PROJECT REPORT

TO: PLANNING COMMISSION
FROM: PLANNING & DEVELOPMENT SERVICES

AGENDA DATE: December 11, 2024
AGENDA TIME: 9:00AM / No. 7a-7f

Apex Energy Solutions, LLC (NorthStar 3)
Water Supply Assessment, Mitigated Negative Declaration,
PROJECT TYPE: General Plan Amendment #23-0002, Zone Change #23-0002 SUPERVISOR DIST # 4
Conditional Use Permits #23-0007 & #23-0008

LOCATION: 4580 West Highway 86 APN: 017-350- 027, 030 & 031-000

Westmorland, CA PARCEL SIZE: 585-AC

GENERAL PLAN (existing) Agriculture GENERAL PLAN (proposed) Renewable Energy Overlay

ZONE (existing) S-2 (Open Space/Preservation) ZONE (proposed) S-2 RE (Renewable Energy Overlay)

GENERAL PLAN FINDINGS ☒ CONSISTENT ☐ INCONSISTENT ☐ MAY BE/FINDINGS

PLANNING COMMISSION DECISION: HEARING DATE: 12-11-2024

☐ APPROVED ☐ DENIED ☐ OTHER

PLANNING DIRECTORS DECISION: HEARING DATE: _____

☐ APPROVED ☐ DENIED ☐ OTHER

ENVIROMENTAL EVALUATION COMMITTEE DECISION: HEARING DATE: 06-13-2024

INITIAL STUDY: #23-0007

☐ NEGATIVE DECLARATION ☒ MITIGATED NEG. DECLARATION ☐ EIR

DEPARTMENTAL REPORTS / APPROVALS:

PUBLIC WORKS	☐ NONE	☒ ATTACHED
AG	☐ NONE	☒ ATTACHED
APCD	☐ NONE	☒ ATTACHED
E.H.S.	☒ NONE	☐ ATTACHED
FIRE / OES	☐ NONE	☒ ATTACHED
SHERIFF	☒ NONE	☐ ATTACHED

OTHER Imperial Irrigation District, CEO's office, Caltrans, Agua Caliente Band of Cahuilla Indians, Viejas Tribe, CA Dept. of Fish & Wildlife and Defenders of Wildlife

REQUESTED ACTION:

STAFF RECOMMENDS THAT THE PLANNING COMMISSION CONDUCTS A PUBLIC HEARING AND HEAR ALL THE OPPONENTS AND PROPONENTS OF THE PROPOSED PROJECT, AND THEN TAKE THE FOLLOWING ACTIONS:

1. **RECOMMEND THE BOARD OF SUPERVISORS APPROVE THE WATER SUPPLY ASSESSMENT FOR NORTHSTAR 3 PROJECT, WITH FINDINGS; AND,**
2. **RECOMMEND THE BOARD OF SUPERVISORS ADOPT THE MITIGATED NEGATIVE DECLARATION BY FINDING THAT THE PROPOSED PROJECT WOULD NOT HAVE A SIGNIFICANT EFFECT ON THE ENVIRONMENT AS RECOMMENDED AT THE ENVIRONMENTAL EVALUATION COMMITTEE (EEC) HEARING ON JUNE 13, 2024; AND,**
3. **RECOMMEND THE BOARD OF SUPERVISORS APPROVE GENERAL PLAN AMENDMENT #23-0002; AND,**
4. **RECOMMEND THE BOARD OF SUPERVISORS APPROVE ZONE CHANGE #23-0002; AND,**
5. **RECOMMEND THE BOARD OF SUPERVISORS APPROVE CONDITIONAL USE PERMIT #23-0007 (SOLAR PV/BESS WITH FINDINGS); AND,**
6. **RECOMMEND THE BOARD OF SUPERVISORS APPROVE CONDITIONAL USE PERMIT #23-0008 (WATER WELL) WITH FINDINGS.**

STAFF REPORT
Planning Commission Meeting
December 11, 2024

Subject:

A. **Water Supply Assessment (WSA) for NorthStar 3**
B. **Mitigated Negative Declaration (IS #23-0006/SCH#2024060955)**
C. **General Plan Amendment (GPA) #23-0002**
D. **Zone Change (ZC) #23-0002**
E. **Conditional Use Permit (CUP) #23-0007 – Solar PV & BESS**
F. **Conditional Use Permit (CUP) #23-0008 – Water Well**

Project Name: **NorthStar 3 Solar Energy Generation and Battery Storage**

Applicant: **Apex Energy Solutions, LLC**
c/o Jurg Heuberger, AICP
604 Sutter Street, Suite 250
Folsom, CA 95630

Project Location:

The proposed project is located at 4580 West Highway 86 (CA SR-86), Westmorland, CA, on properties identified as Assessor's Parcel Numbers 017-350-031-000, 017-350-030-000, and 017-350-027-000; and further described as That Portion of West Half of Section 25; West Portion of West Half of the East Half of Section 25; and Southeast Quarter of the Northeast Quarter & the East Half of the Southeast Quarter of Section 25, respectively; Township 11 South, Range 10 East of the San Bernardino Base and Meridian (S.B.B.M.). The proposed project site encompasses approximately 585-acres in the northwest portion of Imperial County, California. The project site is located approximately nine (9) miles southeast of the unincorporated urban area of Salton City and approximately 18 miles northwest of the City of Westmorland. The Salton Sea is located approximately 3 miles east of the project site. Military and Federal lands managed by the Bureau of Land Management (BLM) are located immediately north and west of the proposed project site.

Project Summary:

The applicant, Apex Energy Solutions, LLC, proposes the NorthStar 3 Solar Energy Generation and Battery Storage Project through General Plan Amendment #23-0002, Zone Change #23-0002, and Conditional Use Permits #23-0007 (Solar PV/BESS) and #23-0008 (Water Well), which consists of the construction and operation of a 100-megawatt (MW) solar photovoltaic (PV) energy generation facility with up to a 200-megawatt (MW) battery storage (BESS) component, and an on-site transmission line to connect to the Imperial Irrigation District's existing 161kV "L" Line. The proposed project would be located on three (3) privately owned parcels encompassing approximately 585 acres in the northwestern portion of the County.

Water Supply Assessment (WSA). For the supply of water on the NorthStar 3 Solar Energy Generation and Battery Storage project, a proposed water well would be used for the construction and operation of the facility.

Mitigated Negative Declaration (Initial Study #23-0007) includes reviews of the Water Supply Assessment, Mitigation Monitoring & Reporting Program, General Plan Amendment #23-0002, Zone Change #23-0002, Conditional Use Permits #23-0007 & 23-0008. The project proposes to generate approximately 100-megawatt (MW) of solar photovoltaic (PV) energy and up to a 200-megawatt (MW) of battery storage (BESS).

General Plan Amendment #23-0002 request will add a renewable energy overlay designation on APN(s) 017-350-031-000, 017-350-030-000, and 017-350-027-000 for the implementation of the proposed project. The General Plan Amendment for the NorthStar 3 Solar Energy Generation & Battery Storage project is consistent with the Imperial County General Plan's Renewable Energy & Transmission Element and allows for inclusion into the Renewable Energy Overlay Zone, as the project is not located in sensitive areas and is within the Desert Renewable Energy Conservation Plan area for renewable energy development. The proposed project would not create significant environmental impacts Renewable Energy Overlay Designation (RE) for the project site area.

Zone Change #23-0002 The Zone Change is consistent with the General Plan's underlying land use overlay designation of Renewable Energy (RE). The Zone Change on APN(s) 017-350-031-000, 017-350-030-000, and 017-350-027-000, from S-2 to S-2-RE, will allow development of the proposed solar generation and battery storage facility.

Conditional Use Permit #23-0007 will allow development of a nominal 100-Megawatt (MW) Solar Photovoltaic (PV) Energy Generation project with an integrated Battery Energy Storage System (BESS) not to exceed 200-Megawatt (MW). The project includes a solar energy generation facility, battery energy storage system, and an on-site transmission line to connect to the Imperial Irrigation District's existing 161kV "L" Line. The proposed project is to be located on approximately 585 acres.

Conditional Use Permit #23-0008 will allow a water well for the construction and operation of the solar and battery storage project. This water well will be permitted for up to 10 acre-feet per year for the solar and battery storage operations and 295 acre-feet for the construction phase of solar and battery storage facility.

Land Use Analysis:

Per Imperial County's General Plan, the land use designation for this project is "Agriculture" and zoned as S-2 (Open Space/Preservation) as per Zoning Map #70 of the Imperial County Title 9 Land Use Ordinance.

The proposed General Plan Amendment and Zone Change aim to incorporate APN(s) 017-350-031-000, 017-350-030-000, and 017-350-027-000 into the Renewable Energy Overlay for the implementation of the proposed Solar Energy Generation and Battery

Storage project through approved Conditional Use Permits from the County of Imperial by analyzing for the inclusion and revision to the Renewable Energy and Transmission Element, Section IV (Implementation Programs and Policies), Subsection D (Land Use Designations), Island Overlay (page 35 of the General Plan Renewable Energy & Transmission Element) second bullet, which states in part that an amendment may be made to the renewable energy overlay zone if the Project:

- Consists of the expansion of an existing renewable energy operation (if located in an agricultural-designated area), or is adjacent to or within one quarter (1/4) of a mile of an existing operating solar facility

The General Plan Amendment will also include the update & revision to the Imperial County Title 9, Division 17 Renewable Energy Resources, Chapter 1, Section 91701.01, to include the language "if located in an agricultural-designated area."

This involves a zone change from S-2 to S-2-RE. The underlying "Agriculture" General Plan designation would remain. This request is made to ensure alignment with the County's General Plan and Land Use Ordinances (Title 9), promoting consistency across regulatory frameworks.

Surrounding Land Uses, Zoning and General Plan Designations:

DIRECTION	CURRENT LAND	ZONING	GENERAL PLAN
Project Sites	Vacant Open Space/Desert Lands	**S-2** (Open Space/Preservation)	Agriculture
North	Vacant Open Space/Desert Lands	**Military/ S-2** (Open Space/Preservation)	Government
South	Vacant Open Space/Desert Lands	**S-2** (Open Space/Preservation)	Agriculture
East	Vacant Open Space/Desert Lands	**Military/ S-2** (Open Space/Preservation)	Government
West	Vacant Open Space/Desert Lands	**BLM/ S-2** (Open Space/Preservation)	Recreation/Open Space

Environmental Determination:

On June 13, 2024, the Environmental Evaluation Committee (EEC) determined that General Plan Amendment (GPA#23-0002), Zone Change (ZC#23-0002) and Conditional Use Permits (CUP#23-0007 & CUP#23-0008) for the for the proposed Solar Energy Generation and Battery Storage Project, which consists of the construction and operation of a 100-megawatt (MW) solar photovoltaic (PV) energy generation facility with up to a 200-megawatt (MW) battery storage (BESS) component, and an on-site transmission line to connect to the Imperial Irrigation District's existing 161kV "L" Line, would not have a

significant effect on the environment and recommended a Mitigated Negative Declaration (MND) to be prepared.

The EEC Committee consists of seven (7) member panel, integrated by the Director of Environmental Health Services, Imperial County Fire Chief, Agricultural Commissioner, Air Pollution Control Officer, Director of the Department of Public Works, Imperial County Sheriff, and the Director of Planning and Development Services.

The project was publicly posted and circulated from June 20, 2024, through July 25, 2024, all comments were received, reviewed and made part of this project.

Staff Recommendation:

Staff recommends that the Planning Commission conducts a public hearing and hear all the opponents and proponents of the proposed project, and then take the following actions:

1. Recommend the Board of Supervisors approve the Water Supply Assessment (WSA) for NorthStar 3 project, with Findings; and,
2. Recommend the Board of Supervisors adopt the Mitigated Negative Declaration by finding that the proposed project would not have a significant effect on the environment as recommended at the Environmental Evaluation Committee (EEC) hearing on June 13, 2024; and,
3. Recommend the Board of Supervisors approve General Plan Amendment (GPA) #23-0002; and,
4. Recommend the Board of Supervisors approve Zone Change (ZC) #23-0002;
5. Recommend the Board of Supervisors approve Conditional Use Permit (CUP) #23-0007 (Solar PV/BESS); and,
6. Recommend the Board of Supervisors approve Conditional Use Permit (CUP) #23-0008 (Water Well).

Prepared By: Gerardo A. Quero, Planner II #345

Reviewed By: Michael Abraham, AICP / ICPDS Assistant Director

Approved By: Jim Minnick, Planning & Development Services Director
for

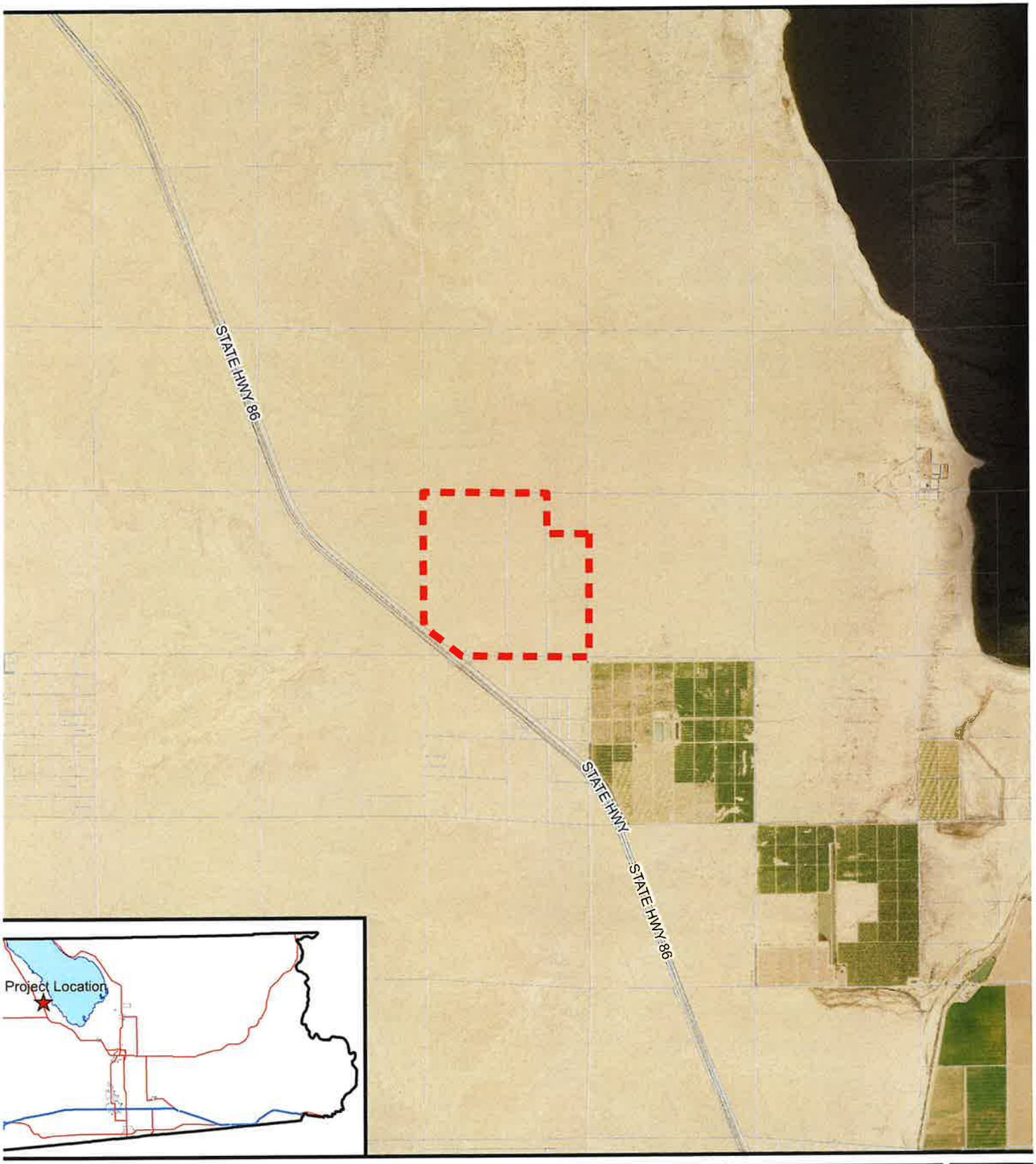
Attachments:

A. Vicinity Map
B. Site Plan/Plot Plan
C. Resolution for Water Supply Assessment (WSA)
D. CEQA Resolution for NorthStar 3
E. General Plan Amendment (GPA#23-0002) Resolution
F. Zone Change (ZC#23-0002) Resolution
G. Conditional Use Permit (CUP#23-0007) Resolution
H. Conditional Use Permit (CUP#23-0008) Resolution
I. Environmental Evaluation Committee Package
J. NOI Comment Letters
K. Response to Comments

ATTACHMENT "A"

VICINITY MAP

PROJECT LOCATION MAP



NORTHSTAR 3
GPA#23-0002, ZC#23-0002, CUP#23-0007,
CUP#23-0008, IS#23-0007
APN 017-350-027, 017-350-030
& 017-350-031-000

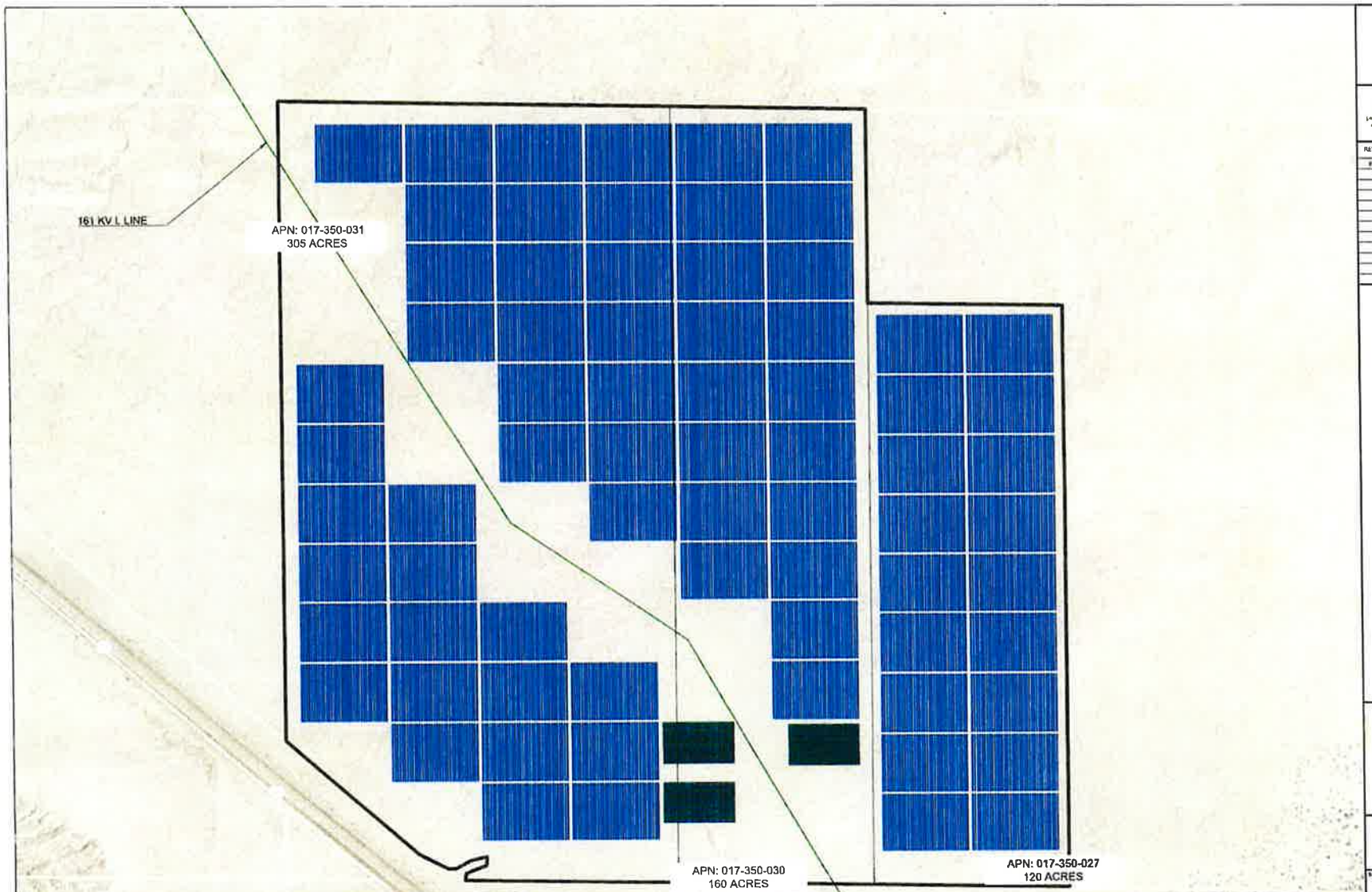
IMPERIAL COUNTY CALIFORNIA

Project Location
Centerline
Parcels

N

ATTACHMENT "B"

SITE PLAN/PLOT PLAN



NORTHSTAR - 2					
	146.2 MW		17 FT		Sungrow 2500KW
	100MW PV		CHSM66M(DG)/F BH 645		20
	100 MW		226,800		TBD
	TRACKER		30		TBD
	DD		7560		317,264

NORTHSTAR 3

CONFIDENTIAL DOCUMENTS

THE INFORMATION INCORPORATED ON THIS DRAWING IS STRICTLY CONFIDENTIAL AND IS SUPPLIED WITH THE UNDERSTANDING THAT IT WILL BE HELD CONFIDENTIAL AND NOT DISCLOSED TO THIRD PARTIES WITHOUT THE PRIOR WRITTEN CONSENT OF ZGLOBAL INC

REV.	BY	DESCRIPTION	DATE	APPVD BY
0	HQ	SUBMITTAL #1	2/24/22	HP

1 Inch
Scale is Correct 24"x36" Plot

ZGLOBAL
Power Engineering & Energy Solutions
604 SUTTER ST, STE 250
FOLSOM, CA 95630
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"THESE DRAWINGS AND SPECIFICATIONS HAVE BEEN PREPARED BY ZGLOBAL INC. FOR THEIR EXCLUSIVE USE IN ACCORD WITH SEC 6737.3 OF THE 2011 PROFESSIONAL ENGINEERS ACT OF THE STATE OF CALIFORNIA"

SHEET TITLE

DRAWN BY	HQ	DRAWING No.
CHECKED	HP	
SCALE		
JOB NO.		
DATE		REV No. 1

ATTACHMENT "C"

RESOLUTION FOR WATER SUPPLY ASSESSMENT (WSA)

RESOLUTION NO.

A RESOLUTION OF THE PLANNING COMMISSION OF THE COUNTY OF IMPERIAL, CALIFORNIA, RECOMMENDING APPROVAL OF THE WATER SUPPLY ASSESSEMENT FOR THE NORTHSTAR 3 SOLAR ENERGY GENERATION AND BATTERY STORAGE PROJECT TO THE BOARD OF SUPERVISORS.

WHEREAS, the NorthStar 3 Solar Energy Generation and Battery Storage Project qualifies as a "project" under the Water Code triggering the need to prepare a Water Supply Assessment because the proposed project includes a demand of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project and/or because it is a proposed industrial use occupying more than 40 acres of land. The Water Supply Assessment (WSA) has been prepared in accordance with Water Code 10912(c)(4); and

WHEREAS, the Imperial County Board of Supervisors has the authority and responsibility for approving the Water Supply Assessment; and

WHEREAS, the duty to prepare a Water Supply Assessment falls to the County of Imperial ("County") and

WHEREAS, the County, in consultation with an expert engineering firm prepared the Water Supply Assessment, which includes any and all Water Supply Assessment addendums; and

WHEREAS, the County has independently reviewed and considered the Water Supply Assessment and the entire administrative record, and

WHEREAS, public notice of said application has been given, and the Planning Commission has considered evidence presented by the Imperial County Planning & Development Services Department and other interested parties at a public hearing held with respect to this item on December 11, 2024; and

NOW THEREFORE, the Planning Commission of the County of Imperial **DOES HEREBY RECOMMEND APPROVAL TO THE BOARD OF SUPERVISORS BASED ON THE FOLLOWING FINDINGS FOR THE WSA** as follows:

SECTION 1. The Planning Commission has considered the proposed WSA prior to making a decision to recommend approval to the Board of Supervisors. The Planning Commission finds and determines that the WSA is adequate and prepared in accordance with the requirements of Water Code, Section 10912(c)(4) and the analysis of the WSA demonstrates that the total projected water supplies, determined to be available by the County for the Project during normal, single dry, and multiple dry water years, will meet the projected water demand associated with the proposed project and based upon the following findings and determinations.

SECTION 2. That in accordance with State Planning and Zoning law, the County Planning Commission makes the following findings for the approval of the NorthStar 3 Solar Energy Generation and Battery Storage Project:

1. This Water Supply Assessment (WSA) has determined that adequate ground water supply is currently available as well as during normal water years. Adequate agreements, plans and policies are in place that enable the Imperial Unit water supply to be considered reliable for 30 years.

2. The WSA has determined that the construction water and operational water required for NorthStar 3 Solar Energy Generation and Battery Storage Project is sufficient.

3. A water well Conditional Use Permit approval will be required to allow for 295 AF acre-feet per year of water for construction and a 10 AF acre-feet per year water alliance for operation of the NorthStar 3 Solar Energy Generation and Battery Storage Project.

NOW, THEREFORE, based on the above findings, the Planning Commission of the County of Imperial **DOES HEREBY** recommend approval to the Board of Supervisors for the proposed NorthStar 3 Solar Energy Generation and Battery Storage Project.

Rudy Schaffner, Chairman
Imperial County Planning Commission

I hereby certify that the preceding resolution was taken by the Planning Commission at a meeting conducted on **December 11, 2024,** by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

ATTEST:

Jim Minnick, Director of Planning & Development Services
Secretary to the Planning Commission

Water Supply Assessment
For the ZGlobal
North Star 3, LLC
Solar Energy Project
Imperial County, California

Prepared for:

ECORP Consulting, Inc.
2525 Warren Drive
Rocklin, CA 95677

Prepared by:

Dr. Andrew A. Kopania
California Professional Geologist No. 4711
California Certified Hydrogeologist No. HG31
EMKO Environmental, Inc.
551 Lakecrest Drive
El Dorado Hills, California 95762

March 12, 2023



Water Supply Assessment
For the ZGlobal
North Star 3, LLC
Solar Energy Project
Imperial County, California

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Water Supply Assessment
For the ZGlobal
North Star 3, LLC
Solar Energy Project
Imperial County, California

1.0 INTRODUCTION

EMKO Environmental, Inc. (EMKO) has prepared this Water Supply Assessment (WSA) as a subconsultant to ECORP Consulting, Inc. for the proposed ZGlobal North Star 3, LLC Solar Energy Project (Project) in Imperial County, California at the location indicated on Figure 1. Project water use includes dust control and soil conditioning requirements during construction and routine maintenance, primarily panel washing, during operation.

Water Code Sections 10910 through 10915 were amended by Senate Bill 610 (SB 610) in 2002. SB 610 requires that under specific circumstances, as detailed below, an assessment of available water supplies must be conducted. The purpose of the assessment is to determine if available water supplies are sufficient to serve the demand generated by the Project, as well as the reasonably foreseeable demand in the region over the next 20 years under average normal year, single dry year, and multiple dry year conditions. Water Code Section 10910 was further amended by SB 1262 on September 24, 2016 to require a Water Supply Assessment to include additional information regarding the groundwater basin designation and adjacent water systems. This report provides the information required for a Water Supply Assessment (WSA), as described in the October 2003 *Guidebook for Implementation of Senate Bill 610 and Senate Bill 221 of 2001 to Assist Water Suppliers, Cities, and Counties in Integrating Water and Land Use Planning*, published by the California Department of Water Resources (DWR Guidebook) along with the additional information required by SB 1262.

2.0 PROJECT DESCRIPTION

North Star 3, LLC is proposing to construct and operate solar energy generation and storage facilities on private lands in the Imperial Valley in Imperial County. The Project site is located approximately four miles north of the State Route 78/State Route 86 intersection, eight miles south of Salton City, and 24 miles northwest of the City of Brawley (see Figure 1).

The Project would cover approximately 585 acres in Section 25 of Township 11 South, Range 10 East of the San Bernardino Base and Meridian (SBB&M) within the "Kane Spring NE" 7.5-minute U.S. Geologic Survey (USGS) quadrangle. The Project site

includes all or part of Imperial County Assessor's Parcel Numbers (APNs) 017-350-031 (approximately 305 acres), APN 017-350-030 (approximately 160 acres), and APN 017-350-027 (approximately 120 acres) (see Figure 3). The Project includes a 100-megawatt solar photovoltaic system and integrated 100-megawatt battery energy storage system along with related substations and transmission lines. The Project water supply will be provided by a new well or wells to be drilled onsite. Figure 3 is a Site Plan showing the Project layout and ancillary facilities.

The parcels are not currently located within the Imperial County Renewable Energy Overlay Zone. Thus, an amendment to the County's General Plan must be approved, along with a Conditional Use Permit (CUP), to allow construction and operation of the Project. These are discretionary actions by the County requiring compliance with the California Environmental Quality Act (CEQA). This Water Supply Assessment is intended to support and be a part of the CEQA analysis.

Domestic water and sanitation facilities would be required during construction. These would be provided through bottled water and portable facilities. A domestic/potable water connection would not be required.

Construction is anticipated to require 12 to 18 months to complete. Anticipated operational Project life is 25 to 30 years.

Figure 1. Regional Location Map

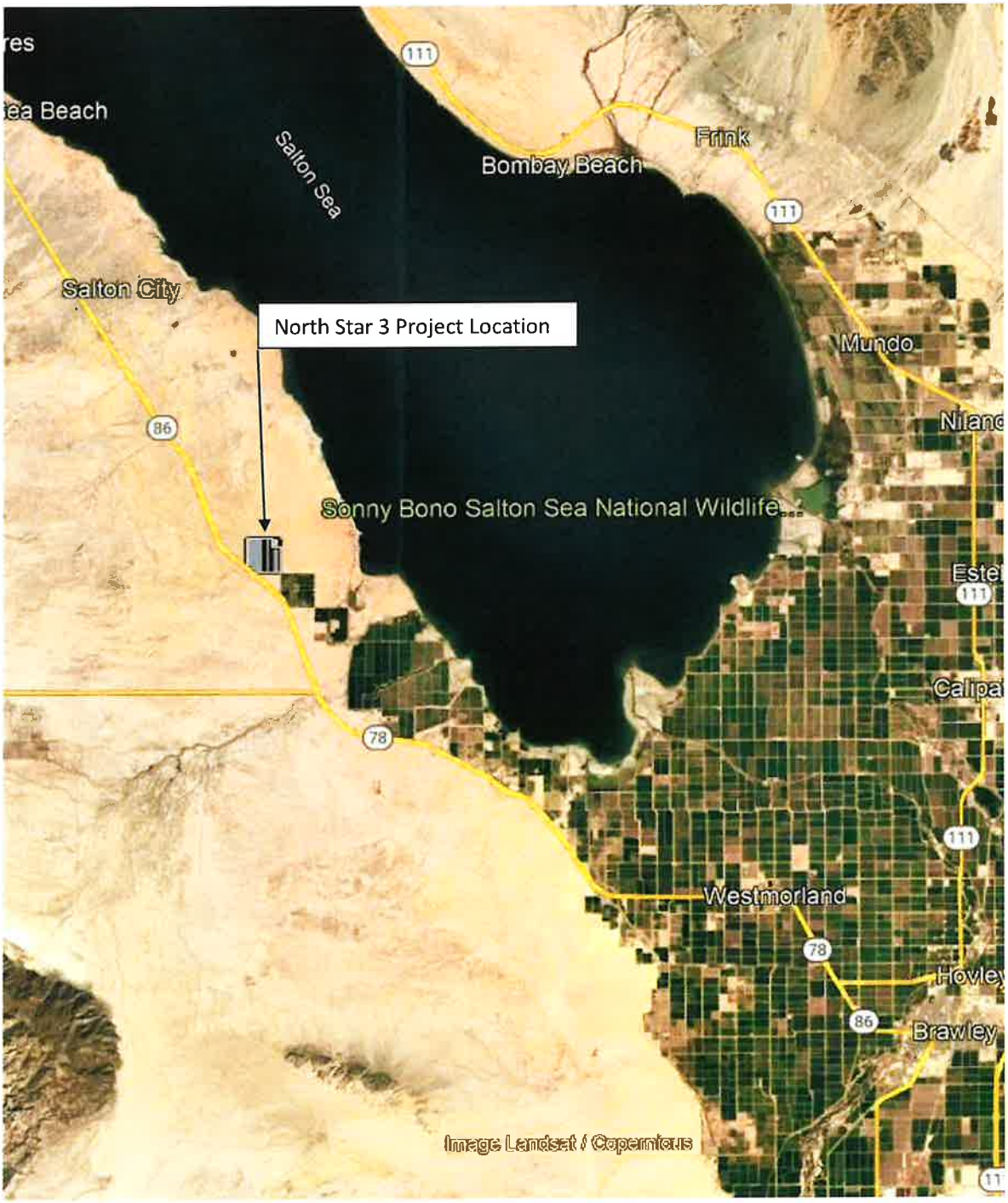
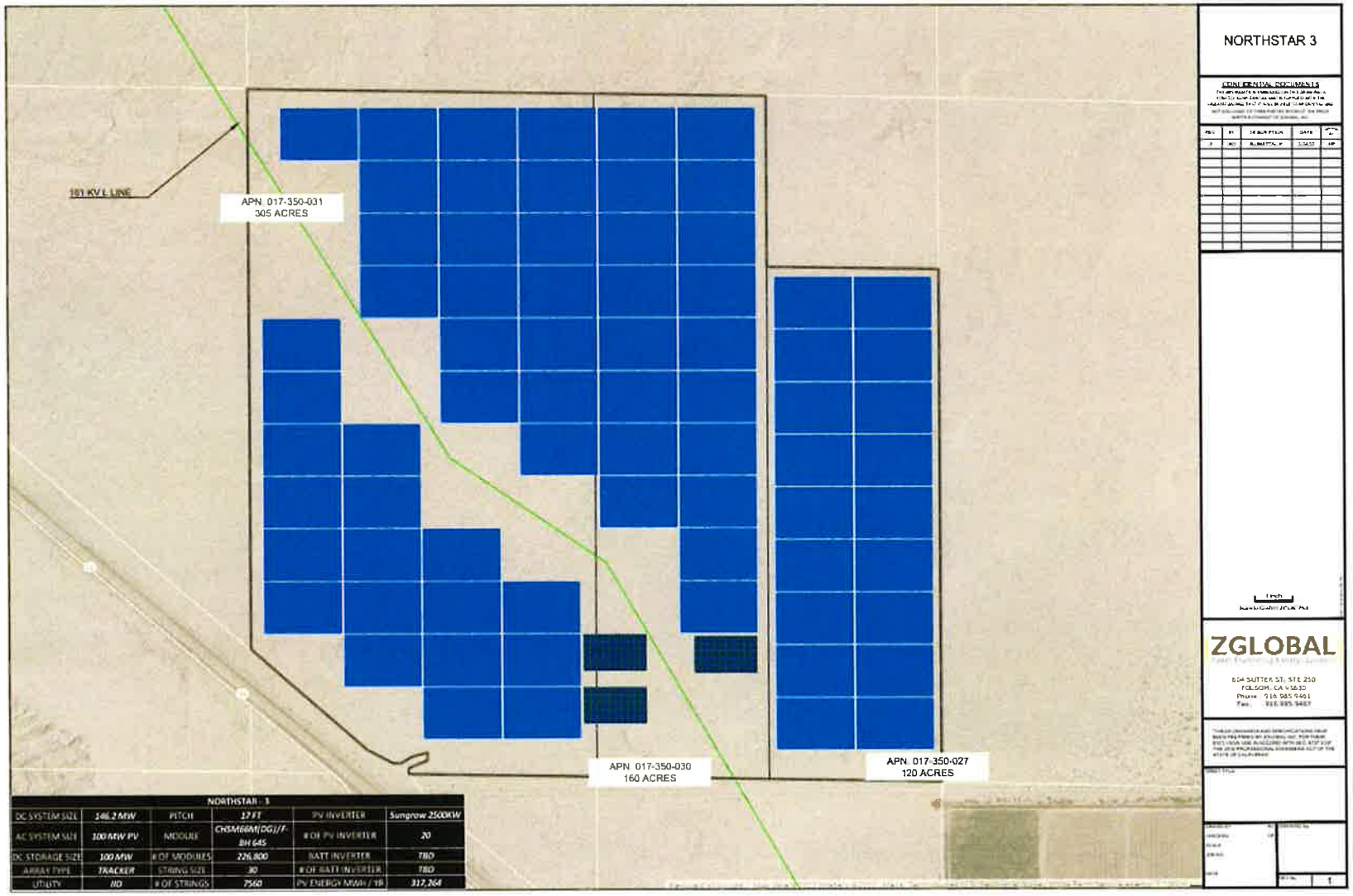


Figure 2. Project Location



Figure 3. Site Plan



3.0 WATER SUPPLY PLANNING UNDER SB 610 and SB 1262

SB 610, effective January 1, 2002, amends Sections 10910 through 10915 of the Water Code by requiring preparation of a WSA for development projects subject to CEQA and other criteria, as discussed below. SB 610 also amends Section 10631 of the Water Code, which relates to Urban Water Management Plans (UWMPs). The WSA process under SB 610 is designed to rely on the information typically contained in UWMPs, where available.

On September 24, 2016, SB 1262 further amended Section 10910 of the Water Code to require additional information related to adjacent public water systems and the status of the groundwater basin. These amendments provide additional consistency with the Sustainable Groundwater Management Act of 2014, as discussed further in Section 4.4.

The first steps in the WSA process are to determine whether SB 610 applies to the proposed Project. If so, then documentation of available water supplies, anticipated Project demand, and the sufficiency of supplies must be conducted. These issues are summarized by the following questions, as outlined in the DWR Guidebook:

1. Is the proposed Project subject to CEQA?
2. Is the proposed Project a "Project" under SB 610?
3. Is there a public water system that will service the proposed Project?
4. Is there a current UWMP that accounts for the project demand?
5. Is groundwater a component of the supplies for the Project?
6. Are there sufficient supplies to serve the Project over the next twenty years?

Each of these issues are discussed in the following sections as they relate to the proposed Project.

3.1 Is the Proposed Project Subject to CEQA?

The first step in the SB 610 process is to determine whether the proposed project is subject to CEQA. Water Code Section 10910(a) states that any city or county that determines that an application meets the definition of "project", per Water Code Section 10912 (see Section 3.2, below), and is subject to CEQA, shall prepare a water supply assessment for the project. CEQA applies to projects requiring issuance of a discretionary permit by a public agency, projects undertaken by a public agency, or projects funded by a public agency. As noted in Section 2.0, the proposed Project requires discretionary approval of a General Plan Amendment and a CUP by Imperial County, a public agency. Therefore, the Project is subject to CEQA. This WSA has been prepared to support the environmental review that will be conducted by Imperial County under CEQA.

3.2 Is the Proposed Project a "Project" Under SB 610?

The second step in the SB 610 process is to determine if the proposed Project meets the definition of "project" under Water Code Section 10912(a). Under Section 10912(a) a "project" is defined as meeting any of the following criteria:

1. a proposed residential development of more than 500 dwelling units;
2. a proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space;
3. a proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space;
4. a proposed hotel or motel, or both, having more than 500 rooms;
5. a proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area;
6. a mixed-use project that includes one or more of the projects defined above; or
7. a project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project.

The Project encompasses 585 acres. As a result, the Project will include an industrial site that is larger than 40 acres and thus this WSA is being prepared in accordance with criterion 5, above.

3.3 Is There a Public Water System That Will Service the Proposed Project?

Section 10912(c) of the Water Code identifies a public water system as a system for the provision of piped water to the public for human consumption that has 3,000 or more service connections. The Project site is eight miles south of Salton City and 24 miles northwest of the City of Brawley. APN 017-350-031, APN 017-350-030, and APN 017-350-027 are located outside of Imperial Irrigation District's (IID's) Imperial Unit, meaning that they are outside of IID's water service area (IID, 2023). Thus, there are no public water systems that will serve the Project. The water supply will be provided by a new onsite groundwater supply well or wells to be drilled and installed as part of the Project.

3.4 Is There a Current Urban Water Management Plan That Accounts for the Project Demand?

The Water Code requires that all public water systems providing water for municipal purposes to more than 3,000 customers, or supplying more than 3,000 acre-feet per year, must prepare an UWMP. The DWR Guidebook (page iii) states that SB 610 repeatedly refers to the UWMP as a planning document that can be used to meet the standards set

forth in the statute, and that UWMPs act as a foundation to fulfill the requirements of the statute. As noted in Section 3.3, above, there are no public water systems that will serve the Project and, therefore, there is not an UWMP that addresses the Project area or Project demand. Since there is not an UWMP that accounts for the Project demand, this WSA is based upon available and relevant information from DWR, the USGS, and other publicly available data. As this WSA has been prepared for use by the CEQA lead agency, this document includes an evaluation of whether the total projected water supplies, determined to be available during normal, single dry, and multiple dry water years during a 20-year projection, will meet the projected water demand associated with the proposed Project, in addition to existing and planned future uses, including agricultural and manufacturing uses, in accordance with Water Code § 10910(c)(4).

3.5 Is Groundwater a Component of the Supplies for the Project?

Water Code Section 10910(f), paragraphs 1 through 5, must be addressed if groundwater is a source of supply for the proposed Project. As described in Section 3.3, the water supply will be provided by a new groundwater supply well or wells that will be drilled and installed as part of the Project. Therefore, an assessment of groundwater conditions is included in this document.

Water Code Section 10910(f) paragraphs 1 through 5, as modified by SB 1262, state:

(f) If a water supply for a proposed project includes groundwater, the following additional information shall be included in the water supply assessment:

> (1) A review of any information contained in the urban water management plan relevant to the identified water supply for the proposed project.
>
> (2) (A) A description of any groundwater basin or basins from which the proposed project will be supplied. (B) For those basins for which a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), has the legal right to pump under the order or decree. (C) For a basin that has not been adjudicated that is a basin designated as high- or medium priority pursuant to Section 10722.4, information regarding the following: (i) Whether the department has identified the basin as being subject to critical conditions of overdraft pursuant to Section 12924; and (ii) If a groundwater sustainability agency has adopted a groundwater sustainability plan or has an approved alternative, a copy of that alternative or plan. (D) For a basin that has not been adjudicated that is a basin designated as low- or very-low priority pursuant to Section 10722.4, information as to whether the department has identified the basin or basins as overdrafted or has projected that the basin will become overdrafted if present management conditions continue, in the most current bulletin of the department that characterizes the condition of the groundwater basin, and a detailed description by the public water

system, or the city or county if either is required to comply with this part pursuant to subdivision (b), of the efforts being undertaken in the basin or basins to eliminate the long-term overdraft condition.

(3) A detailed description and analysis of the amount and location of groundwater pumped by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), for the past five years from any groundwater basin from which the proposed project will be supplied. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(4) A detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), from any basin from which the proposed project will be supplied. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(5) An analysis of the sufficiency of the groundwater from the basin or basins from which the proposed project will be supplied to meet the projected water demand associated with the proposed project. A water assessment shall not be required to include the information required by this paragraph if the public water system determines, as part of the review required by paragraph (1), that the sufficiency of groundwater necessary to meet the initial and projected water demand associated with the project was addressed in the description and analysis required by paragraph (4) of subdivision (b) of Section 10631.

Paragraphs 1 through 4, above, are addressed in Section 4.0, below, including a description of the groundwater basin, groundwater conditions, and available supply. Section 5.0 presents available information regarding water demand for the Project.

The Paragraph 5 requirement to provide an analysis of the sufficiency of the groundwater basin to meet the projected water demand associated with the proposed project is addressed in Section 6.0, below.

3.6 Are There Sufficient Supplies to Serve the Project Over the Next Twenty Years?

Water Code Section 10910(c)(4) requires the WSA to "*include a discussion with regard to whether the total projected water supplies, determined to be available by the city or county for the project during normal, single dry, and multiple dry water years during a 20-year projection, will meet the projected water demand associated with the proposed project, in addition to existing and future planned uses, including agricultural and manufacturing uses.*"

The sufficiency of water supply for the proposed Project is addressed in Sections 6.0 and 7.0, below.

4.0 PROJECT WATER SUPPLY

As stated in Section 3.3, above, construction and operational water will be provided by a new onsite groundwater well or wells to be drilled as part of the Project. As such, groundwater will be the sole water supply for non-potable water needs. Because there are no public water systems or other significant users of groundwater in the groundwater basin, there are no Urban Water Management Plans or other planning documents that can be relied upon for this WSA. Thus, limited information is available regarding groundwater conditions in the Project vicinity.

Overall conditions within the groundwater basin are described in Section 4.1. Groundwater recharge and available supply are discussed in Section 4.2. Groundwater level trends and the status of the basin relative to the Sustainable Groundwater Management Act of 2014 (SGMA) is provided in Section 4.3, as required by SB 1262.

4.1 Groundwater Basin

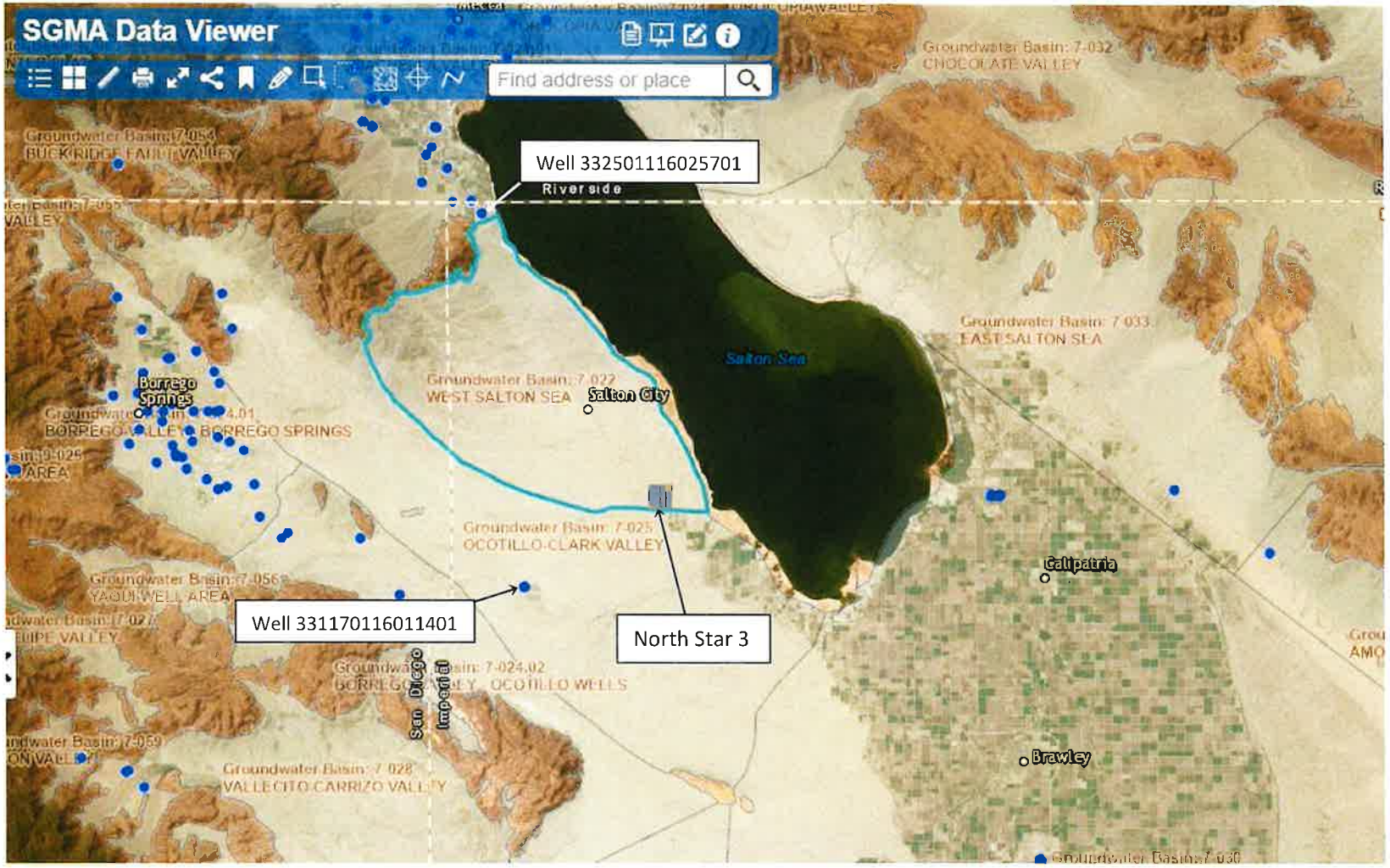
The Project is located within the West Salton Sea Groundwater Basin (Basin), designated as basin number 7-022, as defined by DWR (2023a) (see Figure 4). The Basin is bounded on the northwest and west by nonwatery-bearing rocks of the Santa Rosa Mountains, by low-lying alluvial drainage divides on the north and south, and by the Salton Sea on the east (DWR, 2003a). The groundwater basin has an area of approximately 106,000 acres, or 166 square miles (DWR, 2003a). The Basin has not been adjudicated (DWR, 2023b). Figure 4 shows the groundwater basin boundary and the approximate location of the Project.

Groundwater occurs within unconsolidated younger Quaternary alluvial deposits and the underlying unconsolidated to semi-consolidated older Tertiary to Quaternary alluvial deposits (DWR, 2003a). The maximum depth of the valley fill is estimated to be 545 feet (DWR, 2003a).

4.2 Groundwater Supply and Recharge

DWR (2023b) reports that the population in the Basin in 2010 was approximately 5,360 persons and that the population is expected to increase by 95 percent to 10,457 by 2030. There are no public water supply wells in the Basin and 13 total wells present. None of the land within the basin is irrigated (DWR, 2023b). Thus, the only water use in the basin is for domestic use, which DWR (2023b) estimates to be 4,214 acre-feet per year. Almost all of the domestic development within the Basin is in the Salton City and Salton Sea Beach areas, located along the west shore of the Salton Sea, approximately eight miles and 15 miles, respectively, northwest of the Project site.

FIGURE 4. West Salton Sea Groundwater Basin



DWR (2003a) states that the groundwater storage capacity and volume of groundwater in storage in the Basin are unknown. More recent updates from DWR (2021) do not provide any additional information regarding groundwater storage capacity or volume. However, if the average thickness of water bearing formations in the Basin is assumed to be approximately 25 percent of the maximum thickness (i.e., 136 feet) and the effective porosity is assumed to be 20 percent, then the 106,000-acre Basin may be close to 3,000,000 acre-feet. The estimates of the average thickness of the water bearing formations and the effective porosity are intended to be low estimates based. Thus, the 3,000,000 acre-feet of groundwater estimated to be in storage is considered a potentially conservative underestimate.

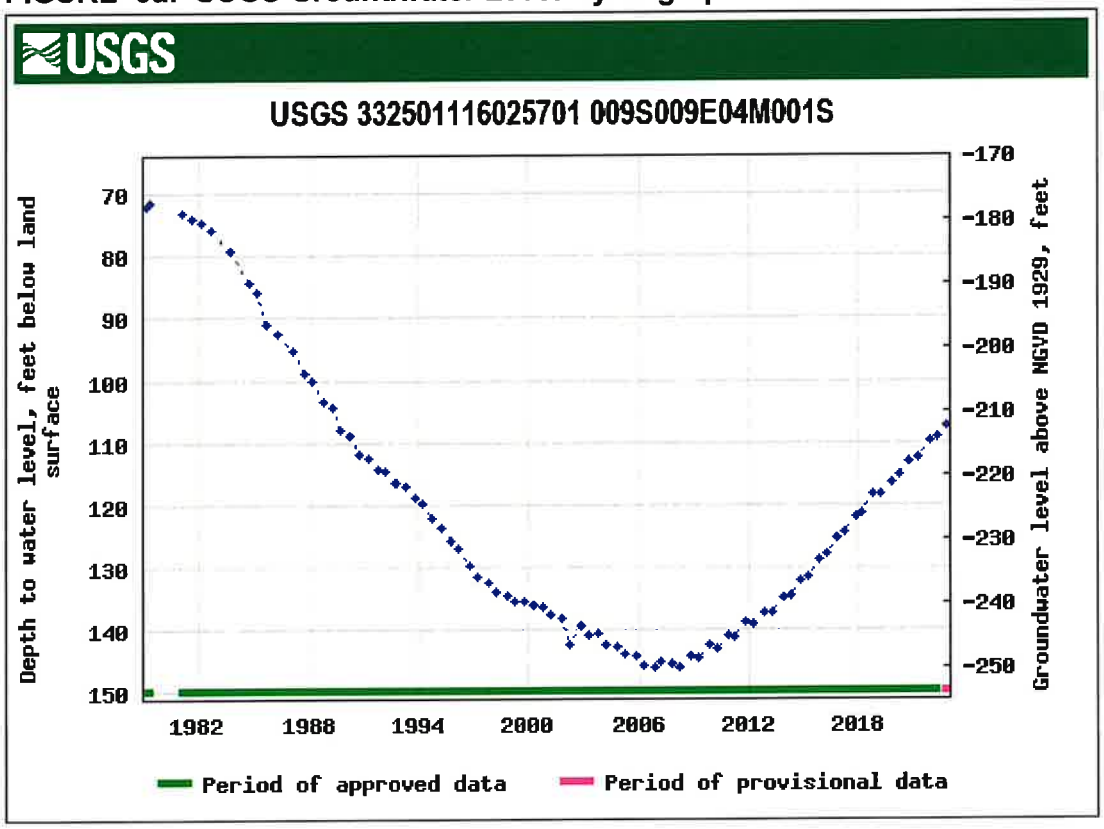
The average annual rainfall is very low, as discussed further in Section 6.0 below, and typically does not provide a sufficient quantity of moisture to percolate deep into the alluvial sediments. As a result, recharge of groundwater occurs primarily due to runoff from the Santa Rosa Mountains during major storm events, which may not occur every year. There is no estimate of recharge for the Basin provided in the documents reviewed for the preparation of this WSA (see Section 8.0). However, the East Salton Sea Groundwater Basin (DWR Basin 7-033, see Figure 4) is similarly located and has comparable geography. The average annual recharge for the East Salton Sea Groundwater Basin is estimated to be 200 acre-feet per year (DWR, 2003b). The West Salton Sea Groundwater Basin is about half the size of the East Salton Sea Groundwater Basin. Therefore, the average annual recharge to the West Salton Sea Groundwater Basin may be approximately 100 acre-feet per year.

The USGS's National Water Information System mapping application (https://maps.waterdata.usgs.gov/mapper/index.html) and DWR's SGMA Data Viewer website (DWR, 2023a) do not indicate the presence of any active groundwater monitoring locations within the Basin at the time this report was prepared. The blue dots on Figure 4 show the location of active monitoring locations near the Basin. Therefore, the analysis below is based on groundwater level and water quality data from the two closest wells to the Basin.

Well 332501116025701 is located just north of the northern Basin boundary, in the Coachella Valley-Indio Groundwater Basin, approximately 16 miles northwest of the Project location (see Figure 4). The USGS identification number (332501116025701) refers to the latitude and longitude of the well (i.e., 33°25'01" latitude, -116°02'57" longitude), and the California state well number 009S009E04M001 indicates the township, range, and quarter-quarter section (i.e., northwest quarter of the southwest quarter of section 4 in township 9S, range 9E, San Bernardino Base and Meridian). The ground surface elevation at the well location is reported to be -105 feet above mean sea level (ft msl) while the depth of the well is 489 feet below ground surface (ft bgs) (USGS, 2023a).

Figure 5a is a hydrograph from USGS (2023a) showing the groundwater level and groundwater elevation measured since 1963 in Well 332501116025701. As indicated on Figure 5a, the groundwater level decreased by 75 feet from 1979 to 2008. Since 2008 the groundwater level has recovered by 40 feet. The depth to groundwater in October 2022 (the last date with a reported measurement by USGS) was 107 ft bgs. The net decrease in the depth to groundwater since 1979 is 35.27 feet (USGS, 2023a). Based on the depth to groundwater and the depth of the well, the potential loss of aquifer volume since 1979 is 8.5 percent of the total available storage estimated above.

FIGURE 5a. USGS Groundwater Level Hydrograph – Well 332501116025701



Well 330701116003501 (i.e., 33°07'01" latitude, -116°00'35" longitude) is located in the Ocotillo-Clark Valley Groundwater Basin, approximately 9.5 miles southwest of the Project location (see Figure 4). The California state well number 012S009E23DM001 indicates the township, range, and quarter-quarter section (i.e., northwest quarter of the northwest quarter of section 23 in township 12S, range 9E, San Bernardino Base and Meridian). The ground surface elevation at the well location is reported to be -15 ft msl while the depth of the well is 580 ft bgs (USGS, 2023b).

FIGURE 5b. USGS Groundwater Level Hydrograph – Well 330701116003501

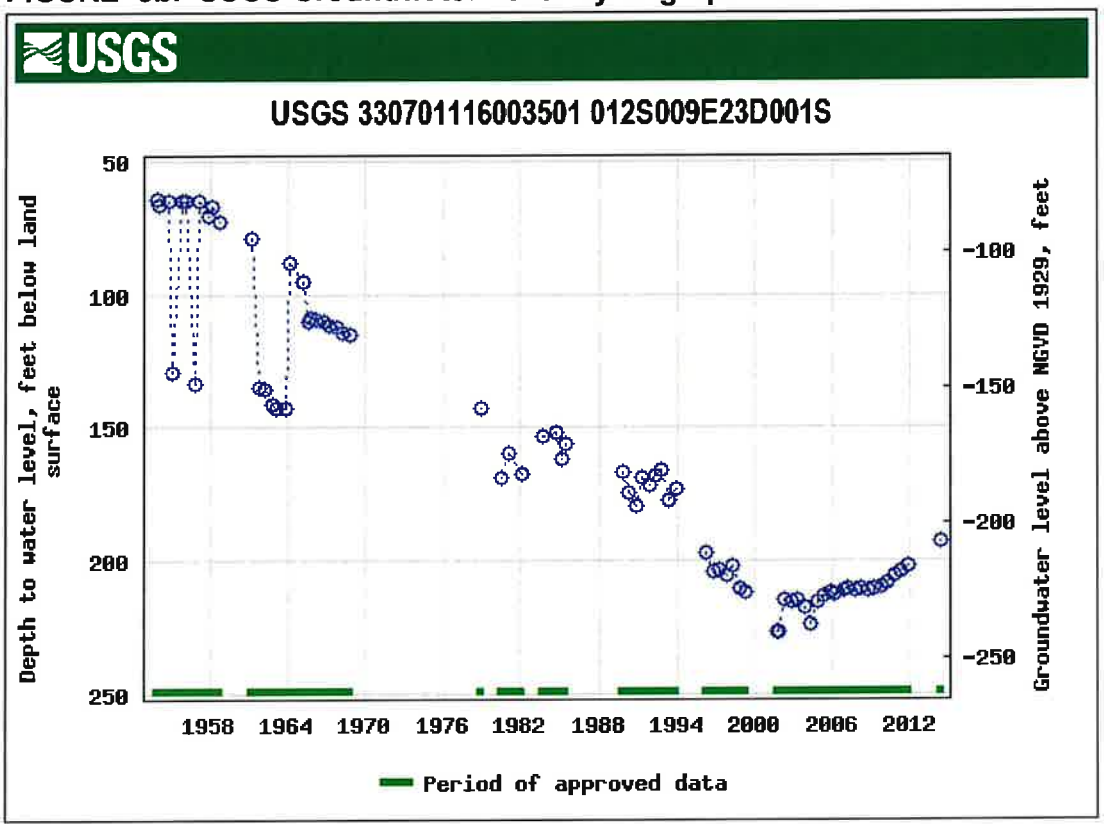


Figure 5b is a hydrograph from USGS (2023b) showing the groundwater level and groundwater elevation measured since 1963 in Well 330701116003501. As indicated on Figure 5b, the groundwater level decreased by approximately 160 feet from 1953 to 2004. Since 2004 the groundwater level has recovered by 31 feet. The depth to groundwater in March 2014 (the last date with a reported measurement by USGS) was 193 ft bgs. The net decrease in the depth to groundwater since 1953 is 129 feet (USGS, 2023b). Based on the depth to groundwater and the depth of the well, the potential loss of aquifer volume since 1953 is 25 percent of the total available storage estimated above.

It is important to note that Well 330701116003501 is located at the former Allegretti Farms property. For many decades, as much as 12,000 acre-feet of groundwater were pumped to irrigate as much as approximately 1,700 acres (Case Text, 2023). A permit to pump groundwater was rescinded by Imperial County and farming operations were replaced by a solar energy system between 2015 and 2020. Thus, groundwater pumping has decreased significantly, resulting in continued recovery of groundwater levels over the past decade.

The nearest location from which water quality samples have been collected and analyzed is USGS Well 330730115512402, near the intersection of State Route 78 and State Route 86. The samples were collected on May 20, 1964 (USGS, 2023c). Table 1 shows the water quality results from June 1963. The September results were comparable. The groundwater has a normal pH but the levels of sodium, chloride, and sulfate are elevated compared to what would be expected from percolation of local rainfall, with the chloride and sulfate levels substantially in excess of the secondary maximum contaminant level (MCL) for drinking water of 250 mg/L. The dissolved solids concentration of 8,420 milligrams per liter (mg/L) is more than eight times the value of the high end of the range of the secondary MCL for drinking water of 1,000 mg/L. The high dissolved solids concentration renders the water unsuitable for potable or agricultural uses without treatment. The existing water quality is suitable for use for construction and maintenance purposes, though.

TABLE 1. USGS Water Quality Data (May 20, 1964)

Parameter	Units	Result
Temperature	Degrees Celsius (° C)	26.1
Specific Conductance	MicroSiemens per centimeter at 25° C	12,600
pH	Standard units	7.2
Carbon Dioxide	Milligrams per liter (mg/L)	25
Acid Neutralizing Capacity	mg/L as calcium carbonate ($CaCO_3$)	203
Bicarbonate	mg/L	248
Carbonate	mg/L	0.0
Hardness	mg/L as $CaCO_3$	1,700
Non-carbonate hardness	mg/L as $CaCO_3$	1,500
Calcium	mg/L	348
Magnesium	mg/L	197
Sodium + Potassium	mg/L	2,400
Chloride	mg/L	2,950
Sulfate	mg/L	2,400
Silica	mg/L as silica dioxide (SiO_2)	19
Dissolved Solids	mg/L	8,420

Source: USGS, 2023c

4.3 Groundwater Sustainability

A series of three bills passed by the California legislature and were signed by Governor Brown on September 16, 2014. These three bills, Assembly Bill (AB) 1739, SB 1168,

and SB 1319, together comprise the Sustainable Groundwater Management Act of 2014 (SGMA). SGMA provides a structure under which local agencies are to develop a sustainable groundwater management program. SGMA focuses on basins or subbasins designated by DWR as high or medium priority basins, and those with critical conditions of overdraft.

According to DWR (2022b), the West Salton Sea Groundwater Basin is a very low priority basin. DWR has not identified the Basin as being overdrafted nor has it projected that it will become overdrafted if present management conditions continue (DWR, 2021 and 2023b). Thus, the Basin is not subject to the current requirements of SGMA, including the formation of a groundwater sustainability agency (GSA) and preparation of a groundwater sustainability plan (GSP).

5.0 PROJECT WATER DEMAND

Water demand varies depending on the Project phase. During construction, water will be needed for dust control and soil conditioning during installation of the photovoltaic panels, battery storage units, and related infrastructure. During the operational phase of the project, water will be needed for routine maintenance activities, which primarily consists of washing the photovoltaic panels to maintain generation efficiency.

Table 2 provides a summary of Project parameters that affect water demand and the estimated water needs for construction and operation. The construction water demand is primarily for dust control. Thus, the water needs are proportional to the size of the disturbed area and the local climate. Construction water demand is approximately 295 acre-feet. Construction is anticipated to require 12 to 18 months to complete. Thus, the monthly water demand during that period will average about 16 acre-feet to 25 acre-feet..

Table 2. Project Water Demand

Site	Area (acres)	Output (megawatts)	Construction Water (acre-feet)	Operational Water (acre-feet per year)
North Star 1	585	100	295	10

The operational water demand for panel washing and other maintenance needs is based primarily on the number of panels, which relates to the energy production or output, in megawatts. The operational water demand is anticipated to be 10 acre-feet per year. The maintenance activities are anticipated to be conducted up to twice a year over a one-to-two-week period each event, so the maintenance water demand is intermittent and not spread throughout the year. The operational water demand will occur throughout the life of the Project.

6.0 DRY YEAR SUPPLY

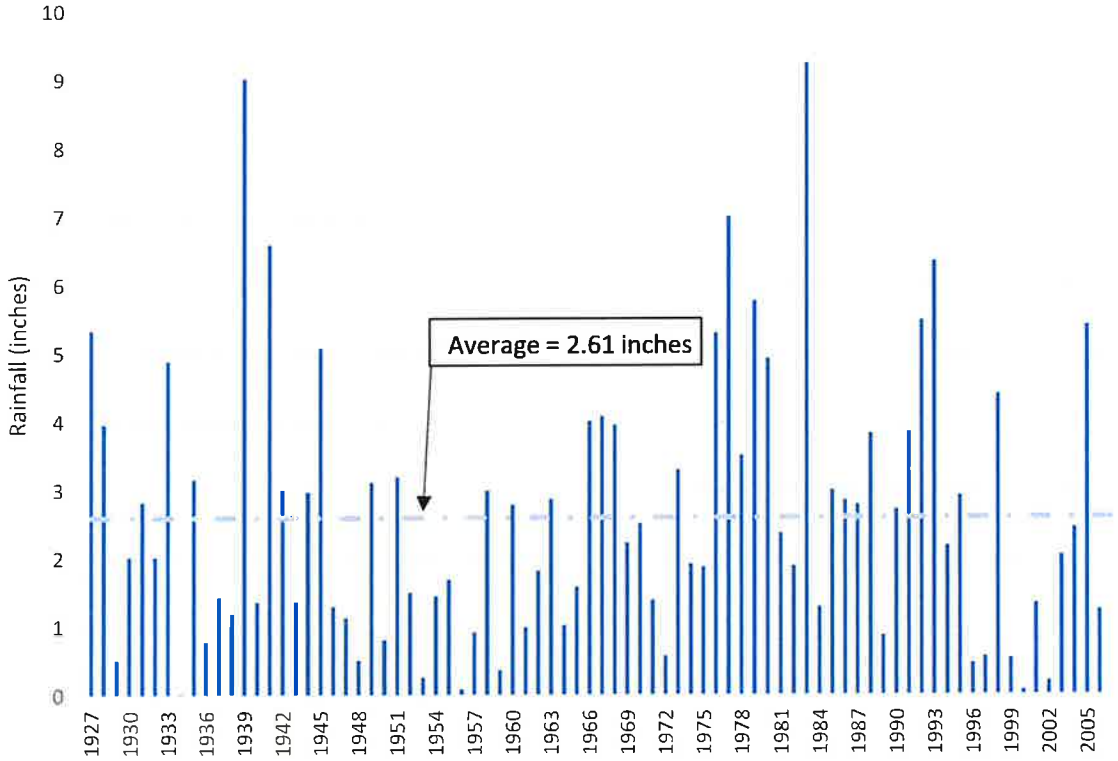
The volume and sustainability of dry-year water supply for a Project in California is typically addressed by comparing annual rainfall with changes in groundwater levels in the Basin. This comparison is made for a normal or average water year[1], for single dry year, and for multiple dry water years. For this Project, local rainfall data were obtained from the Western Region Climate Center (WRCC, 2023) for the Brawley 2 SW weather station in Brawley, California, located approximately 23 miles southeast of the Project location (see Figure 1).

Figure 6 shows the annual water year rainfall for the Brawley 2 SW station from 1927 through 2007. The average water year rainfall during this period is 2.61 inches. The driest year was 2007, when no precipitation was recorded. The driest year with recorded rainfall was 1934, with only 0.2 inch of rainfall reported. The wettest year was 1983, when 9.25 inches of rain were measured. As indicated on Figure 6, a relatively wet period occurred from 1976 to 1986, with 14 of 18 water years exceeding the average annual rainfall. In comparison, the period from 1996 to 2012 was relatively dry, with 10 of 12 water years having below normal rainfall.

The historic rainfall data on Figure 6 can be compared with the groundwater levels shown on Figures 5a and 5b to assess the effects of wet and dry periods on groundwater supply in the Basin. The wettest year recorded, 1983, and the relatively wet period from 1976 to 1986, correspond to a period when groundwater levels were consistently declining. Groundwater levels began to recover between 2004 to 2008, which was during the dry period from 1996 to 2016, and have continued to increase through 2022. Thus, the available groundwater level and rainfall data do not indicate any relationship between wet, normal, single dry year, or multiple dry years and available groundwater supply. As noted above in Section 4.2, recharge of groundwater occurs primarily due to runoff from the mountains during individual major storm events (DWR, 2003). Such storm events typically occur infrequently and there may be many years between events that produce enough runoff to provide appreciable recharge.

[1] In California, a water year is defined as the period from October 1 of a calendar year through September 30 of the subsequent calendar year. A water year is designated by the year in which it ends. For example, the period from October 1, 2006 through September 30, 2007 is referred to as the 2007 water year. Due to the nature of weather patterns in the state, a water year better represents hydrologic conditions related to wet and dry periods than does a calendar year.

Figure 6. Water Year Rainfall at Brawley 2 SW



As described in Section 4.2, the total groundwater storage capacity of the Basin is conservatively estimated to be 3,000,000 acre-feet and the groundwater level decline in wells in adjacent groundwater basins has varied from 8.5 percent to 25 percent over the last several decades, although groundwater levels in some areas may be recovering further due to reduction of pumping for irrigation (see Section 4.2). Thus, the current storage in the Basin may be in the range of 2,250,000 to 2,745,000 acre-feet. The single year construction water demand of 295 acre-feet and the annual operational water needs of 10 acre-feet are miniscule (0.011 percent to 0.013 percent and 0.00036 percent to 0.0004 percent, respectively) compared to the available groundwater in storage. Furthermore, the long term annual operational water needs are much less than the estimated annual recharge of 100 acre-feet per year. Overall, there is adequate water available to supply the Project water needs during single dry, and multiple dry year periods.

7.0 FINDINGS and DISCUSSION

This WSA has been prepared in accordance with SB 610 and SB 1262 to support the CEQA environmental review for the proposed Project and provides an assessment of water supply adequacy for the Project in accordance with Water Code Sections 10910

through 10915. As stated in Section 1.0, the purpose of the assessment is to determine if available water supplies are sufficient to serve the demand generated by the Project, as well as the reasonably foreseeable demand in the region over the next 20 years under average normal year, single dry year, and multiple dry year conditions. As noted in Section 4.2, above, while groundwater levels in adjacent groundwater basins had been declining during the period from the 1950s to the early 2000s, over the past 15 to 20 years they have been recovering, indicating that current water demands are less than recharge and replenishment. While the population, and presumably the related water demand, are anticipated to almost double over the next decade, the overall domestic water demand is not significant compared to the volume of groundwater in storage. Therefore, the Basin has adequate resources for current and anticipated future existing water needs.

The water demand for the proposed Project will consist of water needed during construction and water needed for maintenance once the Project is operational. The construction water demand is anticipated to be 295 acre-feet over 12 to 18 months, primarily for dust control. The operational demand is anticipated to be 10 acre-feet per year for panel washing and other maintenance activities. The operational demand will exist for the life of the Project, which is anticipated to be 25 to 30 years.

The construction water demand exceeds the potential annual recharge to the Basin of 100 acre-feet per year (see Section 4.2). However, the construction water needs are short-term, temporary, and equivalent to only 0.011 percent to 0.013 percent of the estimated groundwater in storage. This temporary water use is not anticipated to cause persistent and long-term lowering of groundwater levels. Therefore, the construction water demand will not cause or contribute to overdraft, exhaustion of water supplies, lowering of groundwater levels to depths that would be uneconomic for pumping, land subsidence, or significant alteration of groundwater quality.

The annual operational water needs are equivalent to 10 percent of the average annual recharge and 0.00036 percent to 0.0004 percent of the estimated current storage volume of the Basin. Therefore, the long-term operation and maintenance of the Project would not have any measurable effect or impact on groundwater resources in the Basin.

Based on the analysis presented in this WSA, there will be sufficient water available for existing water uses in the Basin, along with the Project water demand during normal, single dry year, and multiple dry year periods for the anticipated life of the Project, which is anticipated to be greater than 20 years.

8.0 DOCUMENTS CONSIDERED AND REFERENCES CITED

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ATTACHMENT "D"

CEQA RESOLUTION FOR NORTHSTAR 3

RESOLUTION NO.

A RESOLUTION OF THE PLANNING COMMISSION OF THE COUNTY OF IMPERIAL, CALIFORNIA, RECOMMENDING THE IMPERIAL COUNTY BOARD OF SUPERVISORS CERTIFY THE FINAL INITIAL STUDY/MITIGATED NEGATIVE DECLARATION (MND) FOR THE NORTHSTAR 3 SOLAR ENERGY GENERATION AND BATTERY STORAGE PROJECT.

WHEREAS, a Final Project IS/MND SCH #2024060955 has been prepared in accordance with the requirements of the California Environmental Quality Act, the State CEQA Guidelines, and the County's Rules to Implement CEQA as amended for the NorthStar 3 Solar Energy Generation and Battery Storage Project which consists of a Water Supply Assessment (WSA), an Initial Study/Mitigated Negative Declaration (IS/MND), a Mitigation Monitoring & Reporting Program, General Plan Amendment, Zone Change and two Conditional Use Permits; and

WHEREAS, the Planning Commission of the County of Imperial has been delegated with the responsibility of making recommendations to the Imperial County Board of Supervisors regarding the Projects for approval and certification; and,

WHEREAS, the Final Project IS/MND has been provided in a timely manner to public agencies; and

WHEREAS, timely public notice of the Planning Commission's hearing on the Project application has been given, and the Planning Commission has considered evidence presented by the Imperial County Planning & Development Services Department and other interested parties at that public hearing held with respect to this item on December 11, 2024; and,

WHEREAS, the Final Project IS/MND as required by CEQA includes the Water Supply Assessment, General Plan Amendment, Zone Change, Conditional Use Permits, Mitigation Monitoring & Reporting Program; and,

NOW THEREFORE, the Planning Commission of the County of Imperial **DOES HEREBY RESOLVE** as follows:

SECTION 1. The Planning Commission independently has reviewed and considered the proposed Final Initial Study/Mitigated Negative Declaration (IS/MND) prior to making a decision to recommend that the Board of Supervisors approve the proposed Final IS/MND. The Planning Commission finds and determines that the IS/MND is adequate and prepared in accordance with the requirements of CEQA, which analyzes environmental effects, based upon the following findings and determinations.

SECTION 2. That in accordance with, CEQA, State Planning and Zoning law and the County of Imperial Land Use Ordinance, the following findings for the recommendation for approval and certification of the Final IS/MND has been made as follows:

1.That the Final Project IS/MND SCH #2024060955 for the NorthStar 3 Solar Energy Generation and Battery Storage Project has been prepared in accordance with the requirements of the California Environmental Quality Act, the State CEQA Guidelines, and the County's Rules to Implement CEQA as amended, and such findings are incorporated by reference herein

2. That the County independently has reviewed, analyzed, and considered the Final Project IS/MND, the environmental impacts therein identified for this Project, the Mitigation Monitoring and Reporting Program, and the entire Record of Proceedings prior to recommending approval of this project.

3. The Final Project IS/MND reflects the independent judgment of the County.

4. That the County accept as its own, incorporate as if set forth in full herein, and make each and every one of the equivalency findings pursuant to CEQA Guidelines Section 15074.1(b)(2) for proposed mitigation measures adopted as part of the Mitigation Monitoring and Reporting Program.

5.That the Project will not individually or cumulative have an unmitigated adverse effect on fish and wildlife resources, as defined in Section 711.2 of the Fish and Game Code.

6. That the Record of Proceedings consists of the Final Project IS/MND. In addition, the County staff reports; the Mitigation Monitoring and Reporting Program; the various Project entitlements and documents referenced therein; all final reports, applications, memoranda, maps, letters, and other planning documents prepared and/or utilized by the IS/MND planning/environmental consultant. In addition, all final reports, memoranda, maps, letters, and other planning documents prepared and/or utilized by the County staff.

8. Finally, all documents submitted by members of the public and public agencies in connection with the Final Project IS/MND; minutes and transcripts of all public meetings and public hearings; all written and verbal public testimony presented during a noticed public hearing for the proposed project which such testimony was taken and any and all other materials which constitute the record of proceeding pursuant to Public Resources Code section 21167.6(e); and matters of common knowledge to the County staff, Planning Commission, and Board of Supervisors, including, but not limited to the County General Plan, the County Land Use Ordinance, and County policies, which may be found at the Clerk's Office located at 940 Main Street, Suite 209, El Centro, CA, 92243 during regular business hours, and the Imperial County Planning & Development Services Department at 801 Main Street, El Centro, CA 92243.

9. That the County Planning Commission does hereby recommend for the Board of Supervisors of the County of Imperial to approve of the resolution to certify the Final Project IS/MND (IS/MND).

NOW, THEREFORE, based on the above findings, the Planning Commission of the County of Imperial **DOES HEREBY RECOMMEND** the Board of Supervisors approve the proposed Final IS/MND **SCH #2024060955**, for NorthStar 3 Solar and Battery Storage Project, Water Supply Assessment (WSA), General Plan Amendment, Zone Change, Conditional Use Permits, and Mitigation Monitoring and Reporting Program.

Rudy Schaffner, Chairperson
Imperial County Planning Commission

I hereby certify that the Planning Commission at a meeting conducted on **December 11, 2024,** by the following vote took the preceding resolution:

AYES:

NOES:

ABSENT:

ABSTAIN:

ATTEST:

Jim Minnick, Director of Planning & Development Services
Secretary to the Planning Commission

NorthStar 3 Solar Energy Generation and Battery Storage Project

CEQA Guidelines 15074.1 Equivalency Findings

Introduction

The NorthStar 3 Solar and Battery Storage Project Draft Initial Study/Mitigated Negative Declaration (IS/MND) was circulated for public review and comment from June 20, 2024 to July 25, 2024. Written comments received on the Draft IS/MND included a comment letter from California Department of Fish and Wildlife (July 25, 2024). Responses to this comment letter are provided in the "Responses to Comments North Star 3 Solar and Battery Storage Project (CUPs #23-0007 and #23-0008) as Comment Letter S2. Department of Fish and Wildlife comments recommended modifications and replacements of proposed IS/MND mitigation measures, which have been incorporated into the Mitigation Monitoring and Reporting Program (MMRP) for the project.

