also be properly managed during construction to avoid water infiltration from any source. **MM GEO-6:** Foundations shall be designed to withstand liquefaction during a seismic event, including foundations that use grade-beam footings to tie floor slabs and isolated columns to continuous footings (conventional or post-tensioned) or structural flat-plate mats, either conventionally reinforced or tied with post tensioned tendons. **MM GEO-7:** Designs for thin slabs-on-grade shall mitigate expansive soil conditions by removal and replacement of upper 3.0 feet of clay soils with non-expansive sands or by special foundation designs (waffle-style slabs).	Less than Significant

		MM GEO-8: All reinforcing bars, anchor bolts and hold down bolts shall have a minimum concrete cover of 3.0 inches unless epoxy coated (ASTM D3963/A934). **MM GEO-9:** All footings shall be reinforced to reduce the potential for distress caused by differential foundation movements. **MM GEO-10:** In areas where sidewalks or paving do not immediately adjoin the structures of the proposed Project, protective slopes shall be provided with an outfall of 5 percent for at least 10 feet from perimeter walls. Backfill against footings, exterior walls, and in utility trenches shall be well-compacted and free of all construction debris to minimize the possibility of moisture infiltration. **MM GEO-11:** The geotechnical engineer or geotechnical engineer's representative shall observe the footing excavations prior to placing reinforcing steel and pouring concrete foundations to assess whether the soils exposed are similar to those anticipated for support of the footings. Any soft, loose, or unacceptable soils shall be undercut to suitable materials and backfilled with approved fill materials or lean concrete. Soil backfill shall be properly compacted.	
Impact 3.4-2: Would the Project result in substantial soil erosion or the loss of topsoil?	Less than Significant	None required	Less than Significant
Impact 3.4-3: Would the Project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?	Less than Significant	None required	Less than Significant

Impact 3.4-4: Would the Project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	Less than Significant	None required	Less than Significant
Impact 3.4-5: Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Less than Significant	**MM GEO-12:** Ground-disturbing shall be monitored by a qualified paleontological monitor. The paleontological monitor shall be prepared to salvage fossils should these resources be unearthed and to remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates. Monitors are empowered to temporarily halt or divert equipment to allow removal of abundant or large specimens. Recovered specimens shall be prepared to a point of identification and permanent preservation, including washing of sediments to recover small invertebrates and vertebrates. Fossil specimens shall be curated by accessioning them into an established, accredited museum repository with permanent retrievable paleontological storage. A report of findings with an appended itemized inventory of specimens shall be prepared. The report and inventory, when submitted to the Imperial County Department of Planning and Development Services, along with confirmation of the curation of recovered specimens into an established, accredited museum repository, shall signify completion of the program to mitigate impacts to paleontological resources.	Less than Significant

Cumulative Impacts to Geology and Soils: Implementation of the proposed Project, in combination with past, present and probable large-scale projects in the Imperial Valley portion of the Salton Trough physiographic province of Southern California are somewhat limited because geologic and seismic hazards can vary considerably from site to site and tend to be more site specific. Impacts are addressed on a site-specific basis.	Less than Cumulatively Considerable	None Required	Less than Significant
Hazards and Hazardous Materials			
Impact 3.5-1: Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Less than Significant	None required	Less than Significant

Impact 3.5-2: Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	Potentially Significant	**MM HM-1:** If during grading or excavation work, the contractor observes visual or olfactory evidence of contamination or if soil contamination is otherwise suspected, work near the excavation site shall be terminated, the work area cordoned off, and appropriate health and safety procedures implemented for the location by the contractor's Health & Safety Officer. Samples shall be collected by an Occupational Safety and Health Administration-trained individual with a minimum of 40-hours hazardous material site worker training. Laboratory data from suspected contaminated material shall be reviewed by the contractor's Health and Safety Officer. If the sample testing determines that contamination is not present, work may proceed at the site. However, if contamination is detected above regulatory limits, the Imperial County Public Health Department shall be notified. All actions related to encountering unanticipated hazardous materials at the site shall be documented and submitted to the Imperial County Public Health Department for County lands.	Less than Significant
Cumulative Hazards and Hazardous Materials Impact: The proposed Project, in combination with other Past, Present and Probable Large-Scale Projects in the vicinity of the Project site, would not increase the density of development in the area because no other cumulative projects are within the cumulative geographic scope.	Less than Cumulatively Considerable	None Required	Less than Significant

Noise			
Impact 3.6-1: Would the Project cause a generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	Less than Significant	None required	Less than Significant
Impact 3.6-2: Would the Project cause a generation of excessive groundborne vibration or groundborne noise levels?	Less than Significant	None required	Less than Significant
Cumulative Project-Related Noise Impacts: Construction of the Project would contribute short-term construction traffic to area roadways. However, the increase in traffic noise would be less than cumulatively considerable. The Project would generate be less than cumulatively considerable operational noise, traffic noise and groundborne vibration noise. Decommissioning noise impacts would be similar to those of Project construction.	Less than Cumulatively Considerable	None Required	Less than Significant
Transportation			
Impact 3.7-1: Would the Project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	Less than Significant	None required	Less than Significant

Impact 3.7-2: Would the Project conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?	Less than Significant	None required	Less than Significant
Impact 3.7-3: Would the Project result in inadequate emergency access?	Less than Significant	None required	Less than Significant
Opening Year with Project Plus Cumulative Conditions Impacts to Intersection and Segment LOS: The proposed Project's construction traffic plus cumulative projects onto year 2021 conditions are currently and will continue to operate at acceptable LOS with the addition of cumulative traffic.	Less than Cumulatively Considerable	None Required	Less than Significant