Background

Pursuant to CEQA Guideline 15074.1 Substitution of Mitigation Measures in a Proposed Mitigated Negative Declaration, this document provides equivalency findings for mitigation measures that have been modified and/or otherwise replaced as a result of comments and recommendations by CDFW to improve and strengthen mitigation measures that were proposed in the IS/MND. Specifically, CEQA Guideline 15074.1 provides for:

> (a) As a result of the public review process for a proposed mitigated negative declaration, including any administrative decisions or public hearings conducted on the project prior to its approval, the lead agency may conclude that certain mitigation measures identified in the mitigated negative declaration are infeasible or otherwise undesirable. Prior to approving the project, the lead agency may, in accordance with this section, delete those mitigation measures and substitute for them other measures which the lead agency determines are equivalent or more effective.
>
> (b) Prior to deleting and substituting for a mitigation measure, the lead agency shall do both of the following:
>
> (1) Hold a public hearing on the matter. Where a public hearing is to be held in order to consider the project, the public hearing required by this section may be combined with that hearing. Where no public hearing would otherwise be held to consider the project, then a public hearing shall be required before a mitigation measure may be deleted and a new measure adopted in its place.
>
> 2) Adopt a written finding that the new measure is equivalent or more effective in mitigating or avoiding potential significant effects and that it in itself will not cause any potentially significant effect on the environment.
>
> (c) No recirculation of the proposed mitigated negative declaration pursuant to Section 15072 is required where the new mitigation measures are made conditions of, or are otherwise incorporated into, project approval in accordance with this section.
>
> (d) "Equivalent or more effective" means that the new measure will avoid or reduce the significant effect to at least the same degree as, or to a greater degree than, the original measure and will create no more adverse effect of its own than would have the original measure.

In compliance with Section 15074.1 (b)(1), a public hearing will be held in order to consider the North Star 3 Solar and Battery Storage Project by the Planning Commission on October 9, 2024 (and thereafter by the Imperial County Board of Supervisors).

In compliance with Section 15074.1 (b)(2) the following provides a written finding that the new measure is equivalent or more effective in mitigating or avoiding potential significant effects and that it in itself will not cause any potentially significant effect on the environment. These findings will be adopted as part of the actions by the Imperial County Planning Commission and Board of Supervisors when considering approval of the project.

Originally Proposed Mitigation Measure	Proposed Modified Mitigation Measure	15074.1(b)(2) Finding
BIO-1 Rare Plant Surveys: Prior to initiating ground disturbance, rare plant surveys shall be conducted within suitable habitat within the Survey Area during the appropriate blooming period for the Orocopia sage (approximately March through April), Harwood's milk-vetch (approximately January through May), and Munz's cholla (approximately May). The surveys shall be conducted by a botanist or qualified biologist in accordance with the USFWS Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants (USFWS 1996); the CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW 2018); and the CNPS Botanical Survey Guidelines (CNPS 2001). If any special-status species are observed during the rare plant surveys, the location of the individual plant or population will be recorded with a submeter GPS device for mapping purposes. Consultation with CDFW may be required to develop a mitigation plan or additional avoidance and minimization measures if project-related impacts to rare plants within the project site are unavoidable. Mitigation measures that may be implemented if the species is observed include establishing a no-disturbance buffer around locations of individuals or a population, salvage or seed collection, and additional monitoring requirements.	**BIO-1 Rare Plant Surveys:** Prior to initiating ground disturbance, three ~~rare plant~~ botanical field surveys shall be conducted that are floristic in nature (i.e., identifying all plant species to the taxonomic level necessary to determine rarity), and inclusive of areas proposed for disturbance and indirectly impacts by the Project. ~~conducted within suitable habitat within the Survey Area during the appropriate blooming period for the Orocopia sage (approximately March through April), Harwood's milk-vetch (approximately January through May), and Munz's cholla (approximately May).~~ The surveys shall be conducted by a qualified botanist or qualified biologist in accordance with the USFWS Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants (USFWS 1996); the CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW 2018);	CDFW recommends botanical field surveys following the Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (CDFW, March 2018) be conducted by qualified personnel annually prior to the start of construction. Mitigation Measure BIO-1 has been modified to require multiple field surveys and additional recommendations that strengthen the requirements of the mitigation measure. With the modifications, appropriate surveys will identify the species present to allow development of effective mitigation measures.

	and the CNPS Botanical Survey Guidelines (CNPS 2001). If any special-status species are observed during the ~~rare plant~~ botanical field surveys, ~~the location of the individual plant or population will be recorded with a submeter GPS device for mapping purposes.~~ The project shall be designed to reduce impacts to these species through the establishment of buffers, to the extent feasible. Buffer distances will be determined by the qualified botanist or biologist, typically 50 feet or greater from an identified special-status plant species, unless the qualified botanist or biologist determines a reduced buffer would suffice to avoid impacts to the species. All special status plant species identified on site shall be mapped with a submeter GPS device and depicted on a site-specific aerial photograph and topographic map and included on any construction, grading, fuel modification, or other pertinent plans. ~~Consultation with CDFW may be required to develop a mitigation plan or additional avoidance and minimization measures if project-related impacts to rare plants within the project site are unavoidable.~~ If avoidance of special-status plant species is not feasible, a Special-Status Plant Relocation Plan shall be	

	developed and implemented. The Special-Status Plant Relocation Plan shall address mitigation for special-status plants, including topsoil salvage to preserve seed bank and management of salvaged topsoil; seed collection, storage, possible nursery propagation, and planting; salvage and planting of bulbs as feasible; location of on-site receptor sites; land protection instruments for receptor areas; and funding mechanisms. The Special-Status Plant Relocation Plan shall include methods, monitoring, reporting, success criteria, adaptive management, and contingencies for achieving success. ~~Mitigation measures that may be implemented if the species is observed include establishing a no-disturbance buffer around locations of individuals or a population, salvage or seed collection, and additional monitoring requirements.~~ The Project proponent shall mitigate the loss of the plant(s) through the purchase of mitigation credits from a CDFW-approved bank or land acquisition and conservation at a minimum 2:1 (replacement to impact) ratio for occupied habitat should success criteria not be met, or presence of the specific is assumed based on suitable habitat acreage within the Project area. Note that a higher ratio may be warranted if the	

	proposed mitigation lands are located far away from the Project site.	
BIO-2 General Impact Avoidance and Minimization Measures. The following measures will be applicable throughout the life of the project: • To reduce the potential indirect impact on migratory birds, bats and raptors, the project shall comply with the APLIC 2012 Guidelines for overhead utilities, as appropriate, to minimize avian collisions with transmission facilities (APLIC 2012) • All electrical components on the project site shall be either undergrounded or protected so that there will be no exposure to wildlife and therefore no potential for electrocution. • The project proponent shall designate a Project Biologist who shall be responsible for overseeing compliance with protective measures for biological resources during vegetation clearing and work activities within and adjacent to areas of native habitat. The Project Biologist shall be familiar with the local habitats, plants, and wildlife. The Project Biologist shall also maintain communications with the Contractor to	**BIO-2 ~~General Impact Avoidance and Minimization Measures.~~ Minimization of Impacts to Migratory Birds, Bats, and Raptors:** To reduce indirect impacts on migratory birds, bats, and raptors, the project shall comply with APLIC 2012 Guidelines for overhead utilities, as appropriate, to minimize avian collisions with transmission facilities (APLIC 2012). All electrical components on the project site shall either be underground or the transmission lines and poles will follow design plans recommended by APLIC (i.e., installing covers over the insulator and conductor on the center phase, installing phase covers over all three insulators and conductors for three phase transmission lines, lowering and/or replacing the crossarm with a longer cross arm on pole-top pin constructions), or utilizing link marking devices (e.g., aerial marker spheres, spirals, or suspended devices). ~~protected so that there will be no exposure to wildlife and therefore no potential for electrocution.~~	Originally proposed Mitigation Measure BIO-2 was a broader mitigation measure that addressed several types of potential biological impacts. This measure has been replaced with several individual measures to enable more specific mitigation implementation and monitoring responsibilities. Revised Mitigation Measure BIO-2 has been strengthened to directly address potential impacts to migratory birds, bats and raptors. Bulleted items have now been incorporated as individual mitigation measures BIO-12 through BIO-25.

ensure that issues relating to biological resources are appropriately and lawfully managed and shall monitor construction. The Project Biologist shall monitor activities within construction areas during nesting bird season (generally February 1 to September 15), such as vegetation removal, the implementation of Best Management Practices (BMPs), and installation of security fencing to protect native species. The Project Biologist shall ensure that all wildlife and regulatory agency permit requirements, conservation measures, and general avoidance and minimization measures are properly implemented and followed. • The boundaries of all areas to be newly disturbed (including solar facility areas, staging areas, access roads, and sites for temporary placement of construction materials and spoils) shall be delineated with stakes and flagging prior to disturbance. All disturbances, vehicles, and equipment shall be confined to the flagged areas. • No potential wildlife entrapments (e.g., trenches, bores) shall be left uncovered overnight. Any uncovered pitfalls will be		

excavated to 3:1 slopes at the ends to provide wildlife escape ramps. Alternatively, man-made ramps may be installed. Covered pitfalls will be covered completely to prevent access by small mammals or reptiles. • To avoid wildlife entrapment (including birds), all pipes or other construction materials or supplies shall be covered or capped in storage or laydown areas, and at the end of each work day in construction, quarrying and processing/handling areas. No pipes or tubing of sizes or inside diameters ranging from 1 to 10 inches shall be left open either temporarily or permanently. • No anticoagulant rodenticides, such as Warfarin and related compounds (indandiones and hydroxycoumarins), shall be used within the project site, on off-site project facilities and activities, or in support of any other project activities. • All trash and food-related waste shall be placed in self-closing containers and removed regularly from the site to prevent overflow. Workers shall not feed wildlife. Water applied to dirt roads and construction areas for dust abatement		

shall use the minimal amount needed to meet safety and air quality standards to prevent the formation of puddles, which could attract wildlife. Pooled rainwater or floodwater within retention basins shall be removed to avoid attracting wildlife to the active work areas. • To minimize the likelihood for vehicle strikes on wildlife, speed limits shall not exceed 15 miles per hour when driving on access roads. All vehicles required for O&M must remain on designated access/maintenance roads. • Avoid nighttime construction lighting or if nighttime construction cannot be avoided, use shielded directional lighting pointed downward and towards the interior of the project sites, thereby avoiding illumination of adjacent natural areas and the night sky. • All construction equipment used for the projects shall be equipped with properly operating and maintained mufflers. • Hazardous materials and equipment stored overnight, including small amounts of fuel to refuel hand-held equipment, shall be stored within		

secondary containment when within 50 feet of open water to the fullest extent practicable. Secondary containment shall consist of a ring of sand bags around each piece of stored equipment/structure. A plastic tarp/visqueen lining with no seams shall be placed under the equipment and over the edges of the sandbags, or a plastic hazardous materials secondary containment unit shall be utilized by the Contractor. • The Contractor will be required to conduct vehicle refueling in upland areas where fuel cannot enter waters of the U.S. and in areas that do not have potential to support federally threatened or endangered species. Any fuel containers, repair materials, including creosote-treated wood, and/or stockpiled material that is left on site overnight, shall be secured in secondary containment within the work area and staging/assembly area and covered with plastic at the end of each work day. • In the event that no activity is to occur in the work area for the weekend and/or a period of time greater than 48 hours, the		

Contractor shall ensure that all portable fuel containers are removed from the project site. • All equipment shall be maintained in accordance with manufacturer's recommendations and requirements. • Equipment and containers shall be inspected daily for leaks. Should a leak occur, contaminated soils and surfaces will be cleaned up and disposed of following the guidelines identified in the Stormwater Pollution Prevention Plan or equivalent, Materials Safety Data Sheets, and any specifications required by other permits issued for the project. • The Contractor shall utilize off-site maintenance and repair shops as much as possible for maintenance and repair of equipment. • If maintenance of equipment must occur onsite, fuel/oil pans, absorbent pads, or appropriate containment will be used to capture spills/leaks within all areas. Where feasible, maintenance of equipment shall occur in upland areas where fuel cannot enter waters of the U.S. and in areas		

that do not have potential to support federally threatened or endangered species. • Appropriate BMPs shall be used by the Contractor to control erosion and sedimentation and to capture debris and contaminants from construction to prevent their deposition in waterways. • Erosion and sediment control devices used for the proposed project, including fiber rolls and bonded fiber matrix, shall be made from biodegradable materials such as jute, with no plastic mesh, to avoid creating a wildlife entanglement hazard. • Firearms, open fires, and pets shall be prohibited at all work locations and access roads. Smoking shall be prohibited along the project alignment. • Cross-country vehicle and equipment use outside of approved designated work areas and access roads shall be prohibited to prevent unnecessary ground and vegetation disturbance. • Any injured or dead wildlife encountered during project-related activities shall be reported to the project biologist,		

biological monitor, CDFW, or a CDFW-approved veterinary facility as soon as possible to report the observation and determine the best course of action. For special-status species, the Project Biologist shall notify the County, USFWS, and/or CDFW, as appropriate, within 24 hours of the discovery. • Stockpiling of material shall only be allowed within established work areas. • The Contractor shall actively manage the spread of noxious weeds by implementing weed control activities, including, but not limited to, cleaning equipment and inspecting equipment prior to transport to the sites and cleaning of tires and equipment prior to leaving the site. The introduction of exotic, nonnative, weed, and/or invasive plant species will be avoided and controlled wherever possible, and may be achieved through physical or chemical removal and prevention, limiting the size of any vegetation and/or ground disturbance to the absolute minimum, and limiting ingress and egress to defined routes. Preventing exotic plants from entering the site via		

vehicular sources will include measures such as cleaning vehicles coming into and going from the site. • The ground beneath all parked equipment and vehicles shall be inspected for wildlife before moving.		
BIO-3	**N/A – No changes**	
BIO-4 Burrowing Owl Avoidance and Minimization: Take avoidance (pre-construction) surveys for burrowing owl shall be completed prior to project construction. Surveys shall be conducted as detailed within Appendix D of the Staff Report on Burrowing Owl Mitigation (California Department of Fish and Game [CDFG] 2012). If burrowing owl is not detected, construction may proceed. • If burrowing owl is identified during the non-breeding season (September 1 through January 31), then a 50-meter buffer will be established by the biological monitor. Construction within the buffer will be avoided until a qualified biologist determines that burrowing owl is no longer present or until a CDFW-approved exclusion plan has been implemented. The buffer distance may be reduced if noise attenuation buffers such as hay bales are placed between the occupied burrow and construction activities.	**BIO-4 Burrowing Owl Avoidance, ~~and~~ Minimization, and Mitigation:** ~~Take avoidance (pre-construction)~~ Four breeding season surveys for burrowing owl shall be completed prior to project construction by a qualified avian biologist. Surveys shall be conducted as detailed within Appendix D of the Staff Report on Burrowing Owl Mitigation (California Department of Fish and Game [CDFG] 2012). This survey shall include 100 percent coverage of the Project site. A report summarizing the breeding season surveys including all requirement for survey reports shall be submitted to CDFW for review and approval. If burrowing owl or sign thereof is not detected, no further action is necessary. ~~construction may proceed.~~	CDFW recommended in their comments that surveys be performed per the guidance of the *Staff Report on Burrowing Owl Mitigation* (CDFG, 2012), and to update the proposed mitigation measure to include avoidance, minimization, and mitigation for burrowing owls identified on-site, and these same measures be applied to any individuals found during take avoidance surveys as conditions by the proposed mitigation measure. CDFW recommended in their comments that the guidance of mitigating impacts to burrowing owls in the Staff Report on Burrowing Owl Mitigation (CDFG, 2012) be followed, including (a) permanent impacts to nesting, occupied and satellite burrows and/or burrowing owl habitat such that the habitat acreage, number of burrows and burrowing owls impacted are replaced with permanent conservation of similar vegetation communities (grassland, scrublands, desert, urban, and agriculture) to provide for burrowing owl nesting, foraging, wintering, and dispersal (i.e., during breeding and non-breeding seasons) comparable to or better

• If burrowing owl is identified during the breeding season (February 1 through August 31), then an appropriate buffer will be established by the biological monitor in accordance with the Staff Report on Burrowing Owl Mitigation (CDFG 2012). Construction within the buffer will be avoided until a qualified biologist determines that burrowing owl is no longer present or until young have fledged. The buffer distance may be reduced in consultation with CDFW if noise attenuation buffers such as hay bales are placed between the occupied burrow and construction activities.	• If burrowing owl active burrowing owl burrows, or sign thereof are found, the qualified avian biologist shall prepare and implement a plan for avoidance, minimization, and mitigation measures to be reviewed and approved by CDFW prior to commencing Project activities. The plan shall propose mitigation for permanent impacts to nesting, loss of foraging habitat, occupied and satellite burrows and/or burrowing owl habitat such that the habitat acreage, number of burrows and burrowing owls impacted are replaced with permanent conservation of similar vegetation communities to provide for burrowing owl nesting, foraging, wintering, and dispersal comparable to or better than that of the impact area. The mitigation land shall be sufficiently large acreage with presence of fossorial mammals. The mitigation lands may require habitat enhancements including	than that of the impact area, and (b) sufficiently large acreage, and presence of fossorial mammals. Due to the potential for the species to become a candidate under CESA, appropriate mitigation measures are needed to support the issuance of any incidental take permit should the project proponent need to seek take authorization as provided by the Fish and Game Code. Therefore, Mitigation Measure BIO-4 has been modified to strengthen the requirements and ensure appropriate mitigation should this species be encountered on-site.

	enhancement or expansion of burrows for breeding, shelter, and dispersal opportunity, and remove or control of population stressors. Permanent protection of mitigation land shall be through a conservation easement deeded to a nonprofit conservation organization or public agency with a conservation mission. The project proponent shall develop and implement a mitigation land management plan to address long-term ecological sustainability and maintenance of the site for burrowing owls, and funding for the maintenance and management of mitigation land through the establishment of a long-term funding mechanism such as an endowment. If deemed appropriate by CDFW, conservation species credits may also be purchased at a CDFW-approved conservation bank. • To ensure that the Project avoids impacts to burrowing owl, a qualified avian biologist	

	shall complete a take avoidance survey no less than 14 days prior to initiating ground disturbing activities using the recommended methods described in the Staff Report on Burrowing Owl Mitigation (CDFG, 2012). Burrowing owls may recolonize a site after only a few days. Time lapses between Project activities trigger subsequent take avoidance surveys including but not limited to a final survey conducted within 24 hours prior to ground disturbance. is identified during the non-breeding season (September 1 through January 31), then a 50-meter buffer will be established by the biological monitor. Construction within the buffer will be avoided until a qualified biologist determines that burrowing owl is no longer present or until a CDFW-approved exclusion plan has been implemented. The buffer distance may be reduced if noise attenuation buffers such as hay bales are placed	

	between the occupied burrow and construction activities. • ~~is identified during the non-breeding season (September 1 through January 31), then a 50-meter buffer will be established by the biological monitor. Construction within the buffer will be avoided until a qualified biologist determines that burrowing owl is no longer present or until a CDFW-approved exclusion plan has been implemented. The buffer distance may be reduced if noise attenuation buffers such as hay bales are placed between the occupied burrow and construction activities.~~ • ~~If burrowing owl is identified during the breeding season (February 1 through August 31), then an appropriate buffer will be established by the biological monitor in accordance with the Staff Report on Burrowing Owl~~	

	~~Mitigation (CDFG 2012). Construction within the buffer will be avoided until a qualified biologist determines that burrowing owl is no longer present or until young have fledged. The buffer distance may be reduced in consultation with CDFW if noise attenuation buffers such as hay bales are placed between the occupied burrow and construction activities.~~	
BIO-5 Pre-Construction Nesting Bird Survey	**N/A – No changes**	
BIO-6 Pre-Construction Survey for Special-Status Species: A pre-construction survey shall be conducted for special-status wildlife species within all areas of potential permanent and temporary disturbance. The pre-construction survey shall take place no more than 14 days prior to the start of ground-disturbing activities. The pre-construction surveys shall take place regardless of breeding season timing and shall focus on identifying the presence of special-status wildlife species present within the Survey Area or that were identified as having a high/moderate potential to occur on the site. These species include, but are not limited to, flat-tailed horned lizard, burrowing owl, monarch butterfly, desert kit fox, loggerhead shrike, western yellow bat,	**BIO-6** ~~**Pre-Construction Survey for Special-Status Species:** A pre-construction survey shall be conducted for special-status wildlife species within all areas of potential permanent and temporary disturbance. The pre-construction survey shall take place no more than 14 days prior to the start of ground-disturbing activities. The pre-construction surveys shall take place regardless of breeding season timing and shall focus on identifying the presence of special-status wildlife species present within the Survey Area~~	This measure has been modified to specify survey requirements and mitigation measures for Flat-tailed Horned Lizard and Colorado Desert Fringe-Toed Lizards to be conducted in accordance with CDFW's methods. For other Special-status species and previous previsions of the originally proposed BIO-6, CDFW's newly proposed Mitigation Measures BIO-10 through BIO-26 were included in the Final IS/MND.

Yuma myotis, American badger. Should any special status species be identified during the pre-construction survey, consultation to develop suitable avoidance and minimization measures with the appropriate agency (USFWS, CDFW) may need to be undertaken.	~~or that were identified as having a high/moderate potential to occur on the site. These species include, but are not limited to, flat-tailed horned lizard, Colorado Desert fringe-toed lizard, burrowing owl, desert kit fox, and American badger. Should any special status species be identified during the pre-construction survey, consultation to develop suitable avoidance and minimization measures with the appropriate agency (USFWS, CDFW) may need to be undertaken.~~ **Flat-Tailed Horned Lizard and Colorado Desert Fringe-Toed Lizard:** Prior to project activities, surveys for presence/absence of flat-tailed horned lizard (FTHL) and Colorado Desert Fringe-toed Lizard (CDFTL) shall be conducted using parallel, linear routes that are evenly spaced in areas of suitable habitat and be performed by a qualified biologist. For FTHLs, each transect shall be 10 meters apart. On each transect, FTHLs, sign of FTHLs (i.e., scat or tracks), and harvester ant mounds shall be	

	surveyed. If FTHL or sign is located while surveying, the biologist shall pause, scan the immediate area, follow the tracks (if present), and scan the immediate vicinity of the tracks, scat, and/or any mound observed. Three surveys shall be conducted, spaced two weeks apart during April through September. Surveys will be conducted when surface temperatures in the sun exceed 85 degrees Fahrenheit. Scat surveys shall not be conducted for at least 12 days after heavy rainstorms, or strong winds of an intensity sufficient to move a considerable amount of sand across roads. For CDFTL, each transect shall be spaced 5 meters apart. One surveyor shall focus on habitat/substrate 30-40 meters in front, while one surveyor focuses on the area 2-10 meters in front. Surveys shall be conducted only when winds are 10 mph or less and it is not raining. Up to six surveys shall be conducted over the same area on separate days by a qualified biologist between April and September when	

	ground temperature in sun exceeds 85 degrees Fahrenheit. The project proponent shall provide the results of the surveys for both species to CDFW prior to start of project activities. If FTHL or CDFTL are present, the following minimization and mitigation measures shall apply: • During project activities, the project biologist shall check areas of active disturbance at least hourly. Prior to construction, a qualified project biologist shall clear the area of FTHL or CDFTL. During construction, a project biologist shall be present in each area of active surface disturbance throughout the workday from initial clearing to project completion. FTHL or CDFTL will be moved out of harm's way during all construction	

	activities and will be conducted by two or more biological monitors when construction activities are being conducted in suitable habitat. To the extent feasible, methods to find FTHL and CDFTL will be designed to achieve a maximal capture rate and will include, but not be limited to using strip transects, tracking, and raking around shrubs. During construction, the minimum survey effort will be 30 minutes per acre. • Occupied habitat shall be mitigated at a 1:1 ratio (1 acres of mitigation for every acre of impacts) through off-site acquisition of FTHL and CDFTL habitat of equal or greater quality that is conserved and managed in perpetuity. Proposed mitigation lands shall	

	be approved by CDFW.	
BIO-7 Bird and Bat Conservation Strategy	**N/A – No changes**	
BIO-8 **Aquatic Resources Regulatory Permitting.** If project-related impacts occur to the riparian areas that may also fall under the jurisdiction of the USACE, CDFW, and/or RWQCB, a regulatory permit with those agencies is needed prior to the impact occurring. Refer to the *Aquatic Resource Delineation Report for the North Star 3 Project* (Appendix D of this Initial Study) for preliminary determination of regulatory limits that areas that may be regulated by USACE, CDFW, or RWQCB. Permitting includes preparation and submittal of a Pre-Construction Notification under Section 404 of the federal CWA, an Application for Water Quality Certification under Section 401 of the federal CWA and a Notification of Lake or Streambed Alteration under Section 1600 of the California Fish and Game Code. A completed CEQA document, and Notice of Determination, will be necessary to submit along with the applications. Other items such as finalized project plans, quantities of fill material, supporting technical studies, etc., are also submitted along with the applications. As a part of this process, the project must also identify and approve mitigation through the	**BIO-8** **Aquatic Resources Regulatory Permitting.** ~~If p~~ Project-related impacts that will occur to the riparian areas or areas subject to Fish and Game Code Section 1602, shall be mitigated at a minimum of 2:1 ratio (two acres of mitigation for every impact to one acre of resource). The project proponent shall obtain all necessary regulatory permits for resources ~~that may also fall~~ under the jurisdiction of the USACE, CDFW, and/or RWQCB~~, a regulatory permit with those agencies is needed~~ prior to the impact occurring. Refer to the *Aquatic Resource Delineation Report for the North Star 3 Project* (Appendix D of this Initial Study) for preliminary determination of regulatory limits that areas that may be regulated by USACE, CDFW, or RWQCB. Permitting includes preparation and submittal of a Pre-	The Project applicant will need to notify CDFW per Fish and Game Code section 1602. Fish and Game Code section 1602 requires any entity to notify CDFW prior to commencing any activity that may do one or more of the following: substantially divert or obstruct the natural flow of any river, stream, or lake; substantially change or use any material from the bed, channel or bank of any river, stream, or lake; or deposit debris, waste or other materials that could pass into any river, stream, or lake. Please note that "any river, stream or lake" includes those that are episodic (i.e., those that are dry for periods of time) as well as those that are perennial (i.e., those that flow year-round). This includes ephemeral streams, desert washes, and watercourses with a subsurface flow. The modifications to mitigation measure BIO-10 are essentially equivalent to the originally proposed BIO-8; however, offer more specificity and address CDFW's recommended revisions to this measure.

respective agencies. Mitigation can include onsite or offsite options or could include payment of an in-lieu fee to a conservation organization. Types of mitigation can include restoration, creation, rehabilitation, enhancement, or other types of habitat improvement. Typically, the type of mitigation and acreage of mitigation is negotiated with the regulatory agencies during the permitting process.	Construction Notification under Section 404 of the federal CWA, an Application for Water Quality Certification under Section 401 of the federal CWA and a Notification of Lake or Streambed Alteration under Section 1600 of the California Fish and Game Code. A completed CEQA document, and Notice of Determination, will be necessary to submit along with the applications. Other items such as finalized project plans, quantities of fill material, supporting technical studies, etc., are also submitted along with the applications. As a part of this process, the project must also identify and approve mitigation through the respective agencies. Mitigation ~~can~~ shall include ~~onsite or offsite options or~~ land acquisition that is conserved and managed in perpetuity for the resource; ~~could include~~ payment of an in-lieu fee to a conservation organization; and/or. ~~Types of mitigation can include~~ restoration, creation, rehabilitation,	

		enhancement, or other types of habitat improvement. T~~ypically,~~ ~~the~~ the type of mitigation and final acreage of mitigation ~~is negotiated~~ shall be approved by ~~with~~ the regulatory agencies during the permitting process.	
BIO-9	**Minimization of Impacts to Sensitive Species on BLM Land:** All vehicles shall stay on designated roads within BLM land to minimize impacts to habitat. Coordination with a qualified biologist shall occur prior to the staging of equipment and placement of temporary or permanent structures within BLM land. Additionally, a biologist shall demarcate temporary and permanent workspaces in the field prior to the commencement of construction-related activities. Construction plans shall incorporate measures to minimize and avoid impacts to habitats within this area. Tires shall be cleaned prior to entering BLM lands to control introduction of invasive plant species.	**BIO-~~10~~9** ~~**Minimization of Impacts to Sensitive Species on BLM Land:** All vehicles shall stay on designated roads within BLM land to minimize impacts to habitat. Coordination with a qualified biologist shall occur prior to the staging of equipment and placement of temporary or permanent structures within BLM land. Additionally, a biologist shall demarcate temporary and permanent workspaces in the field prior to the commencement of construction-related activities. Construction plans shall incorporate measures to minimize and avoid impacts to habitats within this area. Tires shall be cleaned prior to~~	Originally proposed Mitigation Measure BIO-9 was a broader mitigation measure that addressed potential impacts to on BLM-managed land and access to BLM-managed land via Salton Sea Road. This measure has been replaced to specifically avoid impacts to sensitive species on BLM-managed land, which were not evaluated in the IS/MND.

	~~entering BLM lands to control introduction of invasive plant species.~~ **Site Access:** All project access shall occur through the entrance designated from State Route (SR) 86 to avoid impacts to sensitive species occurring on BLM-managed land adjacent to the project area.	
BIO-2 (bullet item)	**BIO-10 Project Biologist:** The Project proponent shall designate a Project Biologist who shall be responsible for overseeing compliance with protective measures for biological resources during vegetation clearing and work activities within and adjacent to areas of native habitat. The Project Biologist shall be familiar with the local habitats, plants, and wildlife, and have experience performing all necessary surveys and monitoring for biological resources present on site. The Project Biologist shall also maintain communications with the Contractor to ensure that issues relating to biological resources are appropriately and lawfully managed and shall monitor construction. The Project Biologist shall monitor all ground disturbing activities within construction areas, including activities during nesting bird season (generally February 1 to September 15), ~~such as~~	This provision was included as Mitigation Measure BIO-2. It has been renumbered into a stand-alone mitigation measure to allow for more efficient tracking of implementation. Additional, language also strengthens the mitigation measure.

	vegetation removal, the implementation of Best Management Practices (BMPs), and installation of security fencing to protect native species. The Project Biologist shall ensure that all wildlife and regulatory agency permit requirements, conservation measures, and general avoidance and minimization measures are properly implemented and followed.	
BIO-2 (bullet item)	**BIO-11 Project Site Delineation:** The boundaries of all areas to be newly disturbed (including solar facility areas, staging areas, access roads, and sites for temporary placement of construction materials and spoils) shall be delineated with stakes and flagging prior to disturbance. All disturbances, vehicles, and equipment shall be confined to the flagged areas. Stockpiling of material shall only be allowed within established work areas.	This provision was included as Mitigation Measure BIO-2. It has been renumbered into a stand-alone mitigation measure to allow for more efficient tracking of implementation.
BIO-2 (bullet item)	**BIO-12 Wildlife Entrapment Avoidance:** No potential wildlife entrapments (e.g., trenches, bores) shall be left uncovered overnight. Any uncovered pitfalls will be excavated to 3:1 slopes at the ends to provide wildlife escape ramps. Alternatively, man-made ramps may be installed. Covered pitfalls will be covered	This provision was included as Mitigation Measure BIO-2. It has been renumbered into a stand-alone mitigation measure to allow for more efficient tracking of implementation. Additional, language also strengthens the mitigation measure.

	completely to prevent access by small mammals or reptiles. To avoid wildlife entrapment (including birds), all pipes or other construction materials or supplies shall be covered or capped in storage or laydown areas, and at the end of each construction workday ~~in construction, quarrying and processing/handling areas~~. No pipes or tubing of sizes or inside diameters ranging from 1 to 10 inches shall be left open either temporarily or permanently.	
BIO-2 (bullet item)	**BIO-13 Rodenticide:** No anticoagulant rodenticides, such as Warfarin and related compounds (indandiones and hydroxycoumarins), shall be used within the project site~~, on off-site project facilities and activities,~~ or in support of any other project activities.	This provision was included as Mitigation Measure BIO-2. It has been renumbered into a stand-alone mitigation measure to allow for more efficient tracking of implementation.
BIO-2 (bullet item)	**BIO-14 Trash Abatement:** All trash and food-related waste shall be placed in self-closing containers and removed regularly from the site to prevent overflow. Workers shall not feed wildlife.	This provision was included as Mitigation Measure BIO-2. It has been renumbered into a stand-alone mitigation measure to allow for more efficient tracking of implementation.
BIO-2 (bullet item)	**BIO-15 Project Site Speed Limit:** To minimize the likelihood for vehicle strikes on wildlife, speed limits shall not exceed 15 miles per hour when driving on access roads. All vehicles	This provision was included as Mitigation Measure BIO-2. It has been renumbered into a stand-alone mitigation measure to allow for more efficient tracking of implementation.

	required for O&M must remain on designated access/maintenance roads.	
BIO-2 (bullet item)	**BIO-16 Artificial Lighting:** Avoid nighttime construction lighting or if nighttime construction cannot be avoided, use shielded directional lighting pointed downward and towards the interior of the project sites, thereby avoiding illumination of adjacent natural areas and the night sky.	This provision was included as Mitigation Measure BIO-2. It has been renumbered into a stand-alone mitigation measure to allow for more efficient tracking of implementation.
BIO-2 (bullet item)	**BIO-17 Equipment Mufflers:** All construction equipment used for the projects shall be equipped with properly operating and maintained mufflers.	This provision was included as Mitigation Measure BIO-2. It has been renumbered into a stand-alone mitigation measure to allow for more efficient tracking of implementation.
BIO-2 (bullet item)	**BIO-18 Hazardous Substances:** Hazardous materials and equipment stored overnight, including small amounts of fuel to refuel hand-held equipment, shall be stored within secondary containment when within 50 feet of open water or resources subject to Fish and Game Code section 1602 to the fullest extent practicable. Secondary containment shall consist of a ring of sandbags around each piece of stored equipment/structure. A plastic tarp/visqueen lining with no seams shall be placed under the equipment and over the edges of the sandbags, or a plastic hazardous materials	This provision was included as Mitigation Measure BIO-2. It has been renumbered into a stand-alone mitigation measure to allow for more efficient tracking of implementation. Additional, language also strengthens the mitigation measure.

	secondary containment unit shall be utilized by the Contractor. The Contractor will be required to conduct vehicle refueling in upland areas where fuel cannot enter waters of the U.S. or areas subject to Fish and Game Code section 1602, and in areas that do not have potential to support federally threatened or endangered species. Any fuel containers, repair materials, including creosote-treated wood, and/or stockpiled material that is left on site overnight, shall be secured in secondary containment within the work area and staging/assembly area and covered with plastic at the end of each workday. In the event that no activity is to occur in the work area for the weekend and/or a period of time greater than 48 hours, the Contractor shall ensure that all portable fuel containers are removed from the project site. All equipment shall be maintained in accordance with the manufacturer's recommendations and requirements. Equipment and containers shall be inspected daily for leaks. Should a leak occur, contaminated soils and surfaces will be cleaned up and disposed of following the guidelines identified in the Stormwater Pollution Prevention Plan or equivalent, Materials Safety Data Sheets, and any specifications required by other permits issued for	

	the project. The Contractor shall utilize off-site maintenance and repair shops as much as possible for maintenance and repair of equipment. If maintenance of equipment must occur onsite, fuel/oil pans, absorbent pads, or appropriate containment will be used to capture spills/leaks within all areas. Where feasible, ~~m~~Maintenance of equipment shall occur in upland areas where fuel cannot enter waters of the U.S. or areas subject to Fish and Game Code section 1602, and in areas that do not have potential to support federally threatened or endangered species.	
BIO-2 (bullet item)	**BIO-19 Firearms and Pets:** Project personnel and any other individuals associated with the Project are prohibited from bringing any firearms or dogs on the Project Area during, except those in the possession of authorized security personnel or local, state, or federal law enforcement officials, dogs that may be used to aid in official and approved monitoring procedures/protocols, or service dogs under Title II and Title III of the American with Disabilities Act. ~~Firearms, o~~Open fires~~,~~ and pets shall be prohibited at all work locations and access roads. Smoking shall be prohibited along the Project alignment.	This provision was included as Mitigation Measure BIO-2. It has been renumbered into a stand-alone mitigation measure to allow for more efficient tracking of implementation. Additional, language also strengthens the mitigation measure.
BIO-2 (bullet item)	**BIO-20 Best Management Practices:** Appropriate BMPs shall be used by the	This provision was included as Mitigation Measure BIO-2. It has been renumbered into

	Contractor to control erosion and sedimentation and to capture debris and contaminants from construction to prevent their deposition in waterways. Erosion and sediment control devices used for the proposed project, including fiber rolls and bonded fiber matrix, shall be made from biodegradable materials such as jute, with no plastic mesh, to avoid creating a wildlife entanglement hazard.	a stand-alone mitigation measure to allow for more efficient tracking of implementation.
BIO-2 (bullet item)	**BIO-21 Cross-country Vehicle Use:** Cross-country vehicle and equipment use outside of approved designated work areas and access roads shall be prohibited to prevent unnecessary ground and vegetation disturbance.	This provision was included as Mitigation Measure BIO-2. It has been renumbered into a stand-alone mitigation measure to allow for more efficient tracking of implementation.
BIO-2 (bullet item)	**BIO-22 Injured or Dead Wildlife:** Any injured or dead wildlife encountered during project-related activities shall be reported to the Project Biologist, biological monitor, CDFW, or a CDFW-approved veterinary facility as soon as possible to report the observation and determine the best course of action. For special-status species, the Project Biologist shall notify by phone or email the County, USFWS, and/or CDFW, as appropriate, within 24 hours of the discovery.	This provision was included as Mitigation Measure BIO-2. It has been renumbered into a stand-alone mitigation measure to allow for more efficient tracking of implementation. Additional, language also strengthens the mitigation measure.
BIO-2 (bullet item)	**BIO-23 Checking Beneath Vehicles:** The ground beneath all parked	This provision was included as Mitigation Measure BIO-2. It has been renumbered into

	equipment and vehicles shall be inspected for wildlife before moving.	a stand-alone mitigation measure to allow for more efficient tracking of implementation.
BIO-2 (bullet item)	**BIO-24 Fugitive Dust Abatement:** Water applied to dirt roads and construction areas for dust abatement shall be used the minimal amount needed to meet safety and air quality standards to prevent the formation of puddles, which could attract wildlife. Pooled rainwater or floodwater ~~within retention basins~~ shall be removed to avoid attracting wildlife to the active work areas.	This provision was included as Mitigation Measure BIO-2. It has been renumbered into a stand-alone mitigation measure to allow for more efficient tracking of implementation.
BIO-2 (bullet item)	**BIO-25 Invasive Plants:** The Contractor shall actively manage the spread of invasive and nonnative plants noxious weeds by implementing weed control activities, including, but not limited to, cleaning equipment and inspecting equipment prior to transport to the sites and cleaning of tires and underside of equipment prior to leaving the site, vacuuming and cleaning the interior of vehicles and heavy equipment that have been used off-site before bringing them to the Project site, clean by pressure washing, washing in hot water, freezing, or bleaching personal gear and clothing, including footwear, that have been worn offsite before bringing them to the Project site, and not transporting soil or other fill material from off-site locations to the Project	This provision was included as Mitigation Measure BIO-2. It has been renumbered into a stand-alone mitigation measure to allow for more efficient tracking of implementation. Additional, language also strengthens the mitigation measure.

	area unless they are certified weed free. The introduction of exotic, nonnative, weed, and/or invasive plant species will be avoided and controlled wherever possible, and may be achieved through physical or chemical removal and prevention, limiting the size of any vegetation and/or ground disturbance to the absolute minimum, and limiting ingress and egress to defined routes. Preventing exotic plants from entering the site via vehicular sources will include measures such as cleaning vehicles coming into and going from the site. Any use of herbicide for chemical removal of invasive and nonnative plants shall only use herbicides containing a harmless dye and registered with the California Department of Pesticide Regulation (DPR). All herbicides shall be applied in accordance with regulations set by the DPR. All herbicides shall be used according to label instructions. Labeled instructions of the herbicide used shall be made available to CDFW upon request. No herbicide application when winds are greater than five (5) miles per hour.	
BIO-6, BIO-11, BIO-13	**BIO-26 Desert Kit Fox and American Badger:** Prior to the beginning of surface disturbance, the Project Biologist shall conduct a pre-Project 10-meter transect survey (or reduced	Requirements of this mitigation measure were covered under other proposed mitigation measures (BIO-6, BIO-11 and BIO-13). CDFW recommends that surveys following appropriate methodology be

	based on topography and vegetation), to attain 100% visual coverage within the Project area and a minimum 200-meter buffer to determine the presence or absence of desert kit fox and/or American badger individuals, dens, and sign. If potential dens are located, they shall be monitored by the Project Biologist. Trail cameras may be used to assist with observation but shall not be the sole basis upon which the status is determined. The Project proponent shall provide the results of the survey to CDFW prior to start of Project activities. Project proponent shall provide a determination if active dens can be avoided and buffered from Project activities to prevent take and disturbance with the survey results. Should active dens be present within the Project area that cannot be avoided with an adequate buffer, the Project proponent shall reschedule Project activities or submit a monitoring and passive relocation plan for CDFW's review and approval. No disturbance or passive relocation of active dens may take place during the breeding season or when juveniles are dependent on parental care.	conducted over all areas proposed to be directly or indirectly affected by the Project to determine the presence or absence of this species and the number of desert kit fox and American badger that are present, as well as document sign of presence. This survey may be combined with a burrowing owl breeding survey should each burrow be evaluated for each species and documented. If desert kit fox or American badger are found or have the potential to occupy the Project site due to the presence of sign, CDFW recommends the lead agency require species-specific avoidance, minimization, and monitoring measures aimed at avoiding direct impacts to desert kit fox and American badger. Avoidance and minimization measures should include pre-activity surveys following appropriate survey methods, including procedures used to classify identified dens as inactive dens, active and potentially active dens, and active natal dens, and methods utilized to quantify and locate single or paired animals. The measures should also include detailed monitoring requirements and methods of exclusion/passive relocation to be conducted, and methods and timing of den excavation. Mitigation Measure BIO-27 has been added, which brings forth the intent and requirements of other previously proposed Mitigation Measures BIO-6, BIO-11, and BIO-13.

Mitigation Monitoring and Reporting Program

The County of Imperial will adopt this Mitigation Monitoring and Reporting Program (MMRP) in accordance with Public Resources Code (PRC) Section 21081.6 and Section 15097 of the California Environmental Quality Act (CEQA) Guidelines. The purpose of the MMRP is to ensure that the North Star 3 Solar and Battery Storage Project, which is the subject of the Initial Study, complies with all applicable environmental mitigation requirements. The mitigation measures for the project will be adopted by the County of Imperial. The mitigation measures have been integrated into this MMRP.

The mitigation measures are provided in Table 1. The specific mitigation measures are identified, as well as the monitoring method, responsible monitoring party, monitoring phase, verification/approval party, date mitigation measure verified or implemented, location of documents (monitoring record), and completion requirement for each mitigation measure.

The mitigation measures applicable to the project include avoiding certain impacts altogether, minimizing impacts by limiting the degree or magnitude of the action and its implementation, and/or reducing or eliminating impacts over time by maintenance operations during the life of the action.

Public Resources Code Section 21081.6 requires the Lead Agency, for each project that is subject to CEQA, to monitor performance of the mitigation measures included in any environmental document to ensure that implementation does, in fact, take place. The County of Imperial is the designated CEQA lead agency for the Mitigation Monitoring and Reporting Program. The County of Imperial is responsible for review of all monitoring reports, enforcement actions, and document disposition as it relates to impacts within the County's jurisdiction. The County of Imperial will rely on information provided by the monitor as accurate and up to date and will field check mitigation measure status as required.

A record of the MMRP will be maintained at County of Imperial, Department of Planning and Development Services, 801 Main Street, El Centro, CA 92243. All mitigation measures contained in the Initial Study shall be made conditions of the project as may be further described below.

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Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
Biological Resources								
BIO-1	**Rare Plant Surveys:** Prior to initiating ground disturbance, three botanical field surveys shall be conducted that are floristic in nature (i.e., identifying all plant species to the taxonomic level necessary to determine rarity, and inclusive of areas proposed for disturbance and indirectly impacted by the Project. The surveys shall be conducted by a qualified botanist or qualified biologist in accordance with the USFWS Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants (USFWS 1996); the	Prior to construction, the Department of Planning and Development Services in consultation with the Project Biologist, shall verify that pre-construction rare plant surveys were conducted. If rare plants are determined to be present, implementation of measures identified in this measure shall be verified.	Department of Planning and Development Services, Project Biologist	Prior to construction, during construction, post construction	Project Biologist, Department of Planning and Development Services			

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW 2018); and the CNPS Botanical Survey Guidelines (CNPS 2001). If any special-status species are observed during the botanical field surveys, the project shall be designed to reduce impacts to these species through the establishment of buffers, to the extent feasible. Buffer distances will be determined by the qualified botanist or biologist, typically 50 feet or greater from an identified special-status plant species, unless the qualified botanist or biologist determines a							

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	reduced buffer would suffice to avoid impacts to the species. All special status plant species identified on site shall be mapped with a submeter GPS device and depicted on a site-specific aerial photograph and topographic map and included on any construction, grading, fuel modification, or other pertinent plans. If avoidance of special-status plant species is not feasible, a Special-Status Plant Relocation Plan shall be developed and implemented. The Special-Status Plant Relocation Plan shall address mitigation for special-status plants, including topsoil salvage to preserve seed bank and management of salvaged							

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	topsoil; seed collection, storage, possible nursery propagation, and planting; salvage and planting of bulbs as feasible; location of on-site receptor sites; land protection instruments for receptor areas; and funding mechanisms. The Special-Status Plant Relocation Plan shall include methods, monitoring, reporting, success criteria, adaptive management, and contingencies for achieving success. The Project proponent shall mitigate the loss of the plant(s) through the purchase of mitigation credits from a CDFW-approved bank or land acquisition and conservation at a minimum 2:1							

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	(replacement to impact) ratio for occupied habitat should success criteria not be met, or presence of the specific is assumed based on suitable habitat acreage within the Project area. Note that a higher ratio may be warranted if the proposed mitigation lands are located far away from the Project site.							
BIO-2	**Minimization of Impacts to Migratory Birds, Bats, and Raptors:** To reduce indirect impacts on migratory birds, bats, and raptors, the project shall comply with APLIC 2012 Guidelines for overhead utilities, as appropriate, to minimize avian collisions with transmission facilities (APLIC 2012). All electrical	Prior to construction, the Department of Planning and Development Services shall verify that the project comply with the APLIC 2012 Guidelines for overhead utilities.	Department of Planning and Development Services	Prior to construction	Department of Planning and Development Services			

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	components on the project site shall either be underground or the transmission lines and poles will follow design plans recommended by APLIC (i.e., installing covers over the insulator and conductor on the center phase, installing phase covers over all three insulators and conductors for three phase transmission lines, lowering and/or replacing the crossarm with a longer cross arm on pole-top pin constructions), or utilizing link marking devices (e.g., aerial marker spheres, spirals, or suspended devices).							
BIO-3	**Worker Environmental Awareness Program.** Prior to project construction, a	Prior to construction, the Department of Planning and Development Services shall verify that a	Project Biologist and Department of Planning and Development Services	Prior to construction	Project Biologist and Department of Planning and Development Services			

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	Worker Environmental Awareness Program shall be developed and implemented by a qualified biologist and shall be available in both English and Spanish. Handouts summarizing potential impacts on special-status biological resources and the potential penalties for impacts on these resources shall be provided to all construction personnel. At a minimum, the education program shall include the following: • the purpose for resource protection; • a description of special-status	Worker Environmental Awareness Program has been prepared for the project.						

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	species including representative photographs and general ecology; • occurrences of USACE, RWQCB, and CDFW regulated features in the project study area; • regulatory framework for biological resource protection and consequences if violated; • sensitivity of the species to human activities; • avoidance and minimization measures designed to reduce the impacts on special-status biological resources; • environmentally							

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	responsible construction practices; • reporting requirements; • the protocol to resolve conflicts that may arise at any time during the construction process; and • workers sign acknowledgement form indicating that the Environmental Awareness Training and Education Program that has been completed, which shall be kept on record.							
BIO-4	**Burrowing Owl Avoidance, Minimization, and Mitigation:** Four breeding season surveys for burrowing owl shall be completed prior to project	Prior to construction, the Project Biologist and Department of Planning and Development Services shall verify that pre-construction surveys for burrowing owl were	Project Biologist and Department of Planning and Development Services	Prior to construction, during construction	Project Biologist and Department of Planning and Development Services			

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	construction by a qualified avian biologist. Surveys shall be conducted as detailed within Appendix D of the Staff Report on Burrowing Owl Mitigation (California Department of Fish and Game [CDFG] 2012). This survey shall include 100 percent coverage of the Project site. A report summarizing the breeding season surveys including all requirement for survey reports shall be submitted to CDFW for review and approval. If burrowing owl or sign thereof is not detected, no further action is necessary. • If burrowing owl active burrowing owl burrows, or sign thereof are found, the qualified avian	conducted. If burrowing owl are present, implementation of measures specified in the mitigation measure shall be confirmed.						

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	biologist shall prepare and implement a plan for avoidance, minimization, and mitigation measures to be reviewed and approved by CDFW prior to commencing Project activities. The plan shall propose mitigation for permanent impacts to nesting, loss of foraging habitat, occupied and satellite burrows and/or burrowing owl habitat such that the habitat acreage, number of burrows and burrowing owls impacted are replaced with permanent							

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	conservation of similar vegetation communities to provide for burrowing owl nesting, foraging, wintering, and dispersal comparable to or better than that of the impact area. The mitigation land shall be sufficiently large acreage with presence of fossorial mammals. The mitigation lands may require habitat enhancements including enhancement or expansion of burrows for breeding, shelter, and dispersal opportunity, and remove or control of population stressors. Permanent							

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	protection of mitigation land shall be through a conservation easement deeded to a nonprofit conservation organization or public agency with a conservation mission. The project proponent shall develop and implement a mitigation land management plan to address long-term ecological sustainability and maintenance of the site for burrowing owls, and funding for the maintenance and management of mitigation land through the							

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	establishment of a long-term funding mechanism such as an endowment. If deemed appropriate by CDFW, conservation species credits may also be purchased at a CDFW-approved conservation bank. • To ensure that the Project avoids impacts to burrowing owl, a qualified avian biologist shall complete a take avoidance survey no less than 14 days prior to initiating ground disturbing activities using the recommended methods							

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	described in the Staff Report on Burrowing Owl Mitigation (CDFG, 2012). Burrowing owls may recolonize a site after only a few days. Time lapses between Project activities trigger subsequent take avoidance surveys including but not limited to a final survey conducted within 24 hours prior to ground disturbance.							
BIO-5	**Pre-Construction Nesting Bird Survey:** If construction or other project activities are scheduled to occur during the bird	Prior to construction, the Department of Planning and Development Services shall verify that pre-construction nesting bird surveys	Department of Planning and Development Services	Prior to construction, during construction	Department of Planning and Development Services			

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	breeding season (typically February 1 through August 31 for raptors and February 15 through August 31 for the majority of migratory bird species), a pre-construction nesting-bird survey shall be conducted by a qualified avian biologist to ensure that active bird nests, including those for burrowing owl, will not be disturbed or destroyed. The survey shall be completed no more than three days prior to initial ground disturbance. The nesting-bird survey should include the project site and adjacent areas where project activities have the potential to affect active nests, either directly or indirectly due to construction activity or noise. If an	were conducted. If nesting birds are present, implementation of measures specified in the mitigation measure shall be confirmed.						

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	active nest is identified, the biologist shall establish an appropriately sized disturbance-limit buffer around the nest using flagging or staking. Construction activities shall not occur within any disturbance-limit buffer zones until the nest is deemed inactive by the qualified biologist. If construction activities cease for a period of greater than three days during the bird breeding season, a pre-construction nesting bird survey shall be conducted prior to the commencement of activities. Final construction buffers or setback distances shall be determined by the qualified biologist in coordination with USFWS							

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	and CDFW on a case-by-case basis, depending on the species, season in which disturbance shall occur, the type of disturbance, and other factors that could influence susceptibility to disturbance (e.g., topography, vegetation, existing disturbance levels, etc.).							
BIO-6	**Flat-Tailed Horned Lizard and Colorado Desert Fringe-Toed Lizard:** Prior to project activities, surveys for presence/absence of flat-tailed horned lizard (FTHL) and Colorado Desert Fringe-toed Lizard (CDFTL) shall be conducted using parallel, linear routes that are evenly spaced in areas of suitable habitat and be performed by a	Prior to construction, the Department of Planning and Development Services shall verify that pre-construction surveys for flat-tailed horned lizard and Colorado desert fringe-toed lizard were conducted. If these special status species are present, implementation of measures specified in the mitigation measure	Department of Planning and Development Services	Prior to construction, during construction	Department of Planning and Development Services			

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	qualified Project Biologist. For FTHLs, each transect shall be 10 meters apart. On each transect, FTHLs, sign of FTHLs (i.e., scat or tracks), and harvester ant mounds shall be surveyed. If FTHL or sign is located while surveying, the biologist shall pause, scan the immediate area, follow the tracks (if present), and scan the immediate vicinity of the tracks, scat, and/or any mound observed. Three surveys shall be conducted, spaced two weeks apart during April through September. Surveys will be conducted when surface temperatures in the sun exceed 85 degrees Fahrenheit.	shall be confirmed.						

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	Scat surveys shall not be conducted for at least 12 days after heavy rainstorms, or strong winds of an intensity sufficient to move a considerable amount of sand across roads. For CDFTL, each transect shall be spaced 5 meters apart. One surveyor shall focus on habitat/substrate 30-40 meters in front, while one surveyor focuses on the area 2-10 meters in front. Surveys shall be conducted only when winds are 10 mph or less and it is not raining. Up to six surveys shall be conducted over the same area on separate days by a qualified biologist between April and September when ground temperature in sun exceeds 85 degrees Fahrenheit.							

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	The project proponent shall provide the results of the surveys for both species to CDFW prior to start of project activities. If FTHL or CDFTL are present, the following minimization and mitigation measures shall apply: • During project activities, the project biologist shall check areas of active disturbance at least hourly. Prior to construction, a qualified project biologist shall clear the area of FTHL or CDFTL. During construction, a project biologist shall be present in each area of active surface disturbance throughout the workday from initial							

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	clearing to project completion. FTHL or CDFTL will be moved out of harm's way during all construction activities and will be conducted by two or more biological monitors when construction activities are being conducted in suitable habitat. To the extent feasible, methods to find FTHL and CDFTL will be designed to achieve a maximal capture rate and will include, but not be limited to using strip transects, tracking, and raking around shrubs. During construction, the minimum survey effort will be 30 minutes per acre.							

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	• Occupied habitat shall be mitigated at a 1:1 ratio (1 acres of mitigation for every acre of impacts) through off-site acquisition of FTHL and CDFTL habitat of equal or greater quality that is conserved and managed in perpetuity. Proposed mitigation lands shall be approved by CDFW.							
BIO-7	**Bird and Bat Conservation Strategy:** Prior to the start of construction activities, a Bird and Bat Conservation Strategy (BBCS) will be developed in consultation	Prior to construction, applicant shall prepare a BBCS.	Department of Planning and Development Services	Prior to construction	CDFW and USFWS			

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	between the Applicant, CDFW, and USFWS and will be subject to the approval of CDFW and USFWS. The BBCS will include measures to be implemented to minimize bird and bat fatalities at the project site. The BBCS could include but may not be limited to: bird and bat inventory studies (e.g., seasonal bird point count surveys, night bat surveys), pre-construction clearance survey methods and timing, buffer distances based on construction activity and sensitivity of nests/birds, measures for avoidance of impact during bird nesting season (e.g., seasonal							

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	work restrictions), implementation of construction noise and dust minimization measures, implementation of trash abatement, biological monitoring, bat acoustic deterrents, nest deterrents (i.e., netting/covering equipment, supplies, or perches), implementing anti-perching devices and avian visual deterrents, and using emerging technologies such as antireflective film overlays on the panels and/or chemosensory and sonic deterrents. The BBCS will be in compliance with the MBTA and California Fish and							

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	Game Code Sections 3503, 3503.5, 3513, and 4150.							
BIO-8	**Aquatic Resources Regulatory Permitting.** Project-related impacts that will occur to the riparian areas or areas subject to Fish and Game Code Section 1602, shall be mitigated at a minimum of 2:1 ratio (two acres of mitigation for every impact to one acre of resource). The project proponent shall obtain all necessary regulatory permits for resources under the jurisdiction of the USACE, CDFW, and/or RWQCB, prior to the impact occurring. Refer to the *Aquatic Resource Delineation Report for the North Star 3 Project*	Approval of Section 1602 Streambed Alterative Agreement	CDFW	Prior to construction	CDFW			

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	(Appendix D of this Initial Study) for preliminary determination of regulatory limits that areas that may be regulated by USACE, CDFW, or RWQCB. Permitting includes preparation and submittal of a Pre-Construction Notification under Section 404 of the federal CWA, an Application for Water Quality Certification under Section 401 of the federal CWA and a Notification of Lake or Streambed Alteration under Section 1600 of the California Fish and Game Code. A completed CEQA document, and Notice of Determination, will be necessary to submit along with the							

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	applications. Other items such as finalized project plans, quantities of fill material, supporting technical studies, etc., are also submitted along with the applications. As a part of this process, the project must also identify and approve mitigation through the respective agencies. Mitigation shall include land acquisition that is conserved and managed in perpetuity for the resource; payment of an in-lieu fee to a conservation organization; and/or restoration, creation, rehabilitation, enhancement, or other types of habitat improvement. The type of mitigation and final acreage of mitigation shall be approved by the regulatory							

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	agencies during the permitting process.							
BIO-9	**Site Access:** All project access shall occur through the entrance designated from State Route (SR) 86 to avoid impacts to sensitive species occurring on BLM-managed land adjacent to the project area.	Review of project construction access plan	Department of Planning and Development Services	Prior to construction	Department of Planning and Development Services			
BIO-10	**Project Biologist:** The Project proponent shall designate a Project Biologist who shall be responsible for overseeing compliance with protective measures for biological resources during	Review of project biologist resume(s) conducting monitoring on the project site.	Project Biologist, Department of Planning and Development Services	Prior to construction	Project Biologist, Department of Planning and Development Services			

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	vegetation clearing and work activities within and adjacent to areas of native habitat. The Project Biologist shall be familiar with the local habitats, plants, and wildlife, and have experience performing all necessary surveys and monitoring for biological resources present on site. The Project Biologist shall also maintain communications with the Contractor to ensure that issues relating to biological resources are appropriately and lawfully managed and shall monitor construction. The Project Biologist shall monitor all ground							

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	disturbing activities within construction areas, including activities during nesting bird season (generally February 1 to September 15), such as vegetation removal, the implementation of Best Management Practices (BMPs), and installation of security fencing to protect native species. The Project Biologist shall ensure that all wildlife and regulatory agency permit requirements, conservation measures, and general avoidance and minimization measures are properly implemented and followed.							

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
BIO-11	**Project Site Delineation:** The boundaries of all areas to be newly disturbed (including solar facility areas, staging areas, access roads, and sites for temporary placement of construction materials and spoils) shall be delineated with stakes and flagging prior to disturbance. All disturbances, vehicles, and equipment shall be confined to the flagged areas. Stockpiling of material shall only be allowed within established work areas.	Fence, flag or stake project disturbance footprint	Project Biologist, Department of Planning and Development Services	Prior to construction	Department of Planning and Development Services			
BIO-12	**Wildlife Entrapment Avoidance:** No potential wildlife entrapments	Project biologist(s) to confirm no presence of wildlife entrapment features	Project Biologist	During Construction	Project Biologist			

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	(e.g., trenches, bores) shall be left uncovered overnight. Any uncovered pitfalls will be excavated to 3:1 slopes at the ends to provide wildlife escape ramps. Alternatively, man-made ramps may be installed. Covered pitfalls will be covered completely to prevent access by small mammals or reptiles. To avoid wildlife entrapment (including birds), all pipes or other construction materials or supplies shall be covered or capped in storage or laydown areas, and at the end							

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	of each construction workday. No pipes or tubing of sizes or inside diameters ranging from 1 to 10 inches shall be left open either temporarily or permanently.							
BIO-13	**Rodenticide:** No anticoagulant rodenticides, such as Warfarin and related compounds (indandiones and hydroxycoumarins), shall be used within the project site or in support of any other project activities.	Project biologist(s) to confirm no use of rodenticides	Project Biologist	During Construction	Project Biologist			
BIO-14	**Trash Abatement:** All trash and food-related waste shall be placed in self-closing containers and	Project biologist(s) to confirm trash abatement is implemented	Project Biologist	During Construction	Project Biologist			

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	removed regularly from the site to prevent overflow. Workers shall not feed wildlife.							
BIO-15	**Project Site Speed Limit:** To minimize the likelihood for vehicle strikes on wildlife, speed limits shall not exceed 15 miles per hour when driving on access roads. All vehicles required for O&M must remain on designated access/maintenance roads.	Construction Contractor – Included in Construction Specifications, Project Operations/Facilities Manager	Construction Contractor	During Construction and Operational Maintenance Activities	Construction Contractor During Construction, Operations/Facilities Manager During Operations			
BIO-16	**Artificial Lighting:** Avoid nighttime construction lighting or if nighttime construction cannot be avoided, use shielded directional lighting pointed downward and towards the interior of the project sites, thereby avoiding	Construction contractor shall avoid nighttime construction to extent feasible, and ensure shielded lighting utilized during nighttime construction activity (if necessary)	Construction Contractor	During Construction	Construction Contractor, Project Biologist			

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	illumination of adjacent natural areas and the night sky.							
BIO-17	**Equipment Mufflers:** All construction equipment used for the projects shall be equipped with properly operating and maintained mufflers.	Construction Contractor	Construction Contractor	During Construction	Construction Contractor, Project Biologist			
BIO-18	**Hazardous Substances:** Hazardous materials and equipment stored overnight, including small amounts of fuel to refuel hand-held equipment, shall be stored within secondary containment when within 50 feet of open water or resources subject to Fish	Construction Contractor	Construction Contractor	During Construction	Construction Contractor, Project Biologist			

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	and Game Code section 1602 to the fullest extent practicable. Secondary containment shall consist of a ring of sandbags around each piece of stored equipment/structure. A plastic tarp/visqueen lining with no seams shall be placed under the equipment and over the edges of the sandbags, or a plastic hazardous materials secondary containment unit shall be utilized by the Contractor. The Contractor will be required to conduct vehicle refueling in upland areas where fuel cannot enter waters of the U.S. or areas subject to Fish							

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	and Game Code section 1602, and in areas that do not have potential to support federally threatened or endangered species. Any fuel containers, repair materials, including creosote-treated wood, and/or stockpiled material that is left on site overnight, shall be secured in secondary containment within the work area and staging/assembly area and covered with plastic at the end of each workday. In the event that no activity is to occur in the work area for the weekend and/or a period of time greater than 48 hours,							

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	the Contractor shall ensure that all portable fuel containers are removed from the project site. All equipment shall be maintained in accordance with the manufacturer's recommendations and requirements. Equipment and containers shall be inspected daily for leaks. Should a leak occur, contaminated soils and surfaces will be cleaned up and disposed of following the guidelines identified in the Stormwater Pollution Prevention Plan or equivalent, Materials Safety Data Sheets, and any specifications required by							

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	other permits issued for the project. The Contractor shall utilize off-site maintenance and repair shops as much as possible for maintenance and repair of equipment. If maintenance of equipment must occur onsite, fuel/oil pans, absorbent pads, or appropriate containment will be used to capture spills/leaks within all areas. Maintenance of equipment shall occur in upland areas where fuel cannot enter waters of the U.S. or areas subject to Fish and Game Code section 1602, and in areas that do not have potential to support federally							

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	threatened or endangered species.							
BIO-19	**Firearms and Pets:** Project personnel and any other individuals associated with the Project are prohibited from bringing any firearms or dogs on the Project Area during, except those in the possession of authorized security personnel or local, state, or federal law enforcement officials, dogs that may be used to aid in official and approved monitoring procedures/protocols, or service dogs under Title II and Title III of the American with Disabilities Act. Open fire	Construction Contractor	Construction Contractor, Project Biologist	During Construction	Project Biologist			

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	and pets shall be prohibited at all work locations and access roads. Smoking shall be prohibited along the Project alignment.							
BIO-20	**Best Management Practices:** Appropriate BMPs shall be used by the Contractor to control erosion and sedimentation and to capture debris and contaminants from construction to prevent their deposition in waterways. Erosion and sediment control devices used for the proposed project, including fiber rolls and bonded fiber matrix, shall be made from	Construction Contractor, Department of Public Works	Construction Contractor, Project Biologist	Pre-construction (review of grading plans), During Construction	Project Biologist, Department of Planning and Development Services/Department of Public Works			

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	biodegradable materials such as jute, with no plastic mesh, to avoid creating a wildlife entanglement hazard.							
BIO-21	**Cross-country Vehicle Use:** Cross-country vehicle and equipment use outside of approved designated work areas and access roads shall be prohibited to prevent unnecessary ground and vegetation disturbance.	Construction Contractor to designate approved work areas and access roads to construction crew (i.e. limits of disturbance)	Project Biologist	During Construction	Project Biologist, Department of Planning and Development Services			
BIO-22	**Injured or Dead Wildlife:** Any injured or dead wildlife encountered during project-related activities shall be reported to the Project Biologist, biological monitor, CDFW, or a CDFW-approved veterinary	Project Biologist shall notify by phone or email the County, USFWS, and/or CDFW, as appropriate, within 24 hours of the discovery.	Project Biologist	During Construction	Project Biologist			

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	facility as soon as possible to report the observation and determine the best course of action. For special-status species, the Project Biologist shall notify by phone or email the County, USFWS, and/or CDFW, as appropriate, within 24 hours of the discovery.							
BIO-23	**Checking Beneath Vehicles:** The ground beneath all parked equipment and vehicles shall be inspected for wildlife before moving.	Project Biologist shall inspect parked vehicles before moving	Project Biologist	During Construction	Project Biologist			
BIO-24	**Fugitive Dust Abatement:** Water applied to dirt roads and construction areas for dust abatement shall be used the minimal amount needed to meet safety and air quality	Construction Contractor	Project Biologist	During Construction	Project Biologist			

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	standards to prevent the formation of puddles, which could attract wildlife. Pooled rainwater or floodwater within retention basins shall be removed to avoid attracting wildlife to the active work areas.							
BIO-25	**Invasive Plants:** The Contractor shall actively manage the spread of invasive and nonnative plants noxious weeds by implementing weed control activities, including, but not limited to, cleaning equipment and inspecting equipment prior to transport to the sites and cleaning of tires and underside of equipment prior to leaving	Construction monitor manage invasive plant weed control activities	Construction contractor	During Construction	Project Biologist			

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	the site, vacuuming and cleaning the interior of vehicles and heavy equipment that have been used off-site before bringing them to the Project site, clean by pressure washing, washing in hot water, freezing, or bleaching personal gear and clothing, including footwear, that have been worn offsite before bringing them to the Project site, and not transporting soil or other fill material from off-site locations to the Project area unless they are certified weed free. The introduction of exotic, nonnative, weed, and/or							

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	invasive plant species will be avoided and controlled wherever possible, and may be achieved through physical or chemical removal and prevention, limiting the size of any vegetation and/or ground disturbance to the absolute minimum, and limiting ingress and egress to defined routes. Preventing exotic plants from entering the site via vehicular sources will include measures such as cleaning vehicles coming into and going from the site. Any use of herbicide for chemical removal of invasive and							

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	nonnative plants shall only use herbicides containing a harmless dye and registered with the California Department of Pesticide Regulation (DPR). All herbicides shall be applied in accordance with regulations set by the DPR. All herbicides shall be used according to label instructions. Labeled instructions of the herbicide used shall be made available to CDFW upon request. No herbicide application when winds are greater than five (5) miles per hour.							
BIO-26	**Desert Kit Fox and American Badger:** Prior to the beginning of	Project Biologist conducts pre-project	Project Biologist	Pre- and during construction	CDFW			

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	surface disturbance, the Project Biologist shall conduct a pre-Project 10-meter transect survey (or reduced based on topography and vegetation), to attain 100% visual coverage within the Project area and a minimum 200-meter buffer to determine the presence or absence of desert kit fox and/or American badger individuals, dens, and sign. If potential dens are located, they shall be monitored by the Project Biologist. Trail cameras may be used to assist with observation but shall not be the sole basis upon which the status is determined. The Project proponent shall	survey and report						

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	provide the results of the survey to CDFW prior to start of Project activities. Project proponent shall provide a determination if active dens can be avoided and buffered from Project activities to prevent take and disturbance with the survey results. Should active dens be present within the Project area that cannot be avoided with an adequate buffer, the Project proponent shall reschedule Project activities or submit a monitoring and passive relocation plan for CDFW's review and approval. No disturbance or passive relocation of active dens may take place during the breeding							

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	season or when juveniles are dependent on parental care.							
Cultural Resources								
CR-1	**Contractor Awareness Training.** Prior to project construction, a Contractor Awareness Training Program shall be developed and implemented to train equipment operators about cultural resources. The program shall be designed to inform construction personnel about: federal and state regulations pertaining to cultural resources and tribal cultural resources; the subsurface indicators of resources that shall require a work stoppage; procedures for notifying the lead agency of any occurrences;	Project Archaeologist shall prepare and implement a contractor awareness training.	Project Archaeologist	During grading and construction	Department of Planning and Development Services			

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	project-specific requirements and mitigation measures; and enforcement of penalties and repercussions for non-compliance with the program. The training shall be prepared by a qualified professional archaeologist and may be provided either through a brochure, video, or in-person tailgate meeting, as determined appropriate by the archaeologist. The training shall be provided to all construction supervisors, forepersons, and operators of ground disturbing equipment. All personnel shall be required to sign a training roster. The construction manager is responsible for ensuring that all required personnel							

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	receive the training. The construction manager shall provide a copy of the signed training roster to the Imperial County Planning and Development Services Department as proof of compliance.							
CR-2	**Archaeological Monitoring.** Prior to the start of construction, the project applicant shall retain a qualified professional archaeologist, who meets or exceeds the Secretary of the Interior Professional Qualifications Standards as an archaeologist and a traditionally and culturally affiliated Native American Monitor, to monitor all ground-disturbing activities	The construction contractor shall notify the County immediately if unknown archaeological resources are encountered. The applicant shall retain the services of a qualified professional archaeologist in the event of an unanticipated discovery.	Department of Planning and Development Services	During grading and construction	Department of Planning and Development Services			

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	associated with project construction. Monitoring is not required for placement of equipment or fill inside excavations that were monitored, above-ground construction activities, or redistribution of soils that were previously monitored (such as the return of stockpiles to use in backfilling). In the event of the discovery of previously unidentified archaeological materials, the contractor shall immediately cease all work activities within approximately 100 feet of the discovery. After cessation of excavation, the contractor shall immediately contact the Imperial County Department of Planning and Development Services. Except in the case of cultural							

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	items that fall within the scope of the Native American Grave Protection and Repatriation Act, the discovery of any cultural resource within the project area shall not be grounds for a "stop work" notice or otherwise interfere with the project's continuation except as set forth in this paragraph. In the event of an unanticipated discovery of archaeological materials during construction, the qualified professional archaeologist shall evaluate the significance of the materials prior to resuming any construction related activities in the vicinity of the find. If the qualified archaeologist							

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	determines that the discovery constitutes a significant resource under CEQA and it cannot be avoided, the applicant shall implement an archaeological data recovery program.							
CR-3	If subsurface deposits believed to be human in origin are discovered during construction, all work must halt within a 100-foot radius of the discovery. A qualified professional archaeologist who meets the Secretary of the Interior's Standards for prehistoric and historic archaeology and is familiar with the resources of the region, shall be retained to evaluate the significance of the find, and shall have the authority to modify the no work radius as	During grading and construction, discovery of human remains shall result in work stoppage in that area until the coroner and the Native American Heritage Commission are contacted.	Project Archaeologist	During grading and construction	Department of Planning and Development Services			

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	appropriate, using professional judgment. The following notifications shall apply, depending on the nature of the find: If the find includes human remains, or remains that are potentially human, the professional archaeologist shall ensure reasonable protection measures are taken to protect the discovery from disturbance (AB 2641). The archaeologist shall notify the Imperial County Coroner (per § 7050.5 of the Health and Safety Code). The provisions of § 7050.5 of the California Health and Safety Code, § 5097.98 of the California PRC, and AB 2641 will be implemented. If the Coroner determines the							

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	remains are Native American and not the result of a crime scene, the Coroner will notify the NAHC, which then will designate a Native American Most Likely Descendant (MLD) for the project (§ 5097.98 of the PRC). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of the MLD, the NAHC may mediate (§ 5097.94 of the PRC). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (§ 5097.98 of the PRC). This will							

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	also include either recording the site with the NAHC or the appropriate Information Center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work may not resume within the no-work radius until the Imperial County Planning and Development Services Department, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.							

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
Geology and Soils								

GEO-1	In the event that unanticipated paleontological resources or unique geologic resources are encountered during ground-disturbing activities, work must cease within 50 feet of the discovery and a paleontologist shall be hired to assess the scientific significance of the find. The consulting paleontologist shall have knowledge of local paleontology and the minimum levels of experience and expertise as defined by the Society of Vertebrate Paleontology's Standard Procedures (2010) for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources. If any paleontological resources or unique geologic features are encountered within the project site, the consulting	During grading and construction, discovery of paleontological resources shall result in work stoppage in that area until the Qualified Paleontologist can determine the significance of the find.	Project Archaeologist/Paleontological Monitor	During grading and construction	Department of Planning and Development Services

Table 1. Mitigation Measures

MM No.	Mitigation Measure	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification/Approval Party	Date Mitigation Measure Verified or Implemented	Location of Documents (Monitoring Record)	Completion Requirement
	paleontologist shall prepare a paleontological Treatment and Monitoring Plan to include the methods that will be used to protect paleontological resources that may exist within the project site, as well as procedures for monitoring, fossil preparation and identification, curation of specimens into an accredited repository, and preparation of a report at the conclusion of the monitoring program.							

TR-1	If previously unidentified tribal cultural resources are identified during construction activities, construction work within 100 feet of the find shall be halted and directed away from the discovery until a Secretary of the Interior qualified archaeologist and tribal representative assesses the significance of the resource. The archaeologist, in consultation with Imperial County and any interested Tribes, shall make the necessary plans for treatment of the find(s) and for the evaluation and mitigation of impacts if the finds are determined to be a tribal cultural resource as defined in PRC Section 21074.	Monitor grading activities by a qualified project archaeologist and tribal representative	Qualified project archaeologist and tribal representative	During grading and construction	Department of Planning and Development Services

Final Initial Study

NorthStar 3 Solar Energy Generation and Battery Storage Project

Initial Study #23-0007

General Plan Amendment #23-0002

Zone Change #23-0002

Conditional Use Permits # 23-0007 and 23-0008

Imperial County, CA

November 2024

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Introduction

A. Purpose

This document is a ☐ policy-level; ☒ project-level Initial Study for evaluation of potential environmental impacts resulting with the proposed North Star 3 Solar and Battery Storage Project.

B. CEQA Requirements and the Imperial County's Rules and Regulations for Implementing CEQA

As defined by Section 15063 of the State California Environmental Quality Act (CEQA) Guidelines and Section 7 of the County's Rules and Regulations for Implementing CEQA, an **Initial Study** is prepared primarily to provide the Lead Agency with information to use as the basis for determining whether an Environmental Impact Report (EIR), Negative Declaration, or Mitigated Negative Declaration would be appropriate for providing the necessary environmental documentation and clearance for any proposed project.

☐ According to Section 15065, an **EIR** is deemed appropriate for a particular proposal if the following conditions occur:

- The proposal has the potential to substantially degrade quality of the environment.
- The proposal has the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals.
- The proposal has possible environmental effects that are individually limited but cumulatively considerable.
- The proposal could cause direct or indirect adverse effects on human beings.

☐ According to Section 15070(a), a **Negative Declaration** is deemed appropriate if the proposal would not result in any significant effect on the environment.

☒ According to Section 15070(b), a **Mitigated Negative Declaration** is deemed appropriate if it is determined that though a proposal could result in a significant effect, mitigation measures are available to reduce these significant effects to insignificant levels.

This Initial Study has determined that the proposed North Star 3 Solar and Battery Storage Project will result in potentially significant environmental impacts; however, mitigation measures are available to reduce the potentially significant impacts and therefore, a Mitigated Negative Declaration is deemed as the appropriate document to provide necessary environmental evaluations and clearance for the proposed approvals under review in this Initial Study.

This Initial Study is prepared in conformance with the California Environmental Quality Act of 1970, as amended (Public Resources Code, Section 21000 et. seq.); the State CEQA Guidelines & County of Imperial's CEQA Regulations, Guidelines for the Implementation of CEQA; applicable requirements of the County of Imperial; and the regulations, requirements, and procedures of any other responsible public agency or an agency with jurisdiction by law.

Pursuant to the County of Imperial's CEQA Regulations, Guidelines for the Implementation of CEQA, depending on the project scope, the County of Imperial Board of Supervisors, Planning

Commission and/or Planning Director is designated the Lead Agency, in accordance with Section 15050 of the CEQA Guidelines. The Lead Agency is the public agency which has the principal responsibility for approving the necessary environmental clearances and analyses for any project in the County.

C. Intended Uses of Initial Study

This Initial Study is an informational document which is intended to inform County of Imperial decision makers, other responsible or interested agencies, and the general public of potential environmental effects of the proposed applications. The environmental review process has been established to enable public agencies to evaluate environmental consequences and to examine and implement methods of eliminating or reducing any potentially adverse impacts. While CEQA requires that consideration be given to avoiding environmental damage, the Lead Agency and other responsible public agencies must balance adverse environmental effects against other public objectives, including economic and social goals.

The Initial Study prepared for the project will be circulated for a period of no less than 35 days for public and agency review and comments.

D. Contents of Initial Study

This Initial Study is organized to facilitate a basic understanding of the existing setting and environmental implications of the proposed applications.

SECTION 1

I. INTRODUCTION presents an introduction to the entire report. This section discusses the environmental process, scope of environmental review, and incorporation by reference documents.

SECTION 2

II. ENVIRONMENTAL CHECKLIST FORM contains the County's Environmental Checklist Form. The checklist form presents results of the environmental evaluation for the proposed North Star 3 Project and those issue areas that would have either a significant impact, potentially significant impact, or no impact.

PROJECT SUMMARY, LOCATION AND ENVIRONMENTAL SETTINGS describes the proposed project, necessary entitlements and required applications. A description of discretionary approvals and permits required for project implementation is also included. It also identifies the location of the project and a general description of the surrounding environmental settings.

ENVIRONMENTAL ANALYSIS evaluates each response provided in the environmental checklist form. Each response checked in the checklist form is discussed and supported with sufficient data and analysis as necessary. As appropriate, each response discussion describes and identifies specific impacts anticipated with project implementation.

SECTION 3

III. MANDATORY FINDINGS presents Mandatory Findings of Significance in accordance with Section 15065 of the CEQA Guidelines.

E. Scope of Environmental Analysis

For evaluation of environmental impacts, each question from the Environmental Checklist Form is summarized and responses are provided according to the analysis undertaken as part of the Initial Study. Impacts and effects will be evaluated and quantified, when appropriate. To each question, there are four possible responses, including:

1. No Impact: A "No Impact" response is adequately supported if the impact simply does not apply to the proposed project.
2. Less Than Significant Impact: The proposed project will have the potential to impact the environment. These impacts, however, will be less than significant; no additional analysis is required.
3. Less Than Significant With Mitigation Incorporated: This applies where incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact."
4. Potentially Significant Impact: The proposed project could have impacts that are considered significant. Additional analyses and possibly an EIR could be required to identify mitigation measures that could reduce these impacts to less than significant levels.

F. Policy-Level or Project-Level Environmental Analysis

This Initial Study will be conducted under a ☐ policy-level, ☒project-level analysis.

Regarding mitigation measures, it is not the intent of this document to "overlap" or restate conditions of approval that are commonly established for future known projects or the proposed project and associated entitlement applications. Additionally, those other standard requirements and regulations that any development must comply with, that are outside the County's jurisdiction, are also not considered mitigation measures, and therefore, will not be identified in this document.

G. Tiered Documents and Incorporation by Reference

Information, findings, and conclusions contained in this document are based on incorporation by reference of tiered documentation, which are discussed in the following section.

1. **Tiered Documents**

   As permitted in Section 15152(a) of the CEQA Guidelines, information and discussions from other documents can be included into this document. Tiering is defined as follows:

   "Tiering refers to using the analysis of general matters contained in a broader EIR (such as the one prepared for a general plan or policy statement) with later EIRs and negative declarations on narrower projects; incorporating by reference the general discussions from the broader EIR; and concentrating the later EIR or negative declaration solely on the issues specific to the later project."

   Tiering also allows this document to comply with Section 15152(b) of the CEQA Guidelines, which discourages redundant analyses, as follows:

   "Agencies are encouraged to tier the environmental analyses which they prepare for separate but related projects including the general plans, zoning changes, and development

projects. This approach can eliminate repetitive discussion of the same issues and focus the later EIR or negative declaration on the actual issues ripe for decision at each level of environmental review. Tiering is appropriate when the sequence of analysis is from an EIR prepared for a general plan, policy or program to an EIR or negative declaration for another plan, policy, or program of lesser scope, or to a site-specific EIR or negative declaration."

Further, Section 15152(d) of the CEQA Guidelines states:

"Where an EIR has been prepared and certified for a program, plan, policy, or ordinance consistent with the requirements of this section, any lead agency for a later project pursuant to or consistent with the program, plan, policy, or ordinance should limit the EIR or negative declaration on the later project to effects which:

(1) Were not examined as significant effects on the environment in the prior EIR; or

(2) Are susceptible to substantial reduction or avoidance by the choice of specific revisions in the project, by the imposition of conditions, or other means."

2. **Incorporation by Reference**

Incorporation by reference is a procedure for reducing the size of EIRs/MND and is most appropriate for including long, descriptive, or technical materials that provide general background information, but do not contribute directly to the specific analysis of the project itself. This procedure is particularly useful when an EIR or Negative Declaration relies on a broadly-drafted EIR for its evaluation of cumulative impacts of related projects (*Las Virgenes Homeowners Federation v. County of Los Angeles* [1986, 177 Ca.3d 300]). If an EIR or Negative Declaration relies on information from a supporting study that is available to the public, the EIR or Negative Declaration cannot be deemed unsupported by evidence or analysis (*San Francisco Ecology Center v. City and County of San Francisco* [1975, 48 Ca.3d 584, 595]).

When an EIR or Negative Declaration incorporates a document by reference, the incorporation must comply with Section 15150 of the CEQA Guidelines as follows:

- The incorporated document must be available to the public or be a matter of public record (CEQA Guidelines Section 15150[a]). The General Plan EIR is available, along with this document, at the County of Imperial Planning & Development Services Department, 801 Main Street, El Centro, CA 92243 Ph. (442) 265-1736.
- This document must be available for inspection by the public at an office of the lead agency (CEQA Guidelines Section 15150[b]). These documents are available at the County of Imperial Planning & Development Services Department, 801 Main Street, El Centro, CA 92243, Ph. (442) 265-1736.
- These documents must summarize the portion of the document being incorporated by reference or briefly describe information that cannot be summarized. Furthermore, these documents must describe the relationship between the incorporated information and the analysis in the tiered documents (CEQA Guidelines Section 15150[c]). As discussed above, the tiered EIRs address the entire project site and provide background and inventory information and data which apply to the project site. Incorporated information and/or data will be cited in the appropriate sections.

- These documents must include the State identification number of the incorporated documents (CEQA Guidelines Section 15150[d]). The State Clearinghouse Number for the County of Imperial General Plan EIR is SCH #93011023.

The material to be incorporated in this document will include general background information (CEQA Guidelines Section 15150[f]).

Environmental Checklist Form

1. **Project Title:** NorthStar 3 Solar and Battery Storage Project
2. **Lead Agency Name and Address:** Imperial County Planning & Development Services Department, 801 Main Street, El Centro, CA 92243
3. **Contact Person and Phone Number:** Gerardo Quero, Planner II, 442-265-1736
4. **Project Location:** The proposed project is located in the northwest portion of Imperial County, California on an approximately 585-acre project site. The project site consists of three project parcels: Assessor Parcel No. (APN) 017-350-031 (305 acres), 017-350-030 (160 acres), and 017-350-027 (120 acres). The project site is situated near the western edge of the Salton Sea and is located approximately 9 miles southeast of the town of Salton City. State Route (SR) 86, located adjacent to the southwest corner of the project site, provides regional access to the project site. Salton Sea Road is immediately south of the project site and provides local vehicular access to the project site. The abandoned Naval Auxiliary Air Station – Salton Sea is located approximately 1 mile northeast of the project site.
5. **Project Sponsor's Name and Address:** Apex Energy Solutions, LLC, 750 Main Street, El Centro, CA 92243
6. **General Plan Designation:** Agriculture
7. **Zoning:** S-2 (Open Space/Preservation)
8. **Description of Project:** The proposed project consists of three primary components: 1) 100-megawatt (MW) solar photovoltaic (PV) facility; 2) 200-MW battery energy storage system (BESS); and 3) on-site transmission line to connect to the Imperial Irrigation District's (IID) existing 161kV "L" Line. The solar facility, BESS, and on-site transmission line are collectively referred to as the "proposed project" or "project." A detailed project description is provided in the Project Summary section below.
9. **Surrounding Land Uses and Setting: Briefly describe the project's surroundings:**

   The project site is located at the transition between vacant desert land to the east, north and west and agricultural lands to the southeast. Areas mapped as Bureau of Land Management (BLM) Areas of Critical Environmental Concern are located immediately north of the project site, as well as immediately east of the site, generally along Salton Sea Road. The project parcel is covered with scattered dry desert brush. Dry washes cross the subject property in a roughly northeast direction. The existing IID 161kV "L" Line traverses the project site, generally extending from the northwestern portion of the site to the southeastern portion of the site.
10. **Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.):**
    - California Regional Water Quality Control Board, Colorado River Basin Region
    - Imperial County Air Pollution Control District
    - Imperial County Public Works Department
    - California Department of Transportation – Encroachment Permit

- California Department of Fish and Wildlife - Trustee Agency (Public Resources Code §21070)/Responsible Agency (Public Resources Code §21069)

11. **Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?**

    Yes, California Native American tribes that are traditionally and culturally affiliated with the project area were sent an Assembly Bill (AB) 52/Senate Bill (SB) 18 consultation request letter on December 22, 2023. On February 1, 2024, the Agua Caliente Band of Cahuilla Indians responded via letter requesting consultation under SB 18.

Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐	Aesthetics	☐	Agriculture and Forestry Resources	☐	Air Quality
☒	Biological Resources	☒	Cultural Resources	☐	Energy
☒	Geology/Soils	☐	Greenhouse Gas Emissions	☐	Hazards & Hazardous Materials
☐	Hydrology / Water Quality	☐	Land Use/Planning	☐	Mineral Resources
☐	Noise	☐	Population/Housing	☐	Public Services
☐	Recreation	☐	Transportation	☒	Tribal Cultural Resources
☐	Utilities/Service Systems	☐	Wildfire	☐	Mandatory Findings of Significance

Environmental Evaluation Committee Determination

After Review of the Initial Study, the Environmental Evaluation Committee (EEC) has:

☐ Found that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ Found that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ Found that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ Found that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ Found that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

EEC VOTES	YES	NO	ABSENT
PUBLIC WORKS	☒	☐	☐
ENVIRONMENTAL HEALTH	☒	☐	☐
OFFICE EMERGENCY SERVICES	☒	☐	☐
APCD	☒	☐	☐
AG	☒	☐	☐
SHERIFF DEPARTMENT	☒	☐	☐
ICPDS	☒	☐	☐

Jim Minnick, Director of Planning/EEC Chairman

Date:

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Project Summary

Project Location

The project site is situated near the western edge of the Salton Sea and is located approximately 9 miles southeast of the town of Salton City. The project site consists of three project parcels: APN No. 017-350-031, 017-350-030, and 017-350-027, encompassing approximately 585 acres in the northwest portion of Imperial County, California (Figure 2). State Route 86, located adjacent to the southwest corner of the project site, provides regional access to the project site (Figure 1). Salton Sea Road is immediately south of the project site and provides local vehicular access to the project site. The abandoned Naval Auxiliary Air Station – Salton Sea is located approximately one mile northeast of the project site.

Renewable Energy Overlay Zone

In 2015, the County adopted the Imperial County Renewable Energy and Transmission Element, which includes an RE Zone (RE Overlay Map). This General Plan element was created as part of the California Energy Commission Renewable Energy Grant Program to amend and update the County's General Plan to facilitate future development of renewable energy projects.

The County Land Use Ordinance, Division 17, includes the RE Overlay Zone, which authorizes the development and operation of renewable energy projects with an approved conditional use permit (CUP). The RE Overlay Zone is concentrated in areas determined to be the most suitable for the development of renewable energy facilities while minimizing the impact on other established uses. CUP applications proposed for specific renewable energy projects not located in the RE Overlay Zone would not be allowed without an amendment to the RE Overlay Zone.

As shown on Figure 1, the entire project site is located outside of the RE Overlay Zone. Therefore, the applicant is requesting a General Plan amendment and Zone Change to include/classify the project site into the RE Overlay Zone. The underlying "Agriculture" General Plan designation would remain.

Environmental Setting

The project site is located at the transition between vacant desert land to the east, north and west and agricultural lands to the southeast. Areas mapped as BLM Areas of Critical Environmental Concern are located immediately north of the project site, as well as immediately east of the site, generally along Salton Sea Road. The project parcel is covered with scattered dry desert brush. Dry washes cross the subject property in a roughly northeast direction. The existing IID 161 kV "L" Line traverses the project site, generally extending from the northwestern portion of the site to the southeastern portion of the site.

Project Components

The proposed project consists of three primary components: 1) 100-megawatt (MW) solar photovoltaic (PV) facility; 2) 200 MW battery energy storage system (BESS); and 3) on-site transmission line to connect to the Imperial Irrigation District's (IID) existing 161kV "L" Line. The solar facility, BESS, and on-site transmission line are collectively referred to as the "proposed project" or "project." These project components are discussed in detail below and shown in Figure 3.

Solar Energy Facility

The proposed project involves the construction of a 100-megawatt (MW) alternating current (AC) PV solar energy facility.

PV solar cells convert sunlight directly into direct current electricity. The process of converting light (photons) to electricity (voltage) in a solid-state process is called the photovoltaic effect. A number of individual PV cells are electrically arranged and connected into solar PV modules, sometimes referred to as solar panels.

The project proposes to utilize solar photovoltaic (PV) technology modules mounted on horizontal single-axis tracker (HSAT) systems with mounting racks supported by driven piles. The solar field consists of 226,800 modules on 7,560 strings and associated collector and inverter facilities. The PV modules would rotate around the north-south HSAT axis so that the PV modules would continue to face the sun as the sun moves across the sky throughout the day. The PV modules would reach their maximum height (up to 9 feet above the ground, depending on the final design) at both sunrise and sunset, when the HSAT is rotated to point the modules at the rising or setting sun. At noon, or when stowed during high winds, when the HSAT system is rotated so that the PV modules are horizontal, the nominal height would be about 6 feet above the ground, depending on the final design.

The individual PV systems would be arranged in large arrays by placing them in columns spaced approximately 10 feet apart to maximize operational performance and to allow access for panel cleaning and maintenance. Current project designs would have individual HSAT PV modules, each approximately two feet wide by four feet long (depending on the specific PV technology selected), mounted on a frame which is attached to an HSAT system. The HSAT arrays would be separated from each other and the perimeter security fence by up to 30-foot-wide roads, consistent with Imperial County Fire Department emergency access requirements.

Battery Energy Storage System

A 200-MW BESS is proposed on an approximately 5-acre site within the southcentral portion of the project site. The proposed BESS would consist of either lithium ion or flow batteries. The batteries will either be housed in storage containers or buildings fitted with HVAC and fire suppression systems as necessary, depending on the final selection of battery technology. Inside the housing the batteries will be placed on racks, the orientation of which depends on the type of housing. Underground trenches with conduits will be used to connect the batteries to the control and monitoring systems, and inverters to convert the PV produced DC power to AC power.

On-Site Transmission Connection

The project is proposed to connect to the electrical grid via an existing on-site transmission line. The existing IID 161 kV "L" Line traverses the site, generally extending from the northwestern portion of the site to the southeastern portion of the site. The proposed project point of connection to the electrical grid would occur on-site within private lands.

Security

Six-foot high security fencing would be installed around the perimeter of the project site at the commencement of construction and site access would be limited to authorized site workers. In addition, a motion detection system and closed-circuit camera system may also be installed. The site

would be remotely monitored 24 hours per day, 7 days per week. In addition, routine unscheduled security rounds may be made by the security team monitoring the site security.

Site Access

Access to the project site is proposed from Salton Sea Road. The project driveway would be provided with a minimum of 30-foot double swing gates with "Knox Box" for keyed entry. Emergency response personnel would be provided with manual override capability in order to access the site. To accommodate emergency access, PV panels would be spaced to maintain proper clearance. Internal access roads, up to 30-foot wide, would be constructed along the perimeter fence and solar panels to facilitate vehicle access and maneuverability for emergency unit vehicles.

Fire Protection/Fire Suppression

Fire protection systems for battery systems would be designed in accordance with California Fire Code and would take into consideration the recommendations of the National Fire Protection Association (NFPA) 855.

Fire suppression agents such as Novec 1230 or FM 2000, or water may be used as a suppressant. In addition, fire prevention methods would be implemented to reduce potential fire risk, including voltage, current, and temperature alarms. Energy storage equipment would comply with Underwriters Laboratory (UL)-95401 and test methods associated with UL-9540A. The project would include lithium-ion batteries. For lithium-ion batteries storage, a system would be used that would contain the fire event and encourage suppression through cooling, isolation, and containment. Suppressing a lithium-ion (secondary) battery is best accomplished by cooling the burning material. A gaseous fire suppressant agent (e.g., 3M™ Novec™ 1230 Fire Protection Fluid or similar) and an automatic fire extinguishing system with sound and light alarms would be used for lithium-ion batteries.

To mitigate potential hazards, redundant separate methods of failure detection would be implemented. These would include alarms from the Battery Management System (BMS), including voltage, current, and temperature alarms. Detection methods for off gas detection would be implemented, as applicable. These are in addition to other potential protective measures such as ventilation, overcurrent protection, battery controls maintaining batteries within designated parameters, temperature and humidity controls, smoke detection, and maintenance in accordance with manufacturer guidelines. Remote alarms would be installed for operations personnel as well as emergency response teams in addition to exterior hazard lighting. In addition, an Incidence Response Plan would be implemented. Additionally, the project applicant would contribute its proportionate share for purchase of any fire-suppression equipment, if determined warranted by the County Fire Department for the proposed project.

Construction

Construction is anticipated to be completed in approximately 12 to 18 months. The following provides the proposed project's construction phases:

- Site Preparation
- Grading
- Building Construction

Dust generated during construction would be controlled by watering and, as necessary, the use of other dust suppression methods and materials accepted by the Imperial County Air Pollution Control District (ICAPCD).

Operations

Once construction is completed, the project would be remotely operated, controlled and monitored and with no requirement for daily on-site employees. Security personnel may conduct unscheduled security rounds and would be dispatched to the project site in response to a fence breach or other alarm.

Up to two to three people would be contracted (part-time) to perform all routine and emergency operational and maintenance activities. Such activities include inspections, equipment servicing, site and landscape clearing, and periodic washing of the PV modules if needed (up to two times per year) to maintain power generation efficiency. Vegetation growing on the project site would periodically (approximately every 3 months) be removed manually and/or treated with herbicides.

Water Use

The water demand for the proposed project will consist of water needed during construction and water needed for maintenance once the project is operational. The construction water demand is anticipated to be 295 acre-feet over 12 to 18 months, primarily for dust control. The operational demand is anticipated to be 10 acre-feet per year for panel washing and other maintenance activities. The operational demand will exist for the life of the project, which is anticipated to be 25 to 30 years. The project's water supply will be provided by a new onsite groundwater supply well to be drilled and installed as part of the project.

Restoration of the Project Site

Electricity generated by the project could be sold under the terms of a PPA with a power purchaser (i.e., utility service provider). The projected life of the project is 25 to 30 years. At the end of the PPA term, the owner of the project may choose to enter into a subsequent PPA, update technology and re-commission, or decommission and remove the generating facility and its components. Upon decommissioning, the site could be converted to other uses in accordance with applicable land use regulations in effect at that time. A collection and recycling program will be executed to promote recycling of project components and minimize disposal in landfills. All permits related to decommissioning would be obtained, where required.

Project decommissioning may include the following activities:

- The facility would be disconnected from the utility power grid.
- Project components would be dismantled and removed using conventional construction equipment and recycled or disposed of safely.
- PV panel support steel and support posts would be removed and recycled off-site by an approved metals recycler.
- All compacted surfaces within the project site and temporary on-site haul roads would be de-compacted.

- Electrical and electronic devices, including inverters, transformers, panels, support structures, lighting fixtures, and their protective shelters would be recycled off-site by an approved recycler.
- All concrete used for the underground distribution system would be recycled off-site by a concrete recycler or crushed on-site and used as fill material.
- Fencing would be removed and recycled off-site by an approved metals recycler.
- Gravel roads would be removed; filter fabric would be bundled and disposed of in accordance with all applicable regulations. Road areas would be backfilled and restored to their natural contour.
- Soil erosion and sedimentation control measures would be re-implemented during the decommissioning period and until the site is stabilized.

Prior to issuance of the initial grading permit for the project, a Site Reclamation Plan in conformance with County of Imperial requirements would be prepared for review and approval by the Imperial County Planning and Development Services Department. This plan would be implemented at the end of power operations and would describe the proposed equipment dismantling, removal and site restoration program, in conformance with County requirements.

Project Approvals

The following are the primary discretionary approvals required for implementation of the project:

1. **Approval of Conditional Use Permit (CUP 23-0007).** Implementation of the project would require the approval of a CUP by the County to allow for the construction and operation of the proposed solar energy facility with an integrated battery storage system. The project parcels are currently zoned as S-2. Pursuant to Title 9, Division 5, Chapter 19, the following uses are permitted in the S-2 zone subject to approval of a CUP from Imperial County:

   i) Major facilities relating to the generation and transmission of electrical energy provide[d] such facilities are not under State or Federal law, to [be] approved exclusively by an agency, or agencies of the State or Federal government, and provided such facilities shall be approved subsequent to coordination review of the Imperial Irrigation District for electrical matters. Such uses shall include but be limited to the following:

   - *Electrical generation plants*
   - *Facilities for the transmission of electrical energy (100-200 kV)*
   - *Electrical substations in an electrical transmission system (500 kv/230 kv/161 kV)*

2. **Approval of CUP (CUP 23-0008) – Groundwater Well.** Pursuant to Title 9 Division 21: Water Well Regulations, §92102.00, the Applicant will be required to obtain a CUP for the proposed on-site groundwater well. As required by §92102.00, no person shall (1) drill a new well, (2) activate a previously drilled but unused well, (unused shall mean a well or wells that have not been used for a 12 month) period by installing pumps, motors, pressure tanks, piping, or other equipment necessary or intended to make the well operational, (3) increase the pumping capacity of a well, or (4) change the use of a well, without first obtaining a CUP through the County Planning & Development Services Department.

3. **General Plan Amendment (#23-0002).** An amendment to the County's General Plan, Renewable Energy and Transmission Element is required to implement the proposed project. CUP applications proposed for specific renewable energy projects not located in the Renewable Energy (RE) Overlay Zone would not be allowed without an amendment to the RE Overlay Zone. The entire project site is located outside of the RE Overlay Zone. Therefore, the applicant is requesting a General Plan amendment to include/classify the project site into the RE Overlay Zone. The underlying "Agriculture" General Plan designation would remain.

4. **Zone Change (#23-0002).** The applicant is requesting a zone change to include/classify all three project parcels (APNs 017-350-031, 017-350-030, and 017-350-027) into the RE Overlay Zone (i.e., zone change from S-2 to S-2-RE).

Figure 1. Regional Location

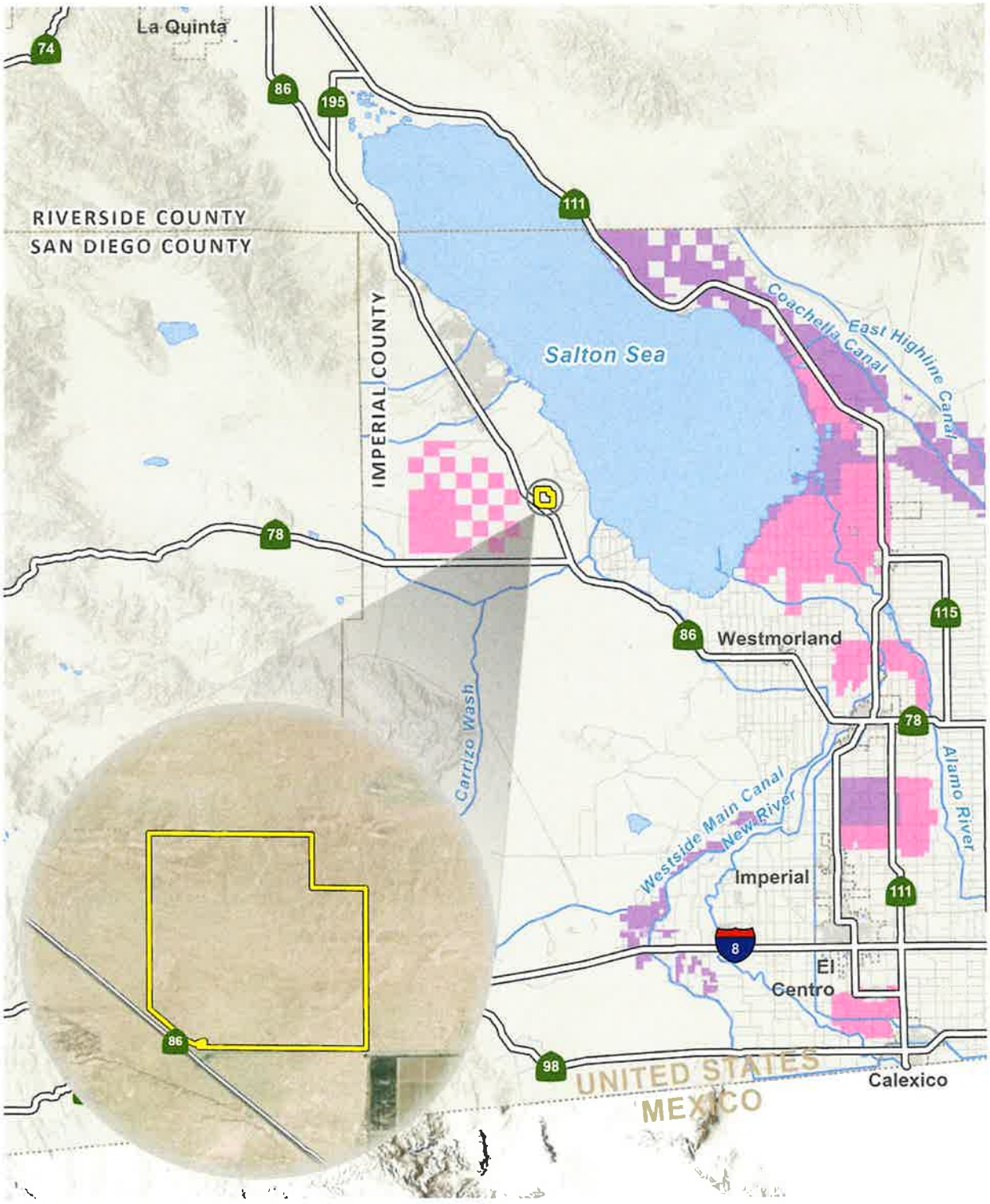

Figure 2. Project Location

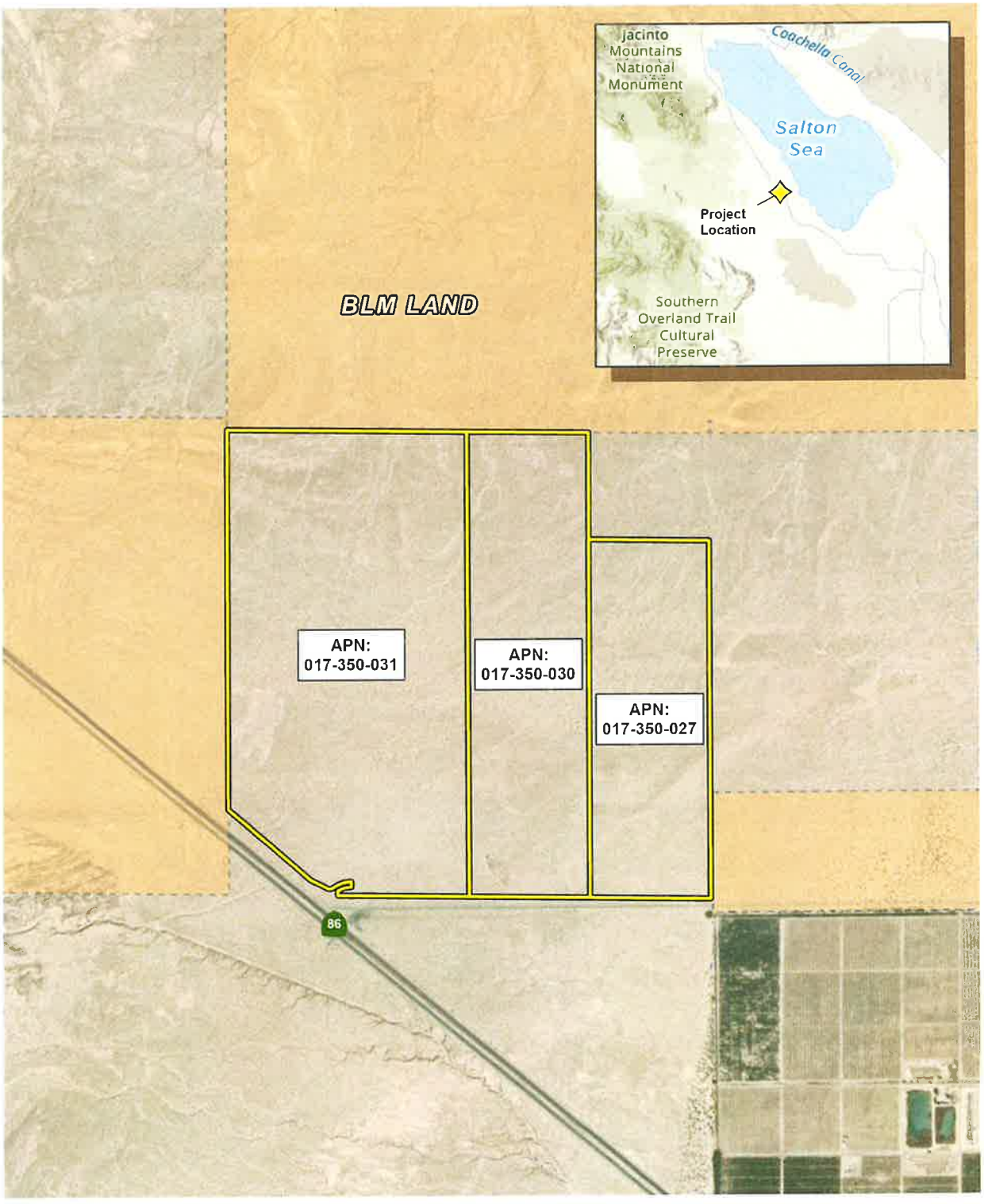

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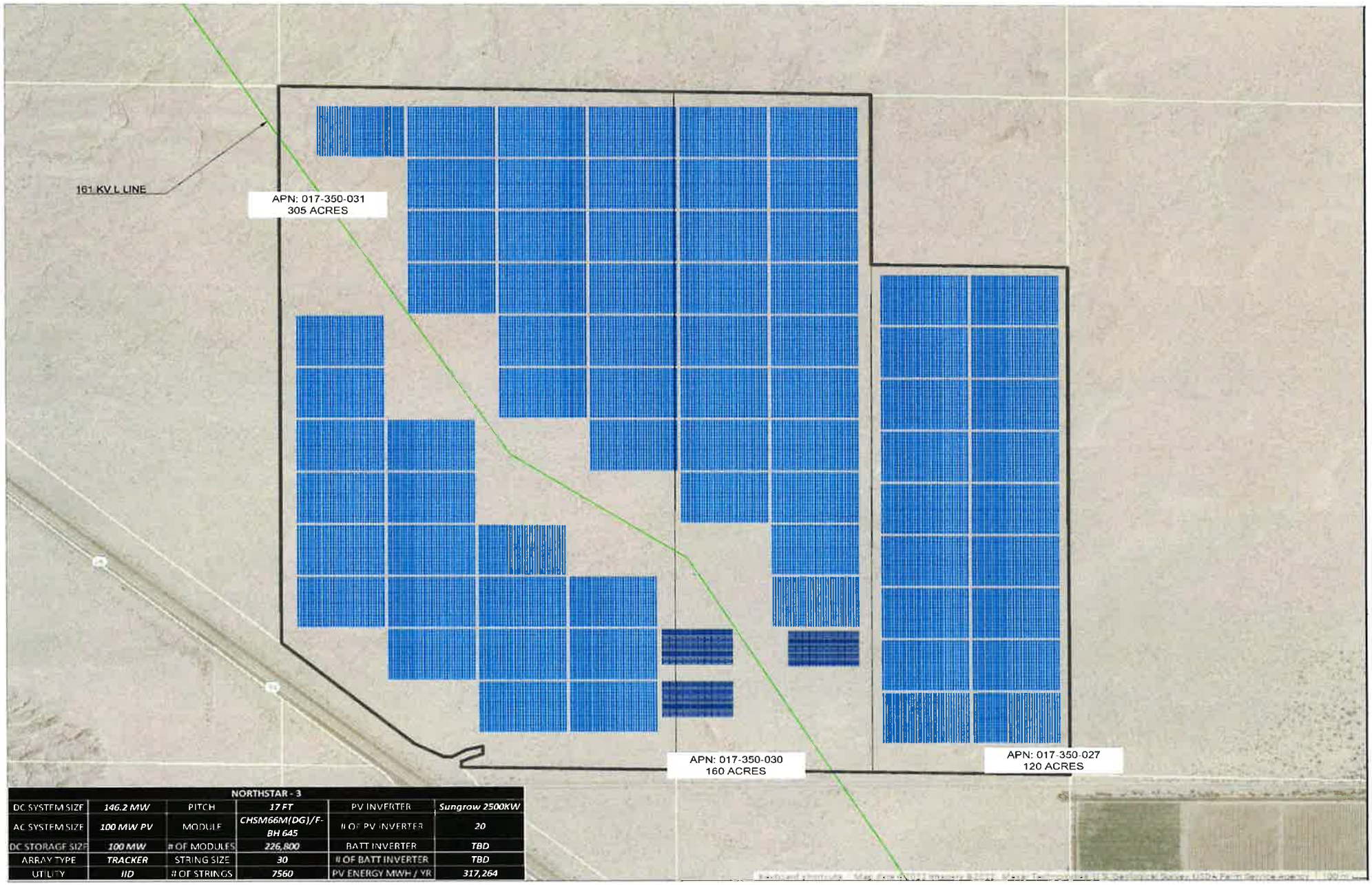
Figure 3. Site Plan



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Evaluation of Environmental Impacts

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors, as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
    a. Earlier Analysis Used. Identify and state where they are available for review.
    b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
    c. Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used, or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
    a. The significance criteria or threshold, if any, used to evaluate each question; and
    b. The mitigation measure identified, if any, to reduce the impact to less than significance.

I. Aesthetics

Environmental Issue Area:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a state scenic highway?	☐	☐	☐	☒
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Impact Analysis

The following information is summarized from the *Visual Resources Assessment for the North Star 3 Project* prepared by ECORP Consulting, Inc. dated March 2023. This report is provided as Appendix A of this Initial Study.

a) **No Impact.** The project site is located in a rural portion of Imperial County and is not located within an area containing a Caltrans-designated scenic vista point, nor any formal or informal turnouts along the highway near the project site. Therefore, the proposed project would not have a substantial adverse effect on a scenic vista and no impact is identified.

b) **No Impact.** The project site is not located within a state scenic highway corridor, nor are there any state scenic highways located in proximity to the project site. SR 86, located adjacent to the southwest corner of the project site, is not designated as a scenic route per the List of Officially Designated State Scenic Highways from the California Department of Transportation. The nearest road segment considered eligible for a State scenic highway designation is the approximately 20-mile portion of SR 78, from its intersection with SR 86 near the project site westward to its intersection with Quarry Road near the Ocotillo Ranger Station. The project site is located approximately 3.5 miles north of the intersection of SR 78 and 86; therefore, the project site would not be visible from the highway intersection. No impacts to scenic resources within any state scenic highways would occur.

c) **Less than Significant Impact.** The overall character of the immediate landscape is natural open space with vast panoramic views and undulating topography. Natural open space also

surrounds the project area, with agricultural croplands located approximately 0.5 miles to the southeast. The agricultural areas include rectangular fields and associated structures and ponds. Paved and dirt roads run throughout the project area. The existing IID 161 kV "L" Line traverses the project site, generally extending from the northwestern portion of the site to the southeastern portion of the site. The project site is located within a desert landscape with views of the Salton Sea and Chocolate Mountains. The dark gray, subdued formations of the Chocolate Mountains are approximately 2,000 feet above mean sea level and are visible along the horizon. The Salton Sea is approximately 3 miles west of the project site and is visible from the project site.

The existing natural landscape is a valued resource because of its unspoiled nature and panoramic view, especially of the Salton Sea and the mountains in the background, which can be seen by motorists along nearby roads, and recreation users and agricultural workers in the vicinity. The foreground view (see Figure 4), consisting of comparatively monotonous desert scrub habitat, is less valued because of the lack of distinguishing or interesting features, as evidenced by the lack of turnouts allowing motorists to stop and enjoy the view at the project site.

One key observation point (KOP) was identified along Salton Sea Road at the southwest corner of the proposed project site. This KOP is the view traveling in a vehicle traveling on Salton Sea Road at the southwest corner of the project site. The view of the current environmental setting is generally characterized by broad, panoramic views of flat to undulating topography and horizontal terrain that is light khaki to light brown in color in the foreground and midground and dark-colored landforms in the background. The proposed project would be perceivable from this KOP based on viewer perspective (Figure 4). In the foreground area, a viewer would see the proposed project to the immediate left (north); vacant, undeveloped Sonoran Desert scrub directly ahead and to the right (east and southeast); and Salton Sea Road directly ahead (to the east). In the mid-ground the viewer would see vacant, undeveloped Sonoran Desert Scrub and Salton Sea. The viewer would see the Chocolate Mountains in the distant (greater than 25 miles) background. Additionally, the existing IID gen-tie would be perceivable, running adjacent to Salton Sea Road.

The proposed project would result in changes to the existing visual character (line, color, and texture) of the project site, which is currently characterized as desert landscape to the north, east and south and agricultural land to the south. The existing, natural landscape is a valued, important, beautiful, and scenic resource, including views of the Salton Sea in the mid-ground and the Chocolate Mountains in the background. With the addition of new structures (e.g., solar arrays, gen-tie line) to a site with existing transmission structures and conductors, the change in overall contrast in the foreground is moderate. Contrast associated with the introduction of new lines (particularly the gen-tie line and the project fence) is moderate because of the existing transmission circuit; addition of new colors having similar color intensity results in a moderate contrast change; and addition of next textures results in a moderate contrast change. However, impacts to viewers would be temporary or lessened because viewers near KOP 1 would be stationary (traveling along SR 86 or Salton Sea Road), and the project fence would largely block the view of the project site. Therefore, the proposed project would result in a less than significant impact to the existing visual character or quality of the site and its surroundings.

d) **Less than Significant Impact.** The proposed project would not include any substantial source of nighttime light in the vicinity of the project site. Any lighting required for safety and security within the project site would be hooded and oriented downward to avoid spilling over to adjacent parcels consistent with Title 9, Division 17, Chapter 2: Specific Standards for all Renewable Energy Projects, of the County's Zoning Ordinance.

A glare analysis was conducted to determine the potential for significant glint or glare from solar panels and other built-project components that may affect residents, motorists, or airborne travelers.

The glare analysis shows two receptors with the potential to receive low and medium glare from the proposed project:

- On SR 86, in the vicinity of the proposed site there is the potential for stationary receptors to experience medium glare between January and mid-May and August through December between 6:30 and 7:30 am.
- Airborne travelers traveling to and from the Calipatria Municipal Airport, approximately 20 miles east of the project site, may experience 356 minutes (5.9 hours) annually over a 2-mile flight path from April to May, and August to December between 5:30 and 6:00 pm.

The glare analysis for the proposed project concluded that glint may be experienced by travelers near the project site in the early morning and late evening hours. Travelers on SR 86, traveling at a typical speed of 60 mph, would experience glint along the southern project boundary during short periods at the beginning and end of the day. Because aircraft typically travel at a higher rate of speed than vehicles, the effect is momentary, lasting only if the angle between the sun, project, and aircraft is maintained. Unless an aircraft were descending at an angle sloped directly at the solar array with the sun directly behind the aircraft, any glare that might occur from solar panels would be below the pilot's horizon, an would at no time be as severe as the sun itself. Given the brief period glare would be produced, these effects are considered less than significant.

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Figure 4. View from KOP 1



Source: Appendix A of this Initial Study

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II. Agriculture and Forestry Resources

Environmental Issue Area:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Impact Analysis

a) **No Impact.** According to the California Department of Conservation's (DOC) California Important Farmland Finder, the project site is not located on land designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (California DOC 2020). The project site has not been mapped. Therefore, the proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use and no impact would occur.

b) **No Impact.** The project site is currently zoned S-2 (Open Space/Preservation) and is not zoned for agricultural use. Therefore, the proposed project would not conflict with existing zoning for agricultural use and no impact is identified.

As of December 31, 2018, all Williamson Act contracts in Imperial County have been terminated. The project site is not located on Williamson Act contracted land (California DOC 2022). Therefore, the proposed project would not conflict with a Williamson Act contract and no impact is identified.

c) **No Impact.** The project site is not located on forest land as defined in PRC Section 1220 (g). There are no existing forest lands, timberlands, or timberland zoned Timberland Production either onsite or in the immediate vicinity; therefore, the project would not conflict with existing zoning of forest land or cause rezoning of any forest land. Additionally, the site is not zoned as forest, timberland or for Timberland Production. Therefore, no impact is identified for this issue area.

d) **No Impact.** There are no existing forest lands either on site or in the immediate vicinity of the project site. The proposed project would not result in the loss of forest land or conversion of forest land to non-forest use. Therefore, no impact is identified for this issue area.

e) **No Impact.** As discussed in Response II. a) above, the project site is not located on land designated as Important Farmland and would not convert farmland to non-agriculture use. As discussed in Response II. d) above, there are no existing forest lands either on site or in the immediate vicinity of the project site. Therefore, the proposed project would not result in the conversion of forest land to non-forest use. Thus, no impact is identified for this issue area.

III. Air Quality

Environmental Issue Area:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?	☐	☐	☒	☐

Impact Analysis

The following information is summarized from the *Air Quality and Greenhouse Gas Emissions Assessment for the North Star 3 Project* prepared by ECORP Consulting, Inc. dated July 2022. This report is provided as Appendix B of this Initial Study.

a) **Less than Significant Impact.** The proposed project is located within the jurisdiction of the Imperial County Air Pollution Control District (ICAPCD) in the Salton Sea Air Basin. The project region is designated as a nonattainment area for the federal ozone (O_3), particulate matter less than 2.5 microns in diameter ($PM_{2.5}$) and particulate matter less than 10 microns in diameter (PM_{10}) standards and is also a nonattainment area for the state standards for O_3 and PM_{10}.

The U.S. Environmental Protection Agency (EPA), under the provisions of the Clean Air Act, requires each state with regions that have not attained the federal air quality standards to prepare a State Implementation Plan (SIP), detailing how these standards are to be met in each local area.

The region's SIP is constituted of the following ICAPCD air quality plans: 2018 PM_{10} SIP, the 2018 Annual $PM_{2.5}$ SIP, the 2017 8-Hour Ozone SIP, 2013 24-Hour $PM_{2.5}$ SIP, the 2009 1997 8-hour Ozone RACT SIP, the 2009 PM_{10} SIP and the 2008 Ozone Early Progress Plans. Conformance with the Air Quality Management Plan (AQMP) for development projects is determined by demonstrating compliance with local land use plans and/or population projections, meeting the land use designation set forth in the local General Plan, and comparing assumed emissions in the AQMP to proposed emissions. The project must demonstrate compliance with all ICAPCD applicable rules and regulations, as well as local land use plans and population projections. As the project does not contain a residential component, the project would not result in an increase in the regional population. While the project would contribute to energy supply, which is one factor of population growth, the

proposed project would not significantly increase employment or growth within the region. Moreover, development of the proposed project would increase the amount of renewable energy and help California meet its Renewable Portfolio Standard (RPS). The proposed project would be required to comply with all applicable ICAPCD rules and requirements during construction and operation to reduce air emissions. Overall, the proposed project would improve air quality by reducing the amount of emissions that would be generated in association with electricity production from a fossil fuel burning facility. Furthermore, the thresholds of significance, adopted by the air district (ICAPCD), determine compliance with the goals of the attainment plans in the region. As such, emissions below the ICAPCD regional mass daily emissions thresholds presented would not conflict with or obstruct implementation of the applicable air quality plans.

The following analysis is broken out by a discussion of potential impacts during construction of the project followed by a discussion of potential impacts during operation of the project.

Construction

Air Quality impacts related to construction were calculated using the CalEEMod 2020.4.0 air quality model. The construction module in CalEEMod is used to calculate the emissions associated with the construction of the project. The project's construction assumptions used in the CalEEMod, including construction schedule and equipment mix, are described in the project's air quality and greenhouse gas assessment (Appendix B of this Initial Study) and in the Project Summary section of this Initial Study.

The ICAPCD requires that, regardless of the size of a project, all feasible standard measures for fugitive PM_{10} must be implemented at construction sites. Additionally, all feasible discretionary measures for PM_{10} apply to those construction sites that are five acres or more for non-residential developments or 10 acres or more in size for residential developments. Standard and discretionary measures from the ICAPCD handbook include:

Standard Measures for Fugitive PM_{10} Control:

a. All disturbed areas, including bulk material storage which is not being actively utilized, shall be effectively stabilized and visible emissions shall be limited to no greater than 20 percent opacity for dust emissions by using water, chemical stabilizers, dust suppressants, tarps or other suitable material such as vegetative ground cover.

b. All on-site and off-site unpaved roads will be effectively stabilized and visible emissions shall be limited to no greater than 20 percent opacity for dust emissions by paving, chemical stabilizers, dust suppressants and/or watering.

c. All unpaved traffic areas one acre or more with 75 or more average vehicle trips per day will be effectively stabilized and visible emission shall be limited to no greater than 20 percent opacity for dust emissions by paving, chemical stabilizers, dust suppressants and/or watering. The transport of bulk materials shall be completely covered unless six inches of freeboard space from the top of the container is maintained with no spillage and loss of bulk material. In addition, the cargo compartment of all haul trucks is to be cleaned and/or washed at delivery site after removal of bulk material.

d. The transport of bulk materials shall be completely covered unless six inches of freeboard space from the top of the container is maintained with no spillage and loss of bulk material. In addition, the cargo compartment of all haul trucks is to be cleaned bulk material.

e. All track-out or carry-out will be cleaned at the end of each workday or immediately when mud or dirt extends a cumulative distance of 50 linear feet or more onto a paved road within an urban area.

f. Movement of bulk material handling or transfer shall be stabilized prior to handling or at points of transfer with application of sufficient water, chemical stabilizers or by sheltering or enclosing the operation and transfer line.

g. The construction of any new unpaved road is prohibited within any area with a population of 500 or more unless the road meets the definition of a temporary unpaved road. Any temporary unpaved road shall be effectively stabilized and visible emissions shall be limited to no greater than 20 percent opacity for dust emission by paving, chemical stabilizers, dust suppressants and/or watering.

Discretionary Measures for Fugitive PM_{10} Control

a. Water exposed soil with adequate frequency for continued moist soil.

b. Replace ground cover in disturbed areas as quickly as possible.

c. Automatic sprinkler system installed on all soil piles.

d. Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site.

e. Develop a trip reduction plan to achieve a 1.5 average vehicle ridership for construction employees.

f. Implement a shuttle service to and from retail services and food establishments during lunch hours.

The ICAPCD requires that, regardless of the size of a project, all feasible standard measures for construction equipment must be implemented at construction sites. Standard measures from the ICAPCD handbook include:

Standard Measures for Construction Combustion Equipment

a. Use of alternative fueled or catalyst equipped diesel construction equipment, including all off-road and portable diesel-powered equipment.

b. Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to five minutes as a maximum.

c. Limit, to the extent feasible, the hours of operation of heavy-duty equipment and/or the amount of equipment in use.

d. Replace fossil fueled equipment with electrically driven equivalents (provided they are not run via a portable generator set).

Construction-related Emissions. Construction-related activities are temporary, short-term sources of air pollutant emissions. Two basic sources of short-term emissions would be generated through project implementation: operation of heavy-duty equipment and the creation of fugitive dust during clearing and grading.

Predicted maximum daily emissions associated with project construction are summarized in Table 1. As shown in Table 1, the proposed project would not exceed ICAPCD's construction-related criteria pollutant thresholds. Therefore, this is considered a less than significant impact.

Table 1. Project Construction-Generated Emissions

Construction Year	Pollutant (pounds per day)					
	ROG	NOx	CO	SO_2	PM_{10}	$PM_{2.5}$
Construction Year One	6.26	65.75	48.76	0.11	10.72	5.85
Construction Year Two	5.67	57.67	47.06	0.11	10.33	5.49
Construction Year Three	4.13	25.09	35.80	0.06	3.72	1.84
ICAPCD Significance Threshold	*75*	*100*	*550*	*N/A*	*150*	*N/A*
Exceed ICAPCD Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Appendix B of this Initial Study
Notes: Pounds per day taken from the season with the highest output.

CUP Conditions of Approval for ICAPCD Review/Compliance (Construction):

As a Condition(s) of Approval of the CUP, the applicant will be required to submit information to ICAPCD to verify that proper emissions controls have been implemented to maintain air emissions below ICAPCD Significance Thresholds. These CUP Conditions of Approval include for the construction phase:

- As a CUP Condition of Approval, the applicant shall submit an Enhanced Construction Dust Control Plan to the ICAPCD for review and approval.
- As a CUP Condition of Approval, the applicant shall submit an Equipment List to ICAPCD. The Equipment List shall be submitted periodically (on a monthly basis) during construction and include the following:
  - The list must be in Excel Format and include make, model, year, ID/serial number(s), type, tier, horsepower, and actual dates and hours used.
  - The Equipment List shall be submitted to ICAPCD electronically on a monthly basis
  - The ICAPCD will calculate NOx emissions using the Equipment Lists once construction is completed to verify that NOx thresholds were not exceeded. In the event an exceedance is determined the project may become subject to Policy 5 requirements.

Operation

Project-generated increases in emissions during operation of the project would be associated with motor vehicle use for routine maintenance work, site security, and trucking in water. The maximum daily pollutants calculated for operations are shown in Table 2. The proposed project would not exceed ICAPCD thresholds during operation, and operations-related emissions would be less than significant for the proposed project.

Table 2. Operational-Related Emissions (Regional Significance Analysis)

Emission Source	Pollutant (pounds per day)					
	ROG	NOx	CO	SOx	PM_{10}	$PM_{2.5}$
Summer Emissions						
Area	11.94	0.00	0.06	0.00	0.00	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.03	0.04	0.34	0.00	0.09	0.03
Total:	**11.97**	**0.04**	**0.40**	**0.00**	**0.07**	**0.02**
ICAPCD Significance Thresholds	*137*	*137*	*150*	*550*	*550*	*150*
Exceed ICAPCD Significance Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
Winter Emissions						
Area	11.94	0.00	0.06	0.00	0.00	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.02	0.04	0.26	0.00	0.07	0.02
Total:	**11.97**	**0.04**	**0.32**	**0.00**	**0.07**	**0.02**
ICAPCD Significance Thresholds	*137*	*137*	*150*	*550*	*550*	*150*
Exceed ICAPCD Significance Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Appendix B of this Initial Study

CUP Conditions of Approval for ICAPCD Review/Compliance (Operation):

As a Condition(s) of Approval of the CUP, the applicant will be required to submit information to ICAPCD to verify that proper emissions controls have been implemented to maintain air emissions below ICAPCD Significance Thresholds. These CUP Conditions of Approval include for the operation phase:

- As a CUP Condition of Approval, the applicant shall submit an Operational Dust Control Plan to the ICAPCD for review and approval.

Conclusion

As described above, conformance with the AQMP for development projects is determined by demonstrating compliance with local land use plans and/or population projections and comparing assumed emissions in the AQMP to proposed emissions. Because the proposed project complies with local land use plans and population projections and would not exceed ICAPCD's thresholds during construction and operations, and the emissions estimates would be verified by the ICAPCD through CUP Conditions of Approval, the proposed project

would not conflict with or obstruct implementation of the applicable air quality plan. This is considered a less than significant impact.

b) **Less than Significant Impact.** By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size, by itself, to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's individual emissions exceed its identified significance thresholds, the project would be cumulatively considerable. Projects that do not exceed significance thresholds would not be considered cumulative considerable.

The ICAPCD's application of thresholds of significance for criteria air pollutants is relevant to the determination of whether a project's individual emissions would have a cumulatively significant impact on air quality. As discussed above in Response III. a), emissions generated during project construction and operations would not exceed the ICAPCD's thresholds of significance (Table 1 and Table 2), which would be verified by the ICAPCD as CUP Conditions of Approval. Therefore, the project's potential to result in a cumulatively considerable net increase of any criteria pollutant is considered less than significant.

c) **Less than Significant Impact.** The nearest sensitive receptor to the project site is a single-family residence located approximately 0.5 miles from the southeastern corner of the project site.

Construction-Generated Air Contaminants. As discussed above in Response III. a), the criteria pollutant emissions have been calculated for construction activities, which were found to be within the ICAPCD's allowable construction thresholds. Due to the limited amount of criteria pollutants created from construction activities and the distance to the nearest sensitive receptor, construction emissions would not expose sensitive receptors to substantial concentrations of criteria pollutants.

In addition to the criteria pollutant emissions, construction activities have the potential to expose nearby sensitive receptors to toxic air contaminants (TACs), which would be created from the operation of diesel-powered equipment in the form of diesel particulate matter (DPM). PM_{10} exhaust is considered a surrogate for DPM as all diesel exhaust is considered to be DPM. Most PM_{10} exhaust derives from combustion, such as use of gasoline and diesel fuels by motor vehicles. As with O_3 and NOx, the project would not generate emissions of PM_{10} or $PM_{2.5}$ that would exceed the ICAPCD's thresholds. Accordingly, the project's PM_{10} and $PM_{2.5}$ emissions are not expected to cause any increase in related regional health effects for these pollutants.

Project construction would not result in a potentially significant contribution to regional concentrations of nonattainment pollutants and would not result in a significant contribution to the adverse health impacts associated with those pollutants. Therefore, the proposed project would not expose sensitive receptors to substantial pollutant concentrations during construction, and impacts would be less than significant.

Operational Air Contaminants. As discussed above in Response III. a), the criteria pollutant emissions have been calculated for operational activities, which were found to be within the ICAPCD's allowable operational thresholds. Operation of the proposed project would not result in the development of any substantial sources of air toxics. There would be no stationary sources associated with project operations; nor would the project attract additional mobile sources that spend long periods queuing and idling at the site. Onsite project emissions would not result in significant concentrations of pollutants at the nearby sensitive receptor as the predominant operational emissions associated with the proposed project would be routine maintenance work, water deliveries, and site security. Therefore, the project would not be a substantial source of TACs. The project would not result in a high carcinogenic or non-carcinogenic risk during operation. Therefore, the proposed project would not expose sensitive receptors to substantial pollutant concentrations during operation, and impacts would be less than significant.

Carbon Monoxide Hot Spots. CO exceedances are caused by vehicular emissions, primarily when idling at intersections. Concentrations of CO are a direct function of the number of vehicles, length of delay, and traffic flow conditions. Under certain meteorological conditions, CO concentrations close to congested intersections that experience high levels of traffic and elevated background concentrations may reach unhealthy levels, affecting nearby sensitive receptors. Given the high traffic volume potential, areas of high CO concentrations, or "hot spots," are typically associated with intersections that are projected to operate at unacceptable levels of service during the peak commute hours. CO concentration in the SSAB is designated as an attainment area. Detailed modeling of project-specific CO "hot spots" is not necessary and thus this potential impact is addressed qualitatively.

The proposed project is anticipated to result in no more than six daily traffic trips. It is noted that this is a conservative estimate, and many days will have no operational related vehicle trips. Thus, the proposed project would not generate traffic volumes at any intersection of more than 100,000 vehicles per day (or 44,000 vehicles per day) and there is no likelihood of the project traffic exceeding CO values. Therefore, this is considered a less than significant.

d) **Less than Significant Impact.** Land uses commonly considered to be potential sources of odorous emissions include wastewater treatment plants, sanitary landfills, food processing facilities, chemical manufacturing plants, rendering plants, paint/coating operations, and concentrated agricultural feeding operations and dairies. The operation of a solar facility is not an odor producer.

During construction, the proposed project presents the potential for generation of objectionable odors in the form of diesel exhaust in the immediate vicinity of the project site. However, these emissions are short-term in nature and will rapidly dissipate and be diluted by the atmosphere downwind of the emission sources. Additionally, odors would be localized and generally confined to the project area, which is generally devoid of surrounding receptors. Therefore, odors generated during construction would not adversely affect a substantial number of people to odor emissions, and impacts would be less than significant.

IV. Biological Resources

Environmental Issue Area:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) 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 Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	☐	☒	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☒	☐	☐

Impact Analysis

The following information is summarized from the *Biological Technical Report for the North Star 3 Project* prepared by ECORP Consulting, Inc. and *Aquatic Resource Delineation Report* prepared by Hernandez Environmental Services dated March and February 2023, respectively. There reports are provided as Appendix C and Appendix D of this Initial Study, respectively.

a) **Less than Significant with Mitigation Incorporated.** ECORP Consulting, Inc. conducted a literature review, vegetation mapping, and a biological resource assessment of the Survey Area, which includes the project site plus a 500-foot buffer, to document the existing biological conditions and resources, to assess the habitat for its potential to support sensitive plant and wildlife species, as required under CEQA, and to determine whether project-related impacts may occur to sensitive biological resources.

EXISTING CONDITIONS

Literature Review

A literature review using the California Department of Fish and Wildlife (CDFW) California Natural Diversity Data Base (CNDDB), the California Native Plant Society's (CNPS) Electronic Inventory (CNPSEI), and the USFWS Species Occurrence Data to determine the special-status plant and wildlife species that have been documented in the vicinity of the project site.

The literature review resulted in 13 special-status plant and 45 special-status wildlife species that could occur on or near the project site.

Biological Reconnaissance Survey

A biological reconnaissance survey for the Survey Area was conducted on October 25 and 26, 2022. The results of the biological reconnaissance survey, including plants and plant communities, wildlife, special-status species, and special-status habitats (including any potential wildlife corridors) are summarized below.

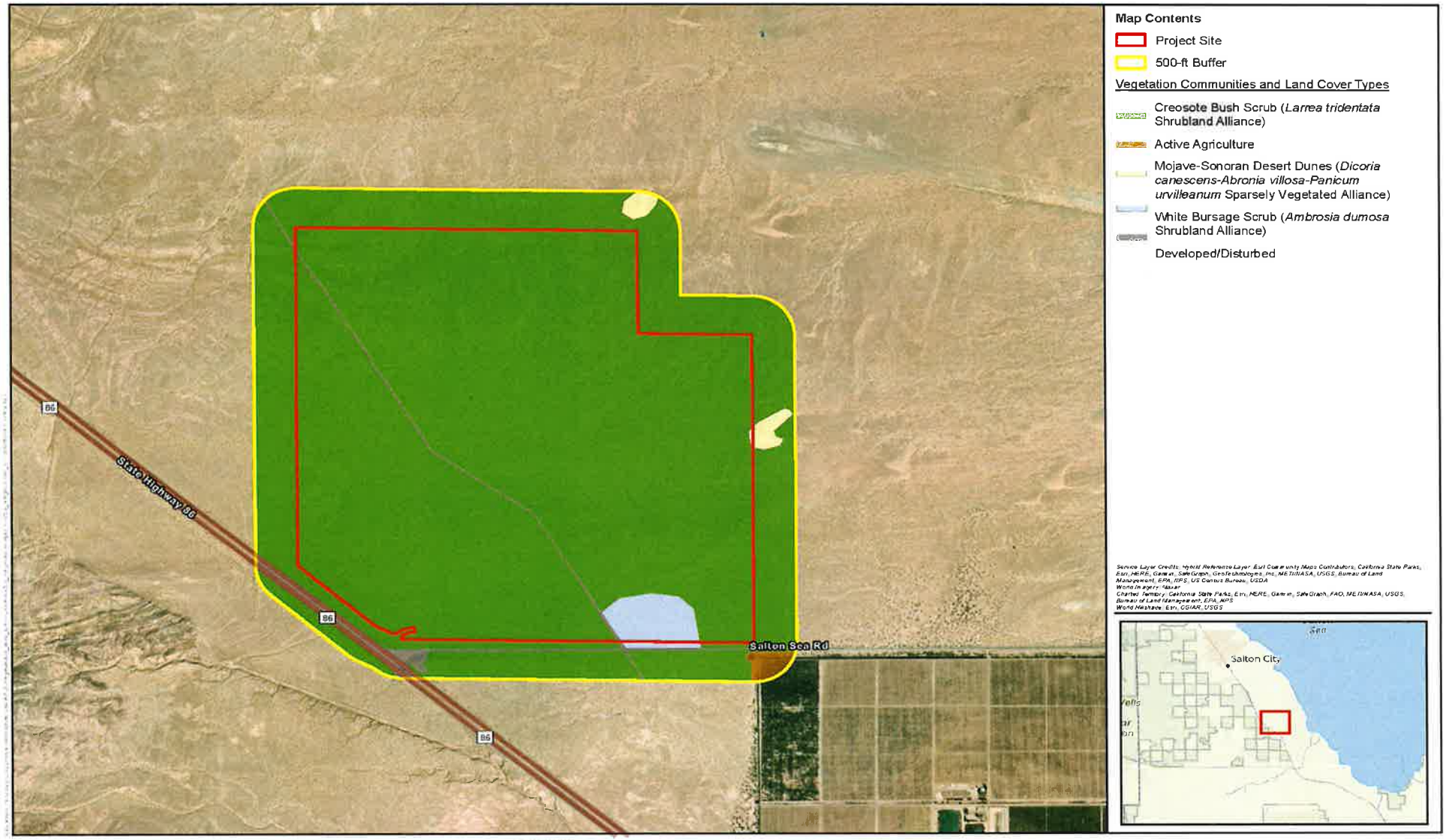
Vegetation Communities/Land Cover. The majority of the Survey Area consists of creosote bush scrub. The location of each vegetation community/land cover in the project site and Survey Area are shown in Figure 5**Error! Reference source not found.**. Acreages of each habitat and vegetation community in the project site are shown in Table 3. A detailed description of each vegetation community/land cover is provided in the *Biological Technical Report for the North Star 3 Project* (Appendix C of this Initial Study).

Table 3. Vegetation Communities and Land Covers in Project Site and Survey Area

Vegetation Communities and Land Covers	Acres in Project Site	Acres in Adjacent 500-ft Buffer
Creosote Bush Scrub	580.52	230.07
White Bursage Scrub	13.39	1.78
Mojave-Sonoran Desert Dunes	0.18	5.62
Active Agriculture	0	3.69
Developed/Disturbed	2.44	13.38
Total	**596.53**	**254.54**

Source: Appendix C of this Initial Study

Figure 5. Vegetation Communities and Land Cover Types



Source: Appendix C of this Initial Study

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Wildlife Observed. Wildlife species observed included, Cooper's hawk (*Accipiter cooperii*), California horned lark (*Eremophila alpestris actia*), American crow (*Corvus brachyrhynchos*), greater roadrunner (*Geococcyx californianus*), prairie falcon (*Falco mexicanus*), yellow-rumped warbler (*Setophaga coronata*), black phoebe (*Sayornis nigricans*), and signs of coyote (*Canis latrans*), and kangaroo rat (*Dipodomys* sp.). A full list of wildlife species observed on or immediately adjacent to the Survey Area is included in Appendix C of this Initial Study.

Special-Status Species Assessment. As previously mentioned above, the literature review resulted in 13 special-status plant and 45 special-status wildlife species that have recently and historically been recorded in the vicinity of the project site or that are highly associated with habitat that occurs within the Survey Area.

PLANTS

Numerous special-status plant species have been recorded within five miles of the project site, according to the CNDDB and CNPSEI. Of all available records, a total of 10 species were identified as those with the potential for occurrence within the vicinity of the project site. Species with CNPS designation of 4.3 were not included in this analysis, as this ranking is considered a review list/watch list and is defined as "not very endangered in California." Descriptions of the CNPS designations are shown in Table 4.

Table 4. CNPS Status Designations

List Designation	Meaning
1A	Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere
1B	Plants Rare, Threatened, or Endangered in California and Elsewhere
2A	Plants Presumed Extirpated in California, But Common Elsewhere
2B	Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
3	Plants about which we need more information; a review list
4	Plants of limited distribution; a watch list
List 1B, 2, and 4 extension meanings:	
.1	Seriously threatened in California (over 80 percent of occurrences threatened/high degree and immediacy of threat)
.2	Moderately threatened in California (20 to 80 percent occurrences threatenedV/moderate degree and immediacy of threat)
.3	Not very threatened in California (less than 20 percent of occurrences threatened/low degree and immediacy of threat or no current threats known)

Source: Appendix C of this Initial Study

Due to the presence of suitable habitat and several known recent occurrences within five miles of the project site, the following species has a **high potential** to occur:

- Orcutt's woody-aster (*Xylorhiza orcuttii*) is a CRPR 1B.2 and BLM Sensitive plant species. One recent Calflora record and one recent CNDDB record, both observed in 2011, were identified within five miles of the project site. An additional historic Calflora record was identified within five miles of the project site. Suitable habitat to support this species occurs in the project site among the sandy soils of the creosote bush scrub and white bursage scrub.

Due to the presence of suitable habitat and several known recent occurrences within five miles of the project site, the following species have a **moderate potential** to occur:

- Harwood's milkvetch (*Astragalus insularis* var. *harwoodii*) is a CRPR 2B.2 plant species. One historic Calflora record and one historic CNDDB record were identified within five miles of the project site. Suitable habitat to support this species occurs in the project site among the sandy soils of the creosote bush scrub and white bursage scrub, and marginal dune habitat is present along the eastern project boundary adjacent to the large sand dune in the eastern survey buffer.
- Gravel milkvetch (*Astragalus sabulonum*) is a CRPR 2B.2 plant species. Two historic CNDDB records were identified within five miles of the project site. Suitable habitat to support this species occurs in the project site among the sandy soils of the creosote bush scrub and white bursage scrub, and marginal dune habitat is present along the eastern project boundary adjacent to the large sand dune in the eastern survey buffer.
- Abrams' spurge (*Euphorbia abramsiana*) is a CRPR 2B.2 plant species. One recent CNDDB record was observed in 2012 approximately five miles of the project site. Suitable habitat to support this species occurs in the project site among the sandy soils of the creosote bush scrub and white bursage scrub.
- Torrey's boxthorn (*Lycium torreyi*) is a CRPR 4.2 plant species. One recent Calflora record observed in 2013 was identified within five miles of the project site. Suitable habitat to support this species occurs in the project site among the sandy soils of the creosote bush scrub and white bursage scrub.

The following species were found to have a **low potential** to occur within the project site because of limited habitat for the species on the site and a known occurrence has been reported in the database, but not within five miles of the project site, or suitable habitat strongly associated with the species occurs within the project site, but no records were found in the database search:

- Peirson's pincushion (*Chaenactis carphoclinia* var. *peirsonii*), CRPR 1B.3 and BLM Sensitive species
- Brown turbans (*Malperia tenuis*), CRPR 2B.3
- Hairy stickleaf (*Mentzelia hirsutissima*), CRPR 2B.3
- Sand food (*Pholisma sonorae*), CRPR 1B.2 and BLM Sensitive species
- Orocopia sage (*Salvia greatae*), CRPR 1B.3 and BLM Sensitive species

WILDLIFE

The literature search documented 45 special-status wildlife species in the vicinity of the Survey Area. Of the 45 special-status wildlife species identified in the literature review, three were found to have a high potential to occur, three were found to have a moderate potential to occur and 15 were found to have a low potential to occur; the remaining 24 species are presumed absent from the project site. A discussion of the special-status wildlife species that have a high or moderate potential to occur within the Survey Area are provided below.

Three species were found to have **high potential** to occur within the Survey Area due to the presence of suitable habitat for the species on site and because a known occurrence has been recorded within five miles of the site.

- Flat-tailed horned lizard (*Phrynosoma mcallii*) is a CDFW species of special concern (SSC) and BLM Sensitive species. This species is most commonly found on sandy flats and valleys within desert scrub habitat with little or no windblown sand. They can also be found on salt flats and gravelly soils. The creosote bush scrub and white bursage scrub in the Survey Area provides suitable habitat for the flat-tailed horned lizard.

- Burrowing owl (*Athene cunicularia*) is a CDFW SSC and a BLM Sensitive species. This species is typically found in dry open areas with few trees and short grasses; it is also found in vacant lots near human habitation. It uses uninhabited mammal burrows for roosts and nests, often in close proximity to California ground squirrel (*Otospermophilus beecheyi*) colonies. Suitable burrowing owl habitat is present through the Survey Area in creosote bush scrub and white bursage scrub. One burrow was observed within the southeastern portion of the project site during the October 2022 biological reconnaissance survey. The burrow was determined to be a potential burrowing owl burrow, meaning it was suitable for use by burrowing owl based on its size and other characteristics (e.g., open habitat and lack of thick vegetation); however, it lacked evidence indicating current or past occupation of use by burrowing owl (i.e., live owl, whitewash, or pellets).
- Desert kit fox (*Vulpes macrotis arsipus*) is a fur-bearing mammal that is protected under the CCR Title 14, Chapter 5, Section 460, which prohibits take of the species at any time. Therefore, CDFW does not have a mechanism for take of the species by development projects. The desert kit fox is found in desert habitats that include vegetation communities in the Survey Area such as creosote bush scrub. Suitable habitat for desert kit fox is present throughout the Survey Area in creosote bush scrub and white bursage scrub.

Three species were found to have **moderate potential** to occur within the Survey Area because habitat (including soils and elevation factors) for the species occurs in the Survey Area and a known occurrence exists within the database search, but not within five miles of the Survey Area or a known occurrence exists within five miles of the Survey Area and marginal or limited amounts of habitat occurs within the Survey Area:

- Colorado Desert fringe-toed lizard (*Uma notata*) is a CDFW SSC and BLM Sensitive species. This species is commonly found in sparsely vegetated areas with fine sand including flats, riverbanks, dunes, and washes. This species burrows in fine loose sand. Suitable habitat for Colorado Desert fringe-toed lizard is present within the Survey Area, especially in areas mapped as Mojave-Sonoran Desert dunes and in portions of the creosote bush scrub, primarily east of the access road, where loose, sandy soils were present.
- Palm Springs pocket mouse (*Perognathus longimembris bangsi*) is a CDFW SSC and a BLM Sensitive species. This species occurs in sparsely vegetated creosote bush scrub, desert scrub, and grassland habitats with flat or gently sloping terrain and loose, sandy soils. Suitable creosote bush scrub and white-bursage scrub is present in the Survey Area.
- American badger (*Taxidea taxus*) is a CDFW SSC. American badgers are found in a wide variety of open habitats with friable soils including desert scrub and woodland habitats. Suitable habitat for this species is present throughout the Survey Area in creosote bush scrub and white bursage scrub.

Fifteen species were found to have a **low potential** to occur within the Survey Area. Two of the 15 were determined to have a low potential to occur because there is limited habitat for the species in the Survey Area and a known occurrence has been reported in the database, but not within five miles of the Survey Area, or suitable habitat strongly associated with the species occurs in the Survey Area, but no records were found in the database search:

- Short-eared owl (*Asio flammeus*), CDFW SSC; and
- Loggerhead shrike (*Lanius ludovicianus*) is a CDFW SSC.

The remaining 13 species, were determined to have low potential to occur in the Survey Area, despite the lack of suitable roosting, wintering, and nesting habitat, due to their potential to occur as flyovers during foraging activities (bats) or enroute to the Salton Sea (birds):

- Mountain plover (*Charadrius montanus*), USFWS BCC, CDFW SSC, and BLM Sensitive species;
- Western snowy plover (*Charadrius nivosus nivosus*), USFWS THR, CDFW SSC, and BLM Sensitive species;
- Gull-billed tern (*Gelochelidon nilotica*), CDFW SSC;
- California brown pelican (*Pelecanus occidentalis* californicus), CDFW FP and BLM Sensitive species;
- Black skimmer (*Rynchops niger*), CDFW SSC;
- Pallid bat (*Antrozous pallidus*), CDFW SSC and BLM Sensitive species;
- Western mastiff bat (*Eumops perotis californicus*), CDFW SSC and BLM Sensitive species;
- California leaf-nosed bat (*Macrotus californicus*), CDFW SSC and BLM Sensitive species;
- Small-footed myotis (*Myotis ciliolabrum*), BLM Sensitive species;
- Fringed myotis (*Myotis thysanodes*), BLM Sensitive species;
- Cave myotis (*Myotis velifer*), CDFW SSC and BLM Sensitive species;
- Yuma myotis (*Myotis yumanensis*), BLM Sensitive species; and
- Pocketed free-tailed bat (*Nyctinomops femorosaccus*), CDFW SSC.

USFWS Designated Critical Habitat

The project site is not located within any USFWS-designated critical habitat. The closest USFWS-designated critical habitat is for desert pupfish located approximately 3.6 miles south of the project site, in San Felipe Creek located south of SR 78 and SR 86.

PROJECT IMPACTS

Special-Status Plants

The literature review identified 10 special-status plant species that have the potential to occur within the project site. There is high potential for one special-status plant species, Orcutt's woody-aster, to be present within the project site; and moderate potential for four additional special-status plant species, Harwood's milkvetch, gravel milkvetch, Abram's spurge, and Torrey's boxthorn, to be present within the project site . There is suitable habitat to support these species in the project site among the sandy soils of the creosote bush scrub and white bursage scrub, and within the marginal dune habitat present along the eastern project boundary. Impacts that may occur to these species include loss of individuals, habitat, and seedbank. Depending on the size of the population, this impact would be significant. Implementation of Mitigation Measures BIO-1 through BIO-3 would reduce potential impacts on special-status species to a level less than significant.

Five special-status plant species have a low potential to occur in the project site. There is habitat for these species in the project site, but the literature review identified no recent or historic occurrence records in or near the project site. These species include Peirson's pincushion, brown turbans, hairy stickleaf, sand food, and Orocopia sage. Impacts to these species resulting from project activities are not expected to occur and are considered to be less than significant.

Special-Status Wildlife

The habitat assessment detected no special-status wildlife species onsite. Three special-status wildlife species were found to have a high potential to occur within the Survey Area: flat-tailed horned lizard, burrowing owl, and desert kit fox. Direct impacts to these species

that could occur include injury, mortality, loss of nests or young, and destruction of habitat. Indirect impacts include loss of nesting, roosting, and foraging habitat, loss of shelter sites, and increase in anthropogenic effects (i.e., noise levels, introduction and/or spread of invasive/nonnative species, human and vehicular activity, dust, nighttime lighting). Impacts to these species would be considered significant. Implementation of Mitigation Measures BIO-2 through BIO-6 would reduce potential impacts on special-status species to a level less than significant.

Three special-status wildlife species were found to have a moderate potential to occur within the Survey Area: Colorado Desert fringe-toed lizard, Palm Springs pocket mouse, and American badger. Impacts to Palm Springs pocket mouse, flat-tailed horned lizard, and Colorado Desert fringe-toed lizard are not anticipated to rise to a level of significant impact due to the proximity of the project site to anthropogenic disturbances (i.e., SR-86, active agriculture) and the presence of existing suitable habitat in the region. However, potential impacts to these species will be reduced to a level of less than significant with the implementation of Mitigation Measures BIO-2, BIO-3, and BIO-6.

Although no roosting habitat for bats was present on the project site, foraging habitat for a number of special-status bat species occur throughout the project site and in proximity to the project site at the Salton Sea. Bat species in California are protected by Section 4150 (protection of non-game mammals from take) of the California Fish and Game Code. Section 4150 of the California Fish and Game Code prohibits the take of any naturally occurring mammals in California that are nongame mammals, which includes all species of the Order Chiroptera (bats). Direct impacts to special-status bat species that could occur include injury and mortality due to collision with solar panels or other structures. Indirect impacts include loss of foraging habitat, and increase in anthropogenic effects (i.e., noise levels, increase in human activity, increase in dust) that may result in altered bat behavior that could lead to lower fitness due to decreased foraging activities. Loss of foraging bat habitat on the project site is not considered significant due to the presence of open dessert habitat, suitable for foraging bats, in the region where the project site is located including surrounding the project site. Mortality or injury of individual special-status bats as a result of the project would be considered a significant impact. Implementation of Mitigation Measures BIO-2, BIO-3, and BIO-7 would reduce potential impacts on bat species to a level less than significant.

Raptors and Migratory Birds

There is potential nesting and foraging habitat for migratory birds and raptors protected by the MBTA and the California Fish and Game Code throughout and adjacent to the project site. The project site provides nesting habitat for ground-nesting species as well as species such as osprey (*Pandion haliaetus*) and common ravens (*Corvus corax*) that nest in desert scrub habitat or on power line poles. Construction of the project could directly or indirectly affect nesting birds within and adjacent to the project site if activities occur during the nesting bird season. Direct impacts to nesting avian species include injury, mortality, loss of young, and nest failure. Indirect impacts include loss of foraging and nesting habitat for passerine and raptors species, increase in noise and human activities, and potential introduction of invasive/nonnative species. Implementation of Mitigation Measures BIO-2, BIO-3, and BIO-5 would reduce potential impacts to a level less than significant.

The project site is located within the Pacific Flyway, a major corridor for migratory birds, and it is in proximity to the Salton Sea and Imperial Valley agricultural habitat. The Salton Sea and Imperial Valley agricultural habitat are recognized for providing breeding, wintering, and migratory stopover habitats for a variety of bird species including special-status species such as Western snowy plover, mountain plover, and California brown pelican. Direct impacts to raptors and migratory birds may include project-related injury or mortality due to collision with buildings, transmission and distribution lines, chain link fence, and other similar structures. No impacts due to bird collisions with the distribution line are anticipated since the proposed project is anticipated to tie into the existing distribution line. Additionally, flat reflective surfaces (e.g. photovoltaic panels) polarize light and researchers hypothesize that

birds may mistake these reflective surfaces for bodies of water, a phenomenon referred to as the lake effect. Mortality or injury of individual birds and raptors as a result of the project would be considered a significant impact. Implementation of Mitigation Measure BIO-7 would reduce potential impacts to level less than significant.

Mitigation Measures:

BIO-1 **Rare Plant Surveys:** Prior to initiating ground disturbance, three botanical field surveys shall be conducted that are floristic in nature (i.e., identifying all plant species to the taxonomic level necessary to determine rarity, and inclusive of areas proposed for disturbance and indirectly impacted by the Project. The surveys shall be conducted by a qualified botanist or qualified biologist in accordance with the USFWS Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants (USFWS 1996); the CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW 2018); and the CNPS Botanical Survey Guidelines (CNPS 2001). If any special-status species are observed during the botanical field surveys, the project shall be designed to reduce impacts to these species through the establishment of buffers, to the extent feasible.

Buffer distances will be determined by the qualified botanist or biologist, typically 50 feet or greater from an identified special-status plant species, unless the qualified botanist or biologist determines a reduced buffer would suffice to avoid impacts to the species. All special status plant species identified on site shall be mapped with a submeter GPS device and depicted on a site-specific aerial photograph and topographic map and included on any construction, grading, fuel modification, or other pertinent plans. If avoidance of special-status plant species is not feasible, a Special-Status Plant Relocation Plan shall be developed and implemented. The Special-Status Plant Relocation Plan shall address mitigation for special-status plants, including topsoil salvage to preserve seed bank and management of salvaged topsoil; seed collection, storage, possible nursery propagation, and planting; salvage and planting of bulbs as feasible; location of on-site receptor sites; land protection instruments for receptor areas; and funding mechanisms. The Special-Status Plant Relocation Plan shall include methods, monitoring, reporting, success criteria, adaptive management, and contingencies for achieving success.

The Project proponent shall mitigate the loss of the plant(s) through the purchase of mitigation credits from a CDFW-approved bank or land acquisition and conservation at a minimum 2:1 (replacement to impact) ratio for occupied habitat should success criteria not be met, or presence of the specific is assumed based on suitable habitat acreage within the Project area. Note that a higher ratio may be warranted if the proposed mitigation lands are located far away from the Project site.

BIO-2 Minimization of Impacts to Migratory Birds, Bats, and Raptors: To reduce indirect impacts on migratory birds, bats, and raptors, the project shall comply with APLIC 2012 Guidelines for overhead utilities, as appropriate, to minimize avian collisions with transmission facilities (APLIC 2012). All electrical components on the project site shall either be underground or the transmission lines and poles will follow design plans recommended by APLIC (i.e., installing covers over the insulator and conductor on the center phase, installing phase covers over all three insulators and conductors for three phase transmission lines, lowering and/or replacing the crossarm with a longer cross

arm on pole-top pin constructions), or utilizing link marking devices (e.g., aerial marker spheres, spirals, or suspended devices).

BIO-3 **Worker Environmental Awareness Program.** Prior to project construction, a Worker Environmental Awareness Program shall be developed and implemented by a qualified biologist and shall be available in both English and Spanish. Handouts summarizing potential impacts on special-status biological resources and the potential penalties for impacts on these resources shall be provided to all construction personnel. At a minimum, the education program shall include the following:

- the purpose for resource protection;
- a description of special-status species including representative photographs and general ecology;
- occurrences of USACE, RWQCB, and CDFW regulated features in the project study area;
- regulatory framework for biological resource protection and consequences if violated;
- sensitivity of the species to human activities;
- avoidance and minimization measures designed to reduce the impacts on special-status biological resources;
- environmentally responsible construction practices;
- reporting requirements;
- the protocol to resolve conflicts that may arise at any time during the construction process; and
- workers sign acknowledgement form indicating that the Environmental Awareness Training and Education Program that has been completed, which shall be kept on record.

BIO-4 **Burrowing Owl Avoidance, Minimization, and Mitigation:** Four breeding season surveys for burrowing owl shall be completed prior to project construction by a qualified avian biologist. Surveys shall be conducted as detailed within Appendix D of the Staff Report on Burrowing Owl Mitigation (California Department of Fish and Game [CDFG] 2012). This survey shall include 100 percent coverage of the Project site. A report summarizing the breeding season surveys including all requirement for survey reports shall be submitted to CDFW for review and approval. If burrowing owl or sign thereof is not detected, no further action is necessary.

- If burrowing owl active burrowing owl burrows, or sign thereof are found, the qualified avian biologist shall prepare and implement a plan for avoidance, minimization, and mitigation measures to be reviewed and approved by CDFW prior to commencing Project activities. The plan shall propose mitigation for permanent impacts to nesting, loss of foraging habitat, occupied and satellite burrows and/or burrowing

owl habitat such that the habitat acreage, number of burrows and burrowing owls impacted are replaced with permanent conservation of similar vegetation communities to provide for burrowing owl nesting, foraging, wintering, and dispersal comparable to or better than that of the impact area. The mitigation land shall be sufficiently large acreage with presence of fossorial mammals. The mitigation lands may require habitat enhancements including enhancement or expansion of burrows for breeding, shelter, and dispersal opportunity, and remove or control of population stressors. Permanent protection of mitigation land shall be through a conservation easement deeded to a nonprofit conservation organization or public agency with a conservation mission. The project proponent shall develop and implement a mitigation land management plan to address long-term ecological sustainability and maintenance of the site for burrowing owls, and funding for the maintenance and management of mitigation land through the establishment of a long-term funding mechanism such as an endowment. If deemed appropriate by CDFW, conservation species credits may also be purchased at a CDFW-approved conservation bank.

- To ensure that the Project avoids impacts to burrowing owl, a qualified avian biologist shall complete a take avoidance survey no less than 14 days prior to initiating ground disturbing activities using the recommended methods described in the Staff Report on Burrowing Owl Mitigation (CDFG, 2012). Burrowing owls may recolonize a site after only a few days. Time lapses between Project activities trigger subsequent take avoidance surveys including but not limited to a final survey conducted within 24 hours prior to ground disturbance.

BIO-5 **Pre-Construction Nesting Bird Survey:** If construction or other project activities are scheduled to occur during the bird breeding season (typically February 1 through August 31 for raptors and February 15 through August 31 for the majority of migratory bird species), a pre-construction nesting-bird survey shall be conducted by a qualified avian biologist to ensure that active bird nests, including those for burrowing owl, will not be disturbed or destroyed. The survey shall be completed no more than three days prior to initial ground disturbance. The nesting-bird survey should include the project site and adjacent areas where project activities have the potential to affect active nests, either directly or indirectly due to construction activity or noise. If an active nest is identified, the biologist shall establish an appropriately sized disturbance-limit buffer around the nest using flagging or staking. Construction activities shall not occur within any disturbance-limit buffer zones until the nest is deemed inactive by the qualified biologist. If construction activities cease for a period of greater than three days during the bird breeding season, a pre-construction nesting bird survey shall be conducted prior to the commencement of activities. Final construction buffers or setback distances shall be determined by the qualified biologist in coordination with USFWS and CDFW on a case-by-case basis, depending on the species, season in which disturbance shall occur, the type of disturbance, and other factors that could influence susceptibility to disturbance (e.g., topography, vegetation, existing disturbance levels, etc.).

BIO-6 **Flat-Tailed Horned Lizard and Colorado Desert Fringe-Toed Lizard:** Prior to project activities, surveys for presence/absence of flat-tailed horned lizard (FTHL) and Colorado Desert Fringe-toed Lizard (CDFTL) shall be conducted using parallel, linear routes that are evenly spaced in areas of suitable habitat and be performed by a qualified Project Biologist.

For FTHLs, each transect shall be 10 meters apart. On each transect, FTHLs, sign of FTHLs (i.e., scat or tracks), and harvester ant mounds shall be surveyed. If FTHL or sign is located while surveying, the biologist shall pause, scan the immediate area, follow the tracks (if present), and scan the immediate vicinity of the tracks, scat, and/or any mound observed. Three surveys shall be conducted, spaced two weeks apart during April through September. Surveys will be conducted when surface temperatures in the sun exceed 85 degrees Fahrenheit. Scat surveys shall not be conducted for at least 12 days after heavy rainstorms, or strong winds of an intensity sufficient to move a considerable amount of sand across roads.

For CDFTL, each transect shall be spaced 5 meters apart. One surveyor shall focus on habitat/substrate 30-40 meters in front, while one surveyor focuses on the area 2-10 meters in front. Surveys shall be conducted only when winds are 10 mph or less and it is not raining. Up to six surveys shall be conducted over the same area on separate days by a qualified biologist between April and September when ground temperature in sun exceeds 85 degrees Fahrenheit.

The project proponent shall provide the results of the surveys for both species to CDFW prior to start of project activities.

If FTHL or CDFTL are present, the following minimization and mitigation measures shall apply:

- During project activities, the project biologist shall check areas of active disturbance at least hourly. Prior to construction, a qualified project biologist shall clear the area of FTHL or CDFTL. During construction, a project biologist shall be present in each area of active surface disturbance throughout the workday from initial clearing to project completion. FTHL or CDFTL will be moved out of harm's way during all construction activities and will be conducted by two or more biological monitors when construction activities are being conducted in suitable habitat. To the extent feasible, methods to find FTHL and CDFTL will be designed to achieve a maximal capture rate and will include, but not be limited to using strip transects, tracking, and raking around shrubs. During construction, the minimum survey effort will be 30 minutes per acre.
- Occupied habitat shall be mitigated at a 1:1 ratio (1 acres of mitigation for every acre of impacts) through off-site acquisition of FTHL and CDFTL habitat of equal or greater quality that is conserved and managed in perpetuity. Proposed mitigation lands shall be approved by CDFW.

BIO-7 **Bird and Bat Conservation Strategy:** Prior to the start of construction activities, a Bird and Bat Conservation Strategy (BBCS) will be developed in consultation between the Applicant, CDFW, and USFWS and will be subject to the approval of CDFW and USFWS. The BBCS will include measures to be implemented to minimize bird and bat fatalities at the project site. The BBCS could include but may not be limited to: bird and bat inventory studies (e.g., seasonal bird point count surveys, night bat surveys), pre-construction clearance survey methods and timing, buffer distances based on construction activity and sensitivity of nests/birds, measures for avoidance of impact during

bird nesting season (e.g., seasonal work restrictions), implementation of construction noise and dust minimization measures, implementation of trash abatement, biological monitoring, bat acoustic deterrents, nest deterrents (i.e., netting/covering equipment, supplies, or perches), implementing anti-perching devices and avian visual deterrents, and using emerging technologies such as antireflective film overlays on the panels and/or chemosensory and sonic deterrents. The BBCS will be in compliance with the MBTA and California Fish and Game Code Sections 3503, 3503.5, 3513, and 4150.

BIO-28 **Pre-Construction Survey for Special-Status Species:** A pre-construction survey shall be conducted for special-status wildlife species within all areas of potential permanent and temporary disturbance. The pre-construction survey shall take place no more than 14 days prior to the start of ground-disturbing activities. The pre-construction surveys shall take place regardless of breeding season timing and shall focus on identifying the presence of special-status wildlife species present within the Survey Area or that were identified as having a high/moderate potential to occur on the site. These species include, but are not limited to, flat-tailed horned lizard, burrowing owl, monarch butterfly, desert kit fox, loggerhead shrike, western yellow bat, Yuma myotis, American badger, and Crotch's bumblebee. Surveys for Crotch's bumblebee shall be conducted in accordance with CDFW's methods as outlined in *Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species*. Should any special status species be identified during the pre-construction survey, consultation to develop suitable avoidance and minimization measures with the appropriate agency (USFWS, CDFW) may need to be undertaken.

b) **Less than Significant_Impact with Mitigation Incorporated.** As shown in Figure 5, Mojave-Sonoran Desert dues occur adjacent to the project site within the survey buffer. Mojave-Sonoran Desert dunes has a state rarity ranking of S3.2, indicating it is vulnerable in California due to "a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation from the state" (Appendix B of this Initial Study). Approximately 0.18 acre of Mojave-Sonoran Desert dunes was observed within the project site and approximately 5.62 acres was mapped within the survey buffer. The amount of this vegetation community that may be permanently removed is minor (0.18 acre in total) however, with implementation of Mitigation Measure BIO-27, impacts to natural communities would be reduced to a level less than significant.

Mitigation Measure:

BIO-27 **Avoidance of Mojave-Sonoran Desert Dunes:** To avoid permanent impacts to the Mojave-Sonoran Desert Dunes, a sensitive natural community, the project proponent shall fully avoid dunes found within and adjacent to the project site. If necessary, the project site boundary shall be adjusted to comply with full avoidance with an appropriate buffer. If impacts to dune habitat is not feasible, the project proponent shall mitigate for the permanent impacts at a minimum 2:1 (2 acres of mitigation for every 1 acre of impact). Mitigation shall include: off-site land acquisition that is conserved and managed in perpetuity for the natural community; payment of an in-lieu fee to a conservation organization; and/or restoration, creation, rehabilitation, enhancement, or other types of habitat improvement.

c) **Less than Significant Impact with Mitigation Incorporated.** According to the *Aquatic Resources Delineation Report for the North Star 3 Project* (Appendix D of this Initial Study), the project site does not contain federally defined wetlands. Although there are areas that have indicators of ponding water, no hydrophytic vegetation is present within these areas onsite.

Within the study area, there is a total of 23.32 acres of upland-vegetated ephemeral streams that fall under CDFW jurisdiction, 18.99 acres of upland-vegetated ephemeral streams that are classified as waters of the United States, and 18.99 acres of ephemeral streams that are considered waters of the State – all of which have the potential to be impacted by the proposed project. Impacts to aquatic features may require permits from several regulatory agencies pursuant to federal and State laws. Jurisdictional waters would require certification compliance with Section 401 of the Clean Water Act (CWA) (USACE) and the Porter-Cologne Act (RWQCB), and an agreement pursuant to California Fish and Game Code Sections 1600 and 1602 (CDFW). With implementation of Mitigation Measure BIO-8, impacts to jurisdictional waters would be reduced to a level less than significant with compliance to aquatic resources regulatory permitting.

Mitigation Measure:

BIO-8 **Aquatic Resources Regulatory Permitting.** Project-related impacts that will occur to the riparian areas or areas subject to Fish and Game Code Section 1602, shall be mitigated at a minimum of 2:1 ratio (two acres of mitigation for every impact to one acre of resource). The project proponent shall obtain all necessary regulatory permits for resources under the jurisdiction of the USACE, CDFW, and/or RWQCB, prior to the impact occurring. Refer to the *Aquatic Resource Delineation Report for the North Star 3 Project* (Appendix D of this Initial Study) for preliminary determination of regulatory limits that areas that may be regulated by USACE, CDFW, or RWQCB. Permitting includes preparation and submittal of a Pre-Construction Notification under Section 404 of the federal CWA, an Application for Water Quality Certification under Section 401 of the federal CWA and a Notification of Lake or Streambed Alteration under Section 1600 of the California Fish and Game Code. A completed CEQA document, and Notice of Determination, will be necessary to submit along with the applications. Other items such as finalized project plans, quantities of fill material, supporting technical studies, etc., are also submitted along with the applications. As a part of this process, the project must also identify and approve mitigation through the respective agencies.

Mitigation shall include land acquisition that is conserved and managed in perpetuity for the resource; payment of an in-lieu fee to a conservation organization; and/or restoration, creation, rehabilitation, enhancement, or other types of habitat improvement. The type of mitigation and final acreage of mitigation shall be approved by the regulatory agencies during the permitting process.

d) **Less than Significant Impact with Mitigation Incorporated.** The project site provides wildlife movement opportunities because the majority of the project site contains suitable vegetation and/or cover to support some terrestrial wildlife movement and it consists of open and relatively unimpeded land. However, the project site is not located within a recognized terrestrial species corridor or major habitat linkage. Additionally, the project site would not be considered a wildlife movement corridor that would need to be preserved to allow wildlife to move between important natural habitat areas due to the absence of conserved natural lands in the vicinity and the project site's proximity to areas containing existing disturbances (i.e., paved highway, roads, and active agricultural land). The project site is also mostly surrounded by open unimpeded desert land, functioning as a single contiguous block of habitat rather than a corridor. The project site is exposed and contains no major features that would be considered critical movement corridors for wildlife. Although the dirt roads and desert washes located within the project boundaries are likely utilized by wildlife moving through the area, these features would not be considered necessary linkages between conserved natural habitat areas or critical for wildlife movement because of the nearby open space surrounding the project. Nonetheless, implementation of Mitigation Measures BIO-10 through BIO-27 would minimize potential impacts to any existing terrestrial wildlife corridor, and impacts would be reduced to a level less than significant.

Mitigation Measures:

BIO-10 **Project Biologist:** The Project proponent shall designate a Project Biologist who shall be responsible for overseeing compliance with protective measures for biological resources during vegetation clearing and work activities within and adjacent to areas of native habitat. The Project Biologist shall be familiar with the local habitats, plants, and wildlife, and have experience performing all necessary surveys and monitoring for biological resources present on site. The Project Biologist shall also maintain communications with the Contractor to ensure that issues relating to biological resources are appropriately and lawfully managed and shall monitor construction. The Project Biologist shall monitor all ground disturbing activities within construction areas, including activities during nesting bird season (generally February 1 to September 15), such as vegetation removal, the implementation of Best Management Practices (BMPs), and installation of security fencing to protect native species. The Project Biologist shall ensure that all wildlife and regulatory agency permit requirements, conservation measures, and general avoidance and minimization measures are properly implemented and followed.

BIO-11 **Project Site Delineation:** The boundaries of all areas to be newly disturbed (including solar facility areas, staging areas, access roads, and sites for temporary placement of construction materials and spoils) shall be delineated with stakes and flagging prior to disturbance. All disturbances, vehicles, and equipment shall be confined to the flagged areas. Stockpiling of material shall only be allowed within established work areas.

BIO-12 **Wildlife Entrapment Avoidance:** No potential wildlife entrapments (e.g., trenches, bores) shall be left uncovered overnight. Any uncovered pitfalls will be excavated to 3:1 slopes at the ends to provide wildlife escape ramps. Alternatively, man-made ramps may be installed. Covered pitfalls will be covered completely to prevent access by small mammals or reptiles.

To avoid wildlife entrapment (including birds), all pipes or other construction materials or supplies shall be covered or capped in storage or laydown areas, and at the end of each construction workday. No pipes or tubing of sizes or inside diameters ranging from 1 to 10 inches shall be left open either temporarily or permanently.

BIO-13 **Rodenticide:** No anticoagulant rodenticides, such as Warfarin and related compounds (indandiones and hydroxycoumarins), shall be used within the project site or in support of any other project activities.

BIO-14 **Trash Abatement:** All trash and food-related waste shall be placed in self-closing containers and removed regularly from the site to prevent overflow. Workers shall not feed wildlife.

BIO-15 **Project Site Speed Limit:** To minimize the likelihood for vehicle strikes on wildlife, speed limits shall not exceed 15 miles per hour when driving on access

roads. All vehicles required for O&M must remain on designated access/maintenance roads.

BIO-16 **Artificial Lighting:** Avoid nighttime construction lighting or if nighttime construction cannot be avoided, use shielded directional lighting pointed downward and towards the interior of the project sites, thereby avoiding illumination of adjacent natural areas and the night sky.

BIO-17 **Equipment Mufflers:** All construction equipment used for the projects shall be equipped with properly operating and maintained mufflers.

BIO-18 **Hazardous Substances:** Hazardous materials and equipment stored overnight, including small amounts of fuel to refuel hand-held equipment, shall be stored within secondary containment when within 50 feet of open water or resources subject to Fish and Game Code section 1602 to the fullest extent practicable. Secondary containment shall consist of a ring of sandbags around each piece of stored equipment/structure. A plastic tarp/visqueen lining with no seams shall be placed under the equipment and over the edges of the sandbags, or a plastic hazardous materials secondary containment unit shall be utilized by the Contractor. The Contractor will be required to conduct vehicle refueling in upland areas where fuel cannot enter waters of the U.S. or areas subject to Fish and Game Code section 1602, and in areas that do not have potential to support federally threatened or endangered species. Any fuel containers, repair materials, including creosote-treated wood, and/or stockpiled material that is left on site overnight, shall be secured in secondary containment within the work area and staging/assembly area and covered with plastic at the end of each workday. In the event that no activity is to occur in the work area for the weekend and/or a period of time greater than 48 hours, the Contractor shall ensure that all portable fuel containers are removed from the project site. All equipment shall be maintained in accordance with the manufacturer's recommendations and requirements. Equipment and containers shall be inspected daily for leaks. Should a leak occur, contaminated soils and surfaces will be cleaned up and disposed of following the guidelines identified in the Stormwater Pollution Prevention Plan or equivalent, Materials Safety Data Sheets, and any specifications required by other permits issued for the project. The Contractor shall utilize off-site maintenance and repair shops as much as possible for maintenance and repair of equipment. If maintenance of equipment must occur onsite, fuel/oil pans, absorbent pads, or appropriate containment will be used to capture spills/leaks within all areas. Maintenance of equipment shall occur in upland areas where fuel cannot enter waters of the U.S. or areas subject to Fish and Game Code section 1602, and in areas that do not have potential to support federally threatened or endangered species.

BIO-19 **Firearms and Pets:** Project personnel and any other individuals associated with the Project are prohibited from bringing any firearms or dogs on the Project Area during, except those in the possession of authorized security personnel or local, state, or federal law enforcement officials, dogs that may be used to

aid in official and approved monitoring procedures/protocols, or service dogs under Title II and Title III of the American with Disabilities Act. Open fire and pets shall be prohibited at all work locations and access roads. Smoking shall be prohibited along the Project alignment.

BIO-20 **Best Management Practices:** Appropriate BMPs shall be used by the Contractor to control erosion and sedimentation and to capture debris and contaminants from construction to prevent their deposition in waterways. Erosion and sediment control devices used for the proposed project, including fiber rolls and bonded fiber matrix, shall be made from biodegradable materials such as jute, with no plastic mesh, to avoid creating a wildlife entanglement hazard.

BIO-21 **Cross-country Vehicle Use:** Cross-country vehicle and equipment use outside of approved designated work areas and access roads shall be prohibited to prevent unnecessary ground and vegetation disturbance.

BIO-22 **Injured or Dead Wildlife:** Any injured or dead wildlife encountered during project-related activities shall be reported to the Project Biologist, biological monitor, CDFW, or a CDFW-approved veterinary facility as soon as possible to report the observation and determine the best course of action. For special-status species, the Project Biologist shall notify by phone or email the County, USFWS, and/or CDFW, as appropriate, within 24 hours of the discovery.

BIO-23 **Checking Beneath Vehicles:** The ground beneath all parked equipment and vehicles shall be inspected for wildlife before moving.

BIO-24 **Fugitive Dust Abatement:** Water applied to dirt roads and construction areas for dust abatement shall be used the minimal amount needed to meet safety and air quality standards to prevent the formation of puddles, which could attract wildlife. Pooled rainwater or floodwater shall be removed to avoid attracting wildlife to the active work areas.

BIO-25 **Invasive Plants:** The Contractor shall actively manage the spread of invasive and nonnative plants noxious weeds by implementing weed control activities, including, but not limited to, cleaning equipment and inspecting equipment prior to transport to the sites and cleaning of tires and underside of equipment prior to leaving the site, vacuuming and cleaning the interior of vehicles and heavy equipment that have been used off-site before bringing them to the Project site, clean by pressure washing, washing in hot water, freezing, or bleaching personal gear and clothing, including footwear, that have been worn offsite before bringing them to the Project site, and not transporting soil or other fill material from off-site locations to the Project area unless they are certified weed free. The introduction of exotic, nonnative, weed, and/or invasive plant species will be avoided and controlled wherever possible, and may be achieved through physical or chemical removal and prevention, limiting the size of any vegetation and/or ground disturbance to the absolute minimum, and limiting ingress and egress to defined routes. Preventing exotic plants from

entering the site via vehicular sources will include measures such as cleaning vehicles coming into and going from the site. Any use of herbicide for chemical removal of invasive and nonnative plants shall only use herbicides containing a harmless dye and registered with the California Department of Pesticide Regulation (DPR). All herbicides shall be applied in accordance with regulations set by the DPR. All herbicides shall be used according to label instructions. Labeled instructions of the herbicide used shall be made available to CDFW upon request. No herbicide application when winds are greater than five (5) miles per hour.

BIO-26 **Desert Kit Fox and American Badger:** Prior to the beginning of surface disturbance, the Project Biologist shall conduct a pre-Project 10-meter transect survey (or reduced based on topography and vegetation), to attain 100% visual coverage within the Project area and a minimum 200-meter buffer to determine the presence or absence of desert kit fox and/or American badger individuals, dens, and sign. If potential dens are located, they shall be monitored by the Project Biologist. Trail cameras may be used to assist with observation but shall not be the sole basis upon which the status is determined. The Project proponent shall provide the results of the survey to CDFW prior to start of Project activities. Project proponent shall provide a determination if active dens can be avoided and buffered from Project activities to prevent take and disturbance with the survey results. Should active dens be present within the Project area that cannot be avoided with an adequate buffer, the Project proponent shall reschedule Project activities or submit a monitoring and passive relocation plan for CDFW's review and approval. No disturbance or passive relocation of active dens may take place during the breeding season or when juveniles are dependent on parental care.

e) **Less than Significant Impact with Mitigation Incorporated.** As described in Responses IV. a-c), the proposed project has the potential to impact special-status plant and wildlife species, raptors and migratory birds, and jurisdictional resources during construction. However, the proposed project would not conflict with any local policies or ordinances protecting biological resources with implementation of Mitigation Measures BIO-1 through BIO-8 to reduce potential impacts to special status plants, wildlife, raptors and migratory birds, and aquatic resources to a less than significant level.

f) **Less than Significant Impact with Mitigation Incorporated.** The project site is located within the DRECP Area with a conservation designation of California Desert National Conserved Lands and falls within the BLM Salton Sea Hazardous ACEC unit (Appendix C of this Initial Study). The project site is located in BLM Renewable Energy Development Focus Areas. If habitat within the California Desert National Conserved Lands area of the project is to be impacted, this would be considered a significant impact. Implementation of Mitigation Measures BIO-2, BIO-3, and BIO-9 would reduce potential impacts to a level less than significant.

Mitigation Measure:

BIO-9 **Site Access:** All project access shall occur through the entrance designated from State Route (SR) 86 to avoid impacts to sensitive species occurring on BLM-managed land adjacent to the project area.

V. Cultural Resources

Environmental Issue Area:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

Impact Analysis

The following information is summarized from the *Cultural Resources Inventory Report for the North Star 3 Project* and *Archaeological and Architectural History Resources Evaluations for the North Star 3 Project* prepared by ECORP Consulting, Inc. dated February 2023 and May 2024, respectively. This study is provided as Appendix E of this Initial Study. There reports are provided as Appendix E1 and Appendix E2 of this Initial Study, respectively.

a) **Less than Significant Impact with Mitigation Incorporated.** ECORP Consulting, Inc. prepared a *Cultural Resources Inventory Report* (Appendix E1 of this Initial Study) for the proposed project, which included a records search, Sacred Files search, and a pedestrian survey. Following the pedestrian survey, ECORP prepared the *Archaeological and Architectural History Resources Evaluations for the North Star 3 Project* (Appendix E2 of this Initial Study), which evaluates resources within the project area for listing on the National Register of Historic Places (NRHP) and California Register of Historical Resources (CRHR).The results are summarized below.

Sacred Lands File Search

The results of the Sacred Lands File search by the Native American Historical Commission were received on July 8, 2022. The results were positive and indicate the presence of Native American Sacred Lands in the project area.

Records Search

The records search consisted of a review of previous research and literature, records on file with the South Coastal Information Center for previously recorded resources, and historical aerial photographs and maps of the vicinity. Eighteen previous cultural resource investigations have been conducted within one mile of the project area, covering approximately 30 percent of the total area surrounding the property within the records search radius. Of the 18 studies, two were conducted within the project area. These studies conducted between 1973 and 2015 revealed the presence of pre-contact habitation sites and historical sites, including irrigation systems.

The records search identified four previously recorded resources present within the project area: one historic-period archaeological site (P-13-7496); one built historical resource, The Salton Sea Test Base (SSTB; P-13-7776); and two precontact archaeological sites (P-13-

154 and P-13-7600). Two archaeological sites, P-13-154 and P-13-7496, have no documented status of eligibility for the NRHP and CRHR. The third archaeological site, P-13-7600, was determined eligible for listing on the NRHP/CRHR. The SSTB, a built-environment historic-era resource (P-13-7776), was previously evaluated and found not eligible for listing in the NRHP and CRHR through survey evaluation.

Pedestrian Survey

An intensive pedestrian survey of the project site was conducted from December 12 through 15, 2022 and January 9 through 12, 2023. The field survey identified and recorded 19 previously unrecorded archaeological sites, composed of 14 historic-period sites, three precontact sites, one multicomponent site, and one site of indeterminate age. In addition, ECORP identified and recorded 72 previously unrecorded isolated finds (47 historic period and 25 precontact) within the project area.

Cultural Resources Sites within the Project Area

As a result of the records search and pedestrian survey, a total of 23 cultural resource sites have been identified within the project area. These consist of 15 historic-era archaeological sites, five precontact archaeological sites, one multicomponent archaeological site, one archaeological site of unknown age, and one built environment resource. ECORP identified 19 sites during the 2023 inventory of the project area in addition to the four sites that were recorded during prior studies. These resources are summarized in Table 5.

Table 5. Cultural Resources within the Project Area

ECORP Site No.	Primary No.	Age/Period	Description
	P-13-154	Precontact	Habitation site
	P-13-7496	Historic	Refuse scatter, hearth
	P-13-7600	Precontact	Habitation site
	P-13-7776	Historic	Military property
NS3-03	--	Precontact	Lithic scatter
NS3-11	--	Historic	Refuse scatter
NS3-18	--	Unknown	Rock cairn
NS3-20	--	Historic	Refuse scatter
NS3-24	--	Precontact	Lithic scatter
NS3-30	--	Historic	Refuse scatter
NS3-40	--	Historic	Refuse scatter
NS3-51	--	Historic	Refuse scatter
NS3-60	--	Historic	Refuse scatter
NS3-62	--	Historic	Refuse scatter
NS3-70	--	Multicomponent	Historic refuse, quartzite flakes
NS3-72	--	Precontact	Lithic scatter
NS3-73	--	Historic	Refuse scatter
NS3-76	--	Historic	Refuse scatter
NS3-77	--	Historic	Refuse scatter
NS3-80	--	Historic	Refuse scatter
NS3-81	--	Historic	Refuse scatter

NS3-90	--	Historic	Refuse scatter
NS3-91	--	Historic	Refuse scatter

Source: Appendix E2 of this Initial Study

Evaluation for Eligibility for the NRHP and CRHR

Following the field survey, ECORP evaluated 22 cultural resource sites and reevaluated the SSTB for eligibility for the NRHP and CRHR. Evaluation efforts included a combination of subsurface testing and archival research.

Subsurface Testing

Subsurface testing consisted of a combination of augers and strategically placed STPs and TUs at or around each site. With the goal of maximizing avoidance and preservation in place, ECORP used field methods that were minimally invasive and only included minimal excavation as needed to confirm presence or absence of cultural deposits.

With the exception of NS3-11, all of the other sites that were tested yielded no cultural materials below what was visible on the surface. One of four shovel test pits at NS3-11 yielded four round nails and one piece of milled wood, likely the handle to a tool, in the first few centimeters of the first level. This piece of wood was fragmented into four pieces that all fit together. The subsurface artifacts were likely covered by aeolian deposits, as the site is in an active dune environment.

Evaluation Criteria

Federal Evaluation Criteria. The cultural resources within the project area were evaluated using the NRHP eligibility criteria following the regulations implementing Section 106 of the NHPA (36 CFR Part 800). The eligibility criteria for the NRHP are as follows (36 CFR 60.4):

> The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of state and local importance that possess aspects of integrity of location, design, setting, materials, workmanship, feeling, association, and
>
> a) that are associated with events that have made a significant contribution to the broad patterns of our history; or
>
> b) that are associated with the lives of persons significant in our past; or
>
> c) that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
>
> d) that have yielded, or may be likely to yield, information important in prehistory or history.

In addition, the resource must be at least 50 years old, except in exceptional circumstances (36 CFR 60.4).

State Evaluation Criteria. Under State law (CEQA), cultural resources are evaluated using CRHR eligibility criteria to determine whether any of the sites are Historical Resources, as defined by CEQA. CEQA requires that impacts to Historical Resources be identified and, if the impacts would be significant, that mitigation measures to reduce the impacts be applied.

A Historical Resource is a resource that:

1) is listed in or has been determined eligible for listing in the CRHR by the State Historical Resources Commission;

2) is included in a local register of historical resources, as defined in PRC 5020.1(k);

3) has been identified as significant in a historical resources survey, as defined in PRC 5024.1(g); or

4) is determined to be historically significant by the CEQA lead agency CCR Title 14, §15064.5(a)]. In making this determination, the CEQA lead agency usually applies the CRHR eligibility criteria.

The eligibility criteria for the CRHR (CCR Title 14, § 4852(b)) state that a resource is eligible if:

1) it is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the U.S.;

2) it is associated with the lives of persons important to local, California, or national history.

3) it embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values; or

4) it has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the Nation.

In addition, the resource must retain integrity. Integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association (CCR Title 14, § 4852(c)).

Evaluation Summary. The cultural resources within the project area were evaluated using the NRHP and CHRH eligibility criteria listed below. Table 6 summarizes the NRHP and CHRH eligibility recommendations of the cultural resources within the project area.

Resource P-13-7600 is a precontact habitation site consists of four rock enclosures, a low density lithic and ceramic scatter, and two areas with fire-affected rock and fish bone. It has been previously determined eligible for NRHP listing and is listed in the CRHR. ECORP did not relocate any components of this site at its given location during the field survey. ECORP completed four STPs at the location of P-13-7600, which were negative for surface and subsurface deposits. There was no other cultural material present with which to address research questions. It is possible that this resource's location as provided is inaccurate because ECORP also did not observe any associated cultural materials on the surface.

All of the other resources in this testing and evaluation program are not listed in the local register of historical resources, as defined in PRC 5020.1(k), have not been identified as significant in an historical resources survey, as defined in PRC 5024.1(g), and have not been determined to be historically significant by the CEQA lead agency [CCR Title 14, § 15064.5(a)]. Therefore, they are not a historical resource under CEQA.

Table 6. CRHR/NRHP Eligibility of Cultural Resources within Project Area

ECORP Site No.	Primary No.	Age/Period	Description	CRHR/NRHP Eligibility
	P-13-154	Precontact	Habitation site	Not eligible
	P-13-7496	Historic	Refuse scatter, hearth	Not eligible
	P-13-7600	Precontact	Habitation site	Listed in the CRHR / Eligible for NRHP
	P-13-7776	Historic	Military property	Not eligible
NS3-03	--	Precontact	Lithic scatter	Not eligible
NS3-11	--	Historic	Refuse scatter	Not eligible
NS3-18	--	Unknown	Rock cairn	Not eligible

NS3-20	--	Historic	Refuse scatter	Not eligible
NS3-24	--	Precontact	Lithic scatter	Not eligible
NS3-30	--	Historic	Refuse scatter	Not eligible
NS3-40	--	Historic	Refuse scatter	Not eligible
NS3-51	--	Historic	Refuse scatter	Not eligible
NS3-60	--	Historic	Refuse scatter	Not eligible
NS3-62	--	Historic	Refuse scatter	Not eligible
NS3-70	--	Multicomponent	Historic refuse, quartzite flakes	Not eligible
NS3-72	--	Precontact	Lithic scatter	Not eligible
NS3-73	--	Historic	Refuse scatter	Not eligible
NS3-76	--	Historic	Refuse scatter	Not eligible
NS3-77	--	Historic	Refuse scatter	Not eligible
NS3-80	--	Historic	Refuse scatter	Not eligible
NS3-81	--	Historic	Refuse scatter	Not eligible
NS3-90	--	Historic	Refuse scatter	Not eligible
NS3-91	--	Historic	Refuse scatter	Not eligible

Source: Appendix E2 of this Initial Study

Isolates are unassociated artifacts or minor features that represent either accidental inclusion or are otherwise disconnected from the human activity that produced them. Isolates typically do not individually contribute to the broad patterns of history because they cannot be connected to a particular event (NRHP Criterion A/CRHR Criterion 1). Isolates are similarly difficult to associate with specific individuals due to their lack of association with archaeological or historical sites, and generally no information exists in the archival record to associate isolates with important individuals in history (NRHP Criterion B/CRHR Criterion 2). Isolates do not embody the distinctive characteristics of a type, period, region, or method of construction, or represent the work of an important creative individual, or possess high artistic values (NRHP Criterion C/CRHR Criterion 3). Finally, isolates in general do not provide important information in history or prehistory (NRHP Criterion D/CRHR Criterion 4). Therefore, the 74 isolates identified during the technical study do not meet the eligibility criteria for inclusion in the NRHP or CRHR as an individual resource. These isolated finds do not contribute to any known or suspected historic districts; and are neither considered to be Historic Properties for the purpose of Section 106 NHPA, nor Historical Resources under CEQA.

Impact Analysis

As previously mentioned above, with the exception of P-13-7600, all other sites, including the SSTB, appear to be not eligible for listing in the NRHP or CRHR and are therefore not considered Historical Resources for the purposes of CEQA.

Previously recorded resource P-13-7600, listed in the CRHR and eligible for listing in the NRHP, was not observed within the project area. The four STPs at the location of P-13-7600 were negative for surface and subsurface deposits. It is possible that this resource's location as provided is inaccurate because ECORP did not observe any associated cultural materials on the surface. Although P-13-7600 was not relocated during the inventory and testing/evaluation phases of the proposed project due to its location being potentially incorrectly plotted on maps, there is still a potential the resource may be nearby and within

the project area. There is a potential that ground disturbing activities during construction could impact P-13-7600, if observed within the project area. This potential impact is considered significant. Implementation of Mitigation Measures CR-1 and CR-2 would reduce potential impacts to a level less than significant.

Mitigation Measures:

CR-1 **Contractor Awareness Training.** Prior to project construction, a Contractor Awareness Training Program shall be developed and implemented to train equipment operators about cultural resources. The program shall be designed to inform construction personnel about: federal and state regulations pertaining to cultural resources and tribal cultural resources; the subsurface indicators of resources that shall require a work stoppage; procedures for notifying the lead agency of any occurrences; project-specific requirements and mitigation measures; and enforcement of penalties and repercussions for non-compliance with the program. The training shall be prepared by a qualified professional archaeologist and may be provided either through a brochure, video, or in-person tailgate meeting, as determined appropriate by the archaeologist.

The training shall be provided to all construction supervisors, forepersons, and operators of ground disturbing equipment. All personnel shall be required to sign a training roster. The construction manager is responsible for ensuring that all required personnel receive the training. The construction manager shall provide a copy of the signed training roster to the Imperial County Planning and Development Services Department as proof of compliance.

CR-2 Archaeological Monitoring. Prior to the start of construction, the project applicant shall retain a qualified professional archaeologist, who meets or exceeds the Secretary of the Interior Professional Qualifications Standards as an archaeologist and a traditionally and culturally affiliated Native American Monitor, to monitor all ground-disturbing activities associated with project construction. Monitoring is not required for placement of equipment or fill inside excavations that were monitored, above-ground construction activities, or redistribution of soils that were previously monitored (such as the return of stockpiles to use in backfilling).

In the event of the discovery of previously unidentified archaeological materials, the contractor shall immediately cease all work activities within approximately 100 feet of the discovery. After cessation of excavation, the contractor shall immediately contact the Imperial County Department of Planning and Development Services. Except in the case of cultural items that fall within the scope of the Native American Grave Protection and Repatriation Act, the discovery of any cultural resource within the project area shall not be grounds for a "stop work" notice or otherwise interfere with the project's continuation except as set forth in this paragraph.

In the event of an unanticipated discovery of archaeological materials during construction, the qualified professional archaeologist shall evaluate the significance of the materials prior to resuming any construction related activities in the vicinity of the find. If the qualified archaeologist determines that the discovery constitutes a significant resource under CEQA and it cannot be avoided, the applicant shall implement an archaeological data recovery program.

b) **Less than Significant Impact with Mitigation Incorporated.** As previously discussed above, P-13-7600 is a previously recorded precontact archaeological site. Although P-13-7600 was not relocated during the inventory and testing/evaluation phases of the proposed project due to its location being potentially incorrectly plotted on maps, there is still a potential

the resource may be nearby and within the project area. There is a potential that ground disturbing activities during construction could impact P-13-7600, if observed within the project area. This potential impact is considered significant. Implementation of Mitigation Measures CR-1 and CR-2 would reduce potential impacts to a level less than significant.

The soil types present within the project area and immediate vicinity are alluvial and aeolian deposits, which is characteristic of the alluvium sediments that are found in the Colorado Desert and along the shorelines of Lake Cahuilla. Due to the presence of alluvium and relict shorelines, and given the likelihood of precontact archaeological sites located along perennial waterways and relict shorelines, the project area has the potential for buried precontact archaeological sites. There is a high potential for buried precontact cultural material along the relict shorelines of Lake Cahuilla because precontact sites in this region are known to occur along those shorelines. Therefore, the possibility remains that unanticipated subsurface discoveries may arise during project construction. This potential impact is considered significant. Implementation of Mitigation Measures CR-1 and CR-2 would reduce potential impacts to a level less than significant.

c) **Less than Significant Impact with Mitigation Incorporated.** During construction of the proposed project, grading, excavation and trenching will be required. Although the potential for encountering subsurface human remains within the project site is low, there remains a possibility that human remains are present beneath the ground surface, and that such remains could be exposed during construction. The potential to encounter human remains is considered a significant impact. Mitigation Measure CR-3 would ensure that the potential impact on previously unknown human remains does not rise to the level of significance pursuant to CEQA.

Mitigation Measure:

CR-3 If subsurface deposits believed to be human in origin are discovered during construction, all work must halt within a 100-foot radius of the discovery. A qualified professional archaeologist who meets the Secretary of the Interior's Standards for prehistoric and historic archaeology and is familiar with the resources of the region, shall be retained to evaluate the significance of the find, and shall have the authority to modify the no work radius as appropriate, using professional judgment. The following notifications shall apply, depending on the nature of the find:

If the find includes human remains, or remains that are potentially human, the professional archaeologist shall ensure reasonable protection measures are taken to protect the discovery from disturbance (AB 2641). The archaeologist shall notify the Imperial County Coroner (per § 7050.5 of the Health and Safety Code). The provisions of § 7050.5 of the California Health and Safety Code, § 5097.98 of the California PRC, and AB 2641 will be implemented.

If the Coroner determines the remains are Native American and not the result of a crime scene, the Coroner will notify the NAHC, which then will designate a Native American Most Likely Descendant (MLD) for the project (§ 5097.98 of the PRC). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of the MLD, the NAHC may mediate (§ 5097.94 of the PRC). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (§ 5097.98 of the PRC). This will also include either recording the site with the NAHC or the appropriate Information Center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work may not resume within the no-work radius until the Imperial County Planning and Development Services Department, through consultation as appropriate,

determine that the treatment measures have been completed to their satisfaction.

VI. Energy

Environmental Issue Area:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

Impact Analysis

The following information is summarized from the *Energy Consumption Assessment for the North Star 3 Project* prepared by ECORP Consulting, Inc. dated July 2022. This report is provided as Appendix F of this Initial Study.

a) **Less than Significant Impact.** The project includes the construction of a 100-MW alternating current solar field, consisting of 226,00 tracker modules in 7,560 strings and associated collector and inverter facilities, and a 200 MW BESS, on approximately 585 acres of vacant land. Operation of the proposed project would not result in the consumption of electricity or natural gas and thus, would not contribute to the County wide usage. Instead, the project would directly support the RPS goal for increasing the percentage of electricity procured from renewable sources.

The use of energy associated with the proposed project includes the equipment fuel necessary for construction and the automotive fuel necessary for ongoing maintenance activities. For the purposes of this analysis, project increases in construction and automotive fuel consumption are compared with the countywide fuel consumption in 2021(Table 7), the most recent full year of data. This analysis conservatively assumes that all of the automobile trips projected to arrive at the project site during operations would be new to Imperial County.

Table 7. Automotive Fuel Consumption in Imperial County 2016-2021

Year	Total Fuel Consumption
2021	216,105,185
2020	194,711,440
2019	217,988,585
2018	218,114,145
2017	220,106,315
2016	215,751,500

Source: Appendix F of this Initial Study

Energy and fuel consumption associated with the proposed project is summarized in Table 8. The fuel expenditure necessary to construct the solar facility and infrastructure would be temporary, lasting only as long as project construction. As shown in Table 8, the project's gasoline fuel consumption during the one-time construction period is estimated to be 16,453

gallons during the first year of construction, 105,517 gallons during the second year of construction, and 6,955 gallons during the third year of construction. This would increase the annual countywide gasoline fuel use associated with offroad equipment in the County by 0.007 percent, 0.048 percent, and 0.003 percent, respectively.

Table 8. Proposed Project Energy and Fuel Consumption

Energy Type	Annual Energy Consumption	Percentage Increase Countywide
Facility Electrical and Natural Gas Consumption		
Electricity Consumption	0 kilowatt-hours	0.000
Natural Gas[1]	0 therms	0.000
Automotive Fuel Consumption		
Year One of Construction[2] Year Two of Construction[2] Year Three of Construction[2]	16,453 gallons 105,517 gallons 6,995 gallons	0.007 0.048 0.003
Project Operations[3]	2,004 gallons	0.000

Source: Appendix F of this Initial Study
Notes: The project increases in electricity and natural gas consumption are compared with all uses in Imperial County in 2020, the latest data available. The project increases in automotive fuel consumption are compared with the countywide fuel consumption in 2021, the most recent full year of data.

Project construction would have a nominal effect on local and regional energy supplies. Construction equipment for the proposed project would have a similar energy efficiency to comparable construction sites in the region or the state. Construction contractors would purchase their own gasoline and diesel fuel from local suppliers and would judiciously use fuel supplies to minimize costs due to waste and subsequently maximize profits. Additionally, construction equipment fleet turnover and increasingly stringent state and federal regulations on engine efficiency combined with state regulations limiting engine idling times and requiring recycling of construction debris, would further reduce the amount of transportation fuel demand during project construction. For these reasons, it is expected that construction fuel consumption associated with the project would not be any more inefficient, wasteful, or unnecessary than other similar development projects of this nature.

Once construction is completed, the project would be remotely controlled. No employees would be based at the project site. The only operational emissions associated with the project would be associated with motor vehicle use for routine maintenance work, and site security as well as panel upkeep and cleaning. Six heavy-duty truck vehicle trips per day for routine maintenance work and site security was assumed. This is a conservative estimate as most days would require no operational related vehicle trips. As indicated in Table 8, this would estimate to a consumption of approximately 2,004 gallons of automotive fuel per year, which would increase the annual countywide automotive fuel consumption by 0.0009 percent. Fuel consumption associated with both the construction equipment needed to construct the project and the vehicle trips generated by the project during ongoing maintenance activities would not be considered inefficient, wasteful, or unnecessary in comparison to other similar developments in the region.

Based on these considerations, the proposed project would not result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation. Therefore, this is considered a less than significant impact.

b) **Less than Significant Impact.** As described above, implementation and operation of the project would promote the use of renewable energy and contribute incrementally to the reduction in demand for fossil fuel use for electricity-generating purposes and help California meet its RPS. Additionally, the project would be consistent the County's General Plan

Conservation and Open Space Element, Objective 9.2 which encourages renewable energy developments. The proposed project would directly support state and local plans for renewable energy development and would be considered a less than significant impact.

VII. Geology and Soils

Environmental Issue Area:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) 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? Refer to Division of Mines and Geology Special Publication 42?	☐	☐	☐	☒
ii. Strong seismic ground shaking?	☐	☐	☒	☐
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv. Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) 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 off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code (1994), creating substantial direct or indirect risk to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

Impact Analysis

The following information is summarized from the *Geotechnical Report for the North Star 3 Project* prepared by Landmark Consultants, Inc. dated November 2022. This report is provided as Appendix G of this Initial Study.

ai) **No Impact.** According to the geotechnical report prepared for the project, the project site is not located within or adjacent to any earthquake fault zone as delineated on the most recent Alquist Priolo Earthquake Zoning Map. The nearest zoned fault is the Elmore Ranch fault located approximately 7.5 miles south of the project site. The proposed project would not result in the construction of any structure intended for human occupancy and all structures and onsite facilities would be designed in accordance with the most recent California Building Code (CBC). Therefore, the proposed project result in no impact associated with the rupture of a known earthquake fault.

aii) **Less than Significant Impact.** Southern California is a seismically active region, therefore it is highly likely that regional earthquakes would occur that could affect the proposed project. However, as previously mentioned above, no active faults are underlaying or adjacent to the project site. All structures and onsite facilities would be designed in accordance with the California Building Code (CBC) for the peak site ground acceleration. Since the design and construction of the project would be required to conform to the specific mandated structural design requirements to protect against strong seismic shaking, the potential impacts due to strong seismic ground shaking are a less than significant impact.

aiii) **Less than Significant Impact.** Four conditions are generally required for liquefaction to occur, including: 1) saturated soil, 2) loosely packed soil, 3) relatively cohesionless soil, and 4) groundshaking of sufficient intensity must occur to trigger the mechanism. Liquefaction is unlikely to be a potential hazard at the site due to the lack of saturated granular soil (clay soils predominate) and the estimated depth to groundwater (greater than 50 feet).

As required by the County and in accordance with local and state building code requirements, any proposed development would be required to complete a geotechnical evaluation of any onsite hazards. As a standard condition of project approval, the proposed project would be constructed in accordance with the most current CBC and Imperial County Building Code to minimize or avoid the potential hazard of liquefaction. A less than significant impact is identified for this issue area.

aiv) **Less than Significant Impact.** The project site is relatively flat and slopes gently (about 1 percent) to the northeast. The surrounding properties lie on terrain that is planar and are approximately at the same elevation with this site. No ancient landslides are shown on geologic maps, aerial photographs and topographic maps of the region and no indication of landslides were observed. Therefore, the impact associated with landslides is considered less than significant.

b) **Less than Significant Impact.** Soil erosion and loss of topsoil could result during construction as grading and construction can loosen surface soils and make soils susceptible to wind and water movement across the surface. Construction activities are regulated under the National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges of Storm Water Runoff Associated with Construction Activity (General Construction Permit) which covers stormwater runoff requirements for projects where the total amount of ground disturbance during construction exceeds 1 acre. The proposed project would be required to comply with the General Construction Permit because ground disturbance would exceed 1 acre. Coverage under a General Construction Permit requires the preparation of a SWPPP and submittal of a Notice of Intent (NOI) to comply with the General Construction Permit. The SWPPP would identify best management practices (BMPs) that would reduce any impacts associated with soil erosion or loss of topsoil. Therefore, this impact is considered less than significant.

c) **Less than Significant Impact.**

Landslides. As described in Response VII. aiv) above, the project site is located in a relatively flat portion of Imperial County and is not identified as an area at risk of landslide. Therefore, the impact associated with landslides is considered less than significant.

Liquefaction and Lateral Spreading. As described in Response VII. aiii) above, liquefaction is unlikely to be a potential hazard at the site due to the lack of saturated granular soil and the estimated depth to groundwater. The potential for lateral spreading to occur on the project site has not yet been determined. Additional geotechnical investigation would be required in order to assess the risk of lateral spreading to occur on the project site. As required by the County and in accordance with local and state building code requirements, any proposed development would be required to complete a geotechnical evaluation of any onsite hazards. As a standard condition of project approval, the proposed project would be constructed in accordance with the most current CBC and Imperial County Building Code to minimize or avoid the potential hazard of liquefaction and lateral spreading. A less than significant impact is identified for this issue area.

Subsidence. The potential for subsidence to occur on the project site has not yet been determined. Additional geotechnical investigation would be required in order to assess the risk of subsidence to occur on the project site. As required by the County and in accordance with local and state building code requirements, any proposed development would be required to complete a geotechnical evaluation of any onsite hazards. As a standard condition of project approval, the proposed project would be constructed in accordance with the most current CBC and Imperial County Building Code to minimize or avoid the potential hazard of subsidence. A less than significant impact is identified for this issue area.

Collapse. Collapsible soil generally consists of dry, loose, low-density material that have the potential to collapse and compact when subjected to the addition of water or excessive loading. Soils found to be most susceptible to collapse include loess (fine grained wind-blown soils), young alluvium fan deposits in semi-arid to arid climates, debris flow deposits and residual soil deposits. According to the geotechnical report prepared for the project, due to the cohesive nature of the subsurface soils, the potential for hydro-collapse of the subsurface soils at the project site is considered very low. As a standard condition of project approval, the proposed project would be constructed in accordance with the most current CBC and Imperial County Building Code to minimize or avoid the potential hazard of collapse. A less than significant impact is identified for this issue area.

d) **Less than Significant Impact.** According to the geotechnical report prepared for the project, much of the subsurface soils in the Imperial Valley consist of silty clays and clays which are moderate to highly expansive.

As required by the County and in accordance with local and state building code requirements, any proposed development would be required to complete a geotechnical evaluation of any onsite hazards. As a standard condition of project approval, the proposed project would be constructed in accordance with the most current CBC and Imperial County Building Code to minimize or avoid the potential hazard of expansive soil. A less than significant impact is identified for this issue area.

e) **No Impact.** The proposed project would not require the use of septic systems or alternative wastewater systems to accommodate wastewater needs. Therefore, no impact is identified for this issue area.

f) **Less than Significant Impact with Mitigation Incorporated.** Many paleontological fossil sites are recorded in Imperial County and have been discovered during construction activities. Paleontological resources are typically impacted when earthwork activities, such as mass excavation cut into geological deposits (formations) with buried fossils. One area in which paleontological resources appear to be concentrated in this region is the shoreline of ancient Lake Cahuilla, which would have encompassed the present-day Salton Sea. The lake covered much of the Imperial Valley and created an extensive lacustrine environment. Lake Cahuilla experienced several fill recession episodes before it finally dried up about 300

years ago. In 1905, the Colorado River overflowed into the Salton Basin creating the present-day Salton Sea.

According to the geotechnical report prepared for the project, the project site is underlain by Quaternary Lake Cahuilla deposits. The project site is directly underlain by geologic units comprised of quaternary lake deposits of the ancient Lake Cahuilla. Lakebed deposits of ancient Lake Cahuilla have yielded fossil remains from numerous localities in Imperial Valley. These include extensive freshwater shell beds, fish, seeds, pollen, diatoms, foraminifera, sponges, and wood. Lake Cahuilla deposits have also yielded vertebrate fossils, including teeth and bones of birds, horses, bighorn sheep, and reptiles. Therefore, the paleontological sensitivity of these lakebed deposits within the project site are considered to be high.

Impacts on any surface or near-surface level paleontological resources may occur because of grading and disturbance of the area. Even relatively shallow excavations in the Lake Cahuilla beds exposed in the project site may encounter significant vertebrate fossil remains. Therefore, this potential impact is considered a significant impact. Mitigation Measure GEO-1 would ensure that the potential project's impacts on paleontological resources do not rise to the level of significance pursuant to CEQA. Implementation of Mitigation Measure GEO-1 would reduce the impact on paleontological resources to a level less than significant.

Mitigation Measure

GEO-1 In the event that unanticipated paleontological resources or unique geologic resources are encountered during ground-disturbing activities, work must cease within 50 feet of the discovery and a paleontologist shall be hired to assess the scientific significance of the find. The consulting paleontologist shall have knowledge of local paleontology and the minimum levels of experience and expertise as defined by the Society of Vertebrate Paleontology's Standard Procedures (2010) for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources. If any paleontological resources or unique geologic features are found within the project site, the consulting paleontologist shall prepare a paleontological Treatment and Monitoring Plan to include the methods that will be used to protect paleontological resources that may exist within the project site, as well as procedures for monitoring, fossil preparation and identification, curation of specimens into an accredited repository, and preparation of a report at the conclusion of the monitoring program.

VIII. Greenhouse Gas Emissions

Environmental Issue Area:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Impact Analysis

The following information is summarized from the *Air Quality and Greenhouse Gas Emissions Assessment for the North Star 3 Project* prepared by ECORP Consulting, Inc. dated July 2022. This report is provided as Appendix B of this Initial Study.

a) **Less than Significant Impact.** Prominent greenhouse gases (GHGs) contributing to the greenhouse effect are carbon dioxide (CO_2), methane (CH_4), and nitrogen oxide (N_2O). Human-caused emissions of these GHGs in excess of natural ambient concentrations are believed to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth's climate, known as global climate change or global warming.

To date the ICAPCD has not adopted GHG significance thresholds applicable to potential development. Section 15064.7(c) of the CEQA Guidelines specifies that "[w]hen adopting or using thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence" (14 CCR 15064.7(c)). Thus, in the absence of any GHG emissions significance thresholds, the projected emissions are compared to the Mojave Desert Air Quality Management District (MDAQMD) numeric threshold of 100,000 metric tons of CO_2e annually. While significance thresholds used in the Mojave Desert Air Basin are not binding on the ICAPCD or County of Imperial, they are instructive as a comparative metric of the project's potential GHG impact. This threshold is also appropriate as the MDAQMD GHG thresholds were formulated based on similar geography and climate patterns as found in Imperial County. Therefore, the 100,000-metric ton of CO_2e threshold is appropriate for this analysis.

The following analysis is broken out by a discussion of potential impacts during construction and operation of the project. The CalEEMod 2020.4.0 air quality model was used to calculate the GHG emissions associated with construction and operation of the proposed project. The CalEEMod worksheets are included in Appendix B of this Initial Study.

Construction

Construction-related activities that would generate GHG emissions include worker commute trips, haul trucks carrying supplies and materials to and from the project site, and off-road construction equipment (e.g., water trucks, cranes, tractors).

Table 9Table 9. Project Construction-Generated Emissions summarizes the construction-generated GHG emissions that would result from construction of the project. Consistent with South

Coast Air Quality Management (SCAQMD) recommendations, project construction GHG emissions have been amortized over the expected life of the project, which is considered to be 30 years. As shown in Table 9, the project would generate approximately 166 metric tons of CO_2e in the first year of construction, 1,071 metric tons in the second year of construction, and 71 metric tons in the third year of construction. Therefore, project GHG emissions would not exceed the significance threshold of 100,000 metric tons of CO_2e per year.

Table 9. Project Construction-Generated Emissions

Emissions Source	CO_{2e} (Metric Tons/Year)
Construction Year One	166
Construction Year Two	1,071
Construction Year Three	71
Significance Threshold	*100,000*
Exceed Significance Threshold?	**No**

Source: Appendix B of this Initial Study

Operation

Operation of the project would result in an increase in GHG emissions solely associated with motor vehicle trips. Once the solar facility and BESS are operational, very few vehicular trips would be expected. The project would be an unmanned facility that would be operated remotely. Therefore, the project would not generate routine daily trips. Occasional maintenance trips would be required. For purposes of this analysis, it was assumed that up to 6 trips per day would be utilized during operations.

As shown in Table 10, the project would generate approximately 8.32 metric tons of CO_2e per year during operations, which is below MDAQMD's threshold of 100,000 metric tons of CO_2e per year.

Once construction is complete, the project would be a producer of renewable energy, which generate substantially less GHG emissions compared with the more common types of fossil-fueled energy generation facilities. Table 11 shows the emissions that would potentially be displaced by the proposed project. This estimate only includes that associated with the combustion of fossil fuels; it does not include the vehicle trips associated with the project's operations, and it does not include operational employee trips associated with natural gas or coal combustion nor the emissions associated with extracting and transporting those power sources. In addition, this estimate only includes the displacement of that portion of the California market that comes from fossil fuels and does not include the approximate 50 percent of the California electricity generated by non-combustion sources (wind, solar, nuclear, hydro-electric). As shown in Table 11, the project would potentially displace approximately 53,220 metric tons of CO_2e per year, and approximately 1,596,596 metric tons of CO_2e over the course of 30 years. While the project would emit some GHG emissions during construction and operations, the contribution of renewable resource energy production to meet the goals of the Renewable Portfolio Standard (Scoping Plan Measure E-3) would result in a net cumulative reduction of GHG emissions. The short-term generation of GHG emissions would be more than offset by the GHG emission reductions associated with solar-generated energy during operation. Therefore, the project's GHG impact would be less than significant.

Table 10. Operational-Related GHG Emissions (MT/Year)

Emission Source	CO_{2e} (Metric Tons/Year)
Area Source	0.01
Energy	0
Mobile	8.30
Waste	0
Water	0
Total	8.32
Significance Threshold	*100,000*
Exceed Significance Threshold?	**No**

Source: Appendix B of this Initial Study

Table 11. Proposed Project Displaced GHG Emissions (Metric Tons)

	Emissions (Metric Tons)			
	CO_2	CH_4	N_2O	CO_2e
Emissions Displaced Annually (metric tons)				
Displaced Natural Gas-Source Emissions	47,585	0.00	0.00	47,585
Displaced Coal-Source Emissions	5,626	0.037	0.028	5,635
Total	**53,210**	**0.037**	**0.028**	**53,220**
Emissions Displaced over 30 Years (metric tons)				
Total	**1,596,309**	**1.118**	**0.838**	**1,596,596**

Source: Appendix B of this Initial Study

b) **Less than Significant Impact.** As discussed in Response VIII. a) above, the proposed project would generate a relatively small amount of GHG emissions. The proposed project-generated GHG emissions would not exceed the MDAQMD significance thresholds, which were prepared with the purpose of complying with statewide GHG-reduction efforts. While the project would emit some GHG emissions during construction and a very small amount during operations, the contribution of renewable resource energy production to meet the goals of the Renewable Portfolio Standard (Scoping Plan Measure E-3) would result in a net cumulative reduction of GHG emissions, a key environmental benefit. Scoping Plan Measure E-3, Renewable Portfolio Standard, of the Climate Change Scoping Plan requires that all investor-owned utility companies generate 60 percent of their energy demand from renewable sources by the year 2030. Therefore, the short-term minor generation of GHG emissions during construction, which is necessary to create this new, low-GHG emitting power-generating facility, as well as the negligible amount generated during ongoing maintenance operations, would be more than offset by GHG emission reductions associated with solar-generated energy during operation. The proposed project would reduce GHG emissions in a manner consistent with SB 32 and other California GHG-reducing legislation by creating a new source of solar power to replace the current use of fossil-fuel power and reduce GHG emissions power generation and use. Therefore, the proposed project would

not conflict with any applicable plan, policy, or regulation adopted for reducing the emissions of GHGs and a less than significant impact would occur.

IX. Hazards and Hazardous Materials

Environmental Issue Area:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☐	☐	☐	☒

Impact Analysis

The following information is summarized from the *Phase I Environmental Site Assessment (ESA) Report* prepared by GS Lyon Consultants, Inc. dated October 2022. This report is provided as Appendix H of this Initial Study.

a) **Less than Significant Impact.** Vehicles and equipment used for well construction would contain or require the temporary, short-term use of potentially hazardous substances, such as fuels, lubricating oils, and hydraulic fluid. Hazardous substances would be stored in

transportable containment trailers at locations within the construction staging area to minimize potential for accidental releases and/or spills.

Transportation of hazardous materials relating to the battery system includes electrolyte and graphite and would occur during construction, operation (if replacement of batteries is needed) and decommissioning (removal of the batteries). All of these various materials would be transported and handled in compliance with DTSC regulations. Therefore, likelihood of an accidental release during transport or residual contamination following accidental release is not anticipated.

Lithium-ion batteries used in the storage system contain cobalt oxide, manganese dioxide, nickel oxide, carbon, electrolyte, and polyvinylidene fluoride. Of these chemicals, only electrolyte should be considered hazardous, inflammable and could react dangerously when mixed with water. The U.S. Department of Transportation (DOT) regulates transport of lithium-ion batteries under the DOT's Hazardous Materials Regulations (HMR) (49 CFR Parts 171-180). The HMR apply to any material DOT determines is capable of posing an unreasonable risk to health, safety, and property when transported in commerce. Lithium-ion batteries must conform to all applicable HMR requirements when offered for transportation or transported by air, highway, rail, or water. Additionally, carbon (as graphite) is flammable and could pose a fire hazard. Fire protection is achieved through project design features, such as monitoring, diagnostics and a fire suppression system. The project would be required to comply with state laws and county ordinance restrictions, which regulate and control hazardous materials handled on site. The project will also be required to comply with Imperial County Fire Department Fire Prevention Bureau CUP Conditions of Approval for solar project and BESS systems as identified in their February 26, 2024 correspondence for the project and summarized in Section XV Public Services ai of this Initial Study.

Further, the proposed project would be required to comply with all applicable rules and regulations involving hazardous materials, including the State of California CCR Title 23 Health and Safety Regulations, the California Division of Occupational Safety and Health (Cal/OSHA) requirements, the Hazardous Waste Control Act, the California Accidental Release Prevention (CalARP) Program, and the California Health and Safety Code. Compliance with these measures would reduce any potential risk or impact associated with the transport, use, or disposal of hazardous materials. This impact is considered less than significant.

b) **Less than Significant Impact.** According to the Phase I ESA prepared for the project, no evidence of recognized environmental conditions (REC), historical recognized environmental condition (HREC), *de minimis* conditions, or environmental concerns were revealed in connection with the project site.

As described in Response IX. a) above, the proposed BESS facility would require the storage of hazardous materials; however, hazardous substances would be stored in transportable containment trailers at locations within the construction staging area to minimize potential for accidental releases and/or spills. No other hazardous or potentially hazardous materials will be brought to the project site. Further, the proposed project would be required to comply with all applicable rules and regulations involving hazardous materials, including the State of California CCR Title 23 Health and Safety Regulations, the California Division of Occupational Safety and Health (Cal/OSHA) requirements, the Hazardous Waste Control Act, the California Accidental Release Prevention (CalARP) Program, and the California Health and Safety Code. Compliance with these measures would reduce any potential risk or impact associated with the release of hazardous materials into the environment.

The project applicant will coordinate with the Imperial County Fire Department on conditions of approval as part of the CUP to ensure the proposed project would not result in extreme hazards to the public, firefighters, and emergency responders. Conditions of approval would include project plans review and inspections, installation of a water supply capable of supplying the required fire flow, development of an Emergency Operation Plan, and compliance with applicable standards and requirements of the National Fire Protection

Association, Occupational Safety and Health Administration, and California Fire Code. With adherence of applicable standards and requirements and conditions of approval as part of the CUP. This impact is considered less than significant.

c) **No Impact.** The project site is not located within 0.25 mile of any existing or proposed schools. The nearest school is West Shores High School located approximately 9 miles to the northwest of the project site at 2381 Shore Hawk Avenue. Therefore, the proposed project would not pose a risk to nearby schools and no impact would occur.

d) **No Impact.** As part of the Phase I ESA prepared for the project, a database search was conducted on June 21, 2022 to obtain and review reasonably ascertainable records that would help identify RECs and HRECs in connection with the subject property.

Databases that were reviewed include the following:

- EPA's Federal National Priorities List
- EPA's Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLA) List
- Federal CERCLA – No Further Remedial Action Planned (NFRAP)
- Federal Resource Conservation Recovery Act (RCRA) List
- Federal Emergency Response Notification System (ERNS) List
- State and Tribal NPL List
- State and Tribal equivalent CERCLA
- State and Tribal Leaking Underground Storage Tank Sites
- State and Tribal Underground and Aboveground Storage Tank Sites
- Solid Waste Disposal/Landfill Facilities (SWF/LF)
- Unmapped (Orphan) Sites

A review of the databases, along with additional government environmental record databases, identified no risk sites within the project site. Therefore, implementation of the proposed project would result in no impact related to the project site being located on a listed hazardous materials site pursuant to Government Code Section 65962.5.

e) **No Impact.** The project site is not located within two miles of a public airport. The nearest airport is the Salton Sea Airport located approximately 5.5 miles northwest of the project site at 1590 Air Crest Avenue. As identified in the Imperial County Airport Land Use Compatibility Maps, the proposed project site lays outside of the noise contours of all airports. Therefore, implementation of the proposed project would not result in a safety hazard or excessive noise for people residing or working in the project area and no impact would occur.

f) **No Impact.** The proposed project does not include any alteration to the existing public road network and would not involve blocking or restricting any access routes. The proposed access road would be designed in accordance with fire department standards. Therefore, the proposed project would not interfere with an adopted emergency response plan or emergency evacuation plan. No impact is identified for this issue area.

g) **No Impact.** The project site is located in the unincorporated area of Imperial County. According to the Seismic and Public Safety Element of the General Plan, the potential for a major fire in the unincorporated areas of the County is generally low (County of Imperial 1997). Based on a review of the California Department of Forestry and Fire Protection's fire hazard severity zone map, the project site is not located within a fire hazard severity zone (California Department of Forestry and Fire Protection 2023). The proposed project would not introduce features that directly or indirectly increase the risk of wildfire on the project site. No impact is identified for this issue area.

X. Hydrology and Water Quality

Environmental Issue Area:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i. result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv. impede or redirect flood flows?	☐	☐	☐	☒
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

Impact Analysis

a) **Less than Significant Impact.** The proposed project would require construction activities that would disturb soils. Pollutants typical of construction work, such as sediments, trash, petroleum products, concrete waste, sanitary waste, and chemicals could significantly affect

water quality. However, construction activities are regulated under the NPDES General Permit for Discharges of Storm Water Runoff Associated with Construction Activity (General Construction Permit) which covers stormwater runoff requirements for projects where the total amount of ground disturbance during construction exceeds 1 acre. The proposed project would be required to comply with the General Construction Permit because ground disturbance would exceed 1 acre. Coverage under a General Construction Permit requires the preparation of a SWPPP and submittal of a NOI to comply with the General Construction Permit. The SWPPP will be implemented such that stormwater discharges would not adversely impact human health or the environment, nor contribute to any exceedances of any applicable water quality standards contained in the Colorado River Basin Plan. This impact is considered less than significant.

b) **Less than Significant Impact.** The water demand for the proposed project will consist of water needed during construction for dust control and soil conditioning during installation of the photovoltaic panels, battery storage units, and related infrastructure. The construction water demand is anticipated to be 295 acre-feet over 12 to 18 months. During the operational phase of the project, water will be needed for routine maintenance activities, which primarily consists of washing the photovoltaic panels to maintain generation efficiency. The operational demand is anticipated to be 10 acre-feet per year for panel washing and other maintenance activities. The operational demand will exist for the life of the project, which is anticipated to be 25 to 30 years.

The construction water demand exceeds the potential annual recharge to the Basin of 100 acre-feet per year. However, the construction water needs are short-term, temporary, and equivalent to only 0.011 percent to 0.013 percent of the estimated groundwater in storage. This temporary water use is not anticipated to cause persistent and long-term lowering of groundwater levels. Therefore, the construction water demand would not cause or contribute to overdraft, exhaustion of water supplies, lowering of groundwater levels to depths that would be uneconomic for pumping, land subsidence, or significant alteration of groundwater quality.

The annual operational water needs are equivalent to 10 percent of the average annual recharge and 0.00036 percent to 0.0004 percent of the estimated current storage volume of the Basin. Therefore, the proposed project would not result in a decrease in groundwater supplies and would not interfere with groundwater recharge. This is considered a less than significant impact.

ci) **Less than Significant Impact.** As discussed in Response X. a) above, the construction of the proposed project would result in ground disturbing activities in an area greater than one acre. Therefore, SWPPP will be developed that implements BMPs that sufficiently avoid any onsite or offsite erosion and runoff from areas proposed for ground disturbance. This is considered a less than significant impact.

cii) **Less than Significant Impact.** The proposed project would not involve the construction of substantial impervious surfaces that would increase the rate of run-off. Construction activities would be localized to the project site boundary and access road, and the surrounding pervious surface would remain similar to pre-project conditions. Water will continue to percolate through the ground, as a majority of the surfaces on the project site will remain pervious. In this context, the proposed project would not result in substantial increases in run-off. This is considered a less than significant impact.

ciii) **Less than Significant Impact.** Water will continue to percolate through the ground, as a majority of the surfaces on the project site will remain pervious. The proposed project would not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provided substantial additional sources of polluted runoff. This is considered a less than significant impact.

civ) **No Impact.** According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (Map Number 06025C0650C), the project site is not located within a

flood zone (FEMA 2021). Therefore, the proposed project would not impede or redirect flood flows and no impact would occur.

d) **Less than Significant Impact.** The project site is located approximately 79.2 miles inland from the Pacific Ocean. Therefore, the proposed project is not located in an area at risk of tsunamis. According to the Seismic and Public Safety Element of the General Plan, the most likely location for a significant seiche to occur is the Salton Sea, which is located approximately 3.1 miles east of the project site. While there have been a number of seismic events since the formation of the Salton Sea, no significant seiches have occurred to date. A seiche could occur, however, in the Salton Sea under the appropriate seismic conditions. The Salton Sea is proximal to the San Andreas and San Jacinto faults and would be subject to significant seismic ground shaking that could generate a seiche (County of Imperial 1997). The likelihood of seismic activity producing waves large enough to affect the project site is small. Although the project site is located in an area with potential for a seiche, the risk of release of pollutants attributable to inundation is considered low based on no documented history of seiche-induced flooding of the project site. No substantial damage is expected from seiches on the project site, and implementation of the project would not increase the inherent risk of seiches on the project site. Therefore, this would be a less than significant impact.

e) **Less than Significant Impact.** As discussed above, the proposed project would be compliant with all local, state, and federal regulations, including compliance with the NPDES permits with the implementation of BMPs; compliance with the referenced regulations would reduce any potential impact associated with a water quality control plan to a less than significant. This is considered a less than significant impact.

XI. Land Use and Planning

Environmental Issue Area:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

Impact Analysis

a) **No Impact.** The project site is located in a sparsely populated portion of Imperial County. There are no established residential communities located within or in the vicinity of the project site. The nearest residences are located approximately 6.87 miles northwest of the project site in Salton City. Therefore, implementation of the proposed project would not divide an established community and no impact would occur.

b) **Less than Significant Impact.** The project's consistency with applicable land use plans, policies, and regulations is evaluated below.

County of Imperial General Plan. The County adopted the Renewable Energy (RE) and Transmission Element, which includes a RE Zone (RE Overlay Map). The County Land Use Ordinance, Division 17, includes the RE Overlay Zone, which authorizes the development and operation of renewable energy projects with an approved CUP. The RE Overlay Zone is concentrated in areas determined to be the most suitable for the development of renewable energy facilities while minimizing the impact on other established uses. CUP applications proposed for specific renewable energy projects not located in the RE Overlay Zone would not be allowed without an amendment to the RE Overlay Zone.

As shown on Figure 1, the entire project site is located outside of the RE Overlay Zone. Therefore, the proposed project would conflict with the RE Overlay Zone because the project is located outside of the area designated for renewable energy projects. Without an amendment to the RE Overlay Zone, the proposed project would not be allowed and would conflict with the RE and Transmission Element of the General Plan. However, the applicant is requesting a General Plan amendment and Zone Change to include/classify the project site into the RE Overlay Zone.

As stated in the RE and Transmission Element:

An amendment to the overlay zone would only be approved by the County Board of Supervisors if a future RE project met one of the following two conditions:

- **Adjacent to the Existing RE Overlay Zone:** An amendment may be made to allow for development of a future RE project located adjacent to the existing RE Overlay Zone if the project:
  - Is not located in a sensitive area
  - Would not result in any significant impacts.
- **"Island Overlay":** An amendment may be made to allow for development of a future RE project that is not located adjacent to the existing RE Overlay Zone if the project:

- Is located adjacent (sharing a common boundary) to an existing transmission source
- Consists of the expansion of an existing RE operation
- Would not result in any significant environmental impacts (County of Imperial 2016).

The project site is not located adjacent to an existing RE Overlay Zone. Therefore, the proposed project will need to meet the criteria identified for the "Island Overlay" to obtain approval of an amendment to the RE Overlay Zone. Table 12 provides an analysis of the project's consistency with the "Island Overlay" criteria. As shown in Table 12, the proposed project would be consistent with the "Island Overlay" criteria because the project is adjacent to an existing transmission source, consists of the expansion of an existing RE operation, and would not result in significant environmental impacts.

The General Plan Amendment and Zone Change requests submitted by the project applicant are subject to approval by the County Board of Supervisors. If approved, the project applicant will be able to request for approval of a CUP to allow the construction and operation of the proposed solar facility and BESS, and the proposed project would be consistent with the RE and Transmission Element of the General Plan.

Table 12. Project Consistency with "Island Overlay" Criteria

Criteria	Criteria Met?
Is located adjacent (sharing a common boundary) to an existing transmission source?	There is an existing IID 161 kV "L" Line that traverses the project site, generally extending from the northwestern portion of the site to the southeastern portion of the site. There is a high voltage transmission powerline that bisects the project site from the south to northwest corner.
Consists of the expansion of an existing RE operation?	The project involves the construction and operation of a 100-megawatt (MW) alternating current (AC) PV solar energy facility, 200-MW BESS, and associated on-site transmission line. Therefore, the proposed project would be capable of generating solar energy and thereby expand renewable energy generation in the area.
Would not result in any significant environmental impacts?	As detailed in Sections I through XXI of this Initial Study, no unavoidable or unmitigable significant impacts were identified. Where significant impacts have been identified, mitigation measures are proposed, that when implemented, would reduce the impact level to less than significant. Therefore, the proposed project would not result in a residual significant impact.

Source: County of Imperial 2016

County of Imperial Land Use Ordinance. Implementation of the project would require the approval of a CUP by the County to allow for the construction and operation of the proposed solar energy facility with an integrated battery storage system. The project parcels are currently zoned as S-2. Pursuant to Title 9, Division 5, Chapter 19, the following uses are permitted in the S-2 zone subject to approval of a CUP from Imperial County:

i) Major facilities relating to the generation and transmission of electrical energy provide[d] such facilities are not under State or Federal law, to [be] approved exclusively by an agency, or agencies of the State or Federal government, and provided such facilities shall be approved subsequent to coordination review of the Imperial Irrigation District for electrical matters. Such uses shall include but be limited to the following:

- *Electrical generation plants*

- *Facilities for the transmission of electrical energy (100-200 kV)*
- *Electrical substations in an electrical transmission system (500 kv/230 kv/161 kV)*

The CUP request submitted by the project applicant is subject to approval by the County Board of Supervisors. If the CUP is approved, the proposed project would not conflict with the County's zoning ordinance and no impact would occur.

XII. Mineral Resources

Environmental Issue Area:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

Impact Analysis

a) **No Impact.** Construction of the proposed project would not result in any impacts to known mineral resources or mineral resource recovery sites. The nearest active mines for mineral resources are open pit sand and gravel located approximately 16.67 miles to the northwest of the project site (California DOC 2023). Additionally, the proposed project would not preclude future mineral resource exploration throughout the project site. No impact would occur.

b) **No Impact.** As noted in Response XII. a), implementation of the proposed project would not result in any impacts to known mineral resources or mineral resource recovery sites. Additionally, the proposed project would not preclude future mineral resource exploration throughout the project site. No impact would occur.

XIII. Noise

Environmental Issue Area:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in:				
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?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Impact Analysis

The following information is summarized from the *Noise Impact Assessment for the North Star 3 Project* prepared by ECORP Consulting, Inc. dated July 2022. This report is provided as Appendix I of this Initial Study.

a) **Less than Significant Impact.**

The American National Standards Institute (ANSI) Standard 12.9-2013/Part 3 divides land uses into six distinct categories based on the ambient noise environment. The project site is identified as Category 6, which is classified as land uses of Very Quiet Sparse Suburban or rural Residential Areas. Category 6 has few if any nearby sources of sound and is estimated to have approximately 200 people per square mile, a typical Ldn of 42 dBA, a daytime L_{eq} of 40 dBA, and a nighttime L_{eq} of 34 dBA.

Construction

Temporary construction noise associated with the project would primarily be from the operation of off-road equipment for onsite construction activities as well as construction vehicle traffic on area roadways. Noise generated by construction equipment, including earth movers, pile drivers, and portable generators, can reach high levels. Other primary sources of acoustical disturbance would be random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts). During construction, exterior noise levels could affect sensitive land uses in the vicinity of the construction site.

The nearest project property line is located approximately 0.5 miles from the sensitive residential receptor at the southeastern corner of the project site. During a typical day, equipment would not be operated continuously at peak levels. Pursuant to the County's

General Plan Noise Element, construction equipment operation shall be limited to the hours of 7:00 a.m. to 7:00 p.m., Monday through Friday, and 9:00 a.m. to 5:00 p.m. on Saturdays. No commercial construction operations are permitted on Sundays or holidays. Construction noise, from a single piece of equipment or a combination of equipment, shall not exceed 75 dB L_{eq}, when averaged over an eight-hour period, and measured at the nearest sensitive receptor.

The anticipated short-term construction noise levels generated for the necessary construction equipment during the onsite solar and battery storage facility component of the project are presented in Table 13. As shown in Table 13, no individual or cumulative pieces of construction equipment would exceed the 75 dBA County construction noise standard during any phase of construction at the nearby noise-sensitive receptors. All calculated noise levels during construction would fall within the normally acceptable range of the guidance set forth in the County of Imperial General Plan Noise Element. Therefore, the project's construction noise impacts would be less than significant.

Table 13. Construction Average (dBA) Noise Levels at Nearest Receptor

Equipment	Estimated Exterior Construction Noise Level at Existing Residences	Construction Noise Standards (dBA L_{eq})	Exceeds Standards?
Site Preparation			
Rubber Tired Dozers (2)	43.2 dBA (each)	75	**No**
Tractors/Loaders/Backhoes (2)	45.6 dBA (each)	75	**No**
Combined Site Preparation Equipment	**50.6 dBA**	75	**No**
Grading			
Excavators (4)	42.3 dBA (each)	75	**No**
Graders (3)	46.6 dBA (each)	75	**No**
Rubber Tired Dozers (2)	43.2 dBA (each)	75	**No**
Scrapers (2)	45.1 dBA (each)	75	**No**
Tractors/Loaders/Backhoes (4)	45.6 dBA (each)	75	**No**
Combined Site Preparation Equipment	**56.6 dBA**	75	**No**
Facility Construction			
Crane	38.1 dBA (each)	75	**No**
Paver	39.8 dBA (each)	75	**No**
Paving Equipment (2)	48.1 dBA (each)	75	**No**
Plate Compactors (4)	41.8 dBA (each)	75	**No**
Forklifts (4)	45 dBA (each)	75	**No**
Tractors/Loaders/Backhoes (4)	45.6 dBA (each)	75	**No**
Trenchers (2)	42.9 dBA (each)	75	**No**
Welder	35.6 dBA (each)	75	**No**
Combined Facility Construction Equipment	**57.1 dBA**	75	**No**

Source: Appendix I of this Initial Study

Operation

The main stationary operational noise associated with the project would be from the proposed transformers, inverters, and transmission lines. Previous noise measurements were taken by ECORP staff during a weekday in the middle of a solar facility with identified noise levels reaching 47.1 dBA at approximately 50 feet distant. As previously stated, the nearest noise sensitive receptor to the project site is a single-family residence located approximately 0.5 mile (2,640 feet) at the southeastern corner of the project site. Noise attenuates a rate of approximately six dB for each doubling of distance from a stationary or point source. Considering the solar facility noise measurement of 47.1 dBA at approximately 50 feet distant, the nearest noise sensitive receptor from the proposed project (approximately 0.5 mile away) would experience operational stationary noise levels well below existing ambient noise levels currently experienced, as shown in Table 14.

Section 90702.00 of the Noise Ordinance sets a sound level limit of 50 dBA Leq for daytime hours of 7 a.m. to 10 p.m. and 45 dBA Leq during the noise sensitive nighttime hours of 10 p.m. to 7 a.m. for residential noise sensitive land uses. The proposed project is expected to operate during both daytime and nighttime hours and therefore the most restrictive and conservative approach is to apply the 45 dBA Leq nighttime standard at the property lines.

Table 14 provides an estimate of the projected noise levels from the proposed project operations at the nearest sensitive receptor. Operating sound levels from the project is estimated to be below 20 dBA, which would be below the County's threshold of 45 dBA at the closest sensitive receptor. Therefore, the project's operational noise levels would not exceed the County's noise standards and impacts would be less than significant.

Table 14. Operational Noise Levels at Nearest Sensitive Receptor

Location	Operational Noise Attributed to Project (L_{eq} dBA)	County Daytime Standard (L_{eq} dBA)	County Nighttime Standard (L_{eq} dBA)	Exceed Standard?
Residence located 2,640 feet from the southeastern boundary	**<20.0**	50.0	45.0	**No**

Source: Appendix I of this Initial Study

Transportation Noise

Project operations would result in minimal additional traffic on adjacent roadways. The only visitors to the site would be that of repair or maintenance workers, whose presence at the site would be required infrequently an inconsistently. According to the California Department of Transportation (Caltrans) *Technical Noise Supplement to the Traffic Noise Analysis Protocol* (2013), doubling of traffic on a roadway is required to result in an increase of 3 dB. The project would not result in a doubling of traffic on vicinity roadways, and therefore its contribution to existing traffic noise would be not be perceptible. Therefore, the project's transportation-related noise impact is considered less than significant.

b) **Less than Significant Impact.** Project construction would have the potential to result in temporary groundborne vibration, depending on the specific construction equipment used and the operations involved. Construction-related ground vibration is normally associated with impact equipment such as pile drivers, jackhammers, and the operation of some heavy-duty construction equipment, such as dozers and trucks. Pile drivers would be necessary during project construction. Vibration decreases rapidly with distance and it is acknowledged that construction activities would occur throughout the project site and would not be concentrated at the point closest to sensitive receptors. Groundborne vibration levels associated with typical construction equipment at 25 feet distant are summarized in Table 15.

Table 15. Representative Vibration Source Levels for Construction Equipment

Equipment Type	Peak Particle Velocity at 25 Feet (inches per second)
Large Bulldozer	0.089
Pile Driver	0.170
Loaded Trucks	0.076
Hoe Ram	0.089
Jackhammer	0.035
Small Bulldozer/Tractor	0.003
Vibratory Roller	0.210

Source: Appendix I of this Initial Study

The County of Imperial does not regulate vibrations associated with construction. However, a discussion of construction vibration is included for full disclosure purposes. For comparison purposes, the Caltrans (2020b) recommended standard of 0.2 inch per second PPV with respect to the prevention of structural damage for older residential buildings is used as a threshold. This is also the level at which vibrations may begin to annoy people in buildings. Consistent with FTA recommendations for calculating construction vibration, construction vibration was measured from the center of the project site.

The nearest structure of concern to the construction site, with regard to groundborne vibrations, appears to be a water tank located approximately one mile from the center of the project site.

Based on the representative vibration levels presented for various construction equipment types in Table 15 and the construction vibration assessment methodology published by the FTA, it is possible to estimate the potential project construction vibration levels. From a distance of 5,280 feet (one mile), vibration as a result of construction activities would not exceed 0.2 PPV at the nearest structure. Therefore, project construction would not exceed the recommended threshold and vibration impacts would be less than significant.

c) **No Impact.** The project site is not located within two miles of a public airport. The nearest airport is the Salton Sea Airport, located approximately 5.5 miles northwest of the project site. Therefore, implementation of the proposed project would not expose people residing or working in the project area to excessive noise levels and no impact would occur.

XIV. Population and Housing

Environmental Issue Area:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Impact Analysis

a) **No Impact.** The proposed project would not induce unplanned population growth. The proposed project involves the construction and operation of a solar energy facility and battery energy storage within a predominantly undeveloped, vacant area of Imperial County. No development of new roads or infrastructure is proposed that would introduce new populations to the project site. The proposed access road would be used only to access the project site. No impact would occur.

b) **No Impact.** No residential units are on the project site that would require relocation. Therefore, the proposed project would not displace substantial numbers of existing people or housing necessitating the construction of replacement housing elsewhere. No impact would occur.

XV. Public Services

Environmental Issue Area:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i. Fire Protection?	☐	☐	☒	☒
ii. Police Protection?	☐	☐	☐	☒
iii. Schools?	☐	☐	☐	☒
iv. Parks?	☐	☐	☐	☒
v. Other public facilities?	☐	☐	☐	☒

Impact Analysis

ai) **Less Than Significant Impact.** Fire protection and emergency medical services in the project area are provided by the Imperial County Fire Department. The project site is approximately 9.37 miles southeast from the Imperial County Fire Department Station 9 at 2256 Cleveland Avenue.

CUP Conditions of Approval for Imperial County Fire Department Fire Prevention Bureau:

As a Condition(s) of Approval of the CUP, the applicant will be required to submit comply wiot information to ICAPCD to verify that proper emissions controls have been implemented to maintain air emissions below ICAPCD Significance Thresholds. These CUP Conditions of Approval include the following:

Solar Requirements

- Approved all-weather access roads for fire protection vehicles shall be provided throughout the project, conforming with the California Fire Code Chapter 5, section 503. Access roadways shall be all-weather surface (suitable for use by fire apparatus) right-of-way not less than 20 feet in width.
- Access roadways shall provide intersecting roadways to allow unobstructed movement of fire apparatus throughout the project site. Solar array layout shall meet Imperial County Fire Department layout requirements.
- Additional access shall be provided to the project site in accordance with the California Fire Code Chapter 5, section 503.

- KNOX Box and/or Locks will be required for all access gates as determined by Imperial County Fire Department.
- Solar array fields shall be clear of all vegetation.
- A pre-incident plan shall be developed and approved by the Imperial County Fire/OES Department in a format and using a platform determined by ICFD.

Battery Energy Storage Systems

- An approved water supply capable of supplying the required fire flow determined by appendix B in the California Fire Code Shall be installed and maintained. (Minimum fire flow of 1500 GPM for 2 hours) Private fire service mains and appurtenance shall be installed in accordance with NFPA 20, 22, 24
- An approved automatic fire suppression system shall be installed on all required structures as per the California Fire Code Chapter 12 and NFPA 855. All fire suppression systems will be installed and maintained to the current adapted fire code and regulations.
- An approved automatic fire detection system shall be installed on all required structures as per the California Fire Code Chapter 12 and NFPA 855. All fire detection systems will be installed and maintained to the current adapted fire code and regulations.
- Owners and operators of ESS must develop and Emergency Operation Plan in conjunction with local fire service personnel, the AHJ, and hold a comprehensive understanding of the hazards associated with lithium-ion battery technology. Lithium-ion battery ESS's must incorporate adequate explosion prevention protection in accordance with NFPA 855 and/or California Fire Code Chapter 12.
- Signage shall be provided in accordance California Fire Code Chapter 12 Compliance with all required sections of the fire code.
- Applicant shall provide product containment areas(s) for both product and water run-off in case of fire applications and retained for removal.
- An emergency response/action plan shall be prepared and approved by the Imperial County Fire/OES Department.
- A Hazardous Waste Material Plan shall be submitted to Certified Unified Program Agency (CUPA) for their review and approval.
- All hazardous material and wastes shall be handled, store, and disposed as per the approved Hazardous Waste Materials Plan. All spills shall be documented and reported to Imperial County Fire Department and CUPA as required by the Hazardous Waste Material Plan

The project site would continue to be adequately supported by the existing fire protection services since the construction and operation of the project would not induce growth in the project area and the fire risk would not create the need for new or physically altered fire protection facilities. In addition, operation and maintenance would not affect the ability of fire personnel to respond to fires. Based on these considerations, the proposed project would not result in a need for fire facility expansion and no impact is identified.

aii) **No Impact.** Police protection services in the project area is provided by the Imperial County Sheriff's Department. The nearest station to the project site is the Imperial County's Sheriff's Department located at 2101 S Marina Drive approximately 8.2 miles to the northwest. The proposed project would not require police services during construction or operation and maintenance beyond routine patrols and response. Construction and operation of the proposed project would not induce growth in the project area that would result in the permanent, and increased need of police protection services. No impact would occur.

aiii) **No Impact.** The proposed project does not include the development of residential land uses that would result in an increase in population or student generation. Construction is estimated to take approximately 12-18 months. The number of construction workers is not expected to require a substantial number of workers. Construction of the proposed project would not result in an increase in student population within the Imperial County's School District since it is anticipated that construction workers would commute in during construction operations. Furthermore, no full-time employees are required to operate the project. It is anticipated that maintenance of the project will be minimal to perform periodic visual inspections and minor repairs. The proposed project would not result in an increase in student population within the Imperial County's School District. Therefore, the proposed project would have no impact on Imperial County schools.

aiv) **No Impact.** Construction is estimated to take approximately 12-18 months. The number of construction workers is not expected to require a substantial number of workers. Furthermore, no full-time employees are required to operate the project. It is anticipated that maintenance of the project will be minimal to perform periodic visual inspections and minor repairs. Substantial permanent increases in population that would adversely affect local parks is not anticipated. Therefore, the proposed project would have no impact on parks.

av) **No Impact.** Construction is estimated to take approximately 12-18 months. The number of construction workers is not expected to require a substantial number of workers. Furthermore, no full-time employees are required to operate the project. It is anticipated that maintenance of the project will be minimal to perform periodic visual inspections and minor repairs. Substantial permanent increases in population that would adversely affect libraries and other public facilities (such as post offices) is not anticipated. Therefore, the proposed project would have no impact on other public facilities such as post offices and libraries.

XVI. Recreation

Environmental Issue Area:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Impact Analysis

a) **No Impact.** The proposed project would not increase the use of existing neighborhood parks and regional parks or other recreational facilities. The proposed project would not induce new populations that would result in the substantial physical deterioration of recreational facilities. No impact would occur.

b) **No Impact.** The proposed project would not include recreational facilities or require the construction or expansion of recreational facilities. The proposed project would not induce new populations that would require new recreational facilities. No impact would occur.

XVII. Transportation

Environmental Issue Area:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☐	☒
b) Conflict with or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access?	☐	☐	☒	☐

Impact Analysis

The following information is summarized from the *Traffic, Parking and Circulation Assessment for the North Star 3 Project* prepared by ECORP Consulting, Inc. dated March 2023. This report is provided as Appendix J of this Initial Study.

a) **No Impact.** The project site is located within a rural portion of Imperial County. The project would not include any project actions within roadway segments. Additionally, there are no public transportation facilities, bicycle facilities, or pedestrian facilities in the immediate proximity of the project site. Therefore, the proposed project would result in no impact associated with a conflict with a program plan, ordinance or policy addressing transit, bicycle, and pedestrian facilities.

b) **Less than Significant Impact.** Section 15064.3(b) of the CEQA Guidelines provides guidance on determining the significance of transportation impacts and focuses on the use of vehicle miles traveled (VMT), which is defined as the amount and distance of automobile travel associated with a project. There would be no change in traffic volumes associated with project construction or operation as project construction is temporary and project operation would have no full-time on-site employees. A VMT analysis is not required for this impact. Therefore, this impact would be less than significant, and no mitigation would be required.

c) **Less than Significant Impact.** The average daily trips during construction and operation would be minimal along the State Highways. There is a potential for truck traffic when approaching the project site along SR 78 and SR 86. However, these effects would be temporary and minor, and no long-term effects on geometric design features on project vicinity roadways would occur that would result in an increase in hazards. Additionally, the proposed project does not include any alteration to the existing public road network. Impacts would be less than significant, and no mitigation would be required.

d) **Less than Significant Impact.** There is a potential for truck traffic when approaching the project site along SR 78 and SR 86. However, these effects would be temporary and minor, and no long-term effects on emergency access would occur that could result in an increase

in hazards. Therefore, the proposed project would not result in inadequate emergency access and this impact is considered less than significant with no mitigation required.

XVIII. Tribal Cultural Resources

Environmental Issue Area:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project cause a substantial adverse change in the significance of a tribal cultural resource defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?	☐	☐	☐	☒
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	☐	☒	☐	☒

Impact Analysis

a-b) **Less than Significant Impact with Mitigation Incorporated.** Assembly Bill 52 was passed in 2014 and took effect July 1, 2015. It established a new category of environmental resources that must be considered under CEQA called tribal cultural resources (Public Resources Code 21074) and established a process for consulting with Native American tribes and groups regarding those resources. Assembly Bill 52 requires a lead agency to begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project.

In accordance with AB 52, Imperial County, as the CEQA lead agency, sent an AB 52/SB 18 consultation request letter to California Native American tribes that are traditionally and culturally affiliated with the project area on December 22, 2023. On February 1, 2024, the Agua Caliente Band of Cahuilla Indians responded via letter requesting consultation under SB 18. The project site is located within the Agua Caliente Band of Cahuilla Indians' Tribal Use Area. Mitigation Measures CR-2 and TR-1 would ensure that potential impacts on tribal cultural resources do not rise to the level of significance.

Mitigation Measure:

TR-1 If previously unidentified tribal cultural resources are identified during construction activities, construction work within 100 feet of the find shall be halted and directed away from the discovery until a Secretary of the Interior qualified archaeologist and tribal representative assesses the significance of the resource. The archaeologist, in consultation with Imperial County and any interested Tribes, shall make the necessary plans for treatment of the find(s) and for the evaluation and mitigation of impacts if the finds are determined to be a tribal cultural resource as defined in PRC Section 21074.

XIX. Utilities and Service Systems

Environmental Issue Area:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

Impact Analysis

a) Less than Significant Impact. The proposed project does not currently contain any public utilities or services. The proposed project would not require the construction of any water, wastewater, stormwater, or energy facilities to accommodate the demand of the project. During project construction, water will be needed for dust control and soil conditioning during installation of the photovoltaic panels, battery storage units, and related infrastructure. During the operational phase, water will be needed for routine maintenance activities, which will primarily consist of washing the photovoltaic panels to maintain generation efficiency. The project's water supply will be provided by a new onsite groundwater supply well to be drilled and installed as part of the project. Impacts associated with the project's groundwater well are inherent to the project's construction phase, and impacts have been evaluated throughout this Initial Study under the appropriate subject headings (air quality, biological resources, etc.).

The proposed project would not require the relocation, expansion, or construction of new storm drainage facilities because the proposed solar facility would not generate a significant increase in the amount of impervious surfaces that would increase runoff during storm events and exceed the capacity of existing or planned stormwater drainage systems. Water from solar panel washing would continue to percolate through the ground, as a majority of the surfaces within the project site would remain pervious.

The wastewater generated during construction would be contained within portable toilet facilities and disposed of at an approved site. The minimal volume of wastewater generated during construction would not require the relocation expansion, or construction of wastewater treatment facilities.

Further, no habitable structures (e.g. housing or O&M buildings) are proposed on the project site. Therefore, the proposed project would not require or result in the relocation or construction of new or expanded electric power or natural gas.

b) **Less than Significant Impact.** During project construction, water will be needed for dust control and soil conditioning during installation of the photovoltaic panels, battery storage units, and related infrastructure. Construction water demand is approximately 295 acre-feet and is anticipated to require 12 to 18 months to complete. The monthly water demand during that period will average about 16 acre-feet to 25-acre feet. During the operational phase, water will be needed for routine maintenance activities, which will primarily consist of washing the photovoltaic panels to maintain generation efficiency. The operational water demand is anticipated to be 10 acre-feet per year. The maintenance activities are anticipated to be conducted up to twice a year over a one-to-two-week period each event, so the maintenance water demand is intermittent and not spread throughout the year (Appendix K of this Initial Study).

The total groundwater storage capacity of the Basin is conservatively estimated to be 3,000,000 acre-feet. And the groundwater decline in wells in adjacent groundwater basins has varied from 8.5 percent to 25 percent over the last several decades. Thus, the current storage in the Basin may be in the range of 2,250,000 o 2,745,000 acre-feet. The single year construction water demand of 295 acre-feet and the annual operational water needs of 10 acre-feet are miniscule (0.011 percent to 0.013 percent and 0.00036 percent to 0.0004 percent, respectively) compared to the available groundwater in storage (Appendix K of this Initial Study). Therefore, there is a sufficient water supply available to serve the project, and this impact is considered less than significant.

c) **No Impact.** The proposed project would not generate wastewater that would need to be treated by a wastewater treatment facility. On-site wastewater needs will be accommodated by the use of portable toilets that would be removed from the project site once construction is complete. No impact would occur.

d) **Less than Significant Impact.** Solid waste generation would be minor for the construction and operation of the proposed project. Trash would likely be hauled to the Salton City Solid Waste Site (13-AA-0011) located approximately 6.94 miles northwest at 935 W. Highway 86. The Salton City Solid Waste Site has approximately 62,974,488 cubic yards of remaining capacity and is estimated to remain in operation through 2038 (CalRecycle 2023). Therefore, there is ample landfill capacity in Imperial County to receive the minor amount of solid waste generated by construction and operation of the proposed project.

Additionally, because the proposed projects would generate solid waste during construction and operation, they will be required to comply with state and local requirements for waste reduction and recycling; including the 1989 California Integrated Waste Management Act and the 1991 California Solid Waste Reuse and Recycling Access Act of 1991. Also, conditions of the conditional use permits will contain provisions for recycling and diversion of Imperial County construction waste policies. Therefore, a less than significant impact is identified for this issue area.

e) **Less than Significant Impact.** The proposed would comply with all applicable statutes and regulations related to solid waste. As discussed in Response XIX. d) above, solid waste generated by the proposed solar photovoltaic facility and BESS is expected to be minimal. This impact is considered less than significant.

XX. Wildfire

Environmental Issue Area:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

Impact Analysis

a) – d) **No Impact.** The project site is located in the unincorporated area of Imperial County. According to the Seismic and Public Safety Element of the General Plan, the potential for a major fire in the unincorporated areas of the County is generally low (County of Imperial 1997). Based on a review of the California Department of Forestry and Fire Protection's fire hazard severity zone map, the project site is not located within a fire hazard severity zone (California Department of Forestry and Fire Protection 2023). The proposed project would not involve blocking or restricting any emergency access routes and would not interfere with emergency response plans or operations near the project area. The proposed project would not involve the development of structures that would introduce new populations to the project area that could result in impacts involving wildfires. The proposed project would not exacerbate wildfire risks and no impact is identified.

XXI. Mandatory Findings of Significance

Environmental Issue Area:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☒	☐	☐
c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Impact Analysis

a) **Less than Significant Impact with Mitigation Incorporated.**

Biological Resources

Special-Status Plants

As described in Response IV. a) above, there is high potential for one special-status plant species, Orcutt's woody-aster, to be present within the project site; and moderate potential for four additional special-status plant species, Harwood's milkvetch, gravel milkvetch, Abram's spurge, and Torrey's boxthorn, to be present within the project site. Impacts that may occur to these species include loss of individuals, habitat, and seedbank. Depending on the size of the population, this impact may be significant. Implementation of Mitigation Measures BIO-1 through BIO-3 would reduce potential impacts on special-status species to a level less than significant.

Special-Status Wildlife

As described in Response IV. a) above, three special-status wildlife species were found to have a high potential to occur within the Survey Area: flat-tailed horned lizard, burrowing owl, and desert kit fox. Impacts to these species could be considered significant. Implementation of Mitigation Measures BIO-2 through BIO-6 would reduce potential impacts on special-status species to a level less than significant.

Three special-status wildlife species were found to have a moderate potential to occur within the Survey Area: Colorado Desert fringe-toed lizard, Palm Springs pocket mouse, and American badger. Impacts to Palm Springs pocket mouse, flat-tailed horned lizard, and Colorado Desert fringe-toed lizard are not anticipated to rise to a level of significant impact due to the proximity of the project site to anthropogenic disturbances (i.e., SR-86, active agriculture) and the presence of existing suitable habitat in the region. However, potential impacts to these species will be minimized with the implementation of Mitigation Measures BIO-2, BIO-3, and BIO-6.

Although no roosting habitat for bats was present on the project site, foraging habitat for a number of special-status bat species occur throughout the project site and in proximity to the project site at the Salton Sea. Mortality or injury of individual special-status bats as a result of the project may be a significant impact. Implementation of Mitigation Measures BIO-2, BIO-3, and BIO-7 would reduce potential impacts on bat species to a level less than significant.

Raptors and Migratory Birds

There is potential nesting and foraging habitat for migratory birds and raptors protected by the MBTA and the California Fish and Game Code throughout and adjacent to the project site. Implementation of Mitigation Measures BIO-2, BIO-3, and BIO-5 would reduce potential impacts to a level less than significant. Mortality or injury of individual birds and raptors as a result of the project may be a significant impact. Implementation of Mitigation Measure BIO-7 would reduce potential impacts to level less than significant.

Cultural Resources

As described in Response V. a) above, although P-13-7600, a previously recorded resource which is listed in the CRHR and eligible for listing in the NRHP, was not relocated during the inventory and testing/evaluation phases of the proposed project due to its location being potentially incorrectly plotted on maps, there is still a potential the resource may be nearby and within the project area. There is a potential that ground disturbing activities during construction could impact P-13-7600, if observed within the project area. This potential impact is considered significant. Implementation of Mitigation Measures CR-1 and CR-2 would reduce potential impacts to a level less than significant.

As described in Response V. b) above, due to the presence of alluvium and relict shorelines, and given the likelihood of precontact archaeological sites located along perennial waterways and relict shorelines, the project area has the potential for buried precontact archaeological sites. There is a high potential for buried precontact cultural material along the relict shorelines of Lake Cahuilla because precontact sites in this region are known to occur along those shorelines. Therefore, the possibility remains that unanticipated subsurface discoveries may arise during project construction. This potential impact is considered significant. Implementation of Mitigation Measures CR-1 and CR-2 would reduce potential impacts to a level less than significant.

As described in Response V. c) above, the potential for encountering subsurface human remains within the project site is low, there remains a possibility that human remains are present beneath the ground surface, and that such remains could be exposed during construction. The potential to encounter human remains is considered a significant impact.

Mitigation Measure CR-3 would ensure that the potential impact on previously unknown human remains does not rise to the level of significance pursuant to CEQA.

Geology and Soils

As described in Response I. f) above, the project site is located within an area where paleontological sensitivity is considered to be high. Impacts on any surface or near-surface level paleontological resources may occur because of grading and disturbance of the area. Even relatively shallow excavations in the Lake Cahuilla beds exposed in the project site may encounter significant vertebrate fossil remains. Implementation of Mitigation Measure GEO-1 would ensure that the potential impacts on paleontological resources do not rise to the level of significance pursuant to CEQA.

b) **Less than Significant Impact with Mitigation Incorporated.** Based on the analysis contained in this Initial Study, the proposed project would not result in significant impacts to aesthetics, air quality, agricultural and forestry resources, energy, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation, utilities and service systems, and wildfire.

The proposed project would have potential impacts that are significant on the following resources areas: biological resources, cultural resources, geology and soils, and tribal cultural resources. However, implementation of mitigation measures would ensure potential impacts are reduced to less than significant levels. The proposed project would incrementally contribute to cumulative impacts for projects occurring within the vicinity of the project. However, compliance with the mitigation measures would ensure that no residually significant impacts would result with implementation of the project either directly or indirectly. In the absence of residually significant impacts, the incremental accumulation of effects would not be cumulatively considerable. Therefore, a finding of less than significant is identified for this issue area.

c) **Less than Significant Impact.** Based on the analysis contained in this Initial Study, the proposed project would not cause substantial adverse effects on human beings, either directly or indirectly. Any effects related to construction of the project would be temporary and short-term and would not result in any long-term or permanent effects on human beings. This is considered a less than significant impact.

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List of Preparers

This Initial Study was prepared for the Imperial County Planning and Development Services Department by HDR. The following professionals participated in its preparation:

Imperial County Planning and Development Services Department

Jim Minnick, Planning and Development Services Director

Michael Abraham, AICP, Assistant Planning and Development Services Director

Diana Robinson, Planning Division Manager

Gerardo Quero, Planner II

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Sharyn Hidalgo, Project Manager

Steven Yu, Environmental Planner

Sharon Jacob, Geographic Information Systems Analyst

Katherine Turner, Document Production Administrator

Technical Report Preparers

ECORP Consulting, Inc.

- Visual Resources Assessment
- Air Quality and Greenhouse Gas Emissions Assessment
- Archaeological and Architectural History Resources Evaluations
- Biological Technical Report
- Cultural Resources Inventory Report
- Energy Consumption Assessment
- Noise Impact Assessment
- Traffic, Parking, and Circulation Assessment

EMKO Consulting, Inc.

- Water Supply Assessment

GS Lyon Consultants, Inc.

- Phase I ESA Report

Hernandez Environmental Services

- Aquatic Resource Delineation Report

Landmark Consultants, Inc.

- Geotechnical Report

Findings

This is to advise that the County of Imperial, acting as the lead agency, has conducted an Initial Study to determine if the project may have a significant effect on the environment and is proposing this Negative Declaration based upon the following findings:

☐ The Initial Study shows that there is no substantial evidence that the project may have a significant effect on the environment and a NEGATIVE DECLARATION will be prepared.

☒ The Initial Study identifies potentially significant effects but:

(1) Proposals made or agreed to by the applicant before this proposed Mitigated Negative Declaration was released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur.

(2) There is no substantial evidence before the agency that the project may have a significant effect on the environment.

(3) Mitigation measures are required to ensure all potentially significant impacts are reduced to levels of insignificance.

A MITIGATED NEGATIVE DECLARATION will be prepared.

If adopted, the Negative Declaration means that an Environmental Impact Report will not be required. Reasons to support this finding are included in the attached Initial Study. The project file and all related documents are available for review at the County of Imperial, Planning & Development Services Department, 801 Main Street, El Centro, CA 92243 (442) 265-1736.

NOTICE

The public is invited to comment on the proposed Negative Declaration during the review period.

Date of Determination Jim Minnick, Director of Planning & Development Services

The Applicant hereby acknowledges and accepts the results of the Environmental Evaluation Committee (EEC) and hereby agrees to implement all Mitigation Measures, if applicable, as outlined in the MMRP.

Applicant Signature Date

ATTACHMENT "E"

GENERAL PLAN AMENDMENT (GPA#23-0002) RESOLUTION

RESOLUTION NO.

A RESOLUTION OF THE PLANNING COMMISSION OF THE COUNTY OF IMPERIAL, CALIFORNIA, RECOMMENDING APPROVAL TO THE IMPERIAL COUNTY BOARD OF SUPERVISORS FOR THE NORTHSTAR 3 SOLAR ENERGY GENERATION AND BATTERY STORAGE PROJECT AMENDMENT GPA #23-0002.

WHEREAS, the applicant Apex Energy Solutions, LLC, for the NorthStar 3 Solar Energy Generation and Battery Storage Project filed a request for a General Plan Amendment #23-0002 for the proposed solar and BESS facility; and,

WHEREAS, the Planning Commission of the County of Imperial has been delegated with the responsibility of making recommendations to the Imperial County Board of Supervisors regarding General Plan approval; and,

WHEREAS, the General Plan Amendment #23-0002 has been provided in a timely manner to public agencies; and

WHEREAS, timely public notice of the Planning Commission's hearing on the Project application has been given, and the Planning Commission has considered evidence presented by the Imperial County Planning & Development Services Department and other interested parties at that public hearing held with respect to this item December 11, 2024; and,

WHEREAS, the General Plan Amendment includes analysis for the inclusion and revision to the Renewable Energy and Transmission Element Section III (Goals and Objectives) Island Overlay (page 35 of the General Plan Renewable Energy & Transmission Element) second bullet which states in part that an amendment may be made to the renewable energy overlay zone if the Project:

- Consists of the expansion of an existing renewable energy operation (if located in an agricultural-designated lands), or is adjacent to or within one quarter (1/4) of a mile of an existing operating solar facility

WHEREAS, the General Plan Amendment will include the update & revision to the Imperial County Title 9, Division 17 Renewable Energy Resources, Chapter 1 Section 91701.01 to include the language "if located in an agricultural-designated lands."

NOW THEREFORE, the Planning Commission of the County of Imperial DOES HEREBY RESOLVE as follows:

SECTION 1. The Planning Commission independently has reviewed and considered the proposed General Plan Amendment #23-0002. The Planning Commission finds and determines that the Initial Study/Mitigated Negative Declaration (IS/MND) is adequate and prepared in accordance with the requirements of the California Environmental Quality Act (CEQA), which analyzes environmental effects, based upon

NOW, THEREFORE, based on the above findings, the Planning Commission of the County of Imperial **DOES HEREBY RECOMMEND** that the Board of Supervisors approve the proposed General Plan Amendment GPA #23-0002, for the NorthStar 3 Solar and Battery Storage Project.

Rudy Schaffner, Chairperson
Imperial County Planning Commission

I hereby certify that the Planning Commission at a meeting conducted on **December 11, 2024** by the following vote took the preceding resolution:

AYES:

NOES:

ABSENT:

ABSTAIN:

ATTEST:

Jim Minnick, Director of Planning & Development Services
Secretary to the Planning Commission
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ATTACHMENT "F"

ZONE CHANGE (ZC#23-0002)

RESOLUTION

RESOLUTION NO.

A PLANNING COMMISSION RESOLUTION RECOMMENDING FOR THE BOARD OF SUPERVISORS TO APPROVE ZONE CHANGE #23-0002 FOR THE PROPOSED NORTHSTAR 3 SOLAR AND BATTERY STORAGE PROJECT ZONES FROM S-2 (OPEN SPACE/PRESERVATION) TO S-2-RE (OPEN SPACE/PRESERVATION IN RENEWABLE ENERGY) AND THE ADOPTION OF THE ZONE CHANGE TO THE CODIFIED ORDINANCE.

WHEREAS, Apex Energy Solutions, LLC has filed an application to re-zone Assessor Parcel Numbers (APN) 017-350-031, 017-350-030, and 017-350-027. The proposed project is located in the northwest portion of Imperial County, California on an approximately 585-acre project site. The project site consists of three project parcels: Assessor Parcel No. (APN) 017-350-031 (305 acres), 017-350-030 (160 acres), and 017-350-027 (120 acres). The project site is situated near the western edge of the Salton Sea and is located approximately 9 miles southeast of the town of Salton City. State Route (SR) 86, located adjacent to the southwest corner of the project site, provides regional access to the project site. Salton Sea Road is immediately south of the project site and provides local vehicular access to the project site. The abandoned Naval Auxiliary Air Station – Salton Sea is located approximately 1 mile northeast of the project site.

WHEREAS, the project is designated on the adopted Land Use Element of the County of Imperial's General Plan as "Agriculture" (County of Imperial, 2015). Approval of a zone change by the Imperial County Board of Supervisors (Board) is required prior to any significant new use or development in this area, except agricultural use. The County Land Use Ordinance, Division 17, includes the Renewable Energy (RE) Overlay Zone, which authorizes the development and operation of renewable energy projects with an approved Conditional Use Permit (CUP). CUP applications proposed for specific renewable energy projects not located in the RE Overlay Zone would not be allowed without an amendment to the RE Overlay Zone; and,

WHEREAS, the zone change for the proposed NorthStar 3 Solar and Battery Storage Project will consist of including/classifying all three project parcels (APNs 017-350-031, 017-350-030, and 017-350-027) into the RE Overlay Zone (i.e., Zone Change from S-2 to S-2-RE).

WHEREAS, the Planning Commission of the County of Imperial has been delegated with the responsibility of making a recommendation to the Board of Supervisors on a decision for changes to Zoning Maps #70 & #71 of the Imperial County Land Use Ordinance; and

WHEREAS, public notice of said application has been given, and the Planning Commission has considered evidence presented by the Imperial County Planning & Development Services Department and other interested parties at a public hearing held with respect to this item on December 11, 2024; and,

NOW, THEREFORE, based on the above findings, the Planning Commission of the County of Imperial **DOES HEREBY** recommend for the Board of Supervisors approve the proposed Zone Change #23-0002 to rezone APN(s) 017-350-027, 017-350-030, and 017-350-031 from the current zoning of S-2 (Open Space/Preservation) and approve the proposed zone S-2-RE (Open Space/Preservation in Renewable Energy Zone) and the proposed change to the Imperial County Codified Zoning Ordinance.

Rudy Schaffner, Chairperson
Imperial County Planning Commission

I hereby certify that the preceding resolution was taken by the Planning Commission at a meeting conducted on **December 11, 2024,** by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

ATTEST:

Jim Minnick, Director of Planning & Development Services
Secretary to the Planning Commission

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ORDINANCE NO. _____

AN ORDINANCE OF THE COUNTY OF IMPERIAL, STATE OF CALIFORNIA, AMENDING THE CODIFIED ORINANCES OF THE COUNTY OF IMPERIAL RELATING TO ZONES

The Board of Supervisors of the County of Imperial, State of California, does hereby ordain as follows:

SECTION 1: The Codified Ordinances of the County of Imperial is hereby amended by amending Section **92571.06**, is added to Chapter 71 of Division 25 of Title 9, of the Codified Ordinances of the County of Imperial, State of California, to read as follows:

The map entitled "Renewable Energy Overlay Map" Zoning Map No. 71 (Section 92571.06 of the Codified Ordinances) is hereby amended in the following particular only.

Section **92571.06** Amendment to Zoning Map No. 71 "Renewable Energy Overlay Zone"

Section **92570.12** is Amendment to "Zoning Map No. "70" NorthStar 3. S-2-RE added to Chapter 70 of Division 25 of Title 9, of the Codified Ordinances of the County of Imperial, State of California, to read as follows:

The map entitled "**Map #70 Open Space Area** No. 70 (Section 92570.00 of the Codified Ordinances) is hereby amended in the following only.

The zone classification of this certain parcel(s) of real property situated in the County of Imperial, State of California, and more particularly described as:

SOUTHEAST ¼ OF NORTHEAST ½ & EAST ½ SECTION 25; WEST ½ OF EAST ½ OF SECTION 25; THAT PORTION OF WEST ½ OF SECTION 25, TOWNSHIP 11 SOUTH RANGE 10 EAST, ACRES 120; 160; 305.44, APN(S): 017-350-027-000; 017-350-030-000; 017-350-031-000, RESPECTIVELY, S-2 (Open Space/Preservation) Change to "S-2-RE" (Open Space/Preservation/-Renewable Energy Overlay Zone).

SECTION 2: This Ordinance shall take effect and shall be in force thirty (30) days after the date of its adoption, and prior to the expiration of fifteen (15) days from the passage thereof, a summary of this Ordinance shall be published at least once in the Holtville Tribune, a newspaper of general circulation, printed and published in the County of Imperial, State of California, together with the names of the members of the Board of Supervisors voting for and against the same.

County while preserving agricultural activity" (Goal 2) and to "preserve agriculture and natural resources while promoting diverse economic growth through sound land use planning" (Goal 3, Objective 3.2). No change in the underlying General Plan land use (Agriculture) is proposed.

SECTION 4: A complete executed copy of this Ordinance shall be on file with the Office of the Clerk of the Board of Supervisors. It shall be available for review at the County Administration Center, located at 940 W. Main Street, Suite 209, El Centro, California, 92243. The Clerk of the Board of Supervisors may be reached at (442) 265-1020.

PASSED, ADOPTED, AND APPROVED by the Board of Supervisors of the County of Imperial this [DAY/MONTH] 2024.

AYES:
NOES:
ABSENT:
ABSTAIN:

_____
Luis A. Plancarte, Chairman
Board of Supervisors

ATTEST:_____
BLANCA ACOSTA, Clerk of the
Board of Supervisors, County of Imperial,
State of California

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ATTACHMENT "G"

CONDITIONAL USE PERMIT (CUP#23-0007) RESOLUTION

RESOLUTION NO.

A RESOLUTION OF THE PLANNING COMMISSION OF THE COUNTY OF IMPERIAL, CALIFORNIA, RECOMMENDING APPROVAL TO THE BOARD OF SUPERVISORS FOR "NORTHSTAR 3 SOLAR AND BATTERY STORAGE PROJECT" FOR CONDITIONAL USE PERMIT #23-0007"

WHEREAS, APEX ENERGY SOLUTIONS, LLC has submitted an application for Conditional Use Permit (CUP) #23-0007 to develop a nominal 100-megawatt (MW) solar photovoltaic (PV) energy generation system with an integrated battery storage system not to exceed 200 MW. The project includes solar energy generation facility, battery energy storage system, and on-site transmission connection. The project is to be located on approximately 585 acres; and,

WHEREAS, an Initial Study/Mitigated Negative Declaration and CEQA has been prepared in accordance with the requirements of the California Environmental Quality Act, the State Guidelines, and the County's "Rules and Regulations to Implement CEQA," as Amended; and,

WHEREAS, the Planning Commission of the County of Imperial has been delegated with the responsibility of approvals, certifications and making recommendations to the Imperial County Board of Supervisors for approvals of conditional use permits; and,

WHEREAS, public notice of said application has been given, and the Planning Commission has heard, received and considered all oral and written protests, objections and evidence presented by interested parties at a public hearing held with respect to this item on December 11, 2024; and,

WHEREAS, the Draft Initial Study was received by the State Clearinghouse on June 20, 2024 and circulated for a period of 35 days (**SCH #2024060955**) with the commenting period ending July 25, 2024; and,

NOW, THEREFORE, the Planning Commission of the County of Imperial **DOES HEREBY RESOLVE** as follows:

SECTION 1. The Planning Commission has considered the proposed Conditional Use Permit #23-0007 prior to recommending approval and the County's consideration of the Project has been noticed in compliance with law.

SECTION 2. That the Project complies with the requirements of the Imperial County Code and is in accordance with State Planning and Zoning law therefore, the following findings are made pursuant to Imperial County Code § 90203.09 as follows:

A. The proposed use is consistent with goals and policies of the adopted County General Plan. (Imperial County Code § 90203.09.A)

The current General Plan land use designation of the project site and proposed parcels is "Agriculture" and is zoned "Open Space/Preservation (S-2)." A General Plan Amendment to include/classify all three proposed project parcels (APNs 017-350-031, 017-350-030, and 017-350-027) into the RE Overlay Zone would be required for consistency with the County General Plan. With this, the proposed uses could be found consistent with the General Plan.

B. The proposed use is consistent with the purpose of the zone or sub-zone within which the use will be used. (Imperial County Code § 90203.09.B)

The proposed project parcels are zoned S-2 (Open Space/Preservation and Open Space/Preservation). A Zone Change to include/classify APNs 017-350-031, 017-350-030, and 017-350-027 into the RE Overlay Zone would be required for consistency with the County General Plan. With this, the proposed uses could be found consistent with the General Plan with requirements for an approved Conditional Use Permit.

C. The proposed use is listed as a use within the zone or sub-zone or is found to be similar to a listed conditional use according to the procedures of Section 90203.00. (Imperial County Code § 90203.09.C)

The proposed use would be consistent with the zone S-2-RE (Open Space/Preservation in Renewable Energy Zone), upon approval of a Zone Change.

D. The proposed use meets the minimum requirements of this Title applicable to the use and complies with all applicable laws, ordinances and regulation of the County of Imperial and the State of California. (Imperial County Code § 90203.09.D)

The Project complies with the minimum requirements of this Title by, among other things, obtaining a CUP, complying with the California Environmental Quality Act, and participating in the public review and hearing process. Development standards

have been established for the Project pursuant to these processes, and will be enforced via imposition and enforcement of the Mitigation Monitoring and Reporting Program recommended for approval by separate Resolution, as well as the conditions of approval imposed on this CUP. The Conditions of Approval will further insure that the project complies with all applicable regulations of the County of Imperial and the State of California. Therefore, the proposed project meets the minimum requirements of the Land Use Ordinance, Section 90203.00.

E. The proposed use will not be detrimental to the health, safety, and welfare of the public or to the property and residents in the vicinity. (Imperial County Code § 90203.09.E)

The Initial Study/Mitigated Negative Declaration (IS/MND) prepared for the Project analyzed the Project's potential effects on the health, safety, and welfare of the public and property and found that, with mitigation, the Project would have less than significant effects and impacts in all resource areas.

In addition, the project site is not near a residential community and is mostly surrounded by vacant desert land and agricultural land. One single-family residence is located approximately 0.5 miles from the southeast corner of the project site and the Project would have a less than significant impact in relation to this residence, as analyzed in the IS/MND.

F. The proposed use does not violate any other law or ordinance. (Imperial County Code § 90203.09.F)

The proposed project will be subject to the Conditional Use Permit and current Federal, State and Local regulations. State Planning and Zoning Law (Cal. Govt. Code §§ 65000-66035) establishes minimum statewide standards for the regulation of local land use through planning and zoning. The County regulates local land use via Title 9 of the Imperial County Code. As found above, the proposed project is conditioned to be consistent with Imperial County, Title 9, Land Use Ordinance and CEQA mitigation measures and therefore complies with both State and local laws and ordinance.

Pursuant to CEQA, the County has prepared an IS/MND for the Project, which analyzes the proposed Project's compliance and consistency with other federal, state, and local laws and ordinances regulating the environment. Substantial evidence supports the conclusions in the IS/MND that the Project complies with

said environmental laws, and thus the finds that the proposed use does not violate any other law or ordinance.

G. The proposed use is not granting a special privilege. (Imperial County Code § 90203.09.G)

The proposed solar generating and battery energy storage facility is a permitted use subject to approval of the proposed Conditional Use Permit. No special privileges are being offered or will be granted.

SECTION 3. Approval of the Project is conditioned upon the terms and conditions set forth in the Agreement for Conditional Use Permit #23-0007 attached hereto and incorporated herein by this reference.

NOW, THEREFORE, based on the above findings, the Imperial County Planning Commission **DOES HEREBY RECOMMEND APPROVAL** of Conditional Use Permit #23-0007 to the Board of Supervisors, subject to the attached Conditions of Approval.

Rudy Schaffner, Chairperson
Imperial County Planning Commission

I hereby certify that the Planning Commission at a meeting conducted on **December 11, 2024** by the following vote approved the preceding resolution:

AYES:
NOES:
ABSENT:
ABSTAIN:

ATTEST:

Jim Minnick, Director of Planning & Development Services
Secretary to the Planning Commission

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When Recorded Return To:

Imperial County
Planning & Development Services
801 Main Street
El Centro, California 92243

AGREEMENT FOR CONDITIONAL USE PERMIT #23-0007
NORTHSTAR 3 SOLAR ENERGY GENERATION AND BATTERY STORAGE PROJECT
(APN: 017-350-027-000, 017-350-030-000 & 017-350-031-000)

Conditional Use Permit **#23-0007** was approved by the Imperial County ☐ Planning Commission ☐ Board of Supervisors and has the Effective Date of _____,2024. This Conditional Use Permit is by and between **Apex Energy Solutions, LLC** (hereinafter referred to as "Permittee"), and the COUNTY OF IMPERIAL, a political subdivision of the State of California, (hereinafter referred to as "COUNTY").

RECITALS

WHEREAS, Permittee is the lessee or successor-in-interest of certain land in Imperial County to be improved with the proposed utility-scale solar and battery storage facility. The project, Conditional Use Permit (CUP or Permit) #23-0007, consists of a proposed **100-Megawatt (MW)** solar photovoltaic (PV) facility with an integrated **200-Megawatt (MW)** battery energy storage system (BESS) and associated infrastructure, including but not limited to, an on-site transmission line to connect to the Imperial Irrigation District's (IID) existing 161kV "L" Line, on approximately 585 acres within Imperial County (the "proposed project"). The project site is situated near the western edge of the Sandy Beach Road and is located approximately 9 miles southeast of the town of Salton City. State Route (SR) 86, located adjacent to the southwest corner of the project site, provides regional access to the project site. Sandy Beach Road is immediately south of the project site and provides local vehicular access to the project site. The abandoned Naval Auxiliary Air Station – Salton Sea is located approximately 1 mile northeast of the project site. All three of the parcels that comprise the project site (APNs 017-350-027, 017-350-030, and 017-350-031) are outside the Imperial County Renewable Energy (RE) Overlay Zone.

WHEREAS, Permittee has applied to the County of Imperial for CUP #23-0007 for constructing and operating a new 100-MW solar PV facility with an integrated 200-MW BESS with ancillary support facilities, including an on-site transmission line. The proposed on-site transmission line would connect to the IID's existing 161kV "L" Line.

WHEREAS, the Project is located on APNs 017-350-027, 017-350-030, and 017-350-031. Additionally, the legal description includes SEC 9, Township 11 South, Range 10 East on approximately 585 aces. All three of the parcels that comprise

the project site (APNs 017-350-027, 017-350-030, and 017-350-031) are outside the Imperial County RE Overlay Zone.

WHEREAS, the Permittee for the NorthStar 3 Solar Energy Generation and Battery Storage Project (CUP #23-0007) shall fully comply with all of the terms and conditions of the Project as specified hereinafter within this CUP.

The rest of this page is intentionally left blank.

GENERAL CONDITIONS:

The "GENERAL CONDITIONS" are shown by the letter "G." These conditions are conditions that are either routinely and commonly included in all Conditional Use Permits as "standardized conditions" and/or are conditions that the Imperial County Planning Commission has established as a requirement on all CUPs for consistent application and enforcement. The Permittee is hereby advised that the General Conditions are as applicable as the SITE-SPECIFIC conditions. The General Conditions are in addition to the MMRP and any and all other requirements for the project.

G-1 GENERAL LAWS:

The Permittee shall obtain, comply with and maintain all applicable County, State, and federal laws, rules, regulations, ordinances, and/or standards as they may pertain to this project whether specified herein or not.

G-2 EFFECTIVE DATE:

The approved Conditional Use Permit shall not become effective until ten (10) calendar days after the decision of the Planning Director or Commission. Further the Conditional Use Permit shall not be effective until applicable conditions have been met, and the Conditional Use Permit is recorded with the County Recorder, with payment of recording fees being paid by applicant. In the case of a decision by the Board of Supervisors there is no 10-day appeal.

G-3 RECORDATION:

CUP #23-0007 shall **not be effective** until it is recorded at the Imperial County Recorder's Office and if no appeal has been made after approval from the hearing body. Payment of the recordation fee shall be the responsibility of the Permittee. If this CUP is not recorded within one hundred eighty (180) days from the date of approval the CUP shall be deemed null and void, without notice having to be provided to Permittee. Permittee may submit a written request for a recordation extension for this CUP by filing such a request with the Planning Director at least sixty (60) days prior to the one hundred eighty 180-day expiration. The Director may approve one (1) extension for a period not to exceed one hundred eighty (180) days. An extension may not be granted if the request for an extension is filed after the expiration date. Failure to record this CUP within one (1) year including the granted extension period shall deem this CUP null and void.

G-4 COMMENCEMENT OF WORK:

If the project for which a CUP has been approved has not commenced, or permits for said project have not been issued, within one (1) year from effective date, the CUP shall be null and void. If an applicant cannot initiate or obtain permits for the approved use during the one (1) year, applicant may request a one (1) year extension from the Department. The request for an extension shall be in writing and be submitted with explanation to the Planning & Development Services Department at least sixty days prior to the end of the extended one (1) year period. The Director shall have the authority to extend the initial start-up period, or commencement of work, of a CUP up to two (2) times for a maximum of two (2) years. Should the

Permittee desire to continue with the project, a new application shall be submitted, and the entire process would have to begin anew.

G-5 TIME LIMIT:

Unless otherwise specified within the Site-Specific Conditions, this Permit shall be limited to a maximum of thirty (30) years from the recordation of the CUP. The CUP may be extended for an additional ten (10) year period by the appropriate County entity (either the Planning Director, the Planning Commission or the Board of Supervisors as set forth in the applicable Imperial County Ordinances) upon a finding that the Project is in compliance with all conditions of the CUP as stated herein and any applicable Land Use regulation of the County of Imperial. In order to obtain an extension, the Permittee shall file a written extension request with the Planning Director at least sixty (60) days prior to the expiration date of the permit. Such an extension request shall include the appropriate extension fee. Nothing stated or implied within this Permit shall constitute a guarantee that an extension will be granted. An extension may or may not be granted if the Project is in violation of any one or all of the conditions or if there is a history of non-compliance with the Permit conditions.

G-6 ABANDONMENT:

If a CUP has been unused, abandoned, discontinued, or ceased for one (1) year, the CUP shall be null and void, and be of no effect. Notice to applicant/permittee under this division will not be required or provided by Department.

G-7 PERMIT/LICENSE:

Permittee shall obtain and comply with any and all required permits, licenses, and/or approvals, for the construction and/or operation of this project. This shall include, but shall NOT be limited to, permits from the County Division of Environmental Health Services (EHS), Planning & Development Services Department, Office of Emergency Services (OES), Imperial County Air Pollution Control District (ICAPCD) and Public Works Department. Permittee shall likewise comply with all such permit requirements for the life of the project. **Additionally, Permittee shall submit a copy of such additional permit(s) and/or license(s) to the Planning & Development Services Department within 60-days of receipt, including amendments or alternatives thereto.**

G-8 APPROVALS AND CONDITIONS SUBSEQUENT TO GRANTING PERMIT:

Permittee acceptance of this CUP shall be deemed to constitute agreement with the terms and conditions contained herein. Where a requirement is imposed in this CUP that Permittee conduct a monitoring program, and where the County has reserved the right to impose or modify conditions with which the Permittee must comply based on data obtained therefrom, or where the Permittee is required to prepare specific plans for County approval and disagreement arises, the Permittee, operator and/or agent, the Planning and Development Services Director or other affected party, to be determined by the Planning and Development Services Director, may

request that a hearing be conducted before the Imperial County Planning Commission whereby they may state the requirements which will implement the applicable conditions as intended herein. Upon receipt of a request, the Planning Commission shall conduct a hearing and make a written determination. The Planning Commission may request support and advice from a technical advisory committee. Failure to take any action shall constitute endorsement of staff's determination with respect to implementation.

G-9 CONDITION PRIORITY:

This project shall be constructed/operated as described in the CUP application, the environmental documents, the project description, and as specified in these conditions. Where a conflict occurs, the CUP conditions shall govern.

G-10 INDEMNIFICATION:

As part of this application, applicant and real party in interest, if different, agree to defend, indemnify, hold harmless, and release the County of Imperial ("County"), its agents, officers, attorneys, and employees (including consultants) from any claim, action, or proceeding brought against any of them, the purpose of which is to attack, set aside, void, or annul the approval of this application or adoption of the environmental document which accompanies it. This indemnification obligation shall include, but not be limited to, damages, costs, expenses, attorney fees, or expert witness fees that may be asserted by any person or entity, including the applicant, arising out of or in connection with the approval of this application, whether or not there is concurrent negligence on the part of the County, its agents, officers, attorneys, or employees (including consultants).

If any claim, action, or proceeding is brought against the County, its agents, officers, attorneys, or employees (including consultants), to attack, set aside, void, or annul the approval of the application or adoption of the environmental document which accompanies it, then the following procedures shall apply: The Planning Director shall promptly notify the County Board of Supervisors of any claim, action or proceeding brought by an applicant challenging the County's action. The County, its agents, attorneys and employees (including consultants) shall fully cooperate in the defense of that action. The County shall have the final determination on how to best defend the case and will consult with applicant regularly regarding status and the plan for defense. The County will also consult and discuss with applicant the counsel to be used by County to defend it, either with in-house counsel, or by retaining outside counsel provided that the County shall have the final decision on the counsel retained to defend it. Applicant shall be fully responsible for all costs incurred. Applicant shell be entitled to provide his or her own counsel to defend the case and said independent counsel shall work with County Counsel to provide a joint defense.

G-11 INSURANCE:

The Permittee shall take out and maintain workers compensation insurance as required by the State of California. The Permittee shall also secure liability

insurance and such other insurance as required by state and/or federal law. A Certificate of Insurance is to be provided to the Planning and Development Services Department by the insurance carrier and said insurance and certificate shall be kept current for the life of the project. Certificates of Insurance shall be sent directly to the Planning and Development Services Department by the insurance carrier and shall name the Department as a recipient of both renewal and cancellation notices.

G-12 RIGHT OF ENTRY:

The County reserves the right to enter the premises at any time, announced or unannounced, in order to make the appropriate inspection(s) and to determine if the condition(s) of this CUP are complied with. Access by authorized enforcement agency personnel shall not be denied.

G-13 SEVERABILITY:

Should any condition(s) of this CUP be determined by a Court or other agency with proper jurisdiction to be invalid for any reason, such determination shall not invalidate the remaining provision(s) of this CUP.

G-14 PROVISION TO RUN WITH LAND:

The provisions of this CUP are to run with the land/project and shall bind the current and future owner(s) successor(s) of interest; assignee(s) and/or transferee(s) of said CUP. **Permittee shall not without prior notification to the Planning & Development Services Department assign, sell, or transfer, or grant control of CUP or any right or privilege therein.** The Permittee shall provide a minimum of 60 days written notice prior to such proposed transfer becoming effective. The permitted use identified herein is limited for use upon this parcel described herein and may not be transferred to another parcel.

G-15 COMPLIANCE/REVOCATION:

Upon the determination by the Planning & Development Services Department that the project is or may not be in full compliance with any one or all of the conditions of this CUP, or upon the finding that the project is creating a nuisance as defined by law, the issue shall be brought immediately to the appropriate enforcement agency or to the Planning Commission for hearing to consider appropriate response including but not limited to the revocation of the CUP or to consider possible amendments to the CUP. The hearing shall be held upon due notice having been provided to the Permittee and to the public in accordance with established ordinance/policy.

G-16 NON-COMPLIANCE (ENFORCEMENT & TERMINATION):

Should the Permittee violate any condition herein, the County shall give written notice of such violation and actions required of Permittee to correct such violation. If Permittee does not act to correct the identified violation within forty-five (45) days after written notice, County may revoke the CUP. If Permittee pursues correction of

such violation with reasonable diligence, the County may extend the cure period. Upon such revocation, County may, at its sole discretion, cease processing, defending any lawsuit or paying for costs associated with the Project.

G-17 COSTS:

Permittee shall pay any and all amounts determined by the County to defray any and all cost(s) for the review of reports, field investigations, monitoring, and other activities directly related to the enforcement/monitoring for compliance of this CUP, County Ordinance or any other applicable law. Any billing against this project, now or in the future, by the Planning & Development Services Department or any County Department for costs incurred as a result of this CUP, shall be billed through the Planning & Development Services Department.

G-18 REPORT(S)

Permittee shall file an annual report with the Planning and Development Services Department to show that Permittee is in full compliance with this CUP. The report shall be filed at least fifteen (15) days prior to the anniversary (recordation date) of this CUP. It shall be the responsibility of the Permittee to provide all reports and to include the information about other users. The County may request information at any time from the Permittee or other users if applicable; however, it shall be the responsibility of the Permittee to assure that the County receives such information in a timely manner.

G-19 RESPONSIBLE AGENT

Permittee shall maintain on file with the Planning and Development Services Department the name and phone number of the responsible agent for the site. A back-up name shall also be provided, and a phone number for twenty-four (24) hour emergency contact shall also be on file. If there are other users, the same information (as applicable) required from the Permittee shall also be made available to the County from such other users.

G-20 WATER AND SEWER:

Permittee shall provide water and sewer to Federal, State and County standards. Water and sewer systems shall be approved by the Environmental Health Services and the Planning & Development Services Department. Permittee shall hook up to a public water system or supplier if and when available.

G-21 DEFINITIONS:

In the event of a dispute, the meaning(s) or the intent of any word(s) phrase(s) and/or conditions or sections herein shall be determined by the Planning Commission of the County of Imperial. Their determination shall be final unless an appeal is made to the Board of Supervisors ten (10) days from the date of their decision.

G-22 SPECIFICITY:

The issuance of this CUP does not authorize the Permittee to construct or operate this project in violation of any state, federal, local law nor beyond the specified boundaries of the project as shown in the application/project description/CUP, nor shall this CUP allow any accessory or ancillary use not specified herein. This CUP does not provide any prescriptive right or use to the Permittee for future addition and/or modification to this project.

G-23 HEALTH HAZARD:

If the County Health Officer determines that a significant health hazard exists to the public, the County Health Officer may require appropriate measures and the Permittee shall implement such measures to mitigate the health hazard. If the hazard to the public is determined to be imminent, such measures may be imposed immediately and may include temporary suspension of the subject operations. However, within forty-five (45) days of any such suspension of operations, the measures imposed by the County Health Officer must be submitted to the Planning Commission for review and approval. Nothing shall prohibit Permittee from requesting a special Planning Commission meeting provided Permittee bears all costs.

G-24 CHANGE OF OWNER/OPERATOR:

In the event the ownership of the site or the operation of the site transfers from the current Permittee to a new successor Permittee, the successor Permittee shall be bound by all terms and conditions of this CUP as if said successor was the original Permittee. Current Permittee shall inform the County Planning & Development Services Department in writing at least sixty (60) days prior to any such transfer. Failure of a notice of change of ownership or change of operator shall be grounds for the immediate revocation of the CUP. In the event of a change, the new Owner/Operator shall file with the Department, via certified mail, a letter stating that they are fully aware of all conditions and acknowledge that they will adhere to all.

G-25 PERMITS OF OTHER AGENCIES INCORPORATED:

Permits granted by other governmental agencies in connection with the Project are incorporated herein by reference. The County reserves the right to apply conditions of those permits, as the County deems appropriate; provided, however, that enforcement of a permit granted by another governmental agency shall require concurrence by the respective agency. Permittee shall provide to the County, upon request, copies and amendments of all such permits.

G-26 MINOR AMENDMENTS:

The Planning Director may approve minor changes or administrative extensions, as requested in writing by the Permittee, provided it does not result in additional environmental impacts and/or are generally procedural or technical and/or which

may be necessary to comply with other government permit compliance requirements.

(TOTAL "G" CONDITIONS are 26)

SITE SPECIFIC CONDITIONS:

S-1 AUTHORIZED SCOPE OF ACTIVITIES:

(A) Permittee shall be responsible as for all improvements, septic, sewer, approved potable water system(s), pipelines, roads and other improvements discussed in the CUP Application and Conditions of Approval, Final IS/MND, and MMRP. If Permittee sells all or part of this Project, an approved agreement shall be in place for new Project owner to build and maintain as agreed to by the conditions set forth in this CUP. Additionally, the County Assessor's Office shall be notified of any ownership change.

(B) Permittee shall develop this 100 MW solar energy Project per approved CUP #23-0007 as a separate solar energy and BESS facility. Any development with a combination of parcels will require the owner(s) to have a recorded deed restriction to "hold the parcel as one parcel" that runs with the land, or at Permittee's option merge the parcels. This deed restriction shall be for a minimum of thirty (30) years and shall only be released upon the expiration of the thirty (30) years, the expiration or termination of the CUP, or upon approval of the Imperial County Planning and Development Director that the restriction is no longer needed based on a change in the development or regulation.

(C) The Permittee shall construct and operate the 100-MW solar energy and 200-MW BESS facility in compliance with the CUP, the County's General Plan's Land Use Element, Land Use Ordinance and all other applicable local, state, and federal LORS, to include any other permits which are incorporated herein by reference.

(D) Construction, operation, maintenance, replacement and removal of a solar energy facility & BESS shall be as described in Permittee's CUP Application and previously approved Final IS/MND for the NorthStar 3 Solar and Battery Storage Project (CUP #23-0007), to include photovoltaic (PV) modules, mounting structures, electrical wiring, inverters, transformers and alternating current (AC) electric collector system, project electric substation and ancillary facilities. Ancillary facilities include safety and security equipment, retention basins, perimeter fencing, lighting systems, access roads, and may include temporary construction trailers, equipment enclosures, water treatment system and building, parking, and fire protection. The Project's PV arrays shall be comprised of solar PV panels organized into electrical groups referred to as "blocks." The panels shall be oriented from east to west for maximum sun

exposure and the foundation shall be designed based on soil conditions. The PV panels are made of a poly-crystalline silicon semiconductor material encapsulated in glass. Installation of the PV arrays include installation of mounting posts, module rail assemblies, PV modules, inverters, transformers and buried electrical conductors. Concrete is required for the footings, foundations and pads for the transformers and substation work. Tracker foundations shall be comprised of either driven or vibrated steel posts/pipes, and/or concrete in some places (depending on soil and underground conditions).

(E) The Project's BESS component will be located on an approximately 5-acre site within the northeast portion of the project site, unless final engineering design and/or IID requirements require a different location.

The BESS will consist of banks of batteries and will be supported by a DC Combiner, control panel, and inverter/transformer skid. Each enclosure will include built-in fire suppression systems. The batteries will be lithium-ion based or flow batteries and capable of storing up to 200-MW in total (not to exceed 200-MW. These racks would be integrated into containers or be self-contained in engineered systems such as for example the Tesla Mega Pack. The Project design would meet minimum spacing required by code and manufacturers specifications.

S-2 AESTHETICS:

(A) The Permittee shall design and maintain all buildings and equipment enclosures to have exterior surfaces with neutral, non-reflective colors.

(B) The Permittee shall design and install lighting at construction storage yards and staging areas, such that light bulbs and reflectors are not visible from public viewing areas; lighting does not create reflected glare; and illumination of the Project facilities, vicinity, and nighttime sky is minimized.

(C) Lighting shall be designed so exterior light fixtures are hooded, with lights directed downward or toward the area to be illuminated and so that backscatter to the nighttime sky is minimized. The design of the lighting shall be such that the luminescence or light source is shielded to minimize light trespass outside the Project boundary.

(D) All lighting shall be of minimum necessary brightness consistent with worker safety and OSHA requirements.

(E) High illumination areas not occupied on a continuous basis shall have switches or motion detectors to light the area only when occupied.

S-3 AIR QUALITY:

(A) The Permittee shall comply at all times with the ICAPCD Regulation VIII, Fugitive Dust Control. Please use MMRP for guidance.

(B) Prior to commencing construction, the Permittee shall submit An Enhanced Construction Dust Control Plan and an Operational Dust Control Plan to the ICAPCD for review and approval identifying all sources of PM_{10} emissions and associated mitigation measures during the construction and operational phases of the Project. The Project Proponent shall submit a "Construction Notification Form" to the ICAPCD ten (10) days prior to the commencement of any earthmoving activity. The Dust Control Plan submitted to the ICAPCD shall meet all applicable requirements for control of fugitive dust emissions, including the following measures designed to achieve the no greater than 20% opacity performance standard for dust control:

(1) The Permittee shall submit an Equipment List periodically during construction to the ICAPCD for review. The list must be in Excel Format and include make, model, year, ID/serial number(s), type, tier, horsepower, and actual dates and hours used. The list shall be submitted electronically on a monthly basis. The ICAPCD will calculate NOx emissions usually Equipment Lists once construction is completed to verify NOx thresholds were not exceeded. In the event that an exceedance is determined, the project may become subject to Policy 5 requirements.

(2) All disturbed areas, including bulk material storage which is not being actively utilized, shall be effectively stabilized and visible emissions shall be limited to no greater than 20 percent opacity for dust emissions by using water, chemical stabilizers, dust suppressants, tarps or other suitable material such as vegetative ground cover.

(3) All on-site and off-site unpaved roads shall be effectively stabilized, and visible emissions shall be limited to no greater than 20% opacity for dust emissions by paving, chemical stabilizers, dust suppressants, and/or watering.

(4) All unpaved traffic areas one acre or more in size with seventy-five (75) or more average vehicle trips per day, shall be effectively stabilized, and visible emissions shall be limited to no greater than 20% opacity for dust emissions by paving, chemical stabilizers, dust suppressants and/or watering.

(5) The transport of bulk materials shall be completely covered, unless six inches of freeboard space from the top of the container is maintained with no spillage and loss of bulk material. In addition,

the cargo compartment of all haul trucks shall be cleaned and/or washed at the delivery site after removal of bulk material.

(6) All track-out or carry-out, which includes bulk materials that adhere to the exterior surfaces of motor vehicles and/or equipment (including tires) that may then fall onto the pavement, shall be cleaned at the end of each workday, or immediately when mud or dirt extends a cumulative distance of fifty (50) linear feet or more onto a paved road within an urban area.

(7) Movement of bulk material handling or transfer shall be stabilized prior to handling, or at points of transfer with application of sufficient water, chemical stabilizers, or by sheltering or enclosing the operation and transfer line.

(8) The construction of new unpaved roads is prohibited within any area with a population of five hundred (500) or more, unless the road meets ICAPCD's definition of a "temporary unpaved road." Any temporary unpaved road shall be effectively stabilized, and visible emissions shall be limited to no greater than 20% opacity for dust emission by paving, chemical stabilizers, dust suppressants and/or watering.

(9) Shall comply with the MMRP's and its applicable mitigations.

(C) The Permittee shall implement all applicable standard mitigation measures for construction combustion equipment for the reduction of excess NOx emissions as contained in the Imperial County CEQA Air Quality Handbook and associated regulations. These measures include:

(1) Use of alternative fueled or catalyst equipped diesel construction equipment, including all off-road and portable diesel-powered equipment.

(2) Minimize idling time, either by shutting equipment off when not in use or reducing the time of idling to five minutes at a maximum.

(3) Limit the hours of operation of heavy-duty equipment and/or the amount of equipment in use.

(4) Replace fossil-fueled equipment with electrically driven equivalents (assuming powered by a portable generator set and are available, cost effective, and capable of performing the task in an effective, timely manner).

(5) Curtail construction during periods of high ambient pollutant concentrations; this may include ceasing construction activity during the peak hour of vehicular traffic on adjacent roadways.

(6) Implement activity management (e.g. rescheduling activities to avoid overlap of construction phases, which would reduce short-term impacts).

S-4 GEOLOGY/SOILS and MINERAL RESOURCES:

(A) Prior to approval of final engineering and grading plans for the Project, the County shall verify that all recommendations contained in the Geotechnical Report for this Solar Facility and have been incorporated into all final engineering and grading plans. The County's soil engineer and engineering geologist shall review grading plans prior to finalization to verify compliance with the recommendations of the report.

S-5 CULTURAL RESOURCES:

(A) Compliance and Monitors shall insure all mitigations set forth in the MMRP are followed.

S-6 HEALTH, SAFETY AND HAZARDOUS MATERIAL/FIRE AND FUELS MANAGEMENT:

(A) All trash and debris within the Project site shall be disposed of off-site, in accordance with current, local, state, and federal disposal regulations. Compliance with this measure shall be verified by the Planning and Development Services Department.

(B) If it is determined that hazardous wastes are, or will be generated by the proposed operations, the wastes must be managed in accordance with the California Hazardous Waste Control Law (California Health and Safety Code, Division 20, Chapter 6.5) and the Hazardous Waste Control Regulations (California Code of Regulations, Title 22, Division 4.5).

(C) If it is determined that hazardous wastes will be generated, the Permittee should also obtain a United States Environmental Protection Agency, Identification Number by contacting (800) 618-6942. Certain hazardous waste treatment processes or hazardous material, handling, storage or uses may require authorization from the local Certified Unified Program Agency (CUPA). Information about the requirement for authorization can be obtained by contacting the local CUPA.

(D) Firearms shall be prohibited at all work locations and access roads.

(E) The recognized environmental concerns shall be cleaned up and properly disposed of in accordance with all federal, state and local regulations.

(F) Any hazardous materials storage areas shall be designed with curbs or other containment measures, e.g., double-walled storage tanks, to

contain spills and leaks. If on-site hazardous materials exceed fifty-five (55) gallons, a "Hazardous Material Management Plan" shall be prepared and approved by the County Local Enforcement Agency (LEA) and the Imperial County CUPA. A copy of the approved plan shall be submitted to ICPDSD prior to the issuance of the grading/building permit (Source: Imperial County Renewable Energy Ordinance, Title 9, Division 17, § 91702.00).

(G) The Permittee shall present to the Department an Emergency Response/Action Plan that has been approved by the ICFD/OES Department, and the LEA and any other agencies with jurisdiction (Source: Imperial County Renewable Energy Ordinance, Title 9, Division 17, § 91702.00).

The Emergency Response/Action Plan shall cover all possible foreseeable emergencies, e.g., major fluid spills, earthquakes, fires, floods or other emergencies. At all times, there shall be at least one employee either on the facility premises or on-call (i.e., available to respond to an emergency by reaching the facility within a short period of time) with the responsibility to coordinate all emergency response measures. This Emergency Coordinator shall be thoroughly familiar with all aspects of the Project's Emergency Response/Action Plan, all operations and activities at the facility, location of all records within the facility and the facility's layout. This Emergency Coordinator shall have the authority to commit the resources needed to carry out the contingency plan. Adequate personnel and equipment shall be available to respond to emergencies and to ensure compliance with the conditions of the Permit.

The Emergency Response/Action Plan shall be prepared in consultation with, but not be limited to, the ICFD/OES, County EHS/Health Department, County Sheriff/Coroner's office, County Department of Public Works, ICPDSD, and other appropriate state and county agencies. The plan shall include a notification list of response agencies which shall be notified immediately upon the discovery of a reportable unauthorized discharge and the list shall include:

- ICFD/OES;
- ICPDSD;
- County EHS/Health Department;
- County Department of Public Works; and
- California Highway Patrol, as applicable.

All employees shall be trained by classroom and hands-on training on safety procedures, maintenance programs and emergency response protocols to ensure safety and reliability in the event of an unforeseen emergency situation.

The Permittee shall provide adequate safety devices to protect against the hazard of fire and explosion for activities that involve the use and storage of flammable, explosive or highly corrosive or reactive materials as well as provide adequate firefighting and fire suppression equipment and using devices standard within the industry in compliance with all applicable state and local laws as determined by the ICFD/OES. The Permittee shall implement all State and County-approved worker safety and fire protection plans and programs.

Any gates on-site shall have a "Knox" lock rapidly accessible by the ICFD/OES.

Appropriate first aid provisions for facility operations shall be made for emergency response during Project construction, operation, and maintenance activities with appropriate first aid training for Project employees.

During construction, a member of each working crew shall be trained in basic first aid and supplied with necessary medical equipment to respond to emergencies as provided for in the Emergency Response/Action Plan required above.

Permittee shall identify a responsible agent for emergency purposes, whose name, title, e-mail address and telephone number shall be provided to the County Department of Public Works, ICFD/OES, County Environmental Health Services/Health Department, County Sheriff/Coroner's office, IID, and ICPDSD.

S-7 HYDROLOGY AND WATER QUALITY:

Adhere to measures set forth in the MMRP.

S-8 BIOLOGICAL RESOURCES:

Adhere to all Biological measures in the MMRP

S-9 PUBLIC SERVICES:

(A) The Permittee shall widely publicize to County residents the availability of job opportunities associated with the Project (whether or not those job opportunities are within Imperial County or are regional). Postings at City Halls, newspaper and television advertisements, local job centers, and dedicated website shall offer sufficient avenues of communication. The Imperial County Office of Employment and Training in addition to the Imperial Valley College presents viable sources for community awareness. The information shall provide available positions, details of positions including qualifications, number of openings, indicated the anticipated start date for each, and application process. In order to maintain oversight of the process, the application process can be completed both on a dedicated website and

at dedicated computers at the County which would afford those without Internet connection the ability to apply. The Permittee's information shall be forwarded to the Permittee or their contractor and copies of applications files are maintained at the County.

(B) During the development phase of the Project, the Permittee shall provide a roster of employees to include their position and place of residence.

(C) Unless prohibited by local, state or federal law or regulation, Permittee shall make good faith efforts to hire qualified residents of the Imperial County with the objective that a majority of the total work force is comprised of the Imperial County residents.

(D) The Permittee shall install and implement security measures which may include, but not limited to, secured perimeter fencing, sensors, controlled access points, security alarms, security camera systems, and security guard vehicle patrols to deter trespass or unauthorized activities that would interfere with operation of the Project.

(E) Permittee shall compensate the County pursuant to the Department of Environmental Health Fee Schedule for any costs of calls related to bees and mosquitoes.

(F) The Permittee shall reimburse the Sheriff's Department for any investigations regarding theft on the Project site and related law enforcement.

(G) All construction supervisors and foremen shall be provided with communication devices, cell phones or walkie-talkies, in the event of an emergency situation on-site.

(H) All construction-related activities shall take place within the development footprint of the Project as defined by the final engineering plans. The anticipated impact areas, including staging areas, equipment access, and disposal or temporary placement of spoils, shall be delineated with staking and/or orange construction fencing prior to construction to avoid natural resources where possible. No construction-related activities shall occur outside of the designated impact area. All construction materials, staging, storage, dispensing, fueling, and maintenance activities shall be designated on construction maps and shall be situated a minimum of fifty (50) feet from all drainages. Staging and temporary access shall occur on existing roadways whenever possible.

(I) **Emergency Operations Plan -** The Applicant shall develop an Emergency Operation Plan in conjunction with local fire service personnel and the AHJ and hold a comprehensive understanding of the hazards associated with lithium-ion battery technology. Lithium-ion battery energy storage systems must incorporate adequate explosion prevention protection as required in NFPA 855 or International Fire Code Chapter 12, where applicable.

(J) **Signage -** The Applicant shall provide signage that identifies the contents of an energy storage system on all energy storage system installations to alert first responders to the potential hazards associated with the installation.

S-10 TRANSPORATION AND TRAFFIC:

A. Permittee shall prepare and submit a Construction Traffic Control Plan to Imperial County Department of Public Works-Development Review and Caltrans District 11, as appropriate, for approval. The Construction Traffic Control Plan must be prepared in accordance with both the California Department of Transportation Manual on Uniform Traffic Control Devices and Work Area Traffic Control Handbook and must include, but not be limited to, the following issues:

1. Timing of deliveries of heavy equipment and building materials;
2. Directing construction traffic with a flag person;
3. Placing temporary signing, lighting, and traffic control devices if required, including, but not limited to, appropriate signage along access routes to indicate the presence of heavy vehicles and construction traffic;
4. Ensuring access for emergency vehicles to the Project site;
5. Temporarily closing travel lanes or delaying traffic during materials delivery, transmission line stringing activities, or any other utility connections;
6. Maintaining access to adjacent property;
7. Specifying both construction-related vehicle travel and oversize load haul routes, minimizing construction traffic during the AM and PM peak hours, distributing construction traffic flow across alternative routes to access the Project site, and avoiding residential neighborhoods to the maximum extent feasible.

B. Permittee shall Institute construction work hours as necessary, such that the arrival and/or departure times of workers would be staggered as necessary.

C. Permittee shall identify vehicle safety procedure for entering and exiting site access roads.

D. Permittee shall submit documentation that identifies the roads to be used during construction.

E. The Permittee shall be responsible for repairing any damage to non-County maintained roads that may result from construction activities. The Permittee shall submit a preconstruction video log and inspection report regarding roadway conditions for roads used during construction to the Imperial County Department of Public Works Within 30 days of completion of construction, the project proponent/operator shall submit a post-construction video log and inspection report to the County. This information shall be submitted in electronic format. The County, in

consultation with the Permittee's engineer, shall determine the extent of remediation required, if any.

S-11 COMMENCEMENT OF WORK:

(A) If the Project has not commenced, or permits for the Project have not been issued, within one (1) year from approval date this CUP shall be null and void. If this CUP has been unused, abandoned, discontinued, or ceased for one (1) year, it shall be null and void and of no effect.

(B) If Permittee cannot initiate or obtain permits for the approved use during the one (1) year period following approve of this CUP, Permittee may request a one (1) year extension from the ICPDSD. The request for an extension shall be in writing and be submitted with explanation to the ICPDSD at least sixty (60) days prior to the end of the one (1) year period. The Director shall have the authority to extend the initial startup period of a CUP two times for a maximum of one (1) year each. No extension under this section shall be extended for more than two (2) years.

S-12 CONSTRUCTION STANDARDS:

(A) The solar energy and BESS facility structures shall be built in accordance with the California Building Code requirements applicable to "Seismic Category D." All structures and facilities shall be designed in accordance with the publication entitled "Recommended Lateral Force Requirements and Commentary by the Structural Engineers Association of California." The structural components of the permitted facilities shall be reviewed by the Building Official/Planning and Development Services Director. Applicable building permits shall be procured from the County for facilities prior to commencement of construction of such facilities.

S-13 LAND USE IMPROVEMENTS:

(A) The Permittee shall prepare an appropriate parking plan for review and approval by the ICPDSD and County Public Works Department for any and/or all proposed Operation & Maintenance buildings.

S-14 NOISE STANDARDS:

(A) During the construction period, heavy truck traffic shall be limited to the hours between 7:00 AM and 7:00 PM.

(B) During construction, in accordance with Imperial County Noise Element of the General Plan, the noise level shall not exceed 75 dBA_{Leq} at the property boundary when averaged over an 8-hour period.

(C) During operation of the facility, the maximum permitted continuous sound level shall be not more than 45 dBA_{Leq}, as measured at the

nearest residence using the "A" scale and measured with a sound level meter and associated octave band analyzer. The level may be exceeded by ten percent (10%) if the noise is intermittent and during daylight hours.

(D) Haul trucks and other engine-powered equipment shall be muffled and operated with engine exhaust brake use limited to emergencies.

S-15 ODOR CONTROL:

The Permittee shall control all odor-causing, harmful, noxious emissions to ensure that quantities or air contaminants released as a result of the permitted facilities do not exceed County, State or Federal standards, nor constitute a public nuisance, per the Imperial County Land Use Ordinance, Division 13, Enforcement, Chapter 2, Abatement of Nuisances, Sections 91302.00 through 91301.02.

S-16 PLAN APPROVALS:

Permittee shall submit to the ICPDSD, architectural, landscaping and lighting plans prior to construction of those facilities, to include painting of structures, planting of trees and/or vegetation, and shall receive all approvals prior to commencing construction of the applicable permitted facilities. Approval shall not be unreasonably withheld so long as the plans are consistent with applicable Imperial County Land Use Ordinance requirements.

S-17 PROJECT DESIGN:

(A) All facility access and parking areas shall be constructed to the standards of the Imperial County Land Use Ordinance.

(B) All permitted activities shall provide for the minimum feasible surface land disturbance for compatibility with the existing uses wherever possible.

(C) All equipment and electrical interconnection facilities used at the solar plant facilities shall be maintained in a manner that prevents breaking, cracking, and leaking, e.g. operator staffing and training, including appropriate quality assurance procedures, with the operation of back-up or auxiliary facilities when necessary.

(D) All on-site basins shall be designed and constructed under the supervision of a California-licensed Civil Engineer meeting sound engineering standards, with all applicable regulations and all requirements of the County EHS/Health Department and Public Works Departments are complied with.

(E) Permittee shall obtain encroachment permits for any construction or operation on IID existing rights of way or easements.

S-18 REPORTING AND MONITORING:

(A) The Permittee shall furnish to the County, at its sole cost within a reasonable time, any relevant reports/information which the County requires for monitoring purposes to determine whether cause exists for revoking this Permit, or to determine compliance with this Permit. The Permittee shall submit all required reports to the Planning Director, County Planning and Development Services Department, 801 Main Street, El Centro, CA 92243.

(B) Permittee and ICPDSD Director shall agree upon an environmental consultant for overseeing all the required mitigation, conditional use Permit conditions and public benefit agreement (if any) requirements during the construction of the Project.

(C) Permittee shall pay for third-party environmental consultant monitoring and compliance.

(D) The ICPDSD, in consultation with the third-party Environmental Consultant and the County Executive Office, will require that all mitigation measures be satisfied, all MMRP requirements have been satisfied, all Conditions of Approval in the CUP are in full compliance and all conditions of the Development Agreement (if any) have been satisfied before the Final Certificate of Occupancy Certificate is issued.

(E) During the operation of solar facility, an Annual Compliance Report shall be submitted to the ICPDS, documenting the implementation of the conditions and general measures as well as any resource-specific measures.

(F) The Permittee shall reimburse the ICPDS for County as well as monitoring and investigations related to the construction and operation of the Project. Permittee shall compensate the County pursuant to the ICPDSD Fee Schedule for any costs incurred.

(G) Permittee shall pay for all costs as required to comply with the Conditions of Approval and MMRP.

(H) All County staff time will be billed on a time and materials basis. Failure by Permittee to provide any payment required of Permittee to the County in the CUP shall cause Permittee to be in non-compliance of the CUP. Upon notice of such noncompliance, County may, at its sole discretion, cease processing, defending any lawsuit or paying for costs associated with the Project.

S-19 SPILLS AND RUNOFF:

The Permittee shall design and construct the permitted facilities to prevent spills from endangering adjacent properties and to prevent runoff from any source being channeled or directed in an unnatural way so as to cause erosion, siltation, or other detriments pursuant to the construction Storm Water Pollution Prevention Plan approved by the Regional Water Quality Control Board.

S-20 FACILITIES CLOSURE AND SITE RESTORATION:

(A) Permittee shall implement the site restoration plan at the earlier of when the operation of the permitted facilities herein authorized has ceased or the term of the CUP has expired. At such time, all facilities shall be dismantled, and the lands involved restored to their pre-construction condition as agreed to by the Imperial County Planning and Development Services Director.

(B) Prior to the issuance of a grading Permit, a decommissioning and restoration plan (the Reclamation Plan) shall be submitted and approved by the Imperial County Planning and Development Services Director. The Reclamation Plan shall document the procedures by which the Project site will be returned to its current conditions.

(C) Within thirty (30) days prior to ground disturbance, a Bond, or other acceptable surety, in the amount of the estimated site restoration financial calculations/bond, for the developed project area, or other forms of security acceptable to County Counsel's office, shall be filed with the County that guarantees restoration of the land to its condition prior to the permitted solar plant development.

(D) Upon completion of such site restoration, and demonstration that the land has been restored to its original condition prior to the permitted solar plant development the Bond or other surety shall be released by the County.

(E) The above financial calculations/bond shall be reviewed every five (5) years in December and adjusted on January 1st to add a Consumer Price Index (CPI) (Los Angeles) increase by the Planning and Development Services Director. This readjustment can be made in the County's sole discretion and must be funded by the Permittee within ninety (90) calendars after notice of the additional amount of such adjustment.

S-21 PUBLIC WORKS:

1. The Applicant shall furnish a Drainage and Grading Plan/Study to provide for property grading and drainage control, which shall also include prevention of sedimentation of damage to off-site properties. The Study/Plan shall be submitted to the Department of Public Works for review and approval. The applicant shall implement the approved plan. Employment of the appropriate

Best Management Practices (BMP's) shall be included (Per Imperial County Code of Ordinances, Chapter 12.10.020 B).

2. Easements shall be obtained for those portions of the project situated on land owned by persons other than the Applicant (such as transmission/connection lines). Executed and recorded easements shall be provided to the Public Works Department prior to the issuance of a building permit.

3. Access to sites shall be completed from public roads. The Applicant shall obtain written approval from any private owners or other agencies for the use of any non-public roads to access the site. A copy of such written approval shall be submitted to this Department prior to approval of grading plans.

4. A Transportation Permit may be required from road agency(s) having jurisdiction over the haul route(s) for any hauls of heavy equipment and/or large vehicles which impose greater than legal loads on riding surfaces, including bridges. (Per Imperial County Code of Ordinances, Chapter 10.12 – Overweight Vehicles and Loads).

5. A lot merger or lot tie will be required.

6. The project shall coordinate with the Bureau of Land Management for any portion of the project within their jurisdiction.

7. Should access to the site be provided from Imperial County roads, street improvements shall be required per Section 12.10.020 – Street Improvement Requirements of Imperial County Ordinance.

The Applicant shall mitigate generation of dust caused by construction traffic as per Rule 805 – Paved and Unpaved Roads of the Imperial County Air Pollution Control District.

- All solid and hazardous waste shall be disposed of in approved solid waste disposal sites in accordance with existing County, State and Federal regulations (Per Imperial County Code of Ordinances, Chapter 8.72).

- All on-site traffic areas shall be hard surfaced to provide all weather access for emergency vehicles. The surfacing shall meet the Department of Public Works and Fire/Office of Emergency Services (EOS) Standards as well as those of the Air Pollution Control District (APCD).

- The project may require a National Pollutant Discharge Elimination System (NPDES) permit and Notice of Intent (NOI) from the Regional Water Quality Control Board (RWQCB) prior to County approval of onsite grading plan (40 CFR 122.28).

- A Transportation Permit may be required from road agency(s) having jurisdiction over the haul route(s) for any hauls of heavy equipment and/or large vehicles which impose greater than legal loads on riding surfaces, including bridges. (Per Imperial County Code of Ordinances, Chapter 10.12 - OVERWEIGHT VEHICLES AND LOADS).

- Effective September 15, 2020, the State's Mandatory Organic Waste Recycling Law (AB 1826 or Chapter 727, Statutes of 2014) decreased the threshold requiring all businesses and multi-dwelling facilitates of 5 units or more generating two (2) cubic yards or more of solid waste per week to recycle their organic waste including landscape waste, wood waste, and food waste. Information about possible organics waste recycling services can be found at the CalRecycle site at: https://www.calrecycle.ca.gov/Recycle/Commercial/Organics/

S-22 WASTE DISPOSAL

(A) The Permittee shall insure that all solar plant facilities waste, liquid, gas or solid, which are generated on-site shall be disposed of in compliance with appropriate local, state, and federal regulations, in effect or as subsequently duly-enacted. All solid waste debris and/or any hazardous wastes located on the Project site must be satisfactorily removed to a permitted facility prior to the commencement of grading earthen material at the site.

(B) Littering shall not be allowed. Project personnel shall not deposit or leave any food or waste in the Project area, and no biodegradable or non-biodegradable debris shall remain in the right-of-way or on the Project site following completion of construction.

S-23 IID Condition requirements

1) If the project requires electrical service, the applicant should be advised to contact Gabriel Ramirez, IID project development service planner, at (760) 339-9257 or email Mr. Ramirez at gramirez@iid.com to initiate the customer service application process. In addition to submitting a formal application (available for download at the district website http://www.iid.com/home/showdocument?id=12923), the applicant will be required to submit an AutoCAD file of site plan, approved electrical plans, electrical panel size and panel location, operating voltage, electrical loads, project schedule, and the applicable fees, permits, easements and environmental compliance documentation pertaining to the provision of electrical service to the project. The applicant shall be responsible for all costs and mitigation measures related to providing electrical service to the project.

2) Electrical capacity is limited in the project area. A circuit study may be required. Any system improvements or mitigation identified in the circuit study to enable the provision of electrical service to the project shall be the financial responsibility of the applicant.
3) Applicant shall provide a surveyed legal description and an associated exhibit certified by a licensed surveyor for all rights of way deemed by IID as necessary to accommodate the project electrical infrastructure. Rights-of-Way and easements shall be in a form acceptable to and at no cost to IID for installation, operation, and maintenance of all electrical facilities.
4) The applicant will be required to provide rights of ways and easements for any proposed power line extensions and/or any other infrastructure needed to serve the project as well as the necessary access to allow for continued operation and maintenance of any IID facilities located on adjoining properties.
5) Any construction or operation on IID property or within its existing and proposed right of way or easements including but not limited to: surface improvements such as proposed new streets, driveways, parking lots, landscape; and all water, sewer, storm water, or any other above ground or underground utilities; will require an encroachment permit, or encroachment agreement (depending on the circumstances). A copy of the IID encroachment permit application and instructions for its completion are available at https://www.iid.com/about-iid/departmentdirectory/real-estate. The IID Real Estate Section should be contacted at (760) 339-9239 for additional information regarding encroachment permits or agreements. No foundations or buildings will be allowed within IID's right of way.
6) Any new, relocated, modified or reconstructed IID facilities required for and by the project (which can include but is not limited to electrical utility substations, electrical transmission and distribution lines, water deliveries, canals, drains, etc.) need to be included as part of the project's California Environmental Quality Act (CEQA) and/or National Environmental Policy Act (NEPA) documentation, environmental impact analysis and mitigation. Failure to do so will result in postponement of any construction and/or modification of IID facilities until such time as the environmental documentation is amended and environmental impacts are fully analyzed. Any and all mitigation necessary as a result of the construction, relocation and/or upgrade of IID facilities is the responsibility of the project proponent.
7) When the time comes for the project to go through the CEQA process and address the environmental factors to be assessed, pursuant to the checklist in Appendix G of the CEQA guidelines, to correctly evaluate the potential impacts related to the environmental factor "XIX. UTILITIES AND SERVICE SYSTEMS" and determine the appropriate compliance action, a circuit study/distribution impact study, facility study, and/or system impact study will have to be performed to establish if the project will require or result in the relocation or construction of new or expanded electric power facilities,

the construction or relocation of which could cause significant environmental effects.

8) The project is still going through the IID interconnection process and is currently in the Facility Study stage. Within the study, the district is anticipating that instead of a 0.75-mile gen-tie a 0.75-mile in-and-out of IID's 161 kV N-Line (not the KN Line) will be required. This line will be brought into an IID switching station planned to be built within the customer's property. The gen-tie will be a short jumper to the IID switching station.

S-24 FIRE PROTECTION:

Energy storage facilities create extreme hazards for firefighters and emergency responders with possibility of explosions, flammable gases, toxic fumes, water-reactive materials, electrical shock, corrosives, chemical burns. The hazards listed can create a potential significant impact on Imperial County Fire Department due personnel staffing to safely perform firefighting operations and Hazardous Material Response for a utility-scale energy storage facility. The location of the project will lead to longer response times. These longer response times can create incidents that can create difficulties in incident stabilization; therefor requiring additional personnel to safety manage the incident. Utility-scale energy storage will require specialized and reliable equipment to perform firefighting operations safely and effectively to NFPA, OSHA and ICFD standards and requirements.

Standards and requirements for energy storage system includes but not limited to:

NFPA:

1 Fire Code
70 National Electrical Code
855 Standard for the installation of Energy Storage System
111 Stored Electrical Energy Emergency and Standby Power System
1710 Standard for Organization and Deployment of Fire Suppression Operations, Emergency Medial Operations, and Special Operations to the Public by Career Fire Departments.

OSHA:

29 CFR 1910.134(g)(4)

CFC:

Chapter 12 section 1206 Electrical Energy Storage System
Chapter 9 Fire Protection and Life Safety System.

Solar Requirements

1) Approved all-weather access roads for fire protection vehicles shall be provided throughout the project, conforming with the California Fire Code Chapter 5, section 503. Access roadways shall be all-weather surface (suitable for use by fire apparatus) right-of-way not less than 20 feet in width.

2) Access roadways shall provide intersecting roadways to allow unobstructed movement of fire apparatus throughout the project site. Sollar array layout shall meet Imperial County Fire Department layout requirements.
3) Additional access shall be provided to the project site in accordance with the California Fire Code Chapter 5, section 503.
4) KNOW Box and/or Locks will be required for all access gates as determined by Imperial County Fire Department.
5) Solar array fields shall be clear of all vegetation.
6) A pre-incident plan shall be developed and approved by the Imperial County Fire/OES Department in a format and using a platform determined by ICFD.

Battery Energy Storage System

7) An approved water supply capable of supplying the required fire flow determined by appendix B in the California Fire Code shall be installed and maintained. (Minimum fire flow of 1500 GPM for 2 hours) Private fire service mains and appurtenances shall be installed in accordance with NFPA 20, 22, 24.
8) An approved automatic fire suppression systems shall be installed on all required structures as per the California Fire Code Chapter 12 and NFPA 855. All fire suppression systems shall be installed and maintained to the current adapted fire code and regulations.
9) An approved automatic fire detection system shall be installed on all required structures as per the California Fire Code Chapter 12 and NFPA 855. Al fire detection systems will be installed and maintained to the current adapted fire code and regulations.
10) Owners and operators of the BESS must develop an Emergency Operation Plan in conjunction with local fire service personnel, the AHJ, and hold a comprehensive understanding of the hazards associated with lithium-ion battery technology. Lithium-ion battery ESS's must incorporate adequate explosion prevention protection in accordance with NFPA 855 and/or California Fire Code Chapter 12.
11) Signage shall be provided in accordance with California Fire Code Chapter 12
12) Compliance with all required sections of the fire code
13) Applicant shall provide product containment area(s) for both product and water run-off in case of fire applications and retained for removal.
14) An emergency response/action plan shall be prepared and approved by the Imperial County Fire/OES Department.
15) A Hazardous Waste Material Plan shall be submitted to Certified Unified Program Agency (CUPA) for their review and approval.
16) All hazardous material and wastes shall be handled, stored, and disposed as per the approved Hazardous Waste Materials Plan. All spills shall be documented and report to Imperial County Fire Department and CUPA as required by the Hazardous Waste Material Plan.

S-25 COUNTY EXECUTIVE OFFICE:

1. Fiscal and Economic Impact Analysis. The Permittee will be invoiced by the Executive Office for expenses related to the procurement of a consultant to produce a Fiscal and Economic Impact Analysis (FEIA) and will be responsible for the cost of any subsequent updates as a result of modifications to the data and project by the developer.

2. Public Service Agreement ("Agreement" or "PSA"). Pursuant to the Guidelines for the Public Service Program for Solar Power Plants in Imperial County amended and adopted by the Board of Supervisors on [MONTH DAY], 2024, PSA will be entered into by and between the County of Imperial and Developer to provide for a concerted and coordinated effort to maximize the benefits of the Project to the County of Imperial community.

Sales Tax Benefit Solar Farm:

(a) Developer will require that all qualifying contractors and subcontractors exercise their option to obtain a California Department of Tax and Fee Administration (CDTFA) sub-permit for the jobsite and allocate all eligible use tax payments to Imperial County and LTA. Prior to commencement of any construction activity on-site the developer will require that the contractor or subcontractor provide County of Imperial with either a copy of their CDTFA account number and sub-permit.

(b) To accomplish this, Permittee shall either cause its construction contractor to treat the project in accordance with California Regulation 1521(b)(2)(B), California Regulation 1521(c)(13)(B), and California Regulation 1826(b) for sales and use tax purposes or form a "Buying Company" as defined in the CDTFA 1699(h). Permittee can adopt an alternate methodology to accomplish this goal if such methodology is approved by the County Executive Officer prior to issuance of building permits. Not later than forty-five (45) days after the due date for filing sales and use tax returns for each calendar quarter, occurring after the commencement of any construction activity on-site through and including the first anniversary of COD (as defined below).

(c) Developer shall report, or cause its general contractor to report to County, the total amount of sales and use taxes related to the Project that are allocated to the County, and reported on Developer's, general contractor's, and subcontractors' applicable California sales and use tax returns. The obligations of Developer under this Section III.A are hereinafter referred to as the "Developer Sales and Use Tax Responsibilities."

(d) Guarantee Amounts. In the event that Developer shall fail to perform the Developer Sales and Use Tax Responsibilities and as a result of such failure, with respect to the Project, (i) County receives less than the amount of such sales and use taxes it would have received under existing applicable sales and use tax laws had such responsibilities been fully performed subject to adjustment as set forth in Section IV.C below) or (ii) Local Transportation Authority (LTA) receives less than the amount of such sales and use taxes it would have received under existing applicable sales and use tax laws had such responsibilities been fully-performed, then

Developer shall pay, as and when provided below, to County or LTA as applicable, the amount of the applicable shortfall.

(e) Adjustments to Guarantee Amounts.

(f) Developer's sales tax guarantee set out in Section III.B above shall be adjusted to be eighty-five percent (85%) of the projected sales and use taxes for the Project. At least ten (10) days prior to the issuance of the first (1st) grading permit, Developer shall provide County with evidence of such projected sales and use taxes, including but not limited to sales taxes receipts, engineering contracts, procurement contracts, construction contracts. County shall meet with Developer to confirm that amount.

(g) The amount of sales and use tax anticipated to be generated is based on the projected construction of a **one hundred (100 MW) megawatt** alternating current 100 solar PV energy generation system. Construction of any additional output capacity beyond the 100-MW output now projected will require the sales tax guarantee be adjusted based on the actual output from solar generation facilities of the Project as evidenced by any Power Purchase Agreement subsequently entered into by Developer related to this Project.

(h) To the extent of any reduction in the size of the Project as the result of any final ruling, stipulated judgment, or settlement, in accordance with Section V.C below, the not-to-exceed amounts set forth in Section III.B shall be reduced pro rata based on the size of such reduction.

(i) The complete amount due to County for the Project must be received within one (1) year after Commercial Operation Date ("COD") for this Project. If, within one (1) year after issuance of the final Certificate of Occupancy, the sales and use taxes received by the County are less than the amount guaranteed for that portion of the project, Developer shall pay the difference to the County.

(j) Payments to County and LTA as a result of a shortfall shall be due within thirty days of Developer's receipt of written notice of shortfall from the County. Payments received by County after the ninetieth (90th) day following Developer's receipt of notice shall be deemed late. Developer hereby agrees to pay interest at the rate of six percent (6%) per annum of the payment due for any payment received by County beyond the due date. Said interest shall be included with the late payment. The obligation to pay interest shall be stayed when such amounts are disputed in good faith, so long as Developer submits the payments "under written protest." Upon determination of dispute, such interest may be assessed if it is determined that the dispute was not made in good faith.

(k) In the event that Developer repowers or replaces the equipment onsite, each Site shall be designated as the "Point of Sale" so as to create an additional local tax-funding source for the County of Imperial.

Battery Storage Sales Tax Benefit

1.1.1. To the extent permitted by applicable local, state, and Federal law, Developer will require that all qualifying contractors and subcontractors exercise their option to obtain a California Department of Tax and Fee Administration ("CDTFA") sub-permit for the jobsite and allocate all eligible

sales and use tax payments to County and the Local Transit Authority ("LTA").

1.1.2. Prior to commencement of any construction activity onsite exclusive of grading. Developer shall require that the contractor or subcontractor provide County with a copy of their CDTFA account number and sub-permit. Developer shall either cause its construction contractor to treat the Project in accordance with California Sales and Use Tax Regulation 1521(b)(2)(B), California Sales and Use Tax Regulation 1521(c)(13)(B), and California Sales and Use Tax Regulation 1826(b) for sales and use tax purposes, or form a "Buying Company," as defined in the California Sales and Use Tax Regulation 1699(h). Developer may adopt an alternate methodology to accomplish this goal if such methodology is approved by the County's Executive Officer prior to issuance of any building permit.

1.1.3. No later than forty-five (45) days after the due date for filing sales and use tax returns for each calendar quarter, occurring after the commencement of any construction activity on-site through and including the first anniversary of commercial operating date ("COD"), Developer shall report, or cause its general contractor to report to County, the total amount of sales and use taxes related to the Project that are allocated to the County, and reported on Developer's, general contractor's and subcontractors' applicable California sales and use tax returns.

1.1.4. *Guarantee Amounts.* Prior to the issuance of any building permit for the Project, Developer shall provide County with a guarantee of the minimum sales and use that will be received by County and LTA under existing applicable sales and use tax laws. The guarantee amount shall be based on the total storage capacity of the Project in megawatts, which is projected to be **two hundred megawatts (200 MW)**. Should Developer choose to develop the Project in phases, and receives the required approvals from County to do so, then Developer shall provide a separate guarantee amount for each phase of the project based on the total storage capacity in megawatts for the applicable phase.

(a) Developer warrants that the sales/use tax guarantee amounts to be provided to County as mandated in this Subparagraph 9.2.4 shall be true and accurate estimates of the projected sales and use taxes that will be generated for this Project. Developer shall provide County with evidence of the projected sales/use taxes for the Project, including but not limited to sales tax receipts, and executed or anticipated engineering contracts, procurement contracts, and construction contracts. If the Parties are unable to agree upon a guarantee amount, then the dispute shall be referred to an independent accountant mutually acceptable to both Parties. The costs for such nonbinding mediation shall be borne by Developer.

(b) Developer warrants that the sales/use tax guarantee amounts to be provided to County as mandated in this Subparagraph 9.2.4 will incorporate any and all sales/use tax exemptions that Developer and/or its

contractors and subcontractors intend to utilize, and that such exemptions will be disclosed to County fully and in good faith prior to the issuance of any building permit for this Project.

(c) Developer understands and acknowledges that the sales/use tax guarantee amounts to be provided to County as mandated by this Subparagraph 9.2.4 are a part of the consideration to be received by County in return for entering into this Agreement, and further understands and acknowledges that County would not enter into this Agreement but for said guarantee from Developer.

1.1.5. In the event that County and/or LTA receives less than the amount of sales/use taxes guaranteed pursuant to Subparagraph 9.2.4, then Developer shall pay, as and when provided below, to County or LTA as applicable, the amount of the applicable shortfall.

1.1.6. *Adjustments to Guarantee Amounts.*

(a) The amount of sales and use tax anticipated to be generated is based on the projected construction of a **200-MW utility**-scale energy storage complex incorporating lithium-ion batteries and/or flow battery technologies throughout the Project site. Construction of any additional storage capacity beyond the **200-MW storage** capacity now projected will require the sales/use tax guarantee amounts to be adjusted based on the actual storage facilities of the Project as evidenced by any power purchase agreement or power storage agreement subsequently entered into by Developer related to this Project.

(b) To the extent of any reduction in the size of the Project as the result of any final ruling, stipulated judgment, or settlement, the sales/use tax guarantee amounts mandated under Subparagraph 9.2.4 shall be reduced pro rata based on the size of such reduction.

(c) Should Developer become of aware of a change in circumstances that would materially affect the sales/use tax guarantee amount, then Developer shall, within thirty (30) days of learning of such change in circumstances, inform the County in writing of the change in circumstances. If the County determines that such change in circumstances warrants an adjustment to the sales/use tax guarantee amount, then County shall negotiate in good faith with Developer in revising the sales/use tax guarantee amount. If the Parties are unable to agree upon a revised guarantee amount, then the dispute shall be referred to an independent accountant mutually acceptable to both Parties. The costs for such nonbinding mediation shall be borne by Developer. Failure of the Developer to inform the County of the change in circumstances shall constitute a waiver of Developer's ability to seek any adjustment to the sales/use tax guarantee based on such change in circumstances.

1.1.7. The complete sales/use tax guarantee amount due to County and LTA for the Project must be received within one (1) year after COD for this Project, or such later date as any applicable sales/use tax is due or is transmitted from the CDTFA, unless it is delayed due to causes beyond Developer's control or for which Developer is not responsible. If, within one (1) year after issuance of the final certificate of occupancy, or such later date as any applicable sales/use tax is due or is transmitted from the CDTFA, the sales/use taxes received by the County are less than the

sales use tax guarantee amounts mandated under Subparagraph 9.2.4, then Developer shall pay the difference to the County.

1.1.8. Payments to County and LTA as a result of a shortfall shall be due within thirty days of Developer's receipt of written notice of shortfall from the County. Payments received by County after the ninetieth (90th) day following Developer's receipt of notice shall be deemed late. Developer hereby agrees to pay interest at the rate of six percent (6%) per annum of the payment due for any payment received by County beyond the due date. Said interest shall be included with the late payment. The obligation to pay interest shall be stayed when such amounts are disputed in good faith, so long as Developer submits the payments "under written protest." Upon determination of dispute, such interest may be assessed if it is determined that the dispute was not made in good faith.

In the event that Developer repowers or replaces the equipment onsite, each Site shall be designated as the "Point of Sale" so as to create an additional local tax-funding source for the County of Imperial.

S-26 Additional Conditions

1. Because oversize vehicles may utilize this facility (i.e., SR 86), as a condition of the Conditional Use Permit, the project applicant will be required to obtain all applicable Caltrans permits required for construction of the project, including special transportation permits (if applicable) for oversize construction vehicles.
2. As a condition of the Conditional Use Permit, the applicant will be required to prepare and submit for approval a traffic management plan to Caltrans as specified in this comment.
3. As currently proposed, the project would not require an encroachment permit as no work or improvements are proposed within Caltrans right-of-way. However, as a condition of the Conditional Use Permit, the applicant will be required to obtain necessary permits from Caltrans. This includes encroachment permits if applicable.
4. **Coachella Valley Water District** – Review for requirements on elevated concrete foundations and appropriate spacing shall be evaluated, including with respect to existing training dikes and addressed as part of the final site plan engineering design.
5. **Bureau of Reclamation** – Modifications to training dikes will require appropriate authorization from Bureau of Reclamation.
6. Condition of approval that the County and Developer will coordinate with the U.S. Marine Corps to notify them of the project development and to determine any potential impacts to their operations, if any.

S-27 ACCEPTANCE:

Acceptance of this permit shall be deemed to constitute agreement by Permittee with all terms and conditions herein contained.

The rest of this page is intentionally left blank.

NOW THEREFORE, County hereby issues the Conditional Use Permit #23-0007, and Permittee hereby accepts such permit upon the terms and conditions set forth herein.

IN WITNESS THEREOF, the parties hereto have executed this Agreement the day and year first written.

PERMITTEE:

_____ _____

Ziad Alaywan Date
Apex Energy Solutions, LLC

COUNTY OF IMPERIAL, a political subdivision of the STATE OF CALIFORNIA

_____ _____

James A. Minnick, Date
Director, Planning & Development Services Department

PERMITTEE NOTARIZATION

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA

COUNTY OF _____} S.S.

On_____ before me, _____ a Notary Public in and for said County and State, personally appeared _____, who proved to on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal

Signature_____

_____

ATTENTION NOTARY: Although the information requested below is OPTIONAL, it could prevent fraudulent attachment of this certificate to unauthorized document._____

Title or Type of Document_____

Number of Pages_____ Date of Document_____

Signer(s) Other Than Named Above_____

Dated_____

COUNTY NOTARIZATION

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA
COUNTY OF IMPERIAL} S.S.

On_____ before me, _____ a Notary Public in and for said County and State, personally appeared _____, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal

Signature_____

ATTENTION NOTARY: Although the information requested below is OPTIONAL, it could prevent fraudulent attachment of this certificate to unauthorized document.

Title or Type of Document_____
Number of Pages_____ Date of Document_____
Signer(s) Other Than Named Above_____

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ATTACHMENT "H"

CONDITIONAL USE PERMIT
(CUP#23-0008) RESOLUTION

RESOLUTION NO.

A RESOLUTION OF THE PLANNING COMMISSION OF THE COUNTY OF IMPERIAL, CALIFORNIA, FOR THE RECOMMENDATION TO THE BOARD OF SUPERVISORS FOR THE APPROVAL OF CONDITIONAL USE PERMIT #23-0008 AND CONDITIONS OF APPROVAL FOR THE NORTHSTAR 3 SOLAR ENERGY GENERATION AND BATTERY STORAGE PROJECT GROUNDWATER WELL.

WHEREAS, APEX ENERGY SOLUTIONS, LLC has submitted an application for Conditional Use Permit proposing to drill and install a water well for renewable energy purposes to serve as a potable water source for a renewable energy purpose; and,

WHEREAS, an Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared in accordance with the requirements of the California Environmental Quality Act, the State Guidelines, and the County's "Rules and Regulations to Implement CEQA, as Amended"; and,

WHEREAS, the Planning Commission of the County of Imperial has the responsibility of recommendations to Board of Supervisors for the approvals and certifications; and,

WHEREAS, public notice of said application has been given, and the Planning Commission has considered evidence presented by the Imperial County Planning & Development Services Department, and other comments by interested parties at a public hearing held with respect to this item on December 11, 2024; and,

WHEREAS, on December 11, 2024, the Planning Commission heard the proposed project; and,

NOW, THEREFORE, the Planning Commission of the County of Imperial **DOES HEREBY RESOLVE** as follows:

SECTION 1. The Planning Commission has considered Conditional Use Permit #23-0008 and Conditions of Approval prior to recommend approval; the Planning Commission finds and determines that the Conditional Use Permit and Conditions of Approval are adequate and prepared in accordance with the requirements of the Imperial County General Plan and Land Use Ordinance and the IS/MND which analyzed environmental effects, based upon the following findings and determinations.

SECTION 2. That in accordance with State Planning and Zoning Law and the County of Imperial Land Use Ordinance and General Plan, the following findings for the approval of Conditional Use Permit #23-0008 have been made:

A. The proposed use is consistent with the goals and policies of the adopted County General Plan.

The General Plan designates the project site as "Agriculture." It is classified as S-2 (Open Space/Preservation) under the Imperial County Land Use Ordinance (Title 9). The proposed project includes an on-site groundwater well and is a conditionally permitted use pursuant to County's Land Use Ordinance (Section 92102.00).

B. The proposed use is consistent with the purpose of the zone or sub-zone which the use will be used.

The water well is for renewable energy purposes. Section 92102.00 of the Imperial County Land Use Ordinance governs water wells. The purposed use could be considered a compatible use with a Conditional Use Permit pursuant to the Water Well Regulation (Land Use Ordinance, Section 92102.00).

C. The proposed use is listed as a use within the zone or sub-zone or is found to be similar to a listed conditional use according to the procedures of Section 90203.10.

The proposed water well is consistent with Land Use Ordinance, Section 92102.00 with an approved Conditional Use Permit.

D. The proposed use meets the minimum requirements of this Title applicable to the use and complies with all applicable laws, ordinances and regulations of the County of Imperial and the State of California.

The Conditions of Approval will ensure that the project complies with all applicable regulations of the County of Imperial and State of California. Therefore, the proposed project will meet the minimum requirements of the Land Use Ordinance, Section 90203.00.

E. The proposed use will not be detrimental to the health, safety, and welfare of the public or to the property and residents in the vicinity.

The proposed water well anticipated water usage amount to **295-acre-feet** for construction over the course of 12 to 18 months and **10-acre-feet** per year for operational water. The water well will be used for the construction period and then periodically for dust control and cleaning of panels at the solar site. There will be no detrimental to the health safety, and welfare of the public or to the property and residents in the vicinity.

F. The proposed use does not violate any other law or ordinance.

The proposed project is conditioned to be consistent with Title 9, Codified Land Use Ordinance of the County of Imperial and CEQA. The proposed project will be subject to a Conditional Use Permit and current Federal, State and Local regulations.

G. The proposed use is not granting a special privilege.

The proposed water well is a conditional permitted use subject to the conditions of approval of CUP #23-0008 (Land Use Ordinance, Section 92102.00) and will not grant a special privilege.

NOW, THEREFORE, based on the above findings, the Imperial County Planning Commission **DOES HEREBY recommend for the Board of Supervisors to approve** Conditional Use Permit #23-0008, subject to the attached Conditions of Approval.

Rudy Schaffner, Chairperson
Imperial County Planning Commission

I hereby certify that the Planning Commission at a meeting conducted on **December 11, 2024,** by the following vote approved the preceding resolution:

AYES:

NOES:

ABSENT:

ABSTAIN:

ATTEST:

Jim Minnick, Director of Planning & Development Services
Secretary to the Planning Commission

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When Recorded Return To:

Imperial County Planning & Development
Services Department
801 Main Street
El Centro, California 92243

AGREEMENT FOR CONDITIONAL USE PERMIT #23-0008
NORTHSTAR 3 SOLAR ENERGY GENERATION AND BATTERY STORAGE PROJECT
WATER WELL
APNs 017-350-027-000, 017-350-030-000, & 017-350-031-000

Conditional Use Permit **#23-0008** was approved by the Imperial County ☐ Planning Commission ☐ Board of Supervisors and has the Effective Date of _____,2024. This Conditional Use Permit is by and between **Apex Energy Solutions, LLC** (hereinafter referred to as "Permittee"), and the COUNTY OF IMPERIAL, a political subdivision of the State of California, (hereinafter referred to as "COUNTY").

RECITALS

WHEREAS, Permittee is the owner, and/or operator and/or successor-in-interest in certain land in Imperial County known as Assessor's Parcels 017-350-027, 017-350-030, and 017-350-031 further described as a Section 9, Township 11 South, Range 10 East, S.B.B.M, approximately 585-acre combined parcels, and,

WHEREAS, Permittee has applied to the County for permission to construct, operate and maintain one water well, at the above site, and;

WHEREAS, Permittee has applied to the County to be allowed to pump up to **10-acre-feet** per year of groundwater for operations, and a one-time maximum of **295-**

acre-feet of groundwater during construction, from the water well to provide water to a solar development project, and;

WHEREAS, Permittee and/or any subsequent owner(s) would be required to and intend to fully comply with all of the terms and conditions of the project as specified in this Conditional Use Permit.

WHEREAS, County, after a noticed public hearing, agreed to issue Conditional Use Permit # 23-0008 to Permittee, and/or his or her successor in interest subject to the following conditions:

---

*The "GENERAL CONDITIONS" are shown by the letter **"G"**. These conditions are conditions that are either routinely and commonly included in all Conditional Use Permits as "standardized" conditions and/or are conditions that the Imperial County Planning Commission has established as a requirement on all CUP's for consistent application and enforcement. The Permittee is advised that the General Conditions are as applicable as the SITE SPECIFIC conditions!*

GENERAL CONDITIONS:

G-1 ACQUISITION OF PERMITS/LICENSES AND COMPLIANCE WITH GENERAL LAWS:

The Permittee shall obtain, comply with, and maintain all applicable County, State, and Federal permits, licenses, and/or approvals, including, but not limited to those required by Imperial County Planning & Development Services Department, Air Pollution Control District (APCD), County Division of Environmental Health Services (EHS), and Public Works Department. Additionally, Permittee agrees to comply with all applicable laws, ordinances, and/or regulations promulgated by County, State, and Federal jurisdictions

whether specified herein or not. Furthermore, Permittee shall submit a copy of such additional permit(s)/license(s) to the Planning & Development Services Department within thirty (30) days of receipt, including amendments or alterations thereto.

G-2 RECORDATION:

This permit shall not be effective until it is recorded at the Imperial County Recorder's Office, and payment of the recordation fee shall be the responsibility of the Permittee.

G-3 INDEMNIFICATION:

Permittee shall defend, indemnify and hold harmless County and its agents, including consultants, officers and employees from any claim, action or proceeding against the County or its agents, including consultants, officers or employees to attack, set aside, void, or annul the approval of this application or adoption of the environmental documents which accompanies it. This indemnification obligation shall include, but not be limited to, damages, costs, expenses, attorney's fees, or expert witness costs that may be asserted by any person or entity, including the Permittee arising out of or in connection with the approval of this application, including any claim for private attorney general fees claimed by or awarded to any party from the County.

G-4 RIGHT OF ENTRY:

The County reserves the right to enter the premises to make the appropriate inspection(s) and to determine if the condition(s) of this permit are complied with and access to authorized enforcement agency personnel shall not be denied.

G-5 PROVISION TO RUN WITH THE LAND/PROJECT:

The provisions of this permit are to run with the land/project and shall bind the current and future owner(s) successor(s) of interest, assignee(s) and/or transferor(s) of said project.

- Permittee shall not without prior notification to the Planning & Development Services Department assign, sell, or transfer, or grant control of project or any right or privilege therein.
- The Permittee shall provide a minimum of 60 days written notice prior to such proposed transfer becoming effective.
- In the event that the new owner or assignee or transferor has a history of non-compliance with environmental laws or is not of substantial equivalent or superior financial capability and/or responsibility or is not willing to or has not agreed to in writing to abide by the terms or conditions of this permit, the Planning & Development Services Department shall bring this matter to the Planning Commission for either revocation or modification to the permit.

G-6 CONDITION PRIORITY:

This project shall be constructed/operated as described in the approved Conditional Use Permit and conditions, site plan, support documentation, the Initial Study/Mitigated Negative Declaration (IS/MND), the project description, and as specified in these conditions. Where a conflict occurs, the Conditional Use Permit conditions shall govern and take precedence.

G-7 INVALID CONDITIONS/SEVERABILITY:

Should any condition(s) of this permit be determined by a Court or other agency with property jurisdiction to be invalid for any reason, such determination shall not invalidate the remaining provision(s) of this permit.

G-8 TIME LIMIT:

Unless otherwise specified within the specific conditions, this permit shall be limited to a maximum of thirty (30) years from the recordation of the CUP. If an extension is necessary, the Permittee shall file a written extension request with the Planning Director at least sixty (60) days prior to the expiration date of the permit. Such an extension request shall include the appropriate extension fee. If the original approval was granted by the Planning Commission and/or the Board of Supervisors, such an extension shall only be considered by the approving body, after a noticed public hearing. Nothing stated or implied within this permit shall constitute a guarantee that an extension will be granted. An extension may not be granted if the Project is in violation of any one or all of the conditions or if there is a history of non-compliance with the permit conditions.

G-9 PERMIT/MONITORING-RELATED FEES:

The Permittee shall pay any and all amounts determined by the County Planning & Development Services Department to defray any and all cost(s) for the review of reports, field investigations, monitoring, and other activities directly related to the enforcement/monitoring for compliance of this Conditional Use Permit, County Ordinance or any other applicable law. All County Departments, directly involved in the monitoring/enforcement of this project may bill Permittee under this provision, however said billing shall only

be through and with the approval of the Planning & Development Services Department.

G-10 DEFINITIONS:

In the event of a dispute the meaning(s) or the intent of any word(s), phrase(s) and/or conditions or sections herein shall be determined by the Planning Commission of the County of Imperial. Their determination shall be final unless an appeal is made to the Board of Supervisors within ten (10) days from the date of the Commission's decision.

G-11 REVOCATION:

Upon the determination by the Planning & Development Services Department that the project is or may not be in full compliance with any one or all of the conditions of this Conditional Use Permit, or upon the finding that the project is creating a nuisance as defined by law, the issue shall be brought immediately to the appropriate enforcement agency or to the Planning Commission for hearing to consider appropriate response including but not limited to the revocation of the CUP or to consider possible amendments to the CUP. The hearing shall be held upon due notice having been provided to the Permittee and to the public in accordance with established ordinance/policy.

G-12 HEALTH HAZARD:

If the County Health Officer determines that a significant health hazard exists to the public, the Health Officer may require appropriate measures and the Permittee shall implement such measures to mitigate the health hazard. If the hazard to the public is determined to be imminent, such measures may be

imposed immediately and may include temporary suspension of operations; the measures imposed by the County Health Officer must be submitted to the Planning Commission for review and approval. Nothing shall prohibit Permittee from requesting a special Planning Commission meeting provided Permittee bears all costs.

PROJECT SPECIFIC CONDITIONS:

S-1 The Conditional Use Permit (CUP) allows the Permittee to draw a maximum of **10-acre-feet** of groundwater per year for operations, and a one-time maximum of **295–acre-feet** of groundwater during construction. Exceeding the amount of water specified herein will result in the Planning & Development Services Department taking action to rescind the CUP for non-compliance.

S-2 Water from the well shall not be used, sold, given, exported, or transported from those lands within the North Star 3 Solar and Battery Storage Project designated areas per the North Star 3 Solar and Battery Storage Project approved IS/MND.

S-3 The water shall be used only for on-site use(s) within North Star 3 Solar and Battery Storage Project areas only, which includes the washing of solar panels, dust control and onsite construction related activities.

S-4 If the Board of Supervisors determines that groundwater management activities may be necessary to improve and preserve the quality or quantity of groundwater resources or prevent other environmental damage, the Board,

after notice to the public and a public hearing, limitations or suspension of extractions from this water well. Title 9: Division 22: Ground Water Ordinance, Chapter 2: 92202.00 (E).

S-5 A flow meter shall be installed and sealed by a California State Licensed Water Well Drilling Contractor. Registered user shall submit an annual report to the Planning & Development Services Department indicating the yearly amount of water extracted from the well. A photograph (dated and signed) of the flow meter readings shall be included in the annual report. The report shall be received within thirty (30) days following the anniversary date of the issuance of this registration. In the event of a flow meter failure, the registered user shall be required to cease the water well operation and notify the Planning & Development Services Department. The registered user may be allowed to temporarily substitute the flow meter for an alternative measuring device, at the approval of the Planning & Development Services Department. In this case two (2) separate reports shall be submitted as stipulated herein. **Title 9, Division 22: Groundwater Ordinance 92202.04 Extraction Facility Water Flow Measurements.**

S-6 Should the water well be "abandoned" at any time for more than 365 consecutive days, or such longer period of not more than twenty-four (24) consecutive months as the Director may approve in writing, Permittee shall seal/cap the well according to standards set by the State and in a manner acceptable to the County Building Official. Abandonment shall mean as follows:

- ABANDONMENT: A well is deemed "abandoned" when it has not been used for one (1) year. An owner may have the well deemed "inactive"

by filling a written notice with the Department stating his/her intentions to use the well under specific conditions and/or time frames. As evidence of his/her intentions, the conditions contained in Bulletin 74-81 (Sec. 21) shall be met.

- Any well that is open or whose services/operating equipment (e.g. pumps/motors/pipes, etc.) has been removed shall be deemed abandoned.

S-7 The water well shall be registered with the Planning & Development Services Department to comply with the Imperial County's Groundwater Ordinance (Title 9, Division 22) and Water Well Regulations (Title 9, Division 21). The applicant is required to sign the registration form prior to recordation of the CUP.

S-8 Permittee shall provide a bond, letter of credit, cash deposit or other surety acceptable to County Counsel in the amount of $5,000 to the County to assure for proper closure and/or transfer of permit.

S-9 Water Well Replacement: In the event the proposed water well under this CUP requires replacement, and the CUP is still active and in compliance, said replacement water well shall be constructed by a California Licensed Driller in accordance with California Department of Water Resources Bulletin 74-81 and 74-90 (including any subsequent revisions), and with the Imperial County Water Well Ordinance, Section 92101.00 et seq.

- Permittee shall submit copies of the "Report of Completion" (as required by the California Water Code, Section 13751), by the California Licensed

Driller on the construction of any water well replaced. Copies shall be submitted to the Environmental Health Services, Planning & Development Services Department, and Public Works within thirty (30) days of the construction or destruction of the well, this report shall include:

1. A description of the exact location of the well.
2. A detailed log of the well.
3. A description of the type and depth of casings.
4. Details of perforation.
5. The methods used for sealing off surface or contaminated waters.
6. Methods for preventing contaminated waters from one aquifer to mix with another aquifer.
7. Name of person who constructed the well.

S-10 On a bi-annual basis, the Permittee shall provide chemical analysis of the well water to the Departments of Planning, Public Works, and Health Services. The analysis shall include but not be limited to all General Mineral and Inorganic Chemical Analysis for chemicals listed in Section 64431, Article 4, Title 22, California Code of Regulations. All sampling and analysis shall be performed by a laboratory licensed by the State of California to perform drinking water analysis. The reported analysis results shall be provided to the Planning Department during the second-year report, and all subsequent bi-annual reports.

NOW THEREFORE, County hereby issues Conditional Use Permit #23-0008 and Permittee hereby accepts such permit upon the terms and conditions set forth herein.

IN WITNESS THEREOF, the parties hereto have executed this Agreement the day and year first written.

PERMITTEE

By: _____ Dated: _____
Ziad Alaywan
APEX ENERGY SOLUTIONS, LLC

COUNTY OF IMPERIAL, a political Subdivision of the STATE OF CALIFORNIA

By: _____ Dated: _____
James A. Minnick, Director
Planning & Development Services Department.

PERMITTEE NOTARIZATION

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

Dated_____

STATE OF CALIFORNIA

COUNTY OF _____} S.S.

On _____ before me, _____ a Notary Public in and for said County and State, personally appeared _____, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal

Signature_____

_____

ATTENTION NOTARY: Although the information requested below is OPTIONAL, it could prevent fraudulent attachment of this certificate to unauthorized document.

Title or Type of Document_____
Number of Pages_____ Date of Document_____
Signer(s) Other Than Named Above_____

Dated_____

COUNTY NOTARIZATION

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

COUNTY OF IMPERIAL} S.S.

On _____ before me, _____ a Notary Public in and for said County and State, personally appeared _____, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal

Signature_____

ATTENTION NOTARY: Although the information requested below is OPTIONAL, it could prevent fraudulent attachment of this certificate to unauthorized document.

Title or Type of Document_____
Number of Pages_____ Date of Document_____
Signer(s) Other Than Named Above_____

S:\AllUsers\APN\017\350\027\GPA23-0002 ZC23-0002 CUP23-0007 CUP23-0008 IS23-0007\PC\CUP23-0008 Water Well\CUP23-0008 NS3_CUP for Water Well.docx

ATTACHMENT "I"

ENVIRONMENTAL EVALUATION COMMITTEE PACKAGE

PROJECT REPORT

TO: ENVIRONMENTAL EVALUATION COMMITTEE
FROM: PLANNING & DEVELOPMENT SERVICES

AGENDA DATE: June 13, 2024
AGENDA TIME: 1:30PM / No. 3

Apex Energy Solutions, LLC (NorthStar 3)

PROJECT TYPE: General Plan Amendment #23-0002, Zone Change #23-0002 SUPERVISOR DIST # 4
Conditional Use Permits #23-0007 & #23-0008

LOCATION: 4580 West Highway 86 APN: 017-350-027-000, 017-350-030-000, 017-350-031-000

Westmorland, CA PARCEL SIZE: 585-AC

GENERAL PLAN (existing) Agriculture GENERAL PLAN (proposed) N/A

ZONE (existing) S-2 (Open Space/Preservation) ZONE (proposed) S-2-RE (Open Space/Preservation, Renewable Energy Overlay)

GENERAL PLAN FINDINGS ☒ CONSISTENT ☐ INCONSISTENT ☐ MAY BE/FINDINGS

PLANNING COMMISSION DECISION: HEARING DATE: _____

☐ APPROVED ☐ DENIED ☐ OTHER

PLANNING DIRECTORS DECISION: HEARING DATE: _____

☐ APPROVED ☐ DENIED ☐ OTHER

ENVIROMENTAL EVALUATION COMMITTEE DECISION: HEARING DATE: 06-13-2024

INITIAL STUDY: #23-0007

☐ NEGATIVE DECLARATION ☐ MITIGATED NEG. DECLARATION ☐ EIR

DEPARTMENTAL REPORTS / APPROVALS:

PUBLIC WORKS	☒ NONE	☐ ATTACHED
AG	☐ NONE	☒ ATTACHED
APCD	☐ NONE	☒ ATTACHED
E.H.S.	☒ NONE	☐ ATTACHED
FIRE / OES	☐ NONE	☒ ATTACHED
SHERIFF	☒ NONE	☐ ATTACHED

OTHER Imperial Irrigation District, CEO's office, Caltrans, Agua Caliente Band of Cahuilla Indians & Viejas Tribe

REQUESTED ACTION:

(See Attached)

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Initial Study

North Star 3 Solar and Battery Storage Project

Initial Study #23-0007

General Plan Amendment #23-0002

Zone Change #23-0002

Conditional Use Permits # 23-0007 and 23-0008

Imperial County, CA

June 2024

[redacted]

Reviewed by:

County of Imperial

Planning & Development Services Department

801 Main Street

El Centro, CA 92243

Prepared by:

HDR Engineering, Inc.

591 Camino de la Reina, Suite 300

San Diego, CA 92108

[redacted]

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Introduction

A. Purpose

This document is a ☐ policy-level; ☒ project-level Initial Study for evaluation of potential environmental impacts resulting with the proposed North Star 3 Solar and Battery Storage Project.

B. CEQA Requirements and the Imperial County's Rules and Regulations for Implementing CEQA

As defined by Section 15063 of the State California Environmental Quality Act (CEQA) Guidelines and Section 7 of the County's Rules and Regulations for Implementing CEQA, an **Initial Study** is prepared primarily to provide the Lead Agency with information to use as the basis for determining whether an Environmental Impact Report (EIR), Negative Declaration, or Mitigated Negative Declaration would be appropriate for providing the necessary environmental documentation and clearance for any proposed project.

☐ According to Section 15065, an **EIR** is deemed appropriate for a particular proposal if the following conditions occur:

- The proposal has the potential to substantially degrade the quality of the environment.
- The proposal has the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals.
- The proposal has possible environmental effects that are individually limited but cumulatively considerable.
- The proposal could cause direct or indirect adverse effects on human beings.

☐ According to Section 15070(a), a **Negative Declaration** is deemed appropriate if the proposal would not result in any significant effect on the environment.

☐ According to Section 15070(b), a **Mitigated Negative Declaration** is deemed appropriate if it is determined that though a proposal could result in a significant effect, mitigation measures are available to reduce these significant effects to insignificant levels.

This Initial Study has determined that the proposed North Star 3 Solar and Battery Storage Project will result in potentially significant environmental impacts; however, mitigation measures are available to reduce the potentially significant impacts and therefore, a Mitigated Negative Declaration is deemed as the appropriate document to provide necessary environmental evaluations and clearance for the proposed approvals under review in this Initial Study.

This Initial Study is prepared in conformance with the California Environmental Quality Act of 1970, as amended (Public Resources Code, Section 21000 et. seq.); the State CEQA Guidelines & County of Imperial's CEQA Regulations, Guidelines for the Implementation of CEQA; applicable requirements of the County of Imperial; and the regulations, requirements, and procedures of any other responsible public agency or an agency with jurisdiction by law.

Pursuant to the County of Imperial's CEQA Regulations, Guidelines for the Implementation of CEQA, depending on the project scope, the County of Imperial Board of Supervisors, Planning Commission

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and/or Planning Director is designated the Lead Agency, in accordance with Section 15050 of the CEQA Guidelines. The Lead Agency is the public agency which has the principal responsibility for approving the necessary environmental clearances and analyses for any project in the County.

C. Intended Uses of Initial Study

This Initial Study is an informational document which is intended to inform County of Imperial decision makers, other responsible or interested agencies, and the general public of potential environmental effects of the proposed applications. The environmental review process has been established to enable public agencies to evaluate environmental consequences and to examine and implement methods of eliminating or reducing any potentially adverse impacts. While CEQA requires that consideration be given to avoiding environmental damage, the Lead Agency and other responsible public agencies must balance adverse environmental effects against other public objectives, including economic and social goals.

The Initial Study prepared for the project will be circulated for a period of no less than 35 days for public and agency review and comments.

D. Contents of Initial Study

This Initial Study is organized to facilitate a basic understanding of the existing setting and environmental implications of the proposed applications.

SECTION 1

I. INTRODUCTION presents an introduction to the entire report. This section discusses the environmental process, scope of environmental review, and incorporation by reference documents.

SECTION 2

II. ENVIRONMENTAL CHECKLIST FORM contains the County's Environmental Checklist Form. The checklist form presents results of the environmental evaluation for the proposed North Star 3 Project and those issue areas that would have either a significant impact, potentially significant impact, or no impact.

PROJECT SUMMARY, LOCATION AND ENVIRONMENTAL SETTINGS describes the proposed project, necessary entitlements and required applications. A description of discretionary approvals and permits required for project implementation is also included. It also identifies the location of the project and a general description of the surrounding environmental settings.

ENVIRONMENTAL ANALYSIS evaluates each response provided in the environmental checklist form. Each response checked in the checklist form is discussed and supported with sufficient data and analysis as necessary. As appropriate, each response discussion describes and identifies specific impacts anticipated with project implementation.

SECTION 3

III. MANDATORY FINDINGS presents Mandatory Findings of Significance in accordance with Section 15065 of the CEQA Guidelines.

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E. Scope of Environmental Analysis

For evaluation of environmental impacts, each question from the Environmental Checklist Form is summarized and responses are provided according to the analysis undertaken as part of the Initial Study. Impacts and effects will be evaluated and quantified, when appropriate. To each question, there are four possible responses, including:

1. No Impact: A "No Impact" response is adequately supported if the impact simply does not apply to the proposed project.
2. Less Than Significant Impact: The proposed project will have the potential to impact the environment. These impacts, however, will be less than significant; no additional analysis is required.
3. Less Than Significant With Mitigation Incorporated: This applies where incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact."
4. Potentially Significant Impact: The proposed project could have impacts that are considered significant. Additional analyses and possibly an EIR could be required to identify mitigation measures that could reduce these impacts to less than significant levels.

F. Policy-Level or Project-Level Environmental Analysis

This Initial Study will be conducted under a ☐ policy-level, ☒project-level analysis.

Regarding mitigation measures, it is not the intent of this document to "overlap" or restate conditions of approval that are commonly established for future known projects or the proposed project and associated entitlement applications. Additionally, those other standard requirements and regulations that any development must comply with, that are outside the County's jurisdiction, are also not considered mitigation measures, and therefore, will not be identified in this document.

G. Tiered Documents and Incorporation by Reference

Information, findings, and conclusions contained in this document are based on incorporation by reference of tiered documentation, which are discussed in the following section.

1. **Tiered Documents**

   As permitted in Section 15152(a) of the CEQA Guidelines, information and discussions from other documents can be included into this document. Tiering is defined as follows:

   "Tiering refers to using the analysis of general matters contained in a broader EIR (such as the one prepared for a general plan or policy statement) with later EIRs and negative declarations on narrower projects; incorporating by reference the general discussions from the broader EIR; and concentrating the later EIR or negative declaration solely on the issues specific to the later project."

   Tiering also allows this document to comply with Section 15152(b) of the CEQA Guidelines, which discourages redundant analyses, as follows:

   "Agencies are encouraged to tier the environmental analyses which they prepare for separate but related projects including the general plans, zoning changes, and development projects.

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This approach can eliminate repetitive discussion of the same issues and focus the later EIR or negative declaration on the actual issues ripe for decision at each level of environmental review. Tiering is appropriate when the sequence of analysis is from an EIR prepared for a general plan, policy or program to an EIR or negative declaration for another plan, policy, or program of lesser scope, or to a site-specific EIR or negative declaration."

Further, Section 15152(d) of the CEQA Guidelines states:

"Where an EIR has been prepared and certified for a program, plan, policy, or ordinance consistent with the requirements of this section, any lead agency for a later project pursuant to or consistent with the program, plan, policy, or ordinance should limit the EIR or negative declaration on the later project to effects which:

(1) Were not examined as significant effects on the environment in the prior EIR; or

(2) Are susceptible to substantial reduction or avoidance by the choice of specific revisions in the project, by the imposition of conditions, or other means."

2. **Incorporation by Reference**

Incorporation by reference is a procedure for reducing the size of EIRs/MND and is most appropriate for including long, descriptive, or technical materials that provide general background information, but do not contribute directly to the specific analysis of the project itself. This procedure is particularly useful when an EIR or Negative Declaration relies on a broadly-drafted EIR for its evaluation of cumulative impacts of related projects (*Las Virgenes Homeowners Federation v. County of Los Angeles* [1986, 177 Ca.3d 300]). If an EIR or Negative Declaration relies on information from a supporting study that is available to the public, the EIR or Negative Declaration cannot be deemed unsupported by evidence or analysis (*San Francisco Ecology Center v. City and County of San Francisco* [1975, 48 Ca.3d 584, 595]).

When an EIR or Negative Declaration incorporates a document by reference, the incorporation must comply with Section 15150 of the CEQA Guidelines as follows:

- The incorporated document must be available to the public or be a matter of public record (CEQA Guidelines Section 15150[a]). The General Plan EIR is available, along with this document, at the County of Imperial Planning & Development Services Department, 801 Main Street, El Centro, CA 92243 Ph. (442) 265-1736.
- This document must be available for inspection by the public at an office of the lead agency (CEQA Guidelines Section 15150[b]). These documents are available at the County of Imperial Planning & Development Services Department, 801 Main Street, El Centro, CA 92243, Ph. (442) 265-1736.
- These documents must summarize the portion of the document being incorporated by reference or briefly describe information that cannot be summarized. Furthermore, these documents must describe the relationship between the incorporated information and the analysis in the tiered documents (CEQA Guidelines Section 15150[c]). As discussed above, the tiered EIRs address the entire project site and provide background and inventory information and data which apply to the project site. Incorporated information and/or data will be cited in the appropriate sections.

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- These documents must include the State identification number of the incorporated documents (CEQA Guidelines Section 15150[d]). The State Clearinghouse Number for the County of Imperial General Plan EIR is SCH #93011023.

The material to be incorporated in this document will include general background information (CEQA Guidelines Section 15150[f]).

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Environmental Checklist Form

1. **Project Title:** North Star 3 Solar and Battery Storage Project
2. **Lead Agency Name and Address:** Imperial County Planning & Development Services Department, 801 Main Street, El Centro, CA 92243
3. **Contact Person and Phone Number:** Gerardo Quero, Planner II, 442-265-1736
4. **Project Location:** The proposed project is located in the northwest portion of Imperial County, California on an approximately 585-acre project site. The project site consists of three project parcels: Assessor Parcel No. (APN) 017-350-031 (305 acres), 017-350-030 (160 acres), and 017-350-027 (120 acres). The project site is situated near the western edge of the Salton Sea and is located approximately 9 miles southeast of the town of Salton City. State Route (SR) 86, located adjacent to the southwest corner of the project site, provides regional access to the project site. Salton Sea Road is immediately south of the project site and provides local vehicular access to the project site. The abandoned Naval Auxiliary Air Station – Salton Sea is located approximately 1 mile northeast of the project site.
5. **Project Sponsor's Name and Address:** Apex Energy Solutions, LLC, 750 Main Street, El Centro, CA 92243
6. **General Plan Designation:** Agriculture
7. **Zoning:** S-2 (Open Space/Preservation)
8. **Description of Project:** The proposed project consists of three primary components: 1) 100-megawatt (MW) solar photovoltaic (PV) facility; 2) 200-MW battery energy storage system (BESS); and 3) on-site transmission line to connect to the Imperial Irrigation District's (IID) existing 161kV "L" Line. The solar facility, BESS, and on-site transmission line are collectively referred to as the "proposed project" or "project." A detailed project description is provided in the Project Summary section below.
9. **Surrounding Land Uses and Setting: Briefly describe the project's surroundings:**

   The project site is located at the transition between vacant desert land to the east, north and west and agricultural lands to the southeast. Areas mapped as Bureau of Land Management (BLM) Areas of Critical Environmental Concern are located immediately north of the project site, as well as immediately east of the site, generally along Salton Sea Road. The project parcel is covered with scattered dry desert brush. Dry washes cross the subject property in a roughly northeast direction. The existing IID 161kV "L" Line traverses the project site, generally extending from the northwestern portion of the site to the southeastern portion of the site.
10. **Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.):**
    - California Regional Water Quality Control Board, Colorado River Basin Region
    - Imperial County Air Pollution Control District
    - Imperial County Public Works Department

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11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

Yes, California Native American tribes that are traditionally and culturally affiliated with the project area were sent an Assembly Bill (AB) 52/Senate Bill (SB) 18 consultation request letter on December 22, 2023. On February 1, 2024, the Agua Caliente Band of Cahuilla Indians responded via letter requesting consultation under SB 18.

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Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐	Aesthetics	☐	Agriculture and Forestry Resources	☐	Air Quality
☒	Biological Resources	☒	Cultural Resources	☐	Energy
☒	Geology/Soils	☐	Greenhouse Gas Emissions	☐	Hazards & Hazardous Materials
☐	Hydrology / Water Quality	☐	Land Use/Planning	☐	Mineral Resources
☐	Noise	☐	Population/Housing	☐	Public Services
☐	Recreation	☐	Transportation	☒	Tribal Cultural Resources
☐	Utilities/Service Systems	☐	Wildfire	☐	Mandatory Findings of Significance

Environmental Evaluation Committee Determination

After Review of the Initial Study, the Environmental Evaluation Committee (EEC) has:

- ☐ Found that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☐ Found that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ Found that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ Found that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ Found that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

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EEC VOTES	YES	NO	ABSENT
PUBLIC WORKS	☐	☐	☑
ENVIRONMENTAL HEALTH	☑	☐	☐
OFFICE EMERGENCY SERVICES	☑	☐	☐
APCD	☑	☐	☐
AG	☑	☐	☐
SHERIFF DEPARTMENT	☑	☐	☐
ICPDS	☐	☐	☐

Jim Minnick, Director of Planning/EEC Chairman

Date: 6-13-2024

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Project Summary

Project Location

The project site is situated near the western edge of the Salton Sea and is located approximately 9 miles southeast of the town of Salton City. The project site consists of three project parcels: APN No. 017-350-031, 017-350-030, and 017-350-027, encompassing approximately 585 acres in the northwest portion of Imperial County, California (Figure 2). State Route 86, located adjacent to the southwest corner of the project site, provides regional access to the project site (Figure 1). Salton Sea is immediately south of the project site and provides local vehicular access to the project site. The abandoned Naval Auxiliary Air Station – Salton Sea is located approximately one mile northeast of the project site.

Renewable Energy Overlay Zone

In 2016, the County adopted the Imperial County Renewable Energy and Transmission Element, which includes an RE Zone (RE Overlay Map). This General Plan element was created as part of the California Energy Commission Renewable Energy Grant Program to amend and update the County's General Plan to facilitate future development of renewable energy projects.

The County Land Use Ordinance, Division 17, includes the RE Overlay Zone, which authorizes the development and operation of renewable energy projects with an approved conditional use permit (CUP). The RE Overlay Zone is concentrated in areas determined to be the most suitable for the development of renewable energy facilities while minimizing the impact on other established uses. CUP applications proposed for specific renewable energy projects not located in the RE Overlay Zone would not be allowed without an amendment to the RE Overlay Zone.

As shown on Figure 1, the entire project site is located outside of the RE Overlay Zone. Therefore, the applicant is requesting a General Plan amendment and Zone Change to include/classify the project site into the RE Overlay Zone. The underlying "Agriculture" General Plan designation would remain.

Environmental Setting

The project site is located at the transition between vacant desert land to the east, north and west and agricultural lands to the southeast. Areas mapped as BLM Areas of Critical Environmental Concern are located immediately north of the project site, as well as immediately east of the site, generally along Salton Sea Road. The project parcel is covered with scattered dry desert brush. Dry washes cross the subject property in a roughly northeast direction. The existing IID 161 kV "L" Line traverses the project site, generally extending from the northwestern portion of the site to the southeastern portion of the site.

Project Components

The proposed project consists of three primary components: 1) 100-megawatt (MW) solar photovoltaic (PV) facility; 2) 200 MW battery energy storage system (BESS); and 3) on-site transmission line to connect to the Imperial Irrigation District's (IID) existing 161kV "L" Line. The solar facility, BESS, and on-site transmission line are collectively referred to as the "proposed project" or "project." These project components are discussed in detail below and shown in Figure 3.

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Solar Energy Facility

The proposed project involves the construction of a 100-megawatt (MW) alternating current (AC) PV solar energy facility.

PV solar cells convert sunlight directly into direct current electricity. The process of converting light (photons) to electricity (voltage) in a solid-state process is called the photovoltaic effect. A number of individual PV cells are electrically arranged and connected into solar PV modules, sometimes referred to as solar panels.

The project proposes to utilize solar photovoltaic (PV) technology modules mounted on horizontal single-axis tracker (HSAT) systems with mounting racks supported by driven piles. The solar field consists of 226,800 modules on 7,560 strings and associated collector and inverter facilities. The PV modules would rotate around the north-south HSAT axis so that the PV modules would continue to face the sun as the sun moves across the sky throughout the day. The PV modules would reach their maximum height (up to 9 feet above the ground, depending on the final design) at both sunrise and sunset, when the HSAT is rotated to point the modules at the rising or setting sun. At noon, or when stowed during high winds, when the HSAT system is rotated so that the PV modules are horizontal, the nominal height would be about 6 feet above the ground, depending on the final design.

The individual PV systems would be arranged in large arrays by placing them in columns spaced approximately 10 feet apart to maximize operational performance and to allow access for panel cleaning and maintenance. Current project designs would have individual HSAT PV modules, each approximately two feet wide by four feet long (depending on the specific PV technology selected), mounted on a frame which is attached to an HSAT system. The HSAT arrays would be separated from each other and the perimeter security fence by up to 30-foot-wide roads, consistent with Imperial County Fire Department emergency access requirements.

Battery Energy Storage System

A 200-MW BESS is proposed on an approximately 5-acre site within the southcentral portion of the project site. The proposed BESS would consist of either lithium ion or flow batteries. The batteries will either be housed in storage containers or buildings fitted with HVAC and fire suppression systems as necessary, depending on the final selection of battery technology. Inside the housing the batteries will be placed on racks, the orientation of which depends on the type of housing. Underground trenches with conduits will be used to connect the batteries to the control and monitoring systems, and inverters to convert the PV produced DC power to AC power.

On-Site Transmission Connection

The project is proposed to connect to the electrical grid via an existing on-site transmission line. The existing IID 161 kV "L" Line traverses the site, generally extending from the northwestern portion of the site to the southeastern portion of the site. The proposed project point of connection to the electrical grid would occur on-site within private lands.

Security

Six-foot high security fencing would be installed around the perimeter of the project site at the commencement of construction and site access would be limited to authorized site workers. In addition, a motion detection system and closed-circuit camera system may also be installed. The site

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would be remotely monitored 24 hours per day, 7 days per week. In addition, routine unscheduled security rounds may be made by the security team monitoring the site security.

Site Access

Access to the project site is proposed from Salton Sea Road. The project driveway would be provided with a minimum of 30-foot double swing gates with "Knox Box" for keyed entry. Emergency response personnel would be provided with manual override capability in order to access the site. To accommodate emergency access, PV panels would be spaced to maintain proper clearance. Internal access roads, up to 30-foot wide, would be constructed along the perimeter fence and solar panels to facilitate vehicle access and maneuverability for emergency unit vehicles.

Fire Protection/Fire Suppression

Fire protection systems for battery systems would be designed in accordance with the California Fire Code and would take into consideration the recommendations of the National Fire Protection Association (NFPA) 855.

Fire suppression agents such as Novec 1230 or FM 2000, or water may be used as a suppressant. In addition, fire prevention methods would be implemented to reduce potential fire risk, including voltage, current, and temperature alarms. Energy storage equipment would comply with Underwriters Laboratory (UL)-95401 and test methods associated with UL-9540A. The project would include lithium-ion batteries. For lithium-ion batteries storage, a system would be used that would contain the fire event and encourage suppression through cooling, isolation, and containment. Suppressing a lithium-ion (secondary) battery is best accomplished by cooling the burning material. A gaseous fire suppressant agent (e.g., 3M™ Novec™ 1230 Fire Protection Fluid or similar) and an automatic fire extinguishing system with sound and light alarms would be used for lithium-ion batteries.

To mitigate potential hazards, redundant separate methods of failure detection would be implemented. These would include alarms from the Battery Management System (BMS), including voltage, current, and temperature alarms. Detection methods for off gas detection would be implemented, as applicable. These are in addition to other potential protective measures such as ventilation, overcurrent protection, battery controls maintaining batteries within designated parameters, temperature and humidity controls, smoke detection, and maintenance in accordance with manufacturer guidelines. Remote alarms would be installed for operations personnel as well as emergency response teams in addition to exterior hazard lighting. In addition, an Incidence Response Plan would be implemented. Additionally, the project applicant would contribute its proportionate share for purchase of any fire-suppression equipment, if determined warranted by the County Fire Department for the proposed project.

Construction

Construction is anticipated to be completed in approximately 12 to 18 months. The following provides the proposed project's construction phases:

- Site Preparation
- Grading
- Building Construction

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Dust generated during construction would be controlled by watering and, as necessary, the use of other dust suppression methods and materials accepted by the Imperial County Air Pollution Control District (ICAPCD).

Operations

Once construction is completed, the project would be remotely operated, controlled and monitored and with no requirement for daily on-site employees. Security personnel may conduct unscheduled security rounds and would be dispatched to the project site in response to a fence breach or other alarm.

Up to two to three people would be contracted (part-time) to perform all routine and emergency operational and maintenance activities. Such activities include inspections, equipment servicing, site and landscape clearing, and periodic washing of the PV modules if needed (up to two times per year) to maintain power generation efficiency. Vegetation growing on the project site would periodically (approximately every 3 months) be removed manually and/or treated with herbicides.

Water Use

The water demand for the proposed project will consist of water needed during construction and water needed for maintenance once the project is operational. The construction water demand is anticipated to be 295 acre-feet over 12 to 18 months, primarily for dust control. The operational demand is anticipated to be 10 acre-feet per year for panel washing and other maintenance activities. The operational demand will exist for the life of the project, which is anticipated to be 25 to 30 years. The project's water supply will be provided by a new onsite groundwater supply well to be drilled and installed as part of the project.

Restoration of the Project Site

Electricity generated by the project could be sold under the terms of a PPA with a power purchaser (i.e., utility service provider). The projected life of the project is 25 to 30 years. At the end of the PPA term, the owner of the project may choose to enter into a subsequent PPA, update technology and re-commission, or decommission and remove the generating facility and its components. Upon decommissioning, the site could be converted to other uses in accordance with applicable land use regulations in effect at that time. A collection and recycling program will be executed to promote recycling of project components and minimize disposal in landfills. All permits related to decommissioning would be obtained, where required.

Project decommissioning may include the following activities:

- The facility would be disconnected from the utility power grid.
- Project components would be dismantled and removed using conventional construction equipment and recycled or disposed of safely.
- PV panel support steel and support posts would be removed and recycled off-site by an approved metals recycler.
- All compacted surfaces within the project site and temporary on-site haul roads would be de-compacted.

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- Electrical and electronic devices, including inverters, transformers, panels, support structures, lighting fixtures, and their protective shelters would be recycled off-site by an approved recycler.
- All concrete used for the underground distribution system would be recycled off-site by a concrete recycler or crushed on-site and used as fill material.
- Fencing would be removed and recycled off-site by an approved metals recycler.
- Gravel roads would be removed; filter fabric would be bundled and disposed of in accordance with all applicable regulations. Road areas would be backfilled and restored to their natural contour.
- Soil erosion and sedimentation control measures would be re-implemented during the decommissioning period and until the site is stabilized.

Prior to issuance of the initial grading permit for the project, a Site Reclamation Plan in conformance with County of Imperial requirements would be prepared for review and approval by the Imperial County Planning and Development Services Department. This plan would be implemented at the end of power operations and would describe the proposed equipment dismantling, removal and site restoration program, in conformance with County requirements.

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Project Approvals

The following are the primary discretionary approvals required for implementation of the project:

1. **Approval of Conditional Use Permit (CUP 23-0007).** Implementation of the project would require the approval of a CUP by the County to allow for the construction and operation of the proposed solar energy facility with an integrated battery storage system. The project parcels are currently zoned as S-2. Pursuant to Title 9, Division 5, Chapter 19, the following uses are permitted in the S-2 zone subject to approval of a CUP from Imperial County:

   i) Major facilities relating to the generation and transmission of electrical energy provide[d] such facilities are not under State or Federal law, to [be] approved exclusively by an agency, or agencies of the State or Federal government, and provided such facilities shall be approved subsequent to coordination review of the Imperial Irrigation District for electrical matters. Such uses shall include but be limited to the following:

   - *Electrical generation plants*
   - *Facilities for the transmission of electrical energy (100-200 kV)*
   - *Electrical substations in an electrical transmission system (500 kv/230 kv/161 kV)*

2. **Approval of CUP (CUP 23-0008) – Groundwater Well.** Pursuant to Title 9 Division 21: Water Well Regulations, §92102.00, the Applicant will be required to obtain a CUP for the proposed on-site groundwater well. As required by §92102.00, no person shall (1) drill a new well, (2) activate a previously drilled but unused well, (unused shall mean a well or wells that have not been used for a 12 month) period by installing pumps, motors, pressure tanks, piping, or other equipment necessary or intended to make the well operational, (3) increase the pumping capacity of a well, or (4) change the use of a well, without first obtaining a CUP through the County Planning & Development Services Department.

3. **General Plan Amendment (#23-0002).** An amendment to the County's General Plan, Renewable Energy and Transmission Element is required to implement the proposed project. CUP applications proposed for specific renewable energy projects not located in the Renewable Energy (RE) Overlay Zone would not be allowed without an amendment to the RE Overlay Zone. The entire project site is located outside of the RE Overlay Zone. Therefore, the applicant is requesting a General Plan amendment to include/classify the project site into the RE Overlay Zone. The underlying "Agriculture" General Plan designation would remain.

4. **Zone Change (#23-0002).** The applicant is requesting a zone change to include/classify all three project parcels (APNs 017-350-031, 017-350-030, and 017-350-027) into the RE Overlay Zone (i.e., zone change from S-2 to S-2-RE).

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Figure 1. Regional Location

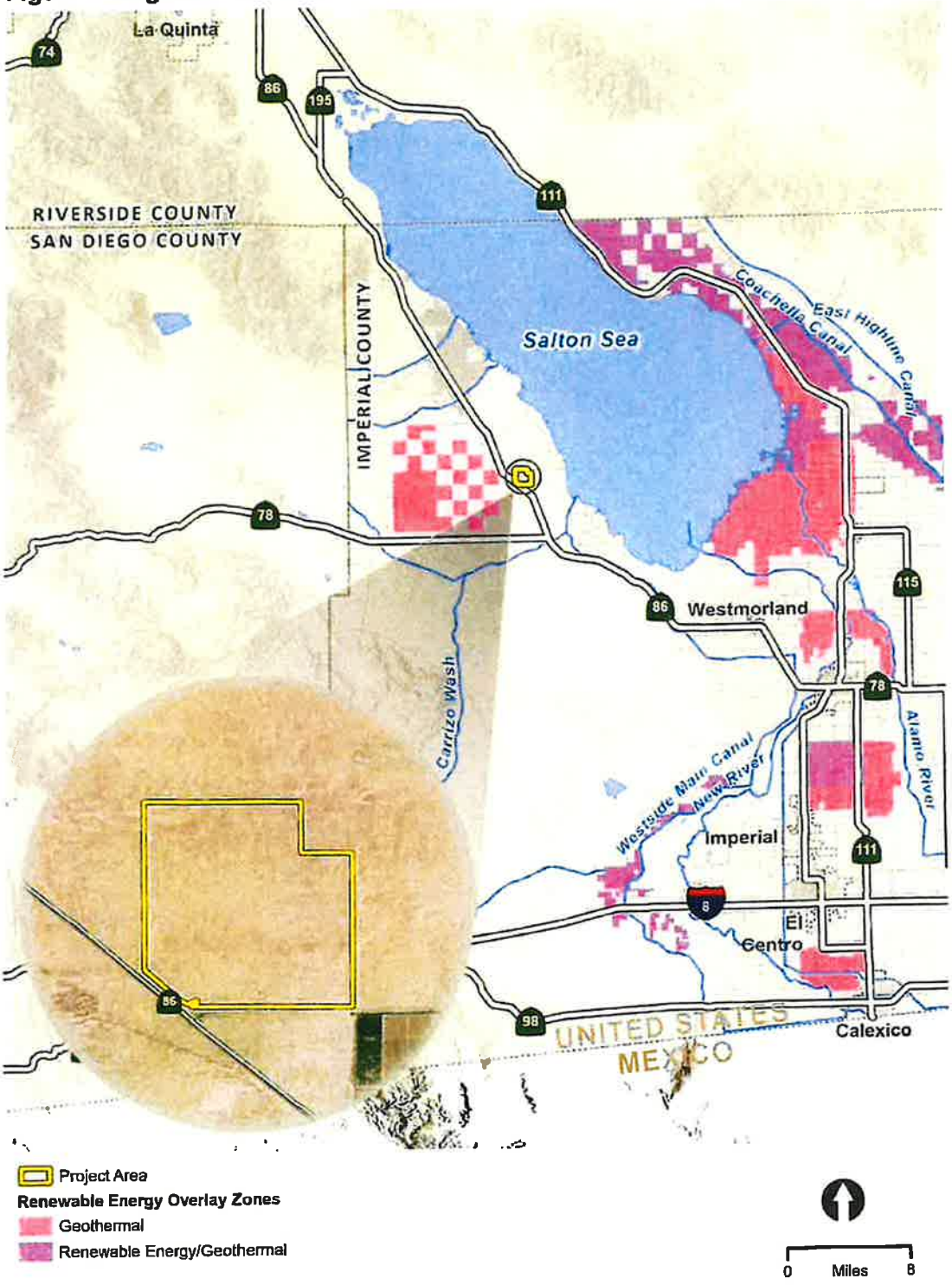

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Figure 2. Project Location

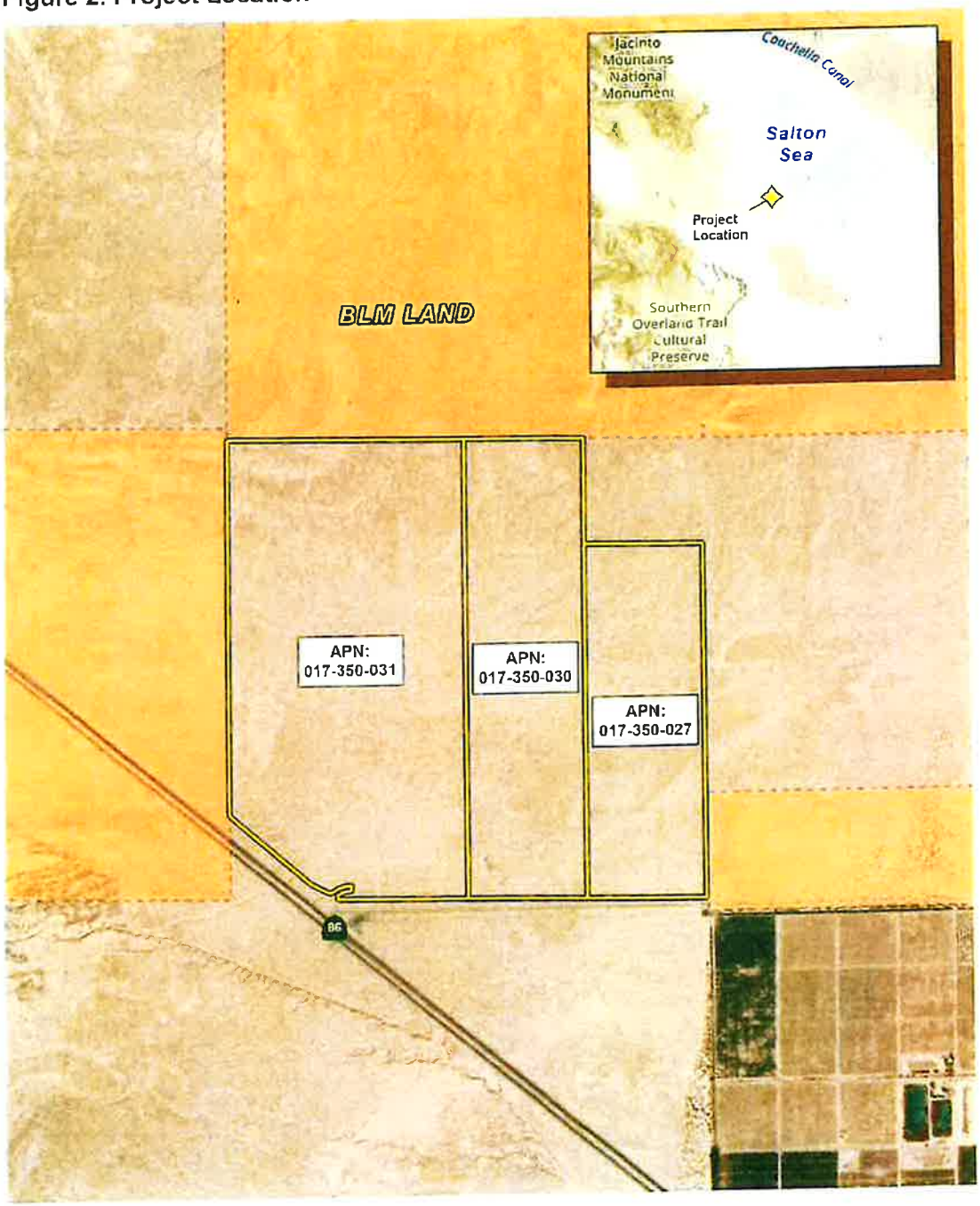

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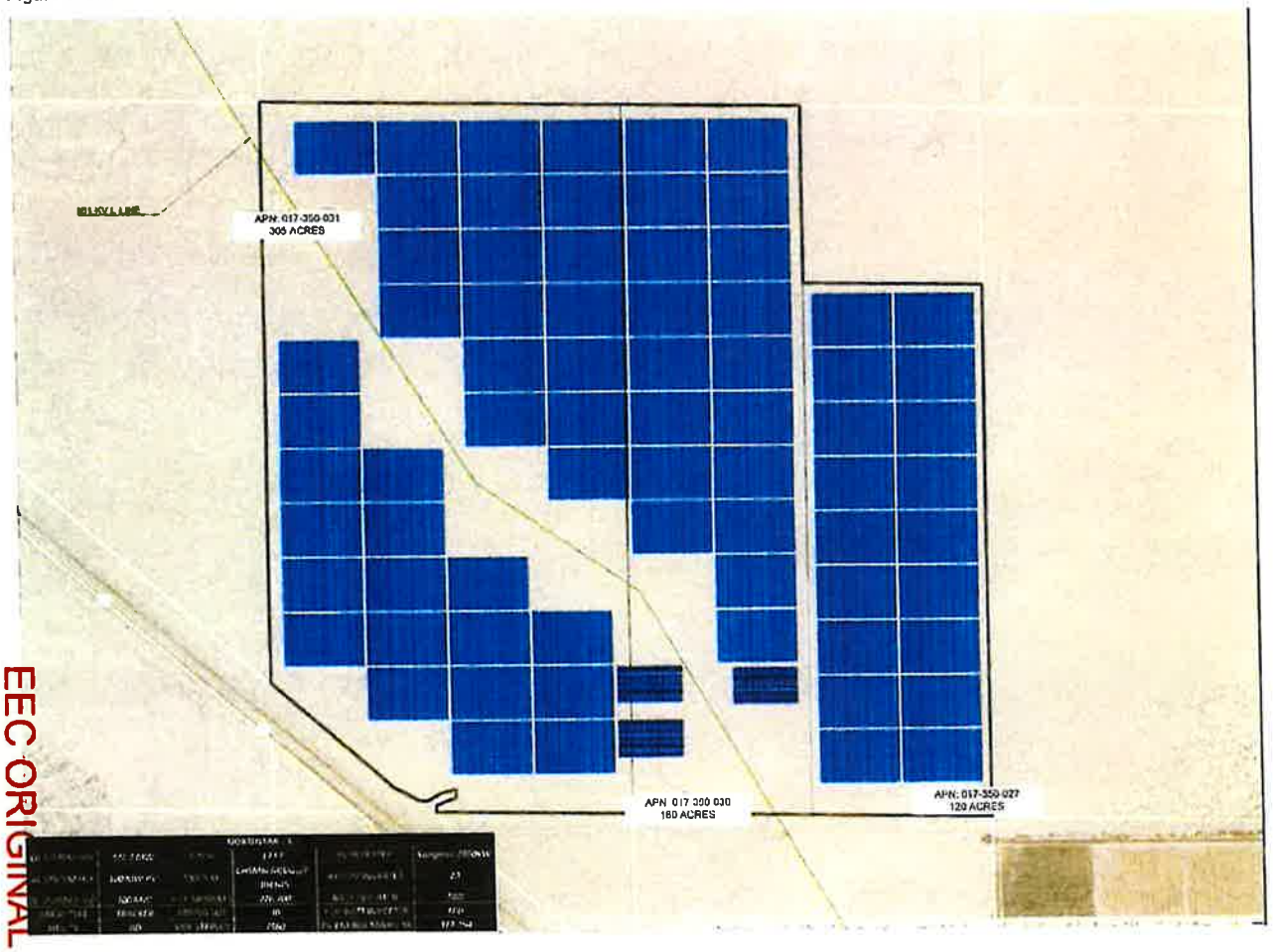
Figure 3. Site Plan



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Evaluation of Environmental Impacts

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors, as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
    a. Earlier Analysis Used. Identify and state where they are available for review.
    b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
    c. Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

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6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used, or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
    a. The significance criteria or threshold, if any, used to evaluate each question; and
    b. The mitigation measure identified, if any, to reduce the impact to less than significance.

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I. Aesthetics

Environmental Issue Area:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a state scenic highway?	☐	☐	☐	☒
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Impact Analysis

The following information is summarized from the *Visual Resources Assessment for the North Star 3 Project* prepared by ECORP Consulting, Inc. dated March 2023. This report is provided as Appendix A of this Initial Study.

a) **No Impact.** The project site is located in a rural portion of Imperial County and is not located within an area containing a Caltrans-designated scenic vista point, nor any formal or informal turnouts along the highway near the project site. Therefore, the proposed project would not have a substantial adverse effect on a scenic vista and no impact is identified.

b) **No Impact.** The project site is not located within a state scenic highway corridor, nor are there any state scenic highways located in proximity to the project site. SR 86, located adjacent to the southwest corner of the project site, is not designated as a scenic route per the List of Officially Designated State Scenic Highways from the California Department of Transportation. The nearest road segment considered eligible for a State scenic highway designation is the approximately 20-mile portion of SR 78, from its intersection with SR 86 near the project site westward to its intersection with Quarry Road near the Ocotillo Ranger Station. The project site is located approximately 3.5 miles north of the intersection of SR 78 and 86; therefore, the project site would not be visible from the highway intersection. No impacts to scenic resources within any state scenic highways would occur.

c) **Less than Significant Impact.** The overall character of the immediate landscape is natural open space with vast panoramic views and undulating topography. Natural open space also

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surrounds the project area, with agricultural croplands located approximately 0.5 miles to the southeast. The agricultural areas include rectangular fields and associated structures and ponds. Paved and dirt roads run throughout the project area. The existing IID 161 kV "L" Line traverses the project site, generally extending from the northwestern portion of the site to the southeastern portion of the site. The project site is located within a desert landscape with views of the Salton Sea and Chocolate Mountains. The dark gray, subdued formations of the Chocolate Mountains are approximately 2,000 feet above mean sea level and are visible along the horizon. The Salton Sea is approximately 3 miles west of the project site and is visible from the project site.

The existing natural landscape is a valued resource because of its unspoiled nature and panoramic view, especially of the Salton Sea and the mountains in the background, which can be seen by motorists along nearby roads, and recreation users and agricultural workers in the vicinity. The foreground view (see Figure 4), consisting of comparatively monotonous desert scrub habitat, is less valued because of the lack of distinguishing or interesting features, as evidenced by the lack of turnouts allowing motorists to stop and enjoy the view at the project site.

One key observation point (KOP) was identified along Salton Sea Road at the southwest corner of the proposed project site. This KOP is the view traveling in a vehicle traveling on Salton Sea Road at the southwest corner of the project site. The view of the current environmental setting is generally characterized by broad, panoramic views of flat to undulating topography and horizontal terrain that is light khaki to light brown in color in the foreground and midground and dark-colored landforms in the background. The proposed project would be perceivable from this KOP based on viewer perspective (Figure 4). In the foreground area, a viewer would see the proposed project to the immediate left (north); vacant, undeveloped Sonoran Desert scrub directly ahead and to the right (east and southeast); and Salton Sea Road directly ahead (to the east). In the mid-ground the viewer would see vacant, undeveloped Sonoran Desert Scrub and Salton Sea. The viewer would see the Chocolate Mountains in the distant (greater than 25 miles) background. Additionally, the existing IID gen-tie would be perceivable, running adjacent to Salton Sea Road.

The proposed project would result in changes to the existing visual character (line, color, and texture) of the project site, which is currently characterized as desert landscape to the north, east and south and agricultural land to the south. The existing, natural landscape is a valued, important, beautiful, and scenic resource, including views of the Salton Sea in the mid-ground and the Chocolate Mountains in the background. With the addition of new structures (e.g., solar arrays, gen-tie line) to a site with existing transmission structures and conductors, the change in overall contrast in the foreground is moderate. Contrast associated with the introduction of new lines (particularly the gen-tie line and the project fence) is moderate because of the existing transmission circuit; addition of new colors having similar color intensity results in a moderate contrast change; and addition of next textures results in a moderate contrast change. However, impacts to viewers would be temporary or lessened because viewers near KOP 1 would be stationary (traveling along SR 86 or Salton Sea Road), and the project fence would largely block the view of the project site. Therefore, the proposed project would result in a less than significant impact to the existing visual character or quality of the site and its surroundings.

d) **Less than Significant Impact.** The proposed project would not include any substantial source of nighttime light in the vicinity of the project site. Any lighting required for safety and security within the project site would be hooded and oriented downward to avoid spilling over to adjacent parcels consistent with Title 9, Division 17, Chapter 2: Specific Standards for all Renewable Energy Projects, of the County's Zoning Ordinance.

A glare analysis was conducted to determine the potential for significant glint or glare from solar panels and other built-project components that may affect residents, motorists, or airborne travelers.

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The glare analysis shows two receptors with the potential to receive low and medium glare from the proposed project:

- On SR 86, in the vicinity of the proposed site there is the potential for stationary receptors to experience medium glare between January and mid-May and August through December between 6:30 and 7:30 am.
- Airborne travelers traveling to and from the Calipatria Municipal Airport, approximately 20 miles east of the project site, may experience 356 minutes (5.9 hours) annually over a 2-mile flight path from April to May, and August to December between 5:30 and 6:00 pm.

The glare analysis for the proposed project concluded that glint may be experienced by travelers near the project site in the early morning and late evening hours. Travelers on SR 86, traveling at a typical speed of 60 mph, would experience glint along the southern project boundary during short periods at the beginning and end of the day. Because aircraft typically travel at a higher rate of speed than vehicles, the effect is momentary, lasting only if the angle between the sun, project, and aircraft is maintained. Unless an aircraft were descending at an angle sloped directly at the solar array with the sun directly behind the aircraft, any glare that might occur from solar panels would be below the pilot's horizon, an would at no time be as severe as the sun itself. Given the brief period glare would be produced, these effects are considered less than significant.

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Figure 4. View from KOP 1



Source: Appendix A of this Initial Study

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II. Agriculture and Forestry Resources

Environmental Issue Area:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Impact Analysis

a) **No Impact.** According to the California Department of Conservation's (DOC) California Important Farmland Finder, the project site is not located on land designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (California DOC 2020). The project site has not been mapped. Therefore, the proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use and no impact would occur.

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b) **No Impact.** The project site is currently zoned S-2 (Open Space/Preservation) and is not zoned for agricultural use. Therefore, the proposed project would not conflict with existing zoning for agricultural use and no impact is identified.

As of December 31, 2018, all Williamson Act contracts in Imperial County have been terminated. The project site is not located on Williamson Act contracted land (California DOC 2022). Therefore, the proposed project would not conflict with a Williamson Act contract and no impact is identified.

c) **No Impact.** The project site is not located on forest land as defined in PRC Section 1220 (g). There are no existing forest lands, timberlands, or timberland zoned Timberland Production either onsite or in the immediate vicinity; therefore, the project would not conflict with existing zoning of forest land or cause rezoning of any forest land. Additionally, the site is not zoned as forest, timberland or for Timberland Production. Therefore, no impact is identified for this issue area.

d) **No Impact.** There are no existing forest lands either on site or in the immediate vicinity of the project site. The proposed project would not result in the loss of forest land or conversion of forest land to non-forest use. Therefore, no impact is identified for this issue area.

e) **No Impact.** As discussed in Response II. a) above, the project site is not located on land designated as Important Farmland and would not convert farmland to non-agriculture use. As discussed in Response II. d) above, there are no existing forest lands either on site or in the immediate vicinity of the project site. Therefore, the proposed project would not result in the conversion of forest land to non-forest use. Thus, no impact is identified for this issue area.

III. Air Quality

Environmental Issue Area:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?	☐	☐	☒	☐

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Impact Analysis

The following information is summarized from the *Air Quality and Greenhouse Gas Emissions Assessment for the North Star 3 Project* prepared by ECORP Consulting, Inc. dated July 2022. This report is provided as Appendix B of this Initial Study.

a) **Less than Significant Impact.** The proposed project is located within the jurisdiction of the Imperial County Air Pollution Control District (ICAPCD) in the Salton Sea Air Basin. The project region is designated as a nonattainment area for the federal ozone (O_3), particulate matter less than 2.5 microns in diameter ($PM_{2.5}$) and particulate matter less than 10 microns in diameter (PM_{10}) standards and is also a nonattainment area for the state standards for O_3 and PM_{10}.

The U.S. Environmental Protection Agency (EPA), under the provisions of the Clean Air Act, requires each state with regions that have not attained the federal air quality standards to prepare a State Implementation Plan (SIP), detailing how these standards are to be met in each local area.

The region's SIP is constituted of the following ICAPCD air quality plans: 2018 PM_{10} SIP, the 2018 Annual $PM_{2.5}$ SIP, the 2017 8-Hour Ozone SIP, 2013 24-Hour $PM_{2.5}$ SIP, the 2009 1997 8-hour Ozone RACT SIP, the 2009 PM_{10} SIP and the 2008 Ozone Early Progress Plans. Conformance with the Air Quality Management Plan (AQMP) for development projects is determined by demonstrating compliance with local land use plans and/or population projections, meeting the land use designation set forth in the local General Plan, and comparing assumed emissions in the AQMP to proposed emissions. The project must demonstrate compliance with all ICAPCD applicable rules and regulations, as well as local land use plans and population projections. As the project does not contain a residential component, the project would not result in an increase in the regional population. While the project would contribute to energy supply, which is one factor of population growth, the proposed project would not significantly increase employment or growth within the region. Moreover, development of the proposed project would increase the amount of renewable energy and help California meet its Renewable Portfolio Standard (RPS). The proposed project would be required to comply with all applicable ICAPCD rules and requirements during construction and operation to reduce air emissions. Overall, the proposed project would improve air quality by reducing the amount of emissions that would be generated in association with electricity production from a fossil fuel burning facility. Furthermore, the thresholds of significance, adopted by the air district (ICAPCD), determine compliance with the goals of the attainment plans in the region. As such, emissions below the ICAPCD regional mass daily emissions thresholds presented would not conflict with or obstruct implementation of the applicable air quality plans.

The following analysis is broken out by a discussion of potential impacts during construction of the project followed by a discussion of potential impacts during operation of the project.

Construction

Air Quality impacts related to construction were calculated using the CalEEMod 2020.4.0 air quality model. The construction module in CalEEMod is used to calculate the emissions associated with the construction of the project. The project's construction assumptions used in the CalEEMod, including construction schedule and equipment mix, are described in the project's air quality and greenhouse gas assessment (Appendix B of this Initial Study) and in the Project Summary section of this Initial Study.

The ICAPCD requires that, regardless of the size of a project, all feasible standard measures for fugitive PM_{10} must be implemented at construction sites. Additionally, all feasible discretionary measures for PM_{10} apply to those construction sites that are five acres or more for non-residential developments or 10 acres or more in size for residential developments. Standard and discretionary measures from the ICAPCD handbook include:

Standard Measures for Fugitive PM_{10} Control:

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a. All disturbed areas, including bulk material storage which is not being actively utilized, shall be effectively stabilized and visible emissions shall be limited to no greater than 20 percent opacity for dust emissions by using water, chemical stabilizers, dust suppressants, tarps or other suitable material such as vegetative ground cover.

b. All on-site and off-site unpaved roads will be effectively stabilized and visible emissions shall be limited to no greater than 20 percent opacity for dust emissions by paving, chemical stabilizers, dust suppressants and/or watering.

c. All unpaved traffic areas one acre or more with 75 or more average vehicle trips per day will be effectively stabilized and visible emission shall be limited to no greater than 20 percent opacity for dust emissions by paving, chemical stabilizers, dust suppressants and/or watering. The transport of bulk materials shall be completely covered unless six inches of freeboard space from the top of the container is maintained with no spillage and loss of bulk material. In addition, the cargo compartment of all haul trucks is to be cleaned and/or washed at the delivery site after removal of bulk material.

d. The transport of bulk materials shall be completely covered unless six inches of freeboard space from the top of the container is maintained with no spillage and loss of bulk material. In addition, the cargo compartment of all haul trucks is to be cleaned bulk material.

e. All track-out or carry-out will be cleaned at the end of each workday or immediately when mud or dirt extends a cumulative distance of 50 linear feet or more onto a paved road within an urban area.

f. Movement of bulk material handling or transfer shall be stabilized prior to handling or at points of transfer with application of sufficient water, chemical stabilizers or by sheltering or enclosing the operation and transfer line.

g. The construction of any new unpaved road is prohibited within any area with a population of 500 or more unless the road meets the definition of a temporary unpaved road. Any temporary unpaved road shall be effectively stabilized and visible emissions shall be limited to no greater than 20 percent opacity for dust emission by paving, chemical stabilizers, dust suppressants and/or watering.

Discretionary Measures for Fugitive PM_{10} Control

a. Water exposed soil with adequate frequency for continued moist soil.

b. Replace ground cover in disturbed areas as quickly as possible.

c. Automatic sprinkler system installed on all soil piles.

d. Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site.

e. Develop a trip reduction plan to achieve a 1.5 average vehicle ridership for construction employees.

f. Implement a shuttle service to and from retail services and food establishments during lunch hours.

The ICAPCD requires that, regardless of the size of a project, all feasible standard measures for construction equipment must be implemented at construction sites. Standard measures from the ICAPCD handbook include:

Standard Measures for Construction Combustion Equipment

a. Use of alternative fueled or catalyst equipped diesel construction equipment, including all off-road and portable diesel-powered equipment.

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b. Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to five minutes as a maximum.

c. Limit, to the extent feasible, the hours of operation of heavy-duty equipment and/or the amount of equipment in use.

d. Replace fossil fueled equipment with electrically driven equivalents (provided they are not run via a portable generator set).

Construction-related Emissions. Construction-related activities are temporary, short-term sources of air pollutant emissions. Two basic sources of short-term emissions would be generated through project implementation: operation of heavy-duty equipment and the creation of fugitive dust during clearing and grading.

Predicted maximum daily emissions associated with project construction are summarized in Table 1. As shown in Table 1, the proposed project would not exceed ICAPCD's construction-related criteria pollutant thresholds. Therefore, this is considered a less than significant impact.

Table 1. Project Construction-Generated Emissions

Construction Year	Pollutant (pounds per day)					
	ROG	NOx	CO	SO_2	PM_{10}	$PM_{2.5}$
Construction Year One	6.26	65.75	48.76	0.11	10.72	5.85
Construction Year Two	5.67	57.67	47.06	0.11	10.33	5.49
Construction Year Three	4.13	25.09	35.80	0.06	3.72	1.84
ICAPCD Significance Threshold	*75*	*100*	*550*	*N/A*	*150*	*N/A*
Exceed ICAPCD Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Appendix B of this Initial Study
Notes: Pounds per day taken from the season with the highest output.

CUP Conditions of Approval for ICAPCD Review/Compliance (Construction):

As a Condition(s) of Approval of the CUP, the applicant will be required to submit information to ICAPCD to verify that proper emissions controls have been implemented to maintain air emissions below ICAPCD Significance Thresholds. These CUP Conditions of Approval include for the construction phase:

- As a CUP Condition of Approval, the applicant shall submit an Enhanced Construction Dust Control Plan to the ICAPCD for review and approval.
- As a CUP Condition of Approval, the applicant shall submit an Equipment List to ICAPCD. The Equipment List shall be submitted periodically (on a monthly basis) during construction and include the following:
  - The list must be in Excel Format and include make, model, year, ID/serial number(s), type, tier, horsepower, and actual dates and hours used.
  - The Equipment List shall be submitted to ICAPCD electronically on a monthly basis
  - The ICAPCD will calculate NOx emissions using the Equipment Lists once construction is completed to verify that NOx thresholds were not exceeded. In

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the event an exceedance is determined the project may become subject to Policy 5 requirements.

Operation

Project-generated increases in emissions during operation of the project would be associated with motor vehicle use for routine maintenance work, site security, and trucking in water. The maximum daily pollutants calculated for operations are shown in Table 2. The proposed project would not exceed ICAPCD thresholds during operation, and operations-related emissions would be less than significant for the proposed project.

Table 2. Operational-Related Emissions (Regional Significance Analysis)

Emission Source	Pollutant (pounds per day) ROG	NOx	CO	SOx	PM_{10}	$PM_{2.5}$
Summer Emissions						
Area	11.94	0.00	0.06	0.00	0.00	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.03	0.04	0.34	0.00	0.09	0.03
Total:	**11.97**	**0.04**	**0.40**	**0.00**	**0.07**	**0.02**
ICAPCD Significance Thresholds	*137*	*137*	*150*	*550*	*550*	*150*
Exceed ICAPCD Significance Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
Winter Emissions						
Area	11.94	0.00	0.06	0.00	0.00	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.02	0.04	0.26	0.00	0.07	0.02
Total:	**11.97**	**0.04**	**0.32**	**0.00**	**0.07**	**0.02**
ICAPCD Significance Thresholds	*137*	*137*	*150*	*550*	*550*	*150*
Exceed ICAPCD Significance Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Appendix B of this Initial Study

CUP Conditions of Approval for ICAPCD Review/Compliance (Operation):

As a Condition(s) of Approval of the CUP, the applicant will be required to submit information to ICAPCD to verify that proper emissions controls have been implemented to maintain air emissions below ICAPCD Significance Thresholds. These CUP Conditions of Approval include for the operation phase:

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- As a CUP Condition of Approval, the applicant shall submit an Operational Dust Control Plan to the ICAPCD for review and approval.

Conclusion

As described above, conformance with the AQMP for development projects is determined by demonstrating compliance with local land use plans and/or population projections and comparing assumed emissions in the AQMP to proposed emissions. Because the proposed project complies with local land use plans and population projections and would not exceed ICAPCD's thresholds during construction and operations, and the emissions estimates would be verified by the ICAPCD through CUP Conditions of Approval, the proposed project would not conflict with or obstruct implementation of the applicable air quality plan. This is considered a less than significant impact.

b) **Less than Significant Impact.** By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size, by itself, to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's individual emissions exceed its identified significance thresholds, the project would be cumulatively considerable. Projects that do not exceed significant thresholds would not be considered cumulative considerable.

The ICAPCD's application of thresholds of significance for criteria air pollutants is relevant to the determination of whether a project's individual emissions would have a cumulatively significant impact on air quality. As discussed above in Response III. a), emissions generated during project construction and operations would not exceed the ICAPCD's thresholds of significance (Table 1 and Table 2), which would be verified by the ICAPCD as CUP Conditions of Approval. Therefore, the project's potential to result in a cumulatively considerable net increase of any criteria pollutant is considered less than significant.

c) **Less than Significant Impact.** The nearest sensitive receptor to the project site is a single-family residence located approximately 0.5 miles from the southeastern corner of the project site.

Construction-Generated Air Contaminants. As discussed above in Response III. a), the criteria pollutant emissions have been calculated for construction activities, which were found to be within the ICAPCD's allowable construction thresholds. Due to the limited amount of criteria pollutants created from construction activities and the distance to the nearest sensitive receptor, construction emissions would not expose sensitive receptors to substantial concentrations of criteria pollutants.

In addition to the criteria pollutant emissions, construction activities have the potential to expose nearby sensitive receptors to toxic air contaminants (TACs), which would be created from the operation of diesel-powered equipment in the form of diesel particulate matter (DPM). PM_{10} exhaust is considered a surrogate for DPM as all diesel exhaust is considered to be DPM. Most PM_{10} exhaust derives from combustion, such as use of gasoline and diesel fuels by motor vehicles. As with O_3 and NOx, the project would not generate emissions of PM_{10} or $PM_{2.5}$ that would exceed the ICAPCD's thresholds. Accordingly, the project's PM_{10} and $PM_{2.5}$ emissions are not expected to cause any increase in related regional health effects for these pollutants.

Project construction would not result in a potentially significant contribution to regional concentrations of nonattainment pollutants and would not result in a significant contribution to the adverse health impacts associated with those pollutants. Therefore, the proposed project would not expose sensitive receptors to substantial pollutant concentrations during construction, and impacts would be less than significant.

Operational Air Contaminants. As discussed above in Response III. a), the criteria pollutant emissions have been calculated for operational activities, which were found to be within the ICAPCD's allowable operational thresholds. Operation of the proposed project

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would not result in the development of any substantial sources of air toxins. There would be no stationary sources associated with project operations; nor would the project attract additional mobile sources that spend long periods queuing and idling at the site. Onsite project emissions would not result in significant concentrations of pollutants at the nearby sensitive receptor as the predominant operational emissions associated with the proposed project would be routine maintenance work, water deliveries, and site security. Therefore, the project would not be a substantial source of TACs. The project would not result in a high carcinogenic or non-carcinogenic risk during operation. Therefore, the proposed project would not expose sensitive receptors to substantial pollutant concentrations during operation, and impacts would be less than significant.

Carbon Monoxide Hot Spots. CO exceedances are caused by vehicular emissions, primarily when idling at intersections. Concentrations of CO are a direct function of the number of vehicles, length of delay, and traffic flow conditions. Under certain meteorological conditions, CO concentrations close to congested intersections that experience high levels of traffic and elevated background concentrations may reach unhealthy levels, affecting nearby sensitive receptors. Given the high traffic volume potential, areas of high CO concentrations, or "hot spots," are typically associated with intersections that are projected to operate at unacceptable levels of service during the peak commute hours. CO concentration in the SSAB is designated as an attainment area. Detailed modeling of project-specific CO "hot spots" is not necessary and thus this potential impact is addressed qualitatively.

The proposed project is anticipated to result in no more than six daily traffic trips. It is noted that this is a conservative estimate, and many days will have no operational related vehicle trips. Thus, the proposed project would not generate traffic volumes at any intersection of more than 100,000 vehicles per day (or 44,000 vehicles per day) and there is no likelihood of the project traffic exceeding CO values. Therefore, this is considered less than significant.

d) **Less than Significant Impact.** Land uses commonly considered to be potential sources of odorous emissions include wastewater treatment plants, sanitary landfills, food processing facilities, chemical manufacturing plants, rendering plants, paint/coating operations, and concentrated agricultural feeding operations and dairies. The operation of a solar facility is not an odor producer.

During construction, the proposed project presents the potential for generation of objectionable odors in the form of diesel exhaust in the immediate vicinity of the project site. However, these emissions are short-term in nature and will rapidly dissipate and be diluted by the atmosphere downwind of the emission sources. Additionally, odors would be localized and generally confined to the project area, which is generally devoid of surrounding receptors. Therefore, odors generated during construction would not adversely affect a substantial number of people to odor emissions, and impacts would be less than significant.

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IV. Biological Resources

Environmental Issue Area:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) 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 Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☒	☐	☐

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Impact Analysis

The following information is summarized from the *Biological Technical Report for the North Star 3 Project* prepared by ECORP Consulting, Inc. and *Aquatic Resource Delineation Report* prepared by Hernandez Environmental Services dated March and February 2023, respectively. These reports are provided as Appendix C and Appendix D of this Initial Study, respectively.

a) **Less than Significant with Mitigation Incorporated.** ECORP Consulting, Inc. conducted a literature review, vegetation mapping, and a biological resource assessment of the Survey Area, which includes the project site plus a 500-foot buffer, to document the existing biological conditions and resources, to assess the habitat for its potential to support sensitive plant and wildlife species, as required under CEQA, and to determine whether project-related impacts may occur to sensitive biological resources.

EXISTING CONDITIONS

Literature Review

A literature review using the California Department of Fish and Wildlife (CDFW) California Natural Diversity Data Base (CNDDB), the California Native Plant Society's (CNPS) Electronic Inventory (CNPSEI), and the USFWS Species Occurrence Data to determine the special-status plant and wildlife species that have been documented in the vicinity of the project site.

The literature review resulted in 13 special-status plants and 45 special-status wildlife species that could occur on or near the project site.

Biological Reconnaissance Survey

A biological reconnaissance survey for the Survey Area was conducted on October 25 and 26, 2022. The results of the biological reconnaissance survey, including plants and plant communities, wildlife, special-status species, and special-status habitats (including any potential wildlife corridors) are summarized below.

Vegetation Communities/Land Cover. The majority of the Survey Area consists of creosote bush scrub. The location of each vegetation community/land cover in the project site and Survey Area are shown in Figure 5**Error! Reference source not found.**. Acreages of each habitat and vegetation community in the project site are shown in Table 3. A detailed description of each vegetation community/land cover is provided in the *Biological Technical Report for the North Star 3 Project* (Appendix C of this Initial Study).

Table 3. Vegetation Communities and Land Covers in Project Site and Survey Area

Vegetation Communities and Land Covers	Acres in Project Site	Acres in Adjacent 500-ft Buffer
Creosote Bush Scrub	580.52	230.07
White Bursage Scrub	13.39	1.78
Mojave-Sonoran Desert Dunes	0.18	5.62
Active Agriculture	0	3.69
Developed/Disturbed	2.44	13.38
Total	**596.53**	**254.54**

Source: Appendix C of this Initial Study

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Figure 5. Vegetation Communities and Land Cover Types



Source: Appendix C of this Initial Study

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Wildlife Observed. Wildlife species observed included, Cooper's hawk (*Accipiter cooperii*), California horned lark (*Eremophila alpestris actia*), American crow (*Corvus brachyrhynchos*), greater roadrunner (*Geococcyx californianus*), prairie falcon (*Falco mexicanus*), yellow-rumped warbler (*Setophaga coronata*), black phoebe (*Sayornis nigricans*), and signs of coyote (*Canis latrans*), and kangaroo rat (*Dipodomys* sp.). A full list of wildlife species observed on or immediately adjacent to the Survey Area is included in Appendix C of this Initial Study.

Special-Status Species Assessment. As previously mentioned above, the literature review resulted in 13 special-status plant and 45 special-status wildlife species that have recently and historically been recorded in the vicinity of the project site or that are highly associated with habitat that occurs within the Survey Area.

PLANTS

Numerous special-status plant species have been recorded within five miles of the project site, according to the CNDDB and CNPSEI. Of all available records, a total of 10 species were identified as those with the potential for occurrence within the vicinity of the project site. Species with CNPS designation of 4.3 were not included in this analysis, as this ranking is considered a review list/watch list and is defined as "not very endangered in California." Descriptions of the CNPS designations are shown in Table 4.

Table 4. CNPS Status Designations

List Designation	Meaning
1A	Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere
1B	Plants Rare, Threatened, or Endangered in California and Elsewhere
2A	Plants Presumed Extirpated in California, But Common Elsewhere
2B	Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
3	Plants about which we need more information; a review list
4	Plants of limited distribution; a watch list
List 1B, 2, and 4 extension meanings:	
.1	Seriously threatened in California (over 80 percent of occurrences threatened/high degree and immediacy of threat)
.2	Moderately threatened in California (20 to 80 percent occurrences threatened/moderate degree and immediacy of threat)
.3	Not very threatened in California (less than 20 percent of occurrences threatened/low degree and immediacy of threat or no current threats known)

Source: Appendix C of this Initial Study

Due to the presence of suitable habitat and several known recent occurrences within five miles of the project site, the following species has a **high potential** to occur:

- Orcutt's woody-aster (*Xylorhiza orcuttii*) is a CRPR 1B.2 and BLM Sensitive plant species. One recent Calflora record and one recent CNDDB record, both observed in 2011, were identified within five miles of the project site. An additional historic Calflora record was identified within five miles of the project site. Suitable habitat to support this species occurs in the project site among the sandy soils of the creosote bush scrub and white bursage scrub.

Due to the presence of suitable habitat and several known recent occurrences within five miles of the project site, the following species have a **moderate potential** to occur:

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- Harwood's milkvetch (*Astragalus insularis* var. *harwoodii*) is a CRPR 2B.2 plant species. One historic Calflora record and one historic CNDDB record were identified within five miles of the project site. Suitable habitat to support this species occurs in the project site among the sandy soils of the creosote bush scrub and white bursage scrub, and marginal dune habitat is present along the eastern project boundary adjacent to the large sand dune in the eastern survey buffer.
- Gravel milkvetch (*Astragalus sabulonum*) is a CRPR 2B.2 plant species. Two historic CNDDB records were identified within five miles of the project site. Suitable habitat to support this species occurs in the project site among the sandy soils of the creosote bush scrub and white bursage scrub, and marginal dune habitat is present along the eastern project boundary adjacent to the large sand dune in the eastern survey buffer.
- Abrams' spurge (*Euphorbia abramsiana*) is a CRPR 2B.2 plant species. One recent CNDDB record was observed in 2012 approximately five miles of the project site. Suitable habitat to support this species occurs in the project site among the sandy soils of the creosote bush scrub and white bursage scrub.
- Torrey's boxthorn (*Lycium torreyi*) is a CRPR 4.2 plant species. One recent Calflora record observed in 2013 was identified within five miles of the project site. Suitable habitat to support this species occurs in the project site among the sandy soils of the creosote bush scrub and white bursage scrub.

The following species were found to have a **low potential** to occur within the project site because of limited habitat for the species on the site and a known occurrence has been reported in the database, but not within five miles of the project site, or suitable habitat strongly associated with the species occurs within the project site, but no records were found in the database search:

- Peirson's pincushion (*Chaenactis carphoclinia* var. *peirsonii*), CRPR 1B.3 and BLM Sensitive species
- Brown turbans (*Malperia tenuis*), CRPR 2B.3
- Hairy stickleaf (*Mentzelia hirsutissima*), CRPR 2B.3
- Sand food (*Pholisma sonorae*), CRPR 1B.2 and BLM Sensitive species
- Orocopia sage (*Salvia greatae*), CRPR 1B.3 and BLM Sensitive species

WILDLIFE

The literature search documented 45 special-status wildlife species in the vicinity of the Survey Area. Of the 45 special-status wildlife species identified in the literature review, three were found to have a high potential to occur, three were found to have a moderate potential to occur and 15 were found to have a low potential to occur; the remaining 24 species are presumed absent from the project site. A discussion of the special-status wildlife species that have a high or moderate potential to occur within the Survey Area are provided below.

Three species were found to have **high potential** to occur within the Survey Area due to the presence of suitable habitat for the species on site and because a known occurrence has been recorded within five miles of the site.

- Flat-tailed horned lizard (*Phrynosoma mcallii*) is a CDFW species of special concern (SSC) and BLM Sensitive species. This species is most commonly found on sandy flats and valleys within desert scrub habitats with little or no windblown sand. They can also be found on salt flats and gravelly soils. The creosote bush scrub and white bursage scrub in the Survey Area provides suitable habitat for the flat-tailed horned lizard.

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- Burrowing owl (*Athene cunicularia*) is a CDFW SSC and a BLM Sensitive species. This species is typically found in dry open areas with few trees and short grasses; it is also found in vacant lots near human habitation. It uses uninhabited mammal burrows for roosts and nests, often in close proximity to California ground squirrel (*Otospermophilus beecheyi*) colonies. Suitable burrowing owl habitat is present through the Survey Area in creosote bush scrub and white bursage scrub. One burrow was observed within the southeastern portion of the project site during the October 2022 biological reconnaissance survey. The burrow was determined to be a potential burrowing owl burrow, meaning it was suitable for use by burrowing owl based on its size and other characteristics (e.g., open habitat and lack of thick vegetation); however, it lacked evidence indicating current or past occupation of use by burrowing owl (i.e., live owl, whitewash, or pellets).
- Desert kit fox (*Vulpes macrotis arsipus*) is a fur-bearing mammal that is protected under the CCR Title 14, Chapter 5, Section 460, which prohibits take of the species at any time. Therefore, CDFW does not have a mechanism for take of the species by development projects. The desert kit fox is found in desert habitats that include vegetation communities in the Survey Area such as creosote bush scrub. Suitable habitat for desert kit fox is present throughout the Survey Area in creosote bush scrub and white bursage scrub.

Three species were found to have **moderate potential** to occur within the Survey Area because habitat (including soils and elevation factors) for the species occurs in the Survey Area and a known occurrence exists within the database search, but not within five miles of the Survey Area or a known occurrence exists within five miles of the Survey Area and marginal or limited amounts of habitat occurs within the Survey Area:

- Colorado Desert fringe-toed lizard (*Uma notata*) is a CDFW SSC and BLM Sensitive species. This species is commonly found in sparsely vegetated areas with fine sand including flats, riverbanks, dunes, and washes. This species burrows in fine loose sand. Suitable habitat for Colorado Desert fringe-toed lizard is present within the Survey Area, especially in areas mapped as Mojave-Sonoran Desert dunes and in portions of the creosote bush scrub, primarily east of the access road, where loose, sandy soils were present.
- Palm Springs pocket mouse (*Perognathus longimembris bangsi*) is a CDFW SSC and a BLM Sensitive species. This species occurs in sparsely vegetated creosote bush scrub, desert scrub, and grassland habitats with flat or gently sloping terrain and loose, sandy soils. Suitable creosote bush scrub and white-bursage scrub is present in the Survey Area.
- American badger (*Taxidea taxus*) is a CDFW SSC. American badgers are found in a wide variety of open habitats with friable soils including desert scrub and woodland habitats. Suitable habitat for this species is present throughout the Survey Area in creosote bush scrub and white bursage scrub.

Fifteen species were found to have a **low potential** to occur within the Survey Area. Two of the 15 were determined to have a low potential to occur because there is limited habitat for the species in the Survey Area and a known occurrence has been reported in the database, but not within five miles of the Survey Area, or suitable habitat strongly associated with the species occurs in the Survey Area, but no records were found in the database search:

- Short-eared owl (*Asio flammeus*), CDFW SSC; and
- Loggerhead shrike (*Lanius ludovicianus*) is a CDFW SSC.

The remaining 13 species, were determined to have low potential to occur in the Survey Area, despite the lack of suitable roosting, wintering, and nesting habitat, due to their potential to occur as flyovers during foraging activities (bats) or enroute to the Salton Sea (birds):

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- Mountain plover (*Charadrius montanus*), USFWS BCC, CDFW SSC, and BLM Sensitive species;
- Western snowy plover (*Charadrius nivosus nivosus*), USFWS THR, CDFW SSC, and BLM Sensitive species;
- Gull-billed tern (*Gelochelidon nilotica*), CDFW SSC;
- California brown pelican (*Pelecanus occidentalis* californicus), CDFW FP and BLM Sensitive species;
- Black skimmer (*Rynchops niger*), CDFW SSC;
- Pallid bat (*Antrozous pallidus*), CDFW SSC and BLM Sensitive species;
- Western mastiff bat (*Eumops perotis californicus*), CDFW SSC and BLM Sensitive species;
- California leaf-nosed bat (*Macrotus californicus*), CDFW SSC and BLM Sensitive species;
- Small-footed myotis (*Myotis ciliolabrum*), BLM Sensitive species;
- Fringed myotis (*Myotis thysanodes*), BLM Sensitive species;
- Cave myotis (*Myotis velifer*), CDFW SSC and BLM Sensitive species;
- Yuma myotis (*Myotis yumanensis*), BLM Sensitive species; and
- Pocketed free-tailed bat (*Nyctinomops femorosaccus*), CDFW SSC.

USFWS Designated Critical Habitat

The project site is not located within any USFWS-designated critical habitat. The closest USFWS-designated critical habitat is for desert pupfish located approximately 3.6 miles south of the project site, in San Felipe Creek located south of SR 78 and SR 86.

PROJECT IMPACTS

Special-Status Plants

The literature review identified 10 special-status plant species that have the potential to occur within the project site. There is high potential for one special-status plant species, Orcutt's woody-aster, to be present within the project site; and moderate potential for four additional special-status plant species, Harwood's milkvetch, gravel milkvetch, Abram's spurge, and Torrey's boxthorn, to be present within the project site. There is suitable habitat to support these species in the project site among the sandy soils of the creosote bush scrub and white bursage scrub, and within the marginal dune habitat present along the eastern project boundary. Impacts that may occur to these species include loss of individuals, habitat, and seedbank. Depending on the size of the population, this impact would be significant. Implementation of Mitigation Measures BIO-1 through BIO-3 would reduce potential impacts on special-status species to a level less than significant.

Five special-status plant species have a low potential to occur in the project site. There is habitat for these species in the project site, but the literature review identified no recent or historic occurrence records in or near the project site. These species include Peirson's pincushion, brown turbans, hairy stickleaf, sand food, and Orocopia sage. Impacts to these species resulting from project activities are not expected to occur and are considered to be less than significant.

Special-Status Wildlife

The habitat assessment detected no special-status wildlife species onsite. Three special-status wildlife species were found to have a high potential to occur within the Survey Area: flat-tailed horned lizard, burrowing owl, and desert kit fox. Direct impacts to these species

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that could occur include injury, mortality, loss of nests or young, and destruction of habitat. Indirect impacts include loss of nesting, roosting, and foraging habitat, loss of shelter sites, and increase in anthropogenic effects (i.e., noise levels, introduction and/or spread of invasive/nonnative species, human and vehicular activity, dust, nighttime lighting). Impacts to these species would be considered significant. Implementation of Mitigation Measures BIO-2 through BIO-6 would reduce potential impacts on special-status species to a level less than significant.

Three special-status wildlife species were found to have a moderate potential to occur within the Survey Area: Colorado Desert fringe-toed lizard, Palm Springs pocket mouse, and American badger. Impacts to Palm Springs pocket mouse, flat-tailed horned lizard, and Colorado Desert fringe-toed lizard are not anticipated to rise to a level of significant impact due to the proximity of the project site to anthropogenic disturbances (i.e., SR-86, active agriculture) and the presence of existing suitable habitat in the region. However, potential impacts to these species will be reduced to a level of less than significant with the implementation of Mitigation Measures BIO-2, BIO-3, and BIO-6.

Although no roosting habitat for bats was present on the project site, foraging habitat for a number of special-status bat species occur throughout the project site and in proximity to the project site at the Salton Sea. Bat species in California are protected by Section 4150 (protection of non-game mammals from take) of the California Fish and Game Code. Section 4150 of the California Fish and Game Code prohibits the take of any naturally occurring mammals in California that are nongame mammals, which includes all species of the Order Chiroptera (bats). Direct impacts to special-status bat species that could occur include injury and mortality due to collision with solar panels or other structures. Indirect impacts include loss of foraging habitat, and increase in anthropogenic effects (i.e., noise levels, increase in human activity, increase in dust) that may result in altered bat behavior that could lead to lower fitness due to decreased foraging activities. Loss of foraging bat habitat on the project site is not considered significant due to the presence of open dessert habitat, suitable for foraging bats, in the region where the project site is located including surrounding the project site. Mortality or injury of individual special-status bats as a result of the project would be considered a significant impact. Implementation of Mitigation Measures BIO-2, BIO-3, and BIO-7 would reduce potential impacts on bat species to a level less than significant.

Raptors and Migratory Birds

There is potential nesting and foraging habitat for migratory birds and raptors protected by the MBTA and the California Fish and Game Code throughout and adjacent to the project site. The project site provides nesting habitat for ground-nesting species as well as species such as osprey (*Pandion haliaetus*) and common ravens (*Corvus corax*) that nest in desert scrub habitat or on power line poles. Construction of the project could directly or indirectly affect nesting birds within and adjacent to the project site if activities occur during the nesting bird season. Direct impacts to nesting avian species include injury, mortality, loss of young, and nest failure. Indirect impacts include loss of foraging and nesting habitat for passerine and raptors species, increase in noise and human activities, and potential introduction of invasive/nonnative species. Implementation of Mitigation Measures BIO-2, BIO-3, and BIO-5 would reduce potential impacts to a level less than significant.

The project site is located within the Pacific Flyway, a major corridor for migratory birds, and it is in proximity to the Salton Sea and Imperial Valley agricultural habitat. The Salton Sea and Imperial Valley agricultural habitat are recognized for providing breeding, wintering, and migratory stopover habitats for a variety of bird species including special-status species such as Western snowy plover, mountain plover, and California brown pelican. Direct impacts to raptors and migratory birds may include project-related injury or mortality due to collision with buildings, transmission and distribution lines, chain link fence, and other similar structures. No impacts due to bird collisions with the distribution line are anticipated since the proposed project is anticipated to tie into the existing distribution line. Additionally, flat reflective surfaces (e.g. photovoltaic panels) polarize light and researchers hypothesize that

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birds may mistake these reflective surfaces for bodies of water, a phenomenon referred to as the lake effect. Mortality or injury of individual birds and raptors as a result of the project would be considered a significant impact. Implementation of Mitigation Measure BIO-7 would reduce potential impacts to a level less than significant.

Mitigation Measures:

BIO-1 **Rare Plant Surveys:** Prior to initiating ground disturbance, rare plant surveys shall be conducted within suitable habitat within the Survey Area during the appropriate blooming period for the Orcutt's woody-aster (March through April), Harwood's milkvetch (January through May), gravel milkvetch (February through June), Abrams' spurge (August through November), and Torrey's boxthorn (approximately March through June). The surveys shall be conducted by a botanist or qualified biologist in accordance with the USFWS Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants (USFWS 1996); the CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW 2018); and the CNPS Botanical Survey Guidelines (CNPS 2001). If any special-status species are observed during the rare plant surveys, the location of the individual plant or population will be recorded with a submeter GPS device for mapping purposes. Consultation with CDFW may be required to develop a mitigation plan or additional avoidance and minimization measures if project-related impacts to rare plants within the project site are unavoidable. Mitigation measures that may be implemented if the species is observed include establishing a no-disturbance buffer around locations of individuals or a population, salvage or seed collection, and additional monitoring requirements.

BIO-2 **General Impact Avoidance and Minimization Measures.** The following measures will be applicable throughout the life of the project:

- To reduce the potential indirect impact on migratory birds, bats and raptors, the project shall comply with the APLIC 2012 Guidelines for overhead utilities, as appropriate, to minimize avian collisions with transmission facilities (APLIC 2012)
- All electrical components on the project site shall be either underground or protected so that there will be no exposure to wildlife and therefore no potential for electrocution.
- The project proponent shall designate a Project Biologist who shall be responsible for overseeing compliance with protective measures for biological resources during vegetation clearing and work activities within and adjacent to areas of native habitat. The Project Biologist shall be familiar with the local habitats, plants, and wildlife. The Project Biologist shall also maintain communications with the Contractor to ensure that issues relating to biological resources are appropriately and lawfully managed and shall monitor construction. The Project Biologist shall monitor activities within construction areas during nesting bird season (generally February 1 to September 15), such as vegetation removal, the implementation of Best Management Practices (BMPs), and installation of security fencing to protect native species. The Project Biologist shall ensure that all wildlife and regulatory agency permit requirements, conservation measures, and

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general avoidance and minimization measures are properly implemented and followed.

- The boundaries of all areas to be newly disturbed (including solar facility areas, staging areas, access roads, and sites for temporary placement of construction materials and spoils) shall be delineated with stakes and flagging prior to disturbance. All disturbances, vehicles, and equipment shall be confined to the flagged areas.
- No potential wildlife entrapments (e.g., trenches, bores) shall be left uncovered overnight. Any uncovered pitfalls will be excavated to 3:1 slopes at the ends to provide wildlife escape ramps. Alternatively, man-made ramps may be installed. Covered pitfalls will be covered completely to prevent access by small mammals or reptiles.
- To avoid wildlife entrapment (including birds), all pipes or other construction materials or supplies shall be covered or capped in storage or laydown areas, and at the end of each workday in construction, quarrying and processing/handling areas. No pipes or tubing of sizes or inside diameters ranging from 1 to 10 inches shall be left open either temporarily or permanently.
- No anticoagulant rodenticides, such as Warfarin and related compounds (indandiones and hydroxycoumarins), shall be used within the project site, on off-site project facilities and activities, or in support of any other project activities.
- All trash and food-related waste shall be placed in self-closing containers and removed regularly from the site to prevent overflow. Workers shall not feed wildlife. Water applied to dirt roads and construction areas for dust abatement shall be used the minimal amount needed to meet safety and air quality standards to prevent the formation of puddles, which could attract wildlife. Pooled rainwater or floodwater within retention basins shall be removed to avoid attracting wildlife to the active work areas.
- To minimize the likelihood for vehicle strikes on wildlife, speed limits shall not exceed 15 miles per hour when driving on access roads. All vehicles required for O&M must remain on designated access/maintenance roads.
- Avoid nighttime construction lighting or if nighttime construction cannot be avoided, use shielded directional lighting pointed downward and towards the interior of the project sites, thereby avoiding illumination of adjacent natural areas and the night sky.
- All construction equipment used for the projects shall be equipped with properly operating and maintained mufflers.
- Hazardous materials and equipment stored overnight, including small amounts of fuel to refuel hand-held equipment, shall be stored within secondary containment when within 50 feet of open water to the fullest

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extent practicable. Secondary containment shall consist of a ring of sandbags around each piece of stored equipment/structure. A plastic tarp/visqueen lining with no seams shall be placed under the equipment and over the edges of the sandbags, or a plastic hazardous materials secondary containment unit shall be utilized by the Contractor.

- The Contractor will be required to conduct vehicle refueling in upland areas where fuel cannot enter waters of the U.S. and in areas that do not have potential to support federally threatened or endangered species. Any fuel containers, repair materials, including creosote-treated wood, and/or stockpiled material that is left on site overnight, shall be secured in secondary containment within the work area and staging/assembly area and covered with plastic at the end of each workday.
- In the event that no activity is to occur in the work area for the weekend and/or a period of time greater than 48 hours, the Contractor shall ensure that all portable fuel containers are removed from the project site.
- All equipment shall be maintained in accordance with the manufacturer's recommendations and requirements.
- Equipment and containers shall be inspected daily for leaks. Should a leak occur, contaminated soils and surfaces will be cleaned up and disposed of following the guidelines identified in the Stormwater Pollution Prevention Plan or equivalent, Materials Safety Data Sheets, and any specifications required by other permits issued for the project.
- The Contractor shall utilize off-site maintenance and repair shops as much as possible for maintenance and repair of equipment.
- If maintenance of equipment must occur onsite, fuel/oil pans, absorbent pads, or appropriate containment will be used to capture spills/leaks within all areas. Where feasible, maintenance of equipment shall occur in upland areas where fuel cannot enter waters of the U.S. and in areas that do not have potential to support federally threatened or endangered species.
- Appropriate BMPs shall be used by the Contractor to control erosion and sedimentation and to capture debris and contaminants from construction to prevent their deposition in waterways.
- Erosion and sediment control devices used for the proposed project, including fiber rolls and bonded fiber matrix, shall be made from biodegradable materials such as jute, with no plastic mesh, to avoid creating a wildlife entanglement hazard.
- Firearms, open fires, and pets shall be prohibited at all work locations and access roads. Smoking shall be prohibited along the project alignment.

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- Cross-country vehicle and equipment use outside of approved designated work areas and access roads shall be prohibited to prevent unnecessary ground and vegetation disturbance.
- Any injured or dead wildlife encountered during project-related activities shall be reported to the project biologist, biological monitor, CDFW, or a CDFW-approved veterinary facility as soon as possible to report the observation and determine the best course of action. For special-status species, the Project Biologist shall notify the County, USFWS, and/or CDFW, as appropriate, within 24 hours of the discovery.
- Stockpiling of material shall only be allowed within established work areas.
- The Contractor shall actively manage the spread of noxious weeds by implementing weed control activities, including, but not limited to, cleaning equipment and inspecting equipment prior to transport to the sites and cleaning of tires and equipment prior to leaving the site. The introduction of exotic, nonnative, weed, and/or invasive plant species will be avoided and controlled wherever possible, and may be achieved through physical or chemical removal and prevention, limiting the size of any vegetation and/or ground disturbance to the absolute minimum, and limiting ingress and egress to defined routes. Preventing exotic plants from entering the site via vehicular sources will include measures such as cleaning vehicles coming into and going from the site.
- The ground beneath all parked equipment and vehicles shall be inspected for wildlife before moving.

BIO-3 **Worker Environmental Awareness Program.** Prior to project construction, a Worker Environmental Awareness Program shall be developed and implemented by a qualified biologist and shall be available in both English and Spanish. Handouts summarizing potential impacts on special-status biological resources and the potential penalties for impacts on these resources shall be provided to all construction personnel. At a minimum, the education program shall include the following:

- the purpose for resource protection;
- a description of special-status species including representative photographs and general ecology;
- occurrences of USACE, RWQCB, and CDFW regulated features in the project study area;
- regulatory framework for biological resource protection and consequences if violated;
- sensitivity of the species to human activities;

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- avoidance and minimization measures designed to reduce the impacts on special-status biological resources;
- environmentally responsible construction practices;
- reporting requirements;
- the protocol to resolve conflicts that may arise at any time during the construction process; and
- workers sign acknowledgement form indicating that the Environmental Awareness Training and Education Program that has been completed, which shall be kept on record.

BIO-4 **Burrowing Owl Avoidance and Minimization:** Take avoidance (pre-construction) surveys for burrowing owl shall be completed prior to project construction. Surveys shall be conducted as detailed within Appendix D of the Staff Report on Burrowing Owl Mitigation (California Department of Fish and Game [CDFG] 2012). If burrowing owl is not detected, construction may proceed.

- If burrowing owl is identified during the non-breeding season (September 1 through January 31), then a 50-meter buffer will be established by the biological monitor. Construction within the buffer will be avoided until a qualified biologist determines that burrowing owl is no longer present or until a CDFW-approved exclusion plan has been implemented. The buffer distance may be reduced if noise attenuation buffers such as hay bales are placed between the occupied burrow and construction activities.
- If burrowing owl is identified during the breeding season (February 1 through August 31), then an appropriate buffer will be established by the biological monitor in accordance with the Staff Report on Burrowing Owl Mitigation (CDFG 2012). Construction within the buffer will be avoided until a qualified biologist determines that burrowing owl is no longer present or until young have fledged. The buffer distance may be reduced in consultation with CDFW if noise attenuation buffers such as hay bales are placed between the occupied burrow and construction activities.

BIO-5 **Pre-Construction Nesting Bird Survey:** If construction or other project activities are scheduled to occur during the bird breeding season (typically February 1 through August 31 for raptors and February 15 through August 31 for the majority of migratory bird species), a pre-construction nesting-bird survey shall be conducted by a qualified avian biologist to ensure that active bird nests, including those for burrowing owl, will not be disturbed or destroyed. The survey shall be completed no more than three days prior to initial ground disturbance. The nesting-bird survey should include the project site and adjacent areas where project activities have the potential to affect active nests, either directly or indirectly due to construction activity or noise. If an active nest is identified, the biologist shall establish an appropriately sized disturbance-limit buffer around the nest using flagging or staking. Construction activities shall not occur within any disturbance-limit buffer zones until the nest is deemed inactive by the qualified biologist. If construction activities cease for a period of greater than three days during the bird breeding season, a pre-

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construction nesting bird survey shall be conducted prior to the commencement of activities. Final construction buffers or setback distances shall be determined by the qualified biologist in coordination with USFWS and CDFW on a case-by-case basis, depending on the species, season in which disturbance shall occur, the type of disturbance, and other factors that could influence susceptibility to disturbance (e.g., topography, vegetation, existing disturbance levels, etc.).

BIO-6 **Pre-Construction Survey for Special-Status Species:** A pre-construction survey shall be conducted for special-status wildlife species within all areas of potential permanent and temporary disturbance. The pre-construction survey shall take place no more than 14 days prior to the start of ground-disturbing activities. The pre-construction surveys shall take place regardless of breeding season timing and shall focus on identifying the presence of special-status wildlife species present within the Survey Area or that were identified as having a high/moderate potential to occur on the site. These species include, but are not limited to, flat-tailed horned lizard, Colorado Desert fringe-toed lizard, burrowing owl, desert kit fox, and American badger. Should any special status species be identified during the pre-construction survey, consultation to develop suitable avoidance and minimization measures with the appropriate agency (USFWS, CDFW) may need to be undertaken.

BIO-7 **Bird and Bat Conservation Strategy:** Prior to the start of construction activities, a Bird and Bat Conservation Strategy (BBCS) will be developed in consultation between the Applicant, CDFW, and USFWS and will be subject to the approval of CDFW and USFWS. The BBCS will include measures to be implemented to minimize bird and bat fatalities at the project site. The BBCS could include but may not be limited to: bird and bat inventory studies (e.g., seasonal bird point count surveys, night bat surveys), pre-construction clearance survey methods and timing, buffer distances based on construction activity and sensitivity of nests/birds, measures for avoidance of impact during bird nesting season (e.g., seasonal work restrictions), implementation of construction noise and dust minimization measures, implementation of trash abatement, biological monitoring, bat acoustic deterrents, nest deterrents (i.e., netting/covering equipment, supplies, or perches), implementing anti-perching devices and avian visual deterrents, and using emerging technologies such as antireflective film overlays on the panels and/or chemosensory and sonic deterrents. The BBCS will be in compliance with the MBTA and California Fish and Game Code Sections 3503, 3503.5, 3513, and 4150.

b) **No Impact.** As shown in Figure 5, Mojave-Sonoran Desert dues occur adjacent to the project site within the survey buffer. Mojave-Sonoran Desert dunes has a state rarity ranking of S3.2, indicating it is vulnerable in California due to "a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation from the state" (Appendix B of this Initial Study). Approximately 0.18 acre of Mojave-Sonoran Desert dunes was observed within the project site and approximately 5.62 acres was mapped within the survey buffer. The amount of this vegetation community that may be permanently removed is minor (0.18 acre in total). The project proponent would avoid impacts to Mojave-Sonoran Desert occurring within the project site. Therefore, no impact would occur.

c) **Less than Significant Impact with Mitigation Incorporated.** According to the *Aquatic Resources Delineation Report for the North Star 3 Project* (Appendix D of this Initial Study), the project site does not contain federally defined wetlands. Although there are areas that have indicators of ponding water, no hydrophytic vegetation is present within these areas onsite.

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Within the study area, there is a total of 23.32 acres of upland-vegetated ephemeral streams that fall under CDFW jurisdiction, 18.99 acres of upland-vegetated ephemeral streams that are classified as waters of the United States, and 18.99 acres of ephemeral streams that are considered waters of the State – all of which have the potential to be impacted by the proposed project. Impacts to aquatic features may require permits from several regulatory agencies pursuant to federal and State laws. Jurisdictional waters would require certification compliance with Section 401 of the Clean Water Act (CWA) (USACE) and the Porter-Cologne Act (RWQCB), and an agreement pursuant to California Fish and Game Code Sections 1600 and 1602 (CDFW). With implementation of Mitigation Measure BIO-8, impacts to jurisdictional waters would be reduced to a level less than significant with compliance to aquatic resources regulatory permitting.

Mitigation Measure:

BIO-8 **Aquatic Resources Regulatory Permitting.** If project-related impacts occur to the riparian areas that may also fall under the jurisdiction of the USACE, CDFW, and/or RWQCB, a regulatory permit with those agencies is needed prior to the impact occurring. Refer to the *Aquatic Resource Delineation Report for the North Star 3 Project* (Appendix D of this Initial Study) for preliminary determination of regulatory limits that areas that may be regulated by USACE, CDFW, or RWQCB. Permitting includes preparation and submittal of a Pre-Construction Notification under Section 404 of the federal CWA, an Application for Water Quality Certification under Section 401 of the federal CWA and a Notification of Lake or Streambed Alteration under Section 1600 of the California Fish and Game Code. A completed CEQA document, and Notice of Determination, will be necessary to submit along with the applications. Other items such as finalized project plans, quantities of fill material, supporting technical studies, etc., are also submitted along with the applications. As a part of this process, the project must also identify and approve mitigation through the respective agencies. Mitigation can include onsite or offsite options or could include payment of an in-lieu fee to a conservation organization. Types of mitigation can include restoration, creation, rehabilitation, enhancement, or other types of habitat improvement. Typically, the type of mitigation and acreage of mitigation is negotiated with the regulatory agencies during the permitting process.

d) **Less than Significant Impact.** The project site provides wildlife movement opportunities because the majority of the project site contains suitable vegetation and/or cover to support some terrestrial wildlife movement and it consists of open and relatively unimpeded land. However, the project site is not located within a recognized terrestrial species corridor or major habitat linkage. Additionally, the project site would not be considered a wildlife movement corridor that would need to be preserved to allow wildlife to move between important natural habitat areas due to the absence of conserved natural lands in the vicinity and the project site's proximity to areas containing existing disturbances (i.e., paved highway, roads, and active agricultural land). The project site is also mostly surrounded by open unimpeded desert land, functioning as a single contiguous block of habitat rather than a corridor. The project site is exposed and contains no major features that would be considered critical movement corridors for wildlife. Although the dirt roads and desert washes located within the project boundaries are likely utilized by wildlife moving through the area, these features would not be considered necessary linkages between conserved natural habitat areas or critical for wildlife movement because of the nearby open space surrounding the project. Construction of the project would not impede or significantly affect any existing terrestrial wildlife corridor, and this is considered a less than significant impact.

e) **Less than Significant Impact with Mitigation Incorporated.** As described in Responses IV. a-c), the proposed project has the potential to impact special-status plant and wildlife species, raptors and migratory birds, and jurisdictional resources during construction. However, the proposed project would not conflict with any local policies or ordinances

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protecting biological resources with implementation of Mitigation Measures BIO-1 through BIO-8 to reduce potential impacts to special status plants, wildlife, raptors and migratory birds, and aquatic resources to a less than significant level.

f) **Less than Significant Impact with Mitigation Incorporated.** The project site is located within the DRECP Area with a conservation designation of California Desert National Conserved Lands and falls within the BLM Salton Sea Hazardous ACEC unit (Appendix C of this Initial Study). The project site is located in BLM Renewable Energy Development Focus Areas. If habitat within the California Desert National Conserved Lands area of the project is to be impacted, this would be considered a significant impact. Implementation of Mitigation Measures BIO-2, BIO-3, and BIO-9 would reduce potential impacts to a level less than significant.

Mitigation Measure:

BIO-10 **Minimization of Impacts to Sensitive Species on BLM Land:** All vehicles shall stay on designated roads within BLM land to minimize impacts to habitat. Coordination with a qualified biologist shall occur prior to the staging of equipment and placement of temporary or permanent structures within BLM land. Additionally, a biologist shall demarcate temporary and permanent workspaces in the field prior to the commencement of construction-related activities. Construction plans shall incorporate measures to minimize and avoid impacts to habitats within this area. Tires shall be cleaned prior to entering BLM lands to control introduction of invasive plant species.

V. Cultural Resources

Environmental Issue Area:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

Impact Analysis

The following information is summarized from the *Cultural Resources Inventory Report for the North Star 3 Project* and *Archaeological and Architectural History Resources Evaluations for the North Star 3 Project* prepared by ECORP Consulting, Inc. dated February 2023 and May 2024, respectively. This study is provided as Appendix E of this Initial Study. These reports are provided as Appendix E1 and Appendix E2 of this Initial Study, respectively.

a) **Less than Significant Impact with Mitigation Incorporated.** ECORP Consulting, Inc. prepared a *Cultural Resources Inventory Report* (Appendix E1 of this Initial Study) for the

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proposed project, which included a records search, Sacred Files search, and a pedestrian survey. Following the pedestrian survey, ECORP prepared the *Archaeological and Architectural History Resources Evaluations for the North Star 3 Project* (Appendix E2 of this Initial Study), which evaluates resources within the project area for listing on the National Register of Historic Places (NRHP) and California Register of Historical Resources (CRHR). The results are summarized below.

Sacred Lands File Search

The results of the Sacred Lands File search by the Native American Historical Commission were received on July 8, 2022. The results were positive and indicate the presence of Native American Sacred Lands in the project area.

Records Search

The records search consisted of a review of previous research and literature, records on file with the South Coastal Information Center for previously recorded resources, and historical aerial photographs and maps of the vicinity. Eighteen previous cultural resource investigations have been conducted within one mile of the project area, covering approximately 30 percent of the total area surrounding the property within the records search radius. Of the 18 studies, two were conducted within the project area. These studies conducted between 1973 and 2015 revealed the presence of pre-contact habitation sites and historical sites, including irrigation systems.

The records search identified four previously recorded resources present within the project area: one historic-period archaeological site (P-13-7496); one built historical resource, The Salton Sea Test Base (SSTB; P-13-7776); and two precontact archaeological sites (P-13-154 and P-13-7600). Two archaeological sites, P-13-154 and P-13-7496, have no documented status of eligibility for the NRHP and CRHR. The third archaeological site, P-13-7600, was determined eligible for listing on the NRHP/CRHR. The SSTB, a built-environment historic-era resource (P-13-7776), was previously evaluated and found not eligible for listing in the NRHP and CRHR through survey evaluation.

Pedestrian Survey

An intensive pedestrian survey of the project site was conducted from December 12 through 15, 2022 and January 9 through 12, 2023. The field survey identified and recorded 19 previously unrecorded archaeological sites, composed of 14 historic-period sites, three precontact sites, one multicomponent site, and one site of indeterminate age. In addition, ECORP identified and recorded 72 previously unrecorded isolated finds (47 historic period and 25 precontact) within the project area.

Cultural Resources Sites within the Project Area

As a result of the records search and pedestrian survey, a total of 23 cultural resource sites have been identified within the project area. These consist of 15 historic-era archaeological sites, five precontact archaeological sites, one multicomponent archaeological site, one archaeological site of unknown age, and one built environment resource. ECORP identified 19 sites during the 2023 inventory of the project area in addition to the four sites that were recorded during prior studies. These resources are summarized in Table 5.

Table 5. Cultural Resources within the Project Area

ECORP Site No.	Primary No.	Age/Period	Description
	P-13-154	Precontact	Habitation site
	P-13-7496	Historic	Refuse scatter, hearth
	P-13-7600	Precontact	Habitation site
	P-13-7776	Historic	Military property

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NS3-03	–	Precontact	Lithic scatter
NS3-11	–	Historic	Refuse scatter
NS3-18	–	Unknown	Rock cairn
NS3-20	–	Historic	Refuse scatter
NS3-24	–	Precontact	Lithic scatter
NS3-30	–	Historic	Refuse scatter
NS3-40	–	Historic	Refuse scatter
NS3-51	–	Historic	Refuse scatter
NS3-60	–	Historic	Refuse scatter
NS3-62	–	Historic	Refuse scatter
NS3-70	–	Multicomponent	Historic refuse, quartzite flakes
NS3-72	–	Precontact	Lithic scatter
NS3-73	–	Historic	Refuse scatter
NS3-76	–	Historic	Refuse scatter
NS3-77	–	Historic	Refuse scatter
NS3-80	–	Historic	Refuse scatter
NS3-81	–	Historic	Refuse scatter
NS3-90	–	Historic	Refuse scatter
NS3-91	–	Historic	Refuse scatter

Source: Appendix E2 of this Initial Study

Evaluation for Eligibility for the NRHP and CRHR

Following the field survey, ECORP evaluated 22 cultural resource sites and reevaluated the SSTB for eligibility for the NRHP and CRHR. Evaluation efforts included a combination of subsurface testing and archival research.

Subsurface Testing

Subsurface testing consisted of a combination of augers and strategically placed STPs and TUs at or around each site. With the goal of maximizing avoidance and preservation in place, ECORP used field methods that were minimally invasive and only included minimal excavation as needed to confirm presence or absence of cultural deposits.

With the exception of NS3-11, all of the other sites that were tested yielded no cultural materials below what was visible on the surface. One of four shovel test pits at NS3-11 yielded four round nails and one piece of milled wood, likely the handle to a tool, in the first few centimeters of the first level. This piece of wood was fragmented into four pieces that all fit together. The subsurface artifacts were likely covered by aeolian deposits, as the site is in an active dune environment.

Evaluation Criteria

Federal Evaluation Criteria. The cultural resources within the project area were evaluated using the NRHP eligibility criteria following the regulations implementing Section 106 of the NHPA (36 CFR Part 800). The eligibility criteria for the NRHP are as follows (36 CFR 60.4):

> The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of state and local importance that possess aspects of integrity of location, design, setting, materials, workmanship, feeling, association, and

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a) that are associated with events that have made a significant contribution to the broad patterns of our history; or

b) that are associated with the lives of persons significant in our past; or

c) that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

d) that have yielded, or may be likely to yield, information important in prehistory or history.

In addition, the resource must be at least 50 years old, except in exceptional circumstances (36 CFR 60.4).

State Evaluation Criteria. Under State law (CEQA), cultural resources are evaluated using CRHR eligibility criteria to determine whether any of the sites are Historical Resources, as defined by CEQA. CEQA requires that impacts to Historical Resources be identified and, if the impacts would be significant, that mitigation measures to reduce the impacts be applied.

A Historical Resource is a resource that:

1) is listed in or has been determined eligible for listing in the CRHR by the State Historical Resources Commission;

2) is included in a local register of historical resources, as defined in PRC 5020.1(k);

3) has been identified as significant in a historical resources survey, as defined in PRC 5024.1(g); or

4) is determined to be historically significant by the CEQA lead agency CCR Title 14, §15064.5(a)]. In making this determination, the CEQA lead agency usually applies the CRHR eligibility criteria.

The eligibility criteria for the CRHR (CCR Title 14, § 4852(b)) state that a resource is eligible if:

1) it is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the U.S.;

2) it is associated with the lives of persons important to local, California, or national history.

3) it embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values; or

4) it has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the Nation.

In addition, the resource must retain integrity. Integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association (CCR Title 14, § 4852(c)).

Evaluation Summary. The cultural resources within the project area were evaluated using the NRHP and CHRH eligibility criteria listed below. Table 6 summarizes the NRHP and CHRH eligibility recommendations of the cultural resources within the project area.

Resource P-13-7600 is a precontact habitation site consisting of four rock enclosures, a low density lithic and ceramic scatter, and two areas with fire-affected rock and fish bone. It has been previously determined eligible for NRHP listing and is listed in the CRHR. ECORP did not relocate any components of this site at its given location during the field survey. ECORP completed four STPs at the location of P-13-7600, which were negative for surface and subsurface deposits. There was no other cultural material present with which to address

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research questions. It is possible that this resource's location as provided is inaccurate because ECORP also did not observe any associated cultural materials on the surface.

All of the other resources in this testing and evaluation program are not listed in the local register of historical resources, as defined in PRC 5020.1(k), have not been identified as significant in an historical resources survey, as defined in PRC 5024.1(g), and have not been determined to be historically significant by the CEQA lead agency [CCR Title 14, § 15064.5(a)]. Therefore, they are not a historical resource under CEQA.

Table 6. CRHR/NRHP Eligibility of Cultural Resources within Project Area

ECORP Site No.	Primary No.	Age/Period	Description	CRHR/NRHP Eligibility
	P-13-154	Precontact	Habitation site	Not eligible
	P-13-7496	Historic	Refuse scatter, hearth	Not eligible
	P-13-7600	Precontact	Habitation site	Listed in the CRHR / Eligible for NRHP
	P-13-7776	Historic	Military property	Not eligible
NS3-03	--	Precontact	Lithic scatter	Not eligible
NS3-11	--	Historic	Refuse scatter	Not eligible
NS3-18	--	Unknown	Rock cairn	Not eligible
NS3-20	--	Historic	Refuse scatter	Not eligible
NS3-24	--	Precontact	Lithic scatter	Not eligible
NS3-30	--	Historic	Refuse scatter	Not eligible
NS3-40	--	Historic	Refuse scatter	Not eligible
NS3-51	--	Historic	Refuse scatter	Not eligible
NS3-60	--	Historic	Refuse scatter	Not eligible
NS3-62	--	Historic	Refuse scatter	Not eligible
NS3-70	--	Multicomponent	Historic refuse, quartzite flakes	Not eligible
NS3-72	--	Precontact	Lithic scatter	Not eligible
NS3-73	--	Historic	Refuse scatter	Not eligible
NS3-76	--	Historic	Refuse scatter	Not eligible
NS3-77	--	Historic	Refuse scatter	Not eligible
NS3-80	--	Historic	Refuse scatter	Not eligible
NS3-81	--	Historic	Refuse scatter	Not eligible
NS3-90	--	Historic	Refuse scatter	Not eligible
NS3-91	--	Historic	Refuse scatter	Not eligible

Source: Appendix E2 of this Initial Study

Isolates are unassociated artifacts or minor features that represent either accidental inclusion or are otherwise disconnected from the human activity that produced them. Isolates typically do not individually contribute to the broad patterns of history because they cannot be connected to a particular event (NRHP Criterion A/CRHR Criterion 1). Isolates are similarly difficult to associate with specific individuals due to their lack of association with archaeological or historical sites, and generally no information exists in the archival record to associate isolates with important individuals in history (NRHP Criterion B/CRHR Criterion

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2). Isolates do not embody the distinctive characteristics of a type, period, region, or method of construction, or represent the work of an important creative individual, or possess high artistic values (NRHP Criterion C/CRHR Criterion 3). Finally, isolates in general do not provide important information in history or prehistory (NRHP Criterion D/CRHR Criterion 4). Therefore, the 74 isolates identified during the technical study do not meet the eligibility criteria for inclusion in the NRHP or CRHR as an individual resource. These isolated finds do not contribute to any known or suspected historic districts; and are neither considered to be Historic Properties for the purpose of Section 106 NHPA, nor Historical Resources under CEQA.

Impact Analysis

As previously mentioned above, with the exception of P-13-7600, all other sites, including the SSTB, appear to be not eligible for listing in the NRHP or CRHR and are therefore not considered Historical Resources for the purposes of CEQA.

Previously recorded resource P-13-7600, listed in the CRHR and eligible for listing in the NRHP, was not observed within the project area. The four STPs at the location of P-13-7600 were negative for surface and subsurface deposits. It is possible that this resource's location as provided is inaccurate because ECORP did not observe any associated cultural materials on the surface. Although P-13-7600 was not relocated during the inventory and testing/evaluation phases of the proposed project due to its location being potentially incorrectly plotted on maps, there is still a potential the resource may be nearby and within the project area. There is a potential that ground disturbing activities during construction could impact P-13-7600, if observed within the project area. This potential impact is considered significant. Implementation of Mitigation Measures CR-1 and CR-2 would reduce potential impacts to a level less than significant.

Mitigation Measures:

CR-1 **Contractor Awareness Training.** Prior to project construction, a Contractor Awareness Training Program shall be developed and implemented to train equipment operators about cultural resources. The program shall be designed to inform construction personnel about: federal and state regulations pertaining to cultural resources and tribal cultural resources; the subsurface indicators of resources that shall require a work stoppage; procedures for notifying the lead agency of any occurrences; project-specific requirements and mitigation measures; and enforcement of penalties and repercussions for non-compliance with the program. The training shall be prepared by a qualified professional archaeologist and may be provided either through a brochure, video, or in-person tailgate meeting, as determined appropriate by the archaeologist.

Training shall be provided to all construction supervisors, forepersons, and operators of ground disturbing equipment. All personnel shall be required to sign a training roster. The construction manager is responsible for ensuring that all required personnel receive the training. The construction manager shall provide a copy of the signed training roster to the Imperial County Planning and Development Services Department as proof of compliance.

CR-2 Archaeological Monitoring. Prior to the start of construction, the project applicant shall retain a qualified professional archaeologist, who meets or exceeds the Secretary of the Interior Professional Qualifications Standards as an archaeologist and a traditionally and culturally affiliated Native American Monitor, to monitor all ground-disturbing activities associated with project construction. Monitoring is not required for placement of equipment or fill inside excavations that were monitored, above-ground construction activities, or

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redistribution of soils that were previously monitored (such as the return of stockpiles to use in backfilling).

In the event of the discovery of previously unidentified archaeological materials, the contractor shall immediately cease all work activities within approximately 100 feet of the discovery. After cessation of excavation, the contractor shall immediately contact the Imperial County Department of Planning and Development Services. Except in the case of cultural items that fall within the scope of the Native American Grave Protection and Repatriation Act, the discovery of any cultural resource within the project area shall not be grounds for a "stop work" notice or otherwise interfere with the project's continuation except as set forth in this paragraph.

In the event of an unanticipated discovery of archaeological materials during construction, the qualified professional archaeologist shall evaluate the significance of the materials prior to resuming any construction related activities in the vicinity of the find. If the qualified archaeologist determines that the discovery constitutes a significant resource under CEQA and it cannot be avoided, the applicant shall implement an archaeological data recovery program.

b) **Less than Significant Impact with Mitigation Incorporated.** As previously discussed above, P-13-7600 is a previously recorded precontact archaeological site. Although P-13-7600 was not relocated during the inventory and testing/evaluation phases of the proposed project due to its location being potentially incorrectly plotted on maps, there is still a potential the resource may be nearby and within the project area. There is a potential that ground disturbing activities during construction could impact P-13-7600, if observed within the project area. This potential impact is considered significant. Implementation of Mitigation Measures CR-1 and CR-2 would reduce potential impacts to a level less than significant.

The soil types present within the project area and immediate vicinity are alluvial and aeolian deposits, which is characteristic of the alluvium sediments that are found in the Colorado Desert and along the shorelines of Lake Cahuilla. Due to the presence of alluvium and relict shorelines and given the likelihood of precontact archaeological sites located along perennial waterways and relict shorelines, the project area has the potential for buried precontact archaeological sites. There is a high potential for buried precontact cultural material along the relict shorelines of Lake Cahuilla because precontact sites in this region are known to occur along those shorelines. Therefore, the possibility remains that unanticipated subsurface discoveries may arise during project construction. This potential impact is considered significant. Implementation of Mitigation Measures CR-1 and CR-2 would reduce potential impacts to a level less than significant.

c) **Less than Significant Impact with Mitigation Incorporated.** During construction of the proposed project, grading, excavation and trenching will be required. Although the potential for encountering subsurface human remains within the project site is low, there remains a possibility that human remains are present beneath the ground surface, and that such remains could be exposed during construction. The potential to encounter human remains is considered a significant impact. Mitigation Measure CR-3 would ensure that the potential impact on previously unknown human remains does not rise to the level of significance pursuant to CEQA.

Mitigation Measure:

CR-3 If subsurface deposits believed to be human in origin are discovered during construction, all work must halt within a 100-foot radius of the discovery. A qualified professional archaeologist who meets the Secretary of the Interior's Standards for prehistoric and historic archaeology and is familiar with the resources of the region, shall be retained to evaluate the significance of the find, and shall have the authority to modify the no work radius as appropriate,

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using professional judgment. The following notifications shall apply, depending on the nature of the find:

If the find includes human remains, or remains that are potentially human, the professional archaeologist shall ensure reasonable protection measures are taken to protect the discovery from disturbance (AB 2641). The archaeologist shall notify the Imperial County Coroner (per § 7050.5 of the Health and Safety Code). The provisions of § 7050.5 of the California Health and Safety Code, § 5097.98 of the California PRC, and AB 2641 will be implemented.

If the Coroner determines the remains are Native American and not the result of a crime scene, the Coroner will notify the NAHC, which then will designate a Native American Most Likely Descendant (MLD) for the project (§ 5097.98 of the PRC). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of the MLD, the NAHC may mediate (§ 5097.94 of the PRC). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (§ 5097.98 of the PRC). This will also include either recording the site with the NAHC or the appropriate Information Center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work may not resume within the no-work radius until the Imperial County Planning and Development Services Department, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.

VI. Energy

Environmental Issue Area:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

Impact Analysis

The following information is summarized from the *Energy Consumption Assessment for the North Star 3 Project* prepared by ECORP Consulting, Inc. dated July 2022. This report is provided as Appendix F of this Initial Study.

a) **Less than Significant Impact.** The project includes the construction of a 100-MW alternating current solar field, consisting of 226,00 tracker modules in 7,560 strings and associated collector and inverter facilities, and a 200 MW BESS, on approximately 585 acres of vacant land. Operation of the proposed project would not result in the consumption of electricity or natural gas and thus, would not contribute to the County wide usage. Instead, the project would directly support the RPS goal for increasing the percentage of electricity procured from renewable sources.

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The use of energy associated with the proposed project includes the equipment fuel necessary for construction and the automotive fuel necessary for ongoing maintenance activities. For the purposes of this analysis, project increases in construction and automotive fuel consumption are compared with the countywide fuel consumption in 2021(Table 7), the most recent full year of data. This analysis conservatively assumes that all of the automobile trips projected to arrive at the project site during operations would be new to Imperial County.

Table 7. Automotive Fuel Consumption in Imperial County 2016-2021

Year	Total Fuel Consumption
2021	216,105,185
2020	194,711,440
2019	217,988,585
2018	218,114,145
2017	220,106,315
2016	215,751,500

Source: Appendix F of this Initial Study

Energy and fuel consumption associated with the proposed project is summarized in Table 8. The fuel expenditure necessary to construct the solar facility and infrastructure would be temporary, lasting only as long as project construction. As shown in Table 8, the project's gasoline fuel consumption during the one-time construction period is estimated to be 16,453 gallons during the first year of construction, 105,517 gallons during the second year of construction, and 6,955 gallons during the third year of construction. This would increase the annual countywide gasoline fuel use associated with offroad equipment in the County by 0.007 percent, 0.048 percent, and 0.003 percent, respectively.

Table 8. Proposed Project Energy and Fuel Consumption

Energy Type	Annual Energy Consumption	Percentage Increase Countywide
Facility Electrical and Natural Gas Consumption		
Electricity Consumption	0 kilowatt-hours	0.000
Natural Gas[1]	0 therms	0.000
Automotive Fuel Consumption		
Year One of Construction[2] Year Two of Construction[2] Year Three of Construction[2]	16,453 gallons 105,517 gallons 6,995 gallons	0.007 0.048 0.003
Project Operations[3]	2,004 gallons	0.000

Source: Appendix F of this Initial Study
Notes: The project increases in electricity and natural gas consumption are compared with all uses in Imperial County in 2020, the latest data available. The project increases in automotive fuel consumption are compared with the countywide fuel consumption in 2021, the most recent full year of data.

Project construction would have a nominal effect on local and regional energy supplies. Construction equipment for the proposed project would have a similar energy efficiency to comparable construction sites in the region or the state. Construction contractors would purchase their own gasoline and diesel fuel from local suppliers and would judiciously use fuel supplies to minimize costs due to waste and subsequently maximize profits. Additionally, construction equipment fleet turnover and increasingly stringent state and federal regulations on engine efficiency combined with state regulations limiting engine idling times and requiring recycling of construction debris, would further reduce the amount of transportation

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fuel demand during project construction. For these reasons, it is expected that construction fuel consumption associated with the project would not be any more inefficient, wasteful, or unnecessary than other similar development projects of this nature.

Once construction is completed, the project will be remotely controlled. No employees would be based at the project site. The only operational emissions associated with the project would be associated with motor vehicle use for routine maintenance work, and site security as well as panel upkeep and cleaning. Six heavy-duty truck vehicle trips per day for routine maintenance work and site security was assumed. This is a conservative estimate as most days would require no operational related vehicle trips. As indicated in Table 8, this would estimate to a consumption of approximately 2,004 gallons of automotive fuel per year, which would increase the annual countywide automotive fuel consumption by 0.0009 percent. Fuel consumption associated with both the construction equipment needed to construct the project and the vehicle trips generated by the project during ongoing maintenance activities would not be considered inefficient, wasteful, or unnecessary in comparison to other similar developments in the region.

Based on these considerations, the proposed project would not result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation. Therefore, this is considered a less than significant impact.

b) **Less than Significant Impact.** As described above, implementation and operation of the project would promote the use of renewable energy and contribute incrementally to the reduction in demand for fossil fuel use for electricity-generating purposes and help California meet its RPS. Additionally, the project would be consistent with the County's General Plan Conservation and Open Space Element, Objective 9.2 which encourages renewable energy developments. The proposed project would directly support state and local plans for renewable energy development and would be considered a less than significant impact.

VII. Geology and Soils

Environmental Issue Area:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) 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? Refer to Division of Mines and Geology Special Publication 42?	☐	☐	☐	☒
ii. Strong seismic ground shaking?	☐	☐	☒	☐
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐

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iv. Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) 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 off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code (1994), creating substantial direct or indirect risk to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

Impact Analysis

The following information is summarized from the *Geotechnical Report for the North Star 3 Project* prepared by Landmark Consultants, Inc. dated November 2022. This report is provided as Appendix G of this Initial Study.

ai) **No Impact.** According to the geotechnical report prepared for the project, the project site is not located within or adjacent to any earthquake fault zone as delineated on the most recent Alquist Priolo Earthquake Zoning Map. The nearest zoned fault is the Elmore Ranch fault located approximately 7.5 miles south of the project site. The proposed project would not result in the construction of any structure intended for human occupancy and all structures and onsite facilities would be designed in accordance with the most recent California Building Code (CBC). Therefore, the proposed project result in no impact associated with the rupture of a known earthquake fault.

aii) **Less than Significant Impact.** Southern California is a seismically active region; therefore it is highly likely that regional earthquakes would occur that could affect the proposed project. However, as previously mentioned above, no active faults are underlaying or adjacent to the project site. All structures and onsite facilities would be designed in accordance with the California Building Code (CBC) for peak site ground acceleration. Since the design and construction of the project would be required to conform to the specific mandated structural design requirements to protect against strong seismic shaking, the potential impacts due to strong seismic ground shaking are a less than significant impact.

aiii) **Less than Significant Impact.** Four conditions are generally required for liquefaction to occur, including: 1) saturated soil, 2) loosely packed soil, 3) relatively cohesionless soil, and 4) groundshaking of sufficient intensity must occur to trigger the mechanism. Liquefaction is unlikely to be a potential hazard at the site due to the lack of saturated granular soil (clay soils predominate) and the estimated depth to groundwater (greater than 50 feet).

As required by the County and in accordance with local and state building code requirements, any proposed development would be required to complete a geotechnical evaluation of any onsite hazards. As a standard condition of project approval, the proposed

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project would be constructed in accordance with the most current CBC and Imperial County Building Code to minimize or avoid the potential hazard of liquefaction. A less than significant impact is identified for this issue area.

aiv) **Less than Significant Impact.** The project site is relatively flat and slopes gently (about 1 percent) to the northeast. The surrounding properties lie on terrain that is planar and are approximately at the same elevation with this site. No ancient landslides are shown on geologic maps, aerial photographs and topographic maps of the region and no indication of landslides were observed. Therefore, the impact associated with landslides is considered less than significant.

b) **Less than Significant Impact.** Soil erosion and loss of topsoil could result during construction as grading and construction can loosen surface soils and make soils susceptible to wind and water movement across the surface. Construction activities are regulated under the National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges of Storm Water Runoff Associated with Construction Activity (General Construction Permit) which covers stormwater runoff requirements for projects where the total amount of ground disturbance during construction exceeds 1 acre. The proposed project would be required to comply with the General Construction Permit because ground disturbance would exceed 1 acre. Coverage under a General Construction Permit requires the preparation of a SWPPP and submittal of a Notice of Intent (NOI) to comply with the General Construction Permit. The SWPPP would identify best management practices (BMPs) that would reduce any impacts associated with soil erosion or loss of topsoil. Therefore, this impact is considered less than significant.

c) **Less than Significant Impact.**

Landslides. As described in Response VII. aiv) above, the project site is located in a relatively flat portion of Imperial County and is not identified as an area at risk of landslide. Therefore, the impact associated with landslides is considered less than significant.

Liquefaction and Lateral Spreading. As described in Response VII. aiii) above, liquefaction is unlikely to be a potential hazard at the site due to the lack of saturated granular soil and the estimated depth to groundwater. The potential for lateral spreading to occur on the project site has not yet been determined. Additional geotechnical investigation would be required in order to assess the risk of lateral spreading to occur on the project site. As required by the County and in accordance with local and state building code requirements, any proposed development would be required to complete a geotechnical evaluation of any onsite hazards. As a standard condition of project approval, the proposed project would be constructed in accordance with the most current CBC and Imperial County Building Code to minimize or avoid the potential hazard of liquefaction and lateral spreading. A less than significant impact is identified for this issue area.

Subsidence. The potential for subsidence to occur on the project site has not yet been determined. Additional geotechnical investigation would be required in order to assess the risk of subsidence to occur on the project site. As required by the County and in accordance with local and state building code requirements, any proposed development would be required to complete a geotechnical evaluation of any onsite hazards. As a standard condition of project approval, the proposed project would be constructed in accordance with the most current CBC and Imperial County Building Code to minimize or avoid the potential hazard of subsidence. A less than significant impact is identified for this issue area.

Collapse. Collapsible soil generally consists of dry, loose, low-density material that have the potential to collapse and compact when subjected to the addition of water or excessive loading. Soils found to be most susceptible to collapse include loess (fine grained wind-blown soils), young alluvium fan deposits in semi-arid to arid climates, debris flow deposits and residual soil deposits. According to the geotechnical report prepared for the project, due to the cohesive nature of the subsurface soils, the potential for hydro-collapse of the subsurface soils at the project site is considered very low. As a standard condition of project

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approval, the proposed project would be constructed in accordance with the most current CBC and Imperial County Building Code to minimize or avoid the potential hazard of collapse. A less than significant impact is identified for this issue area.

d) **Less than Significant Impact.** According to the geotechnical report prepared for the project, much of the subsurface soils in the Imperial Valley consist of silty clays and clays which are moderate to highly expansive.

As required by the County and in accordance with local and state building code requirements, any proposed development would be required to complete a geotechnical evaluation of any onsite hazards. As a standard condition of project approval, the proposed project would be constructed in accordance with the most current CBC and Imperial County Building Code to minimize or avoid the potential hazard of expansive soil. A less than significant impact is identified for this issue area.

e) **No Impact.** The proposed project would not require the use of septic systems or alternative wastewater systems to accommodate wastewater needs. Therefore, no impact is identified for this issue area.

f) **Less than Significant Impact with Mitigation Incorporated.** Many paleontological fossil sites are recorded in Imperial County and have been discovered during construction activities. Paleontological resources are typically impacted when earthwork activities, such as mass excavation cut into geological deposits (formations) with buried fossils. One area in which paleontological resources appear to be concentrated in this region is the shoreline of ancient Lake Cahuilla, which would have encompassed the present-day Salton Sea. The lake covered much of the Imperial Valley and created an extensive lacustrine environment. Lake Cahuilla experienced several fill recession episodes before it finally dried up about 300 years ago. In 1905, the Colorado River overflowed into the Salton Basin creating the present-day Salton Sea.

According to the geotechnical report prepared for the project, the project site is underlain by Quaternary Lake Cahuilla deposits. The project site is directly underlain by geologic units comprised of quaternary lake deposits of the ancient Lake Cahuilla. Lakebed deposits of ancient Lake Cahuilla have yielded fossil remains from numerous localities in Imperial Valley. These include extensive freshwater shell beds, fish, seeds, pollen, diatoms, foraminifera, sponges, and wood. Lake Cahuilla deposits have also yielded vertebrate fossils, including teeth and bones of birds, horses, bighorn sheep, and reptiles. Therefore, the paleontological sensitivity of these lakebed deposits within the project site are considered to be high.

Impacts on any surface or near-surface level paleontological resources may occur because of grading and disturbance of the area. Even relatively shallow excavations in the Lake Cahuilla beds exposed in the project site may encounter significant vertebrate fossil remains. Therefore, this potential impact is considered a significant impact. Mitigation Measure GEO-1 would ensure that the potential project's impacts on paleontological resources do not rise to the level of significance pursuant to CEQA. Implementation of Mitigation Measure GEO-1 would reduce the impact on paleontological resources to a level less than significant.

Mitigation Measure

GEO-1 In the event that unanticipated paleontological resources or unique geologic resources are encountered during ground-disturbing activities, work must cease within 50 feet of the discovery and a paleontologist shall be hired to assess the scientific significance of the find. The consulting paleontologist shall have knowledge of local paleontology and the minimum levels of experience and expertise as defined by the Society of Vertebrate Paleontology's Standard Procedures (2010) for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources. If any paleontological resources or unique geologic features are found within the project site, the consulting paleontologist shall prepare a paleontological Treatment and Monitoring Plan to include the

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methods that will be used to protect paleontological resources that may exist within the project site, as well as procedures for monitoring, fossil preparation and identification, curation of specimens into an accredited repository, and preparation of a report at the conclusion of the monitoring program.

VIII. Greenhouse Gas Emissions

Environmental Issue Area:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Impact Analysis

The following information is summarized from the *Air Quality and Greenhouse Gas Emissions Assessment for the North Star 3 Project* prepared by ECORP Consulting, Inc. dated July 2022. This report is provided as Appendix B of this Initial Study.

a) **Less than Significant Impact.** Prominent greenhouse gases (GHGs) contributing to the greenhouse effect are carbon dioxide (CO_2), methane (CH_4), and nitrogen oxide (N_2O). Human-caused emissions of these GHGs in excess of natural ambient concentrations are believed to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth's climate, known as global climate change or global warming.

To date the ICAPCD has not adopted GHG significance thresholds applicable to potential development. Section 15064.7(c) of the CEQA Guidelines specifies that "[w]hen adopting or using thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence" (14 CCR 15064.7(c)). Thus, in the absence of any GHG emissions significance thresholds, the projected emissions are compared to the Mojave Desert Air Quality Management District (MDAQMD) numeric threshold of 100,000 metric tons of CO_2e annually. While significance thresholds used in the Mojave Desert Air Basin are not binding on the ICAPCD or County of Imperial, they are instructive as a comparative metric of the project's potential GHG impact. This threshold is also appropriate as the MDAQMD GHG thresholds were formulated based on similar geography and climate patterns as found in Imperial County. Therefore, the 100,000-metric ton of CO_2e threshold is appropriate for this analysis.

The following analysis is broken out by a discussion of potential impacts during construction and operation of the project. The CalEEMod 2020.4.0 air quality model was used to calculate the GHG emissions associated with construction and operation of the proposed project. The CalEEMod worksheets are included in Appendix B of this Initial Study.

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Construction

Construction-related activities that would generate GHG emissions include worker commute trips, haul trucks carrying supplies and materials to and from the project site, and off-road construction equipment (e.g., water trucks, cranes, tractors).

Table 9Table 9. Project Construction-Generated Emissions summarizes the construction-generated GHG emissions that would result from construction of the project. Consistent with South Coast Air Quality Management (SCAQMD) recommendations, project construction GHG emissions have been amortized over the expected life of the project, which is considered to be 30 years. As shown in Table 9, the project would generate approximately 166 metric tons of CO_2e in the first year of construction, 1,071 metric tons in the second year of construction, and 71 metric tons in the third year of construction. Therefore, project GHG emissions would not exceed the significance threshold of 100,000 metric tons of CO_2e per year.

Table 9. Project Construction-Generated Emissions

Emissions Source	CO_{2e} (Metric Tons/Year)
Construction Year One	166
Construction Year Two	1,071
Construction Year Three	71
Significance Threshold	*100,000*
Exceed Significance Threshold?	**No**

Source: Appendix B of this Initial Study

Operation

Operation of the project would result in an increase in GHG emissions solely associated with motor vehicle trips. Once the solar facility and BESS are operational, very few vehicular trips would be expected. The project would be an unmanned facility that would be operated remotely. Therefore, the project would not generate routine daily trips. Occasional maintenance trips would be required. For purposes of this analysis, it was assumed that up to 6 trips per day would be utilized during operations.

As shown in Table 10, the project would generate approximately 8.32 metric tons of CO_2e per year during operations, which is below MDAQMD's threshold of 100,000 metric tons of CO_2e per year.

Once construction is complete, the project would be a producer of renewable energy, which generate substantially less GHG emissions compared with the more common types of fossil-fueled energy generation facilities. Table 11 shows the emissions that would potentially be displaced by the proposed project. This estimate only includes that associated with the combustion of fossil fuels; it does not include the vehicle trips associated with the project's operations, and it does not include operational employee trips associated with natural gas or coal combustion nor the emissions associated with extracting and transporting those power sources. In addition, this estimate only includes the displacement of that portion of the California market that comes from fossil fuels and does not include the approximate 50 percent of the California electricity generated by non-combustion sources (wind, solar, nuclear, hydro-electric). As shown in Table 11, the project would potentially displace approximately 53,220 metric tons of CO_2e per year, and approximately 1,596,596 metric tons of CO_2e over the course of 30 years. While the project would emit some GHG emissions during construction and operations, the contribution of renewable resource energy production to meet the goals of the Renewable Portfolio Standard (Scoping Plan Measure E-3) would result in a net cumulative reduction of GHG emissions. The short-term generation of GHG emissions would be more than offset by the GHG emission reductions associated

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with solar-generated energy during operation. Therefore, the project's GHG impact would be less than significant.

Table 10. Operational-Related GHG Emissions (MT/Year)

Emission Source	CO_{2e} (Metric Tons/Year)
Area Source	0.01
Energy	0
Mobile	8.30
Waste	0
Water	0
Total	8.32
Significance Threshold	*100,000*
Exceed Significance Threshold?	**No**

Source: Appendix B of this Initial Study

Table 11. Proposed Project Displaced GHG Emissions (Metric Tons)

	Emissions (Metric Tons)			
	CO_2	CH_4	N_2O	CO_2e
Emissions Displaced Annually (metric tons)				
Displaced Natural Gas-Source Emissions	47,585	0.00	0.00	47,585
Displaced Coal-Source Emissions	5,626	0.037	0.028	5,635
Total	**53,210**	**0.037**	**0.028**	**53,220**
Emissions Displaced over 30 Years (metric tons)				
Total	**1,596,309**	**1.118**	**0.838**	**1,596,596**

Source: Appendix B of this Initial Study

b) **Less than Significant Impact.** As discussed in Response VIII. a) above, the proposed project would generate a relatively small amount of GHG emissions. The proposed project-generated GHG emissions would not exceed the MDAQMD significance thresholds, which were prepared with the purpose of complying with statewide GHG-reduction efforts. While the project would emit some GHG emissions during construction and a very small amount during operations, the contribution of renewable resource energy production to meet the goals of the Renewable Portfolio Standard (Scoping Plan Measure E-3) would result in a net cumulative reduction of GHG emissions, a key environmental benefit. Scoping Plan Measure E-3, Renewable Portfolio Standard, of the Climate Change Scoping Plan requires that all investor-owned utility companies generate 60 percent of their energy demand from renewable sources by the year 2030. Therefore, the short-term minor generation of GHG emissions during construction, which is necessary to create this new, low-GHG emitting power-generating facility, as well as the negligible amount generated during ongoing maintenance operations, would be more than offset by GHG emission reductions associated with solar-generated energy during operation. The proposed project would reduce GHG emissions in a manner consistent with SB 32 and other California GHG-reducing legislation

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by creating a new source of solar power to replace the current use of fossil-fuel power and reduce GHG emissions power generation and use. Therefore, the proposed project would not conflict with any applicable plan, policy, or regulation adopted for reducing the emissions of GHGs and a less than significant impact would occur.

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IX. Hazards and Hazardous Materials

Environmental Issue Area:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☐	☐	☐	☒

Impact Analysis

The following information is summarized from the *Phase I Environmental Site Assessment (ESA) Report* prepared by GS Lyon Consultants, Inc. dated October 2022. This report is provided as Appendix H of this Initial Study.

a) **Less than Significant Impact.** Vehicles and equipment used for well construction would contain or require the temporary, short-term use of potentially hazardous substances, such as fuels, lubricating oils, and hydraulic fluid. Hazardous substances would be stored in

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transportable containment trailers at locations within the construction staging area to minimize potential for accidental releases and/or spills.

Transportation of hazardous materials relating to the battery system includes electrolyte and graphite and would occur during construction, operation (if replacement of batteries is needed) and decommissioning (removal of the batteries). All of these various materials would be transported and handled in compliance with DTSC regulations. Therefore, the likelihood of an accidental release during transport or residual contamination following accidental release is not anticipated.

Lithium-ion batteries used in the storage system contain cobalt oxide, manganese dioxide, nickel oxide, carbon, electrolyte, and polyvinylidene fluoride. Of these chemicals, only electrolyte should be considered hazardous, inflammable and could react dangerously when mixed with water. The U.S. Department of Transportation (DOT) regulates transport of lithium-ion batteries under the DOT's Hazardous Materials Regulations (HMR) (49 CFR Parts 171-180). The HMR applies to any material DOT determines is capable of posing an unreasonable risk to health, safety, and property when transported in commerce. Lithium-ion batteries must conform to all applicable HMR requirements when offered for transportation or transported by air, highway, rail, or water. Additionally, carbon (as graphite) is flammable and could pose a fire hazard. Fire protection is achieved through project design features, such as monitoring, diagnostics and a fire suppression system. The project would be required to comply with state laws and county ordinance restrictions, which regulate and control hazardous materials handled on site. The project will also be required to comply with Imperial County Fire Department Fire Prevention Bureau CUP Conditions of Approval for solar project and BESS systems as identified in their February 26, 2024, correspondence for the project and summarized in Section XV Public Services ai of this Initial Study.

Further, the proposed project would be required to comply with all applicable rules and regulations involving hazardous materials, including the State of California CCR Title 23 Health and Safety Regulations, the California Division of Occupational Safety and Health (Cal/OSHA) requirements, the Hazardous Waste Control Act, the California Accidental Release Prevention (CalARP) Program, and the California Health and Safety Code. Compliance with these measures would reduce any potential risk or impact associated with the transport, use, or disposal of hazardous materials. This impact is considered less than significant.

b) **Less than Significant Impact**. According to the Phase I ESA prepared for the project, no evidence of recognized environmental conditions (REC), historical recognized environmental condition (HREC), *de minimis* conditions, or environmental concerns were revealed in connection with the project site.

As described in Response IX. a) above, the proposed BESS facility would require the storage of hazardous materials; however, hazardous substances would be stored in transportable containment trailers at locations within the construction staging area to minimize potential for accidental releases and/or spills. No other hazardous or potentially hazardous materials will be brought to the project site. Further, the proposed project would be required to comply with all applicable rules and regulations involving hazardous materials, including the State of California CCR Title 23 Health and Safety Regulations, the California Division of Occupational Safety and Health (Cal/OSHA) requirements, the Hazardous Waste Control Act, the California Accidental Release Prevention (CalARP) Program, and the California Health and Safety Code. Compliance with these measures would reduce any potential risk or impact associated with the release of hazardous materials into the environment.

The project applicant will coordinate with the Imperial County Fire Department on conditions of approval as part of the CUP to ensure the proposed project would not result in extreme hazards to the public, firefighters, and emergency responders. Conditions of approval would include project plans review and inspections, installation of a water supply capable of supplying the required fire flow, development of an Emergency Operation Plan, and compliance with applicable standards and requirements of the National Fire Protection

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Association, Occupational Safety and Health Administration, and California Fire Code. With adherence of applicable standards and requirements and conditions of approval as part of the CUP. This impact is considered less than significant.

c) **No Impact.** The project site is not located within 0.25 mile of any existing or proposed schools. The nearest school is West Shores High School located approximately 9 miles to the northwest of the project site at 2381 Shore Hawk Avenue. Therefore, the proposed project would not pose a risk to nearby schools and no impact would occur.

d) **No Impact.** As part of the Phase I ESA prepared for the project, a database search was conducted on June 21, 2022, to obtain and review reasonably ascertainable records that would help identify RECs and HRECs in connection with the subject property.

Databases that were reviewed include the following:

- EPA's Federal National Priorities List
- EPA's Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLA) List
- Federal CERCLA – No Further Remedial Action Planned (NFRAP)
- Federal Resource Conservation Recovery Act (RCRA) List
- Federal Emergency Response Notification System (ERNS) List
- State and Tribal NPL List
- State and Tribal equivalent CERCLA
- State and Tribal Leaking Underground Storage Tank Sites
- State and Tribal Underground and Aboveground Storage Tank Sites
- Solid Waste Disposal/Landfill Facilities (SWF/LF)
- Unmapped (Orphan) Sites

A review of the databases, along with additional government environmental record databases, identified no risk sites within the project site. Therefore, implementation of the proposed project would result in no impact related to the project site being located on a listed hazardous materials site pursuant to Government Code Section 65962.5.

e) **No Impact.** The project site is not located within two miles of a public airport. The nearest airport is the Salton Sea Airport located approximately 5.5 miles northwest of the project site at 1590 Air Crest Avenue. As identified in the Imperial County Airport Land Use Compatibility Maps, the proposed project site lays outside of the noise contours of all airports. Therefore, implementation of the proposed project would not result in a safety hazard or excessive noise for people residing or working in the project area and no impact would occur.

f) **No Impact.** The proposed project does not include any alteration to the existing public road network and would not involve blocking or restricting any access routes. The proposed access road would be designed in accordance with fire department standards. Therefore, the proposed project would not interfere with an adopted emergency response plan or emergency evacuation plan. No impact is identified for this issue area.

g) **No Impact.** The project site is located in the unincorporated area of Imperial County. According to the Seismic and Public Safety Element of the General Plan, the potential for a major fire in the unincorporated areas of the County is generally low (County of Imperial 1997). Based on a review of the California Department of Forestry and Fire Protection's fire hazard severity zone map, the project site is not located within a fire hazard severity zone (California Department of Forestry and Fire Protection 2023). The proposed project would not introduce features that directly or indirectly increase the risk of wildfire on the project site. No impact is identified for this issue area.

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X. Hydrology and Water Quality

Environmental Issue Area:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i. result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv. impede or redirect flood flows?	☐	☐	☐	☒
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

Impact Analysis

a) **Less than Significant Impact.** The proposed project would require construction activities that would disturb soils. Pollutants typical of construction work, such as sediments, trash, petroleum products, concrete waste, sanitary waste, and chemicals could significantly affect water quality. However, construction activities are regulated under the NPDES General Permit for Discharges of Storm Water Runoff Associated with Construction Activity (General

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Construction Permit) which covers stormwater runoff requirements for projects where the total amount of ground disturbance during construction exceeds 1 acre. The proposed project would be required to comply with the General Construction Permit because ground disturbance would exceed 1 acre. Coverage under a General Construction Permit requires the preparation of a SWPPP and submittal of a NOI to comply with the General Construction Permit. The SWPPP will be implemented such that stormwater discharges would not adversely impact human health or the environment, nor contribute to any exceedances of any applicable water quality standards contained in the Colorado River Basin Plan. This impact is considered less than significant.

b) **Less than Significant Impact.** The water demand for the proposed project will consist of water needed during construction for dust control and soil conditioning during installation of the photovoltaic panels, battery storage units, and related infrastructure. The construction water demand is anticipated to be 295 acre-feet over 12 to 18 months. During the operational phase of the project, water will be needed for routine maintenance activities, which primarily consists of washing the photovoltaic panels to maintain generation efficiency. The operational demand is anticipated to be 10 acre-feet per year for panel washing and other maintenance activities. The operational demand will exist for the life of the project, which is anticipated to be 25 to 30 years.

The construction water demand exceeds the potential annual recharge to the Basin of 100 acre-feet per year. However, the construction water needs are short-term, temporary, and equivalent to only 0.011 percent to 0.013 percent of the estimated groundwater in storage. This temporary water use is not anticipated to cause persistent and long-term lowering of groundwater levels. Therefore, the construction water demand would not cause or contribute to overdraft, exhaustion of water supplies, lowering of groundwater levels to depths that would be uneconomic for pumping, land subsidence, or significant alteration of groundwater quality.

The annual operational water needs are equivalent to 10 percent of the average annual recharge and 0.00036 percent to 0.0004 percent of the estimated current storage volume of the Basin. Therefore, the proposed project would not result in a decrease in groundwater supplies and would not interfere with groundwater recharge. This is considered a less than significant impact.

ci) **Less than Significant Impact.** As discussed in Response X. a) above, the construction of the proposed project would result in ground disturbing activities in an area greater than one acre. Therefore, SWPPP will be developed that implements BMPs that sufficiently avoid any onsite or offsite erosion and runoff from areas proposed for ground disturbance. This is considered a less than significant impact.

cii) **Less than Significant Impact.** The proposed project would not involve the construction of substantial impervious surfaces that would increase the rate of run-off. Construction activities would be localized to the project site boundary and access road, and the surrounding pervious surface would remain similar to pre-project conditions. Water will continue to percolate through the ground, as a majority of the surfaces on the project site will remain pervious. In this context, the proposed project would not result in substantial increases in run-off. This is considered a less than significant impact.

ciii) **Less than Significant Impact.** Water will continue to percolate through the ground, as a majority of the surfaces on the project site will remain pervious. The proposed project would not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. This is considered a less than significant impact.

civ) **No Impact.** According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (Map Number 06025C0650C), the project site is not located within a flood zone (FEMA 2021). Therefore, the proposed project would not impede or redirect flood flows and no impact would occur.

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d) **Less than Significant Impact.** The project site is located approximately 79.2 miles inland from the Pacific Ocean. Therefore, the proposed project is not located in an area at risk of tsunamis. According to the Seismic and Public Safety Element of the General Plan, the most likely location for a significant seiche to occur is the Salton Sea, which is located approximately 3.1 miles east of the project site. While there have been a number of seismic events since the formation of the Salton Sea, no significant seiches have occurred to date. A seiche could occur, however, in the Salton Sea under the appropriate seismic conditions. The Salton Sea is proximal to the San Andreas and San Jacinto faults and would be subject to significant seismic ground shaking that could generate a seiche (County of Imperial 1997). The likelihood of seismic activity producing waves large enough to affect the project site is small. Although the project site is located in an area with potential for a seiche, the risk of release of pollutants attributable to inundation is considered low based on no documented history of seiche-induced flooding of the project site. No substantial damage is expected from seiches on the project site, and implementation of the project would not increase the inherent risk of seiches on the project site. Therefore, this would be a less than significant impact.

e) **Less than Significant Impact.** As discussed above, the proposed project would be compliant with all local, state, and federal regulations, including compliance with the NPDES permits with the implementation of BMPs; compliance with the referenced regulations would reduce any potential impact associated with a water quality control plan to a less than significant. This is considered a less than significant impact.

XI. Land Use and Planning

Environmental Issue Area:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

Impact Analysis

a) **No Impact.** The project site is located in a sparsely populated portion of Imperial County. There are no established residential communities located within or in the vicinity of the project site. The nearest residences are located approximately 6.87 miles northwest of the project site in Salton City. Therefore, implementation of the proposed project would not divide an established community and no impact would occur.

b) **Less than Significant Impact.** The project's consistency with applicable land use plans, policies, and regulations is evaluated below.

County of Imperial General Plan. The County adopted the Renewable Energy (RE) and Transmission Element, which includes a RE Zone (RE Overlay Map). The County Land Use Ordinance, Division 17, includes the RE Overlay Zone, which authorizes the development and operation of renewable energy projects with an approved CUP. The RE Overlay Zone is concentrated in areas determined to be the most suitable for the development of

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renewable energy facilities while minimizing the impact on other established uses. CUP applications proposed for specific renewable energy projects not located in the RE Overlay Zone would not be allowed without an amendment to the RE Overlay Zone.

As shown on Figure 1, the entire project site is located outside of the RE Overlay Zone. Therefore, the proposed project would conflict with the RE Overlay Zone because the project is located outside of the area designated for renewable energy projects. Without an amendment to the RE Overlay Zone, the proposed project would not be allowed and would conflict with the RE and Transmission Element of the General Plan. However, the applicant is requesting a General Plan amendment and Zone Change to include/classify the project site into the RE Overlay Zone.

As stated in the RE and Transmission Element:

An amendment to the overlay zone would only be approved by the County Board of Supervisors if a future RE project met one of the following two conditions:

- **Adjacent to the Existing RE Overlay Zone:** An amendment may be made to allow for development of a future RE project located adjacent to the existing RE Overlay Zone if the project:
    - Is not located in a sensitive area.
    - Would not result in any significant impacts.
- **"Island Overlay":** An amendment may be made to allow for development of a future RE project that is not located adjacent to the existing RE Overlay Zone if the project:
    - Is located adjacent (sharing a common boundary) to an existing transmission source.
    - Consists of the expansion of an existing RE operation
    - Would not result in any significant environmental impacts (County of Imperial 2016).

The project site is not located adjacent to an existing RE Overlay Zone. Therefore, the proposed project will need to meet the criteria identified for the "Island Overlay" to obtain approval of an amendment to the RE Overlay Zone. Table 12 provides an analysis of the project's consistency with the "Island Overlay" criteria. As shown in Table 12, the proposed project would be consistent with the "Island Overlay" criteria because the project is adjacent to an existing transmission source, consists of the expansion of an existing RE operation, and would not result in significant environmental impacts.

The General Plan Amendment and Zone Change requests submitted by the project applicant are subject to approval by the County Board of Supervisors. If approved, the project applicant will be able to request for approval of a CUP to allow the construction and operation of the proposed solar facility and BESS, and the proposed project would be consistent with the RE and Transmission Element of the General Plan.

Table 12. Project Consistency with "Island Overlay" Criteria

Criteria	Criteria Met?
Is located adjacent (sharing a common boundary) to an existing transmission source?	There is an existing IID 161 kV "L" Line that traverses the project site, generally extending from the northwestern portion of the site to the southeastern portion of the site. There is a high voltage transmission powerline that bisects the project site from the south to northwest corner.

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Consists of the expansion of an existing RE operation?	The project involves the construction and operation of a 100-megawatt (MW) alternating current (AC) PV solar energy facility, 200-MW BESS, and associated on-site transmission line. Therefore, the proposed project would be capable of generating solar energy and thereby expand renewable energy generation in the area.
Would not result in any significant environmental impacts?	As detailed in Sections I through XXI of this Initial Study, no unavoidable or unmitigable significant impacts were identified. Where significant impacts have been identified, mitigation measures are proposed, that when implemented, would reduce the impact level to less than significant. Therefore, the proposed project would not result in a residual significant impact.

Source: County of Imperial 2016

County of Imperial Land Use Ordinance. Implementation of the project would require the approval of a CUP by the County to allow for the construction and operation of the proposed solar energy facility with an integrated battery storage system. The project parcels are currently zoned as S-2. Pursuant to Title 9, Division 5, Chapter 19, the following uses are permitted in the S-2 zone subject to approval of a CUP from Imperial County:

i) Major facilities relating to the generation and transmission of electrical energy provide[d] such facilities are not under State or Federal law, to [be] approved exclusively by an agency, or agencies of the State or Federal government, and provided such facilities shall be approved subsequent to coordination review of the Imperial Irrigation District for electrical matters. Such uses shall include but be limited to the following:

- *Electrical generation plants*
- *Facilities for the transmission of electrical energy (100-200 kV)*
- *Electrical substations in an electrical transmission system (500 kv/230 kv/161 kV)*

The CUP request submitted by the project applicant is subject to approval by the County Board of Supervisors. If the CUP is approved, the proposed project would not conflict with the County's zoning ordinance and no impact would occur.

XII. Mineral Resources

Environmental Issue Area:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

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Impact Analysis

a) **No Impact.** Construction of the proposed project would not result in any impacts to known mineral resources or mineral resource recovery sites. The nearest active mines for mineral resources are open pit sand and gravel located approximately 16.67 miles to the northwest of the project site (California DOC 2023). Additionally, the proposed project would not preclude future mineral resource exploration throughout the project site. No impact would occur.

b) **No Impact.** As noted in Response XII. a), implementation of the proposed project would not result in any impacts to known mineral resources or mineral resource recovery sites. Additionally, the proposed project would not preclude future mineral resource exploration throughout the project site. No impact would occur.

XIII. Noise

Environmental Issue Area:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in:				
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?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Impact Analysis

The following information is summarized from the *Noise Impact Assessment for the North Star 3 Project* prepared by ECORP Consulting, Inc. dated July 2022. This report is provided as Appendix I of this Initial Study.

a) **Less than Significant Impact.**

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The American National Standards Institute (ANSI) Standard 12.9-2013/Part 3 divides land uses into six distinct categories based on the ambient noise environment. The project site is identified as Category 6, which is classified as land uses of Very Quiet Sparse Suburban or rural Residential Areas. Category 6 has few if any nearby sources of sound and is estimated to have approximately 200 people per square mile, a typical Ldn of 42 dBA, a daytime L_{eq} of 40 dBA, and a nighttime L_{eq} of 34 dBA.

Construction

Temporary construction noise associated with the project would primarily be from the operation of off-road equipment for onsite construction activities as well as construction vehicle traffic on area roadways. Noise generated by construction equipment, including earth movers, pile drivers, and portable generators, can reach high levels. Other primary sources of acoustical disturbance would be random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts). During construction, exterior noise levels could affect sensitive land uses in the vicinity of the construction site.

The nearest project property line is located approximately 0.5 miles from the sensitive residential receptor at the southeastern corner of the project site. During a typical day, equipment would not be operated continuously at peak levels. Pursuant to the County's General Plan Noise Element, construction equipment operation shall be limited to the hours of 7:00 a.m. to 7:00 p.m., Monday through Friday, and 9:00 a.m. to 5:00 p.m. on Saturdays. No commercial construction operations are permitted on Sundays or holidays. Construction noise, from a single piece of equipment or a combination of equipment, shall not exceed 75 dB L_{eq}, when averaged over an eight-hour period, and measured at the nearest sensitive receptor.

The anticipated short-term construction noise levels generated for the necessary construction equipment during the onsite solar and battery storage facility component of the project are presented in Table 13. As shown in Table 13, no individual or cumulative pieces of construction equipment would exceed the 75 dBA County construction noise standard during any phase of construction at the nearby noise-sensitive receptors. All calculated noise levels during construction would fall within the normally acceptable range of the guidance set forth in the County of Imperial General Plan Noise Element. Therefore, the project's construction noise impacts would be less than significant.

Table 13. Construction Average (dBA) Noise Levels at Nearest Receptor

Equipment	Estimated Exterior Construction Noise Level at Existing Residences	Construction Noise Standards (dBA L_{eq})	Exceeds Standards?
Site Preparation			
Rubber Tired Dozers (2)	43.2 dBA (each)	75	**No**
Tractors/Loaders/Backhoes (2)	45.6 dBA (each)	75	**No**
Combined Site Preparation Equipment	**50.6 dBA**	75	**No**
Grading			
Excavators (4)	42.3 dBA (each)	75	**No**
Graders (3)	46.6 dBA (each)	75	**No**
Rubber Tired Dozers (2)	43.2 dBA (each)	75	**No**
Scrapers (2)	45.1 dBA (each)	75	**No**

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Tractors/Loaders/Backhoes (4)	45.6 dBA (each)	75	No
Combined Site Preparation Equipment	**56.6 dBA**	75	No
Facility Construction			
Crane	38.1 dBA (each)	75	No
Paver	39.8 dBA (each)	75	No
Paving Equipment (2)	48.1 dBA (each)	75	No
Plate Compactors (4)	41.8 dBA (each)	75	No
Forklifts (4)	45 dBA (each)	75	No
Tractors/Loaders/Backhoes (4)	45.6 dBA (each)	75	No
Trenchers (2)	42.9 dBA (each)	75	No
Welder	35.6 dBA (each)	75	No
Combined Facility Construction Equipment	**57.1 dBA**	75	No

Source: Appendix I of this Initial Study

Operation

The main stationary operational noise associated with the project would be from the proposed transformers, inverters, and transmission lines. Previous noise measurements were taken by ECORP staff during a weekday in the middle of a solar facility with identified noise levels reaching 47.1 dBA at approximately 50 feet distant. As previously stated, the nearest noise sensitive receptor to the project site is a single-family residence located approximately 0.5 mile (2,640 feet) at the southeastern corner of the project site. Noise attenuates a rate of approximately six dB for each doubling of distance from a stationary or point source. Considering the solar facility noise measurement of 47.1 dBA at approximately 50 feet distant, the nearest noise sensitive receptor from the proposed project (approximately 0.5 mile away) would experience operational stationary noise levels well below existing ambient noise levels currently experienced, as shown in Table 14.

Section 90702.00 of the Noise Ordinance sets a sound level limit of 50 dBA Leq for daytime hours of 7 a.m. to 10 p.m. and 45 dBA Leq during the noise sensitive nighttime hours of 10 p.m. to 7 a.m. for residential noise sensitive land uses. The proposed project is expected to operate during both daytime and nighttime hours and therefore the most restrictive and conservative approach is to apply the 45 dBA Leq nighttime standard at the property lines.

Table 14 provides an estimate of the projected noise levels from the proposed project operations at the nearest sensitive receptor. Operating sound levels from the project is estimated to be below 20 dBA, which would be below the County's threshold of 45 dBA at the closest sensitive receptor. Therefore, the project's operational noise levels would not exceed the County's noise standards and impacts would be less than significant.

Table 14. Operational Noise Levels at Nearest Sensitive Receptor

Location	Operational Noise Attributed to Project (L_{eq} dBA)	County Daytime Standard (L_{eq} dBA)	County Nighttime Standard (L_{eq} dBA)	Exceed Standard?
Residence located 2,640 feet from the southeastern boundary	**<20.0**	50.0	45.0	**No**

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Source: Appendix I of this Initial Study

Transportation Noise

Project operations would result in minimal additional traffic on adjacent roadways. The only visitors to the site would be that of repair or maintenance workers, whose presence at the site would be required infrequently an inconsistently. According to the California Department of Transportation (Caltrans) *Technical Noise Supplement to the Traffic Noise Analysis Protocol* (2013), doubling of traffic on a roadway is required to result in an increase of 3 dB. The project would not result in a doubling of traffic on vicinity roadways, and therefore its contribution to existing traffic noise would not be perceptible. Therefore, the project's transportation-related noise impact is considered less than significant.

b) **Less than Significant Impact.** Project construction would have the potential to result in temporary groundborne vibration, depending on the specific construction equipment used and the operations involved. Construction-related ground vibration is normally associated with impact equipment such as pile drivers, jackhammers, and the operation of some heavy-duty construction equipment, such as dozers and trucks. Pile drivers would be necessary during project construction. Vibration decreases rapidly with distance and it is acknowledged that construction activities would occur throughout the project site and would not be concentrated at the point closest to sensitive receptors. Groundborne vibration levels associated with typical construction equipment at 25 feet distant are summarized in Table 15.

Table 15. Representative Vibration Source Levels for Construction Equipment

Equipment Type	Peak Particle Velocity at 25 Feet (inches per second)
Large Bulldozer	0.089
Pile Driver	0.170
Loaded Trucks	0.076
Hoe Ram	0.089
Jackhammer	0.035
Small Bulldozer/Tractor	0.003
Vibratory Roller	0.210

Source: Appendix I of this Initial Study

The County of Imperial does not regulate vibrations associated with construction. However, a discussion of construction vibration is included for full disclosure purposes. For comparison purposes, the Caltrans (2020b) recommended standard of 0.2 inch per second PPV with respect to the prevention of structural damage for older residential buildings is used as a threshold. This is also the level at which vibrations may begin to annoy people in buildings. Consistent with FTA recommendations for calculating construction vibration, construction vibration was measured from the center of the project site.

The nearest structure of concern to the construction site, with regard to groundborne vibrations, appears to be a water tank located approximately one mile from the center of the project site.

Based on the representative vibration levels presented for various construction equipment types in Table 15 and the construction vibration assessment methodology published by the FTA, it is possible to estimate the potential project construction vibration levels. From a distance of 5,280 feet (one mile), vibration as a result of construction activities would not

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exceed 0.2 PPV at the nearest structure. Therefore, project construction would not exceed the recommended threshold and vibration impacts would be less than significant.

c) **No Impact.** The project site is not located within two miles of a public airport. The nearest airport is the Salton Sea Airport, located approximately 5.5 miles northwest of the project site. Therefore, implementation of the proposed project would not expose people residing or working in the project area to excessive noise levels and no impact would occur.

XIV. Population and Housing

Environmental Issue Area:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Impact Analysis

a) **No Impact.** The proposed project would not induce unplanned population growth. The proposed project involves the construction and operation of a solar energy facility and battery energy storage within a predominantly undeveloped, vacant area of Imperial County. No development of new roads or infrastructure is proposed that would introduce new populations to the project site. The proposed access road would be used only to access the project site. No impact would occur.

b) **No Impact.** No residential units are on the project site that would require relocation. Therefore, the proposed project would not displace substantial numbers of existing people or housing necessitating the construction of replacement housing elsewhere. No impact would occur.

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XV. Public Services

Environmental Issue Area:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i. Fire Protection?	☐	☐	☐	☒
ii. Police Protection?	☐	☐	☐	☒
iii. Schools?	☐	☐	☐	☒
iv. Parks?	☐	☐	☐	☒
v. Other public facilities?	☐	☐	☐	☒

Impact Analysis

ai) **No Impact.** Fire protection and emergency medical services in the project area are provided by the Imperial County Fire Department. The project site is approximately 9.37 miles southeast from the Imperial County Fire Department Station 9 at 2256 Cleveland Avenue.

CUP Conditions of Approval for Imperial County Fire Department Fire Prevention Bureau:

As a Condition(s) of Approval of the CUP, the applicant will be required to submit comply wiot information to ICAPCD to verify that proper emissions controls have been implemented to maintain air emissions below ICAPCD Significance Thresholds. These CUP Conditions of Approval include the following:

Solar Requirements

- Approved all-weather access roads for fire protection vehicles shall be provided throughout the project, conforming with the California Fire Code Chapter 5, section 503. Access roadways shall be all-weather surface (suitable for use by fire apparatus) right-of-way not less than 20 feet in width.
- Access roadways shall provide intersecting roadways to allow unobstructed movement of fire apparatus throughout the project site. Solar array layout shall meet Imperial County Fire Department layout requirements.
- Additional access shall be provided to the project site in accordance with the California Fire Code Chapter 5, section 503.
- KNOX Box and/or Locks will be required for all access gates as determined by Imperial County Fire Department.

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- Solar array fields shall be clear of all vegetation.
- A pre-incident plan shall be developed and approved by the Imperial County Fire/OES Department in a format and using a platform determined by ICFD.

Battery Energy Storage Systems

- An approved water supply capable of supplying the required fire flow determined by appendix B in the California Fire Code Shall be installed and maintained. (Minimum fire flow of 1500 GPM for 2 hours) Private fire service mains and appurtenance shall be installed in accordance with NFPA 20, 22, 24
- An approved automatic fire suppression system shall be installed on all required structures as per the California Fire Code Chapter 12 and NFPA 855. All fire suppression systems will be installed and maintained to the current adapted fire code and regulations.
- An approved automatic fire detection system shall be installed on all required structures as per the California Fire Code Chapter 12 and NFPA 855. All fire detection systems will be installed and maintained to the current adapted fire code and regulations.
- Owners and operators of ESS must develop and Emergency Operation Plan in conjunction with local fire service personnel, the AHJ, and hold a comprehensive understanding of the hazards associated with lithium-ion battery technology. Lithium-ion battery ESS's must incorporate adequate explosion prevention protection in accordance with NFPA 855 and/or California Fire Code Chapter 12.
- Signage shall be provided in accordance California Fire Code Chapter 12 Compliance with all required sections of the fire code.
- Applicant shall provide product containment areas(s) for both product and water run-off in case of fire applications and retained for removal.
- An emergency response/action plan shall be prepared and approved by the Imperial County Fire/OES Department.
- A Hazardous Waste Material Plan shall be submitted to Certified Unified Program Agency (CUPA) for their review and approval.
- All hazardous material and waste shall be handled, store, and disposed as per the approved Hazardous Waste Materials Plan. All spills shall be documented and reported to Imperial County Fire Department and CUPA as required by the Hazardous Waste Material Plan

The project site would continue to be adequately supported by the existing fire protection services since the construction and operation of the project would not induce growth in the project area and the fire risk would not create the need for new or physically altered fire protection facilities. In addition, operation and maintenance would not affect the ability of fire personnel to respond to fires. Based on these considerations, the proposed project would not result in a need for fire facility expansion and no impact is identified.

aii) **No Impact.** Police protection services in the project area is provided by the Imperial County Sheriff's Department. The nearest station to the project site is the Imperial County's Sheriff's Department located at 2101 S Marina Drive approximately 8.2 miles to the northwest. The proposed project would not require police services during construction or operation and maintenance beyond routine patrols and response. Construction and operation of the proposed project would not induce growth in the project area that would result in the permanent, and increased need of police protection services. No impact would occur.

aiii) **No Impact.** The proposed project does not include the development of residential land uses that would result in an increase in population or student generation. Construction is estimated to take approximately 12-18 months. The number of construction workers is not

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expected to require a substantial number of workers. Construction of the proposed project would not result in an increase in student population within the Imperial County's School District since it is anticipated that construction workers would commute in during construction operations. Furthermore, no full-time employees are required to operate the project. It is anticipated that maintenance of the project will be minimal to perform periodic visual inspections and minor repairs. The proposed project would not result in an increase in student population within the Imperial County's School District. Therefore, the proposed project would have no impact on Imperial County schools.

aiv) **No Impact.** Construction is estimated to take approximately 12-18 months. The number of construction workers is not expected to require a substantial number of workers. Furthermore, no full-time employees are required to operate the project. It is anticipated that maintenance of the project will be minimal to perform periodic visual inspections and minor repairs. Substantial permanent increases in population that would adversely affect local parks is not anticipated. Therefore, the proposed project would have no impact on parks.

av) **No Impact.** Construction is estimated to take approximately 12-18 months. The number of construction workers is not expected to require a substantial number of workers. Furthermore, no full-time employees are required to operate the project. It is anticipated that maintenance of the project will be minimal to perform periodic visual inspections and minor repairs. Substantial permanent increases in population that would adversely affect libraries and other public facilities (such as post offices) is not anticipated. Therefore, the proposed project would have no impact on other public facilities such as post offices and libraries.

XVI. Recreation

Environmental Issue Area:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Impact Analysis

a) **No Impact.** The proposed project would not increase the use of existing neighborhood parks and regional parks or other recreational facilities. The proposed project would not induce new populations that would result in the substantial physical deterioration of recreational facilities. No impact would occur.

b) **No Impact.** The proposed project would not include recreational facilities or require the construction or expansion of recreational facilities. The proposed project would not induce new populations that would require new recreational facilities. No impact would occur.

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XVII. Transportation

Environmental Issue Area:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☐	☒
b) Conflict with or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access?	☐	☐	☒	☐

Impact Analysis

The following information is summarized from the *Traffic, Parking and Circulation Assessment for the North Star 3 Project* prepared by ECORP Consulting, Inc. dated March 2023. This report is provided as Appendix J of this Initial Study.

a) **No Impact.** The project site is located within a rural portion of Imperial County. The project would not include any project actions within roadway segments. Additionally, there are no public transportation facilities, bicycle facilities, or pedestrian facilities in the immediate proximity of the project site. Therefore, the proposed project would result in no impact associated with a conflict with a program plan, ordinance or policy addressing transit, bicycle, and pedestrian facilities.

b) **Less than Significant Impact.** Section 15064.3(b) of the CEQA Guidelines provides guidance on determining the significance of transportation impacts and focuses on the use of vehicle miles traveled (VMT), which is defined as the amount and distance of automobile travel associated with a project. There would be no change in traffic volumes associated with project construction or operation as project construction is temporary and project operation would have no full-time on-site employees. A VMT analysis is not required for this impact. Therefore, this impact would be less than significant, and no mitigation would be required.

c) **Less than Significant Impact.** The average daily trips during construction and operation would be minimal along the State Highways. There is a potential for truck traffic when approaching the project site along SR 78 and SR 86. However, these effects would be temporary and minor, and no long-term effects on geometric design features on project vicinity roadways would occur that would result in an increase in hazards. Additionally, the proposed project does not include any alteration to the existing public road network. Impacts would be less than significant, and no mitigation would be required.

d) **Less than Significant Impact.** There is a potential for truck traffic when approaching the project site along SR 78 and SR 86. However, these effects would be temporary and minor, and no long-term effects on emergency access would occur that could result in an increase

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in hazards. Therefore, the proposed project would not result in inadequate emergency access and this impact is considered less than significant with no mitigation required.

XVIII. Tribal Cultural Resources

Environmental Issue Area:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project cause a substantial adverse change in the significance of a tribal cultural resource defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?	☐	☐	☐	☒
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	☐	☒	☐	☒

Impact Analysis

a-b) **Less than Significant Impact with Mitigation Incorporated.** Assembly Bill 52 was passed in 2014 and took effect July 1, 2015. It established a new category of environmental resources that must be considered under CEQA called tribal cultural resources (Public Resources Code 21074) and established a process for consulting with Native American tribes and groups regarding those resources. Assembly Bill 52 requires a lead agency to begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project.

In accordance with AB 52, Imperial County, as the CEQA lead agency, sent an AB 52/SB 18 consultation request letter to California Native American tribes that are traditionally and culturally affiliated with the project area on December 22, 2023. On February 1, 2024, the Agua Caliente Band of Cahuilla Indians responded via letter requesting consultation under SB 18. The project site is located within the Agua Caliente Band of Cahuilla Indians' Tribal Use Area. Mitigation Measures CR-2 and TR-1 would ensure that potential impacts on tribal cultural resources do not rise to the level of significance.

Mitigation Measure:

TR-1 If previously unidentified tribal cultural resources are identified during construction activities, construction work within 100 feet of the find shall be halted and directed away from the discovery until a Secretary of the Interior qualified archaeologist and tribal representative assesses the significance of

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the resource. The archaeologist, in consultation with Imperial County and any interested Tribes, shall make the necessary plans for treatment of the find(s) and for the evaluation and mitigation of impacts if the finds are determined to be a tribal cultural resource as defined in PRC Section 21074.

XIX. Utilities and Service Systems

Environmental Issue Area:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

Impact Analysis

a) **Less than Significant Impact.** The proposed project does not currently contain any public utilities or services. The proposed project would not require the construction of any water, wastewater, stormwater, or energy facilities to accommodate the demand of the project. During project construction, water will be needed for dust control and soil conditioning during installation of the photovoltaic panels, battery storage units, and related infrastructure. During the operational phase, water will be needed for routine maintenance activities, which will primarily consist of washing the photovoltaic panels to maintain generation efficiency. The project's water supply will be provided by a new onsite groundwater supply well to be drilled and installed as part of the project. Impacts associated with the project's groundwater

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well are inherent to the project's construction phase, and impacts have been evaluated throughout this Initial Study under the appropriate subject headings (air quality, biological resources, etc.).

The proposed project would not require the relocation, expansion, or construction of new storm drainage facilities because the proposed solar facility would not generate a significant increase in the amount of impervious surfaces that would increase runoff during storm events and exceed the capacity of existing or planned stormwater drainage systems. Water from solar panel washing would continue to percolate through the ground, as a majority of the surfaces within the project site would remain pervious.

The wastewater generated during construction would be contained within portable toilet facilities and disposed of at an approved site. The minimal volume of wastewater generated during construction would not require the relocation expansion, or construction of wastewater treatment facilities.

Further, no habitable structures (e.g. housing or O&M buildings) are proposed on the project site. Therefore, the proposed project would not require or result in the relocation or construction of new or expanded electric power or natural gas.

b) **Less than Significant Impact.** During project construction, water will be needed for dust control and soil conditioning during installation of the photovoltaic panels, battery storage units, and related infrastructure. Construction water demand is approximately 295 acre-feet and is anticipated to require 12 to 18 months to complete. The monthly water demand during that period will average about 16 acre-feet to 25-acre feet. During the operational phase, water will be needed for routine maintenance activities, which will primarily consist of washing the photovoltaic panels to maintain generation efficiency. The operational water demand is anticipated to be 10 acre-feet per year. The maintenance activities are anticipated to be conducted up to twice a year over a one-to-two-week period each event, so the maintenance water demand is intermittent and not spread throughout the year (Appendix K of this Initial Study).

The total groundwater storage capacity of the Basin is conservatively estimated to be 3,000,000 acre-feet. And the groundwater decline in wells in adjacent groundwater basins has varied from 8.5 percent to 25 percent over the last several decades. Thus, the current storage in the Basin may be in the range of 2,250,000 to 2,745,000 acre-feet. The single year construction water demand of 295 acre-feet and the annual operational water needs of 10 acre-feet are miniscule (0.011 percent to 0.013 percent and 0.00036 percent to 0.0004 percent, respectively) compared to the available groundwater in storage (Appendix K of this Initial Study). Therefore, there is a sufficient water supply available to serve the project, and this impact is considered less than significant.

c) **No Impact.** The proposed project would not generate wastewater that would need to be treated by a wastewater treatment facility. On-site wastewater needs will be accommodated by the use of portable toilets that will be removed from the project site once construction is complete. No impact would occur.

d) **Less than Significant Impact.** Solid waste generation would be minor for the construction and operation of the proposed project. Trash would likely be hauled to the Salton City Solid Waste Site (13-AA-0011) located approximately 6.94 miles northwest at 935 W. Highway 86. The Salton City Solid Waste Site has approximately 62,974,488 cubic yards of remaining capacity and is estimated to remain in operation through 2038 (CalRecycle 2023). Therefore, there is ample landfill capacity in Imperial County to receive the minor amount of solid waste generated by construction and operation of the proposed project.

Additionally, because the proposed projects would generate solid waste during construction and operation, they will be required to comply with state and local requirements for waste reduction and recycling, including the 1989 California Integrated Waste Management Act and the 1991 California Solid Waste Reuse and Recycling Access Act of 1991. Also, conditions of the conditional use permits will contain provisions for recycling and diversion

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of Imperial County construction waste policies. Therefore, a less than significant impact is identified for this issue area.

e) **Less than Significant Impact.** The proposed would comply with all applicable statutes and regulations related to solid waste. As discussed in Response XIX. d) above, solid waste generated by the proposed solar photovoltaic facility and BESS is expected to be minimal. This impact is considered less than significant.

XX. Wildfire

Environmental Issue Area:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

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Impact Analysis

a) – d) **No Impact.** The project site is located in the unincorporated area of Imperial County. According to the Seismic and Public Safety Element of the General Plan, the potential for a major fire in the unincorporated areas of the County is generally low (County of Imperial 1997). Based on a review of the California Department of Forestry and Fire Protection's fire hazard severity zone map, the project site is not located within a fire hazard severity zone (California Department of Forestry and Fire Protection 2023). The proposed project would not involve blocking or restricting any emergency access routes and would not interfere with emergency response plans or operations near the project area. The proposed project would not involve the development of structures that would introduce new populations to the project area that could result in impacts involving wildfires. The proposed project would not exacerbate wildfire risks and no impact is identified.

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XXI. Mandatory Findings of Significance

Environmental Issue Area:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☒	☐	☐
c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Impact Analysis

a) **Less than Significant Impact with Mitigation Incorporated.**

Biological Resources

Special-Status Plants

As described in Response IV. a) above, there is high potential for one special-status plant species, Orcutt's woody-aster, to be present within the project site; and moderate potential for four additional special-status plant species, Harwood's milkvetch, gravel milkvetch, Abram's spurge, and Torrey's boxthorn, to be present within the project site. Impacts that may occur to these species include loss of individuals, habitat, and seedbank. Depending on the size of the population, this impact may be significant. Implementation of Mitigation Measures BIO-1 through BIO-3 would reduce potential impacts on special-status species to a level less than significant.

Special-Status Wildlife

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As described in Response IV. a) above, three special-status wildlife species were found to have a high potential to occur within the Survey Area: flat-tailed horned lizard, burrowing owl, and desert kit fox. Impacts to these species could be considered significant. Implementation of Mitigation Measures BIO-2 through BIO-6 would reduce potential impacts on special-status species to a level less than significant.

Three special-status wildlife species were found to have a moderate potential to occur within the Survey Area: Colorado Desert fringe-toed lizard, Palm Springs pocket mouse, and American badger. Impacts to Palm Springs pocket mouse, flat-tailed horned lizard, and Colorado Desert fringe-toed lizard are not anticipated to rise to a level of significant impact due to the proximity of the project site to anthropogenic disturbances (i.e., SR-86, active agriculture) and the presence of existing suitable habitat in the region. However, potential impacts to these species will be minimized with the implementation of Mitigation Measures BIO-2, BIO-3, and BIO-6.

Although no roosting habitat for bats was present on the project site, foraging habitat for a number of special-status bat species occur throughout the project site and in proximity to the project site at the Salton Sea. Mortality or injury of individual special-status bats as a result of the project may be a significant impact. Implementation of Mitigation Measures BIO-2, BIO-3, and BIO-7 would reduce potential impacts on bat species to a level less than significant.

Raptors and Migratory Birds

There is potential nesting and foraging habitat for migratory birds and raptors protected by the MBTA and the California Fish and Game Code throughout and adjacent to the project site. Implementation of Mitigation Measures BIO-2, BIO-3, and BIO-5 would reduce potential impacts to a level less than significant. Mortality or injury of individual birds and raptors as a result of the project may have a significant impact. Implementation of Mitigation Measure BIO-7 would reduce potential impacts to a level less than significant.

Cultural Resources

As described in Response V. a) above, although P-13-7600, a previously recorded resource which is listed in the CRHR and eligible for listing in the NRHP, was not relocated during the inventory and testing/evaluation phases of the proposed project due to its location being potentially incorrectly plotted on maps, there is still a potential the resource may be nearby and within the project area. There is a potential that ground disturbing activities during construction could impact P-13-7600, if observed within the project area. This potential impact is considered significant. Implementation of Mitigation Measures CR-1 and CR-2 would reduce potential impacts to a level less than significant.

As described in Response V. b) above, due to the presence of alluvium and relict shorelines, and given the likelihood of precontact archaeological sites located along perennial waterways and relict shorelines, the project area has the potential for buried precontact archaeological sites. There is a high potential for buried precontact cultural material along the relict shorelines of Lake Cahuilla because precontact sites in this region are known to occur along those shorelines. Therefore, the possibility remains that unanticipated subsurface discoveries may arise during project construction. This potential impact is considered significant. Implementation of Mitigation Measures CR-1 and CR-2 would reduce potential impacts to a level less than significant.

As described in Response V. c) above, the potential for encountering subsurface human remains within the project site is low, there remains a possibility that human remains are present beneath the ground surface, and that such remains could be exposed during construction. The potential to encounter human remains is considered a significant impact. Mitigation Measure CR-3 would ensure that the potential impact on previously unknown human remains does not rise to the level of significance pursuant to CEQA.

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Geology and Soils

As described in Response I. f) above, the project site is located within an area where paleontological sensitivity is considered to be high. Impacts on any surface or near-surface level paleontological resources may occur because of grading and disturbance of the area. Even relatively shallow excavations in the Lake Cahuilla beds exposed in the project site may encounter significant vertebrate fossil remains. Implementation of Mitigation Measure GEO-1 would ensure that the potential impacts on paleontological resources do not rise to the level of significance pursuant to CEQA.

b) **Less than Significant Impact with Mitigation Incorporated.** Based on the analysis contained in this Initial Study, the proposed project would not result in significant impacts to aesthetics, air quality, agricultural and forestry resources, energy, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation, utilities and service systems, and wildfire.

The proposed project would have potential impacts that are significant on the following resources areas: biological resources, cultural resources, geology and soils, and tribal cultural resources. However, implementation of mitigation measures would ensure potential impacts are reduced to less than significant levels. The proposed project would incrementally contribute to cumulative impacts for projects occurring within the vicinity of the project. However, compliance with the mitigation measures would ensure that no residually significant impacts would result with implementation of the project either directly or indirectly. In the absence of residually significant impacts, the incremental accumulation of effects would not be cumulatively considerable. Therefore, a finding of less than significant is identified for this issue area.

c) **Less than Significant Impact.** Based on the analysis contained in this Initial Study, the proposed project would not cause substantial adverse effects on human beings, either directly or indirectly. Any effects related to construction of the project would be temporary and short-term and would not result in any long-term or permanent effects on human beings. This is considered a less than significant impact.

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References

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List of Preparers

This Initial Study was prepared for the Imperial County Planning and Development Services Department by HDR. The following professionals participated in its preparation:

Imperial County Planning and Development Services Department

Jim Minnick, Planning and Development Services Director

Michael Abraham, AICP, Assistant Planning and Development Services Director

Diana Robinson, Planning Division Manager

Gerardo Quero, Planner II

HDR

Tim Gnibus, Principal

Sharyn Hidalgo, Project Manager

Steven Yu, Environmental Planner

Sharon Jacob, Geographic Information Systems Analyst

Katherine Turner, Document Production Administrator

Technical Report Preparers

ECORP Consulting, Inc.

- Visual Resources Assessment
- Air Quality and Greenhouse Gas Emissions Assessment
- Archaeological and Architectural History Resources Evaluations
- Biological Technical Report
- Cultural Resources Inventory Report
- Energy Consumption Assessment
- Noise Impact Assessment
- Traffic, Parking, and Circulation Assessment

EMKO Consulting, Inc.

- Water Supply Assessment

GS Lyon Consultants, Inc.

- Phase I ESA Report

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Hernandez Environmental Services

- Aquatic Resource Delineation Report

Landmark Consultants, Inc.

- Geotechnical Report

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Findings

This is to advise that the County of Imperial, acting as the lead agency, has conducted an Initial Study to determine if the project may have a significant effect on the environment and is proposing this Negative Declaration based upon the following findings:

☐ The Initial Study shows that there is no substantial evidence that the project may have a significant effect on the environment and a NEGATIVE DECLARATION will be prepared.

☑ The Initial Study identifies potentially significant effects but:

(1) Proposals made or agreed to by the applicant before this proposed Mitigated Negative Declaration was released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur.

(2) There is no substantial evidence before the agency that the project may have a significant effect on the environment.

(3) Mitigation measures are required to ensure all potentially significant impacts are reduced to levels of insignificance.

A MITIGATED NEGATIVE DECLARATION will be prepared.

If adopted, the Negative Declaration means that an Environmental Impact Report will not be required. Reasons to support this finding are included in the attached Initial Study. The project file and all related documents are available for review at the County of Imperial, Planning & Development Services Department, 801 Main Street, El Centro, CA 92243 (442) 265-1736.

NOTICE

The public is invited to comment on the proposed Negative Declaration during the review period.

6-13-2024 for
Date of Determination — Jim Minnick, Director of Planning & Development Services

The Applicant hereby acknowledges and accepts the results of the Environmental Evaluation Committee (EEC) and hereby agrees to implement all Mitigation Measures, if applicable, as outlined in the MMRP.

Applicant Signature — 6/13/24 Date

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COMMENT LETTERS

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Office of the Agricultural Commissioner
Sealer of Weights and Measures
852 Broadway, El Centro CA 92243

Jolene Dessert
Commissioner / Sealer

Rachel Garewal
Asst. Commissioner / Sealer

December 27, 2023

Gerardo Quero, Planner II
Planning & Development Services Department
County of Imperial
801 Main Street
El Centro, CA 92243

Re: Apex Energy Solutions LLC GPA#23-0002, ZC#23-0002, CUP#23-0007, 0008, IS#23-0007

Dear Mr. Quero:

Our department received and reviewed the documents pertaining to GPA#23-0002, ZC#23-0002, CUP#23-0007, 0008, IS#23-0007 as submitted by Apex Energy Solutions LLC. The applicant is proposing to construct and operate a 100 megawatt photovoltaic solar energy generation project and 200 megawatt battery energy storage project on approximately 585 acres near 4580 West US Highway 86, Salton City, CA.

Any plans to mitigate farmland taken out of production through the use of easements must ensure that the mitigating farm ground is in farmable condition. If the mitigation plan involves a Parceling Project, any parcels to remain in farming must align with existing infrastructure such as canals, delivery ditches, and surface & subsurface drainage systems. Mitigating farmland must be maintained in farmable condition, including repairs as needed to the infrastructure.

This project will require an ongoing Pest Management Plan to mitigate negative impacts to surrounding farmland from pests such as insects, vertebrates, weeds, and plant pathogens. The plan must be submitted to our office for approval prior to the issuance of a grading or building permit, whichever occurs first). Attached are the requirements that your company will need to meet.

Projects constructed on farm ground will also require a reclamation plan that would return the land to its pre-constructed agricultural condition at the conclusion or abandonment of the project. The reclamation plan needs to include a written description of the crop history of each field, water delivery system, drainage system, physical infrastructure, the parties responsible for conducting reclamation, and a detailed description of the recycling, and/or disposal of all solar arrays, inverters, transformers and other structures on each of the sites. The plan must be submitted to our office for approval prior to the issuance of a grading permit.

If you or the applicant has any questions, please contact me at 442-265-1500.

Respectfully,

Jolene Dessert

EEC ORIGINAL PKG

Office of the
Agricultural Commissioner
Sealer of Weights and Measures

Carlos Ortiz
Agricultural Commissioner
Sealer of Weights and Measures

Jolene Dessert
Asst. Agricultural Commissioner
Asst. Sealer of Weights and Measures

Pest Management Plan Requirements for Solar Projects

The Project Shall:

- Maintain a Pest Management Plan until reclamation is complete.
- Develop and implement a Pest Management Plan that will reduce negative impacts to surrounding (not necessarily adjacent) farmland.
- Monitor for all pests including insects, vertebrates, weeds, and pathogens. Promptly control or eradicate pests when found, or when notified by the Agricultural Commissioner's office that a pest problem is present on the project site. The assistance of a licensed pest control advisor is recommended. All treatments must be performed by a qualified applicator or a licensed pest control business.
- "Control" means to reduce the population of common pests below economically damaging levels, and includes attempts to exclude pests before infestation, and effective control methods after infestation. Effective control methods may include physical/mechanical removal, biocontrol, cultural control, or chemical treatments.
- Use of "permanent" soil sterilants to control weeds or other pests is prohibited due to the fact that this would interfere with reclamation.
- Notify the Agricultural Commissioner's office immediately regarding any suspected exotic/invasive pest species as defined by the California Department of Food Agriculture (CDFA) and the United States Department of Agriculture (USDA). Request a sample be taken by the Agricultural Commissioner's Office of a suspected invasive species. Eradication of exotic pests will be done under the direction of the Agricultural Commissioner's Office and/or CDFA.
- Obey all pesticide use laws, regulations, and permit conditions.
- Allow access by Agricultural Commissioner staff for routine visual and trap pest surveys, compliance inspections, eradication of exotic pests, and other official duties.
- Ensure that all project employees that handle pest control issues are appropriately trained and certified, that all required records are maintained and available for inspection, and that all permits and other required legal documents are current.
- Maintain records of pests found and treatments or pest management methods used. Records should include the date, location/block, project name (current and previous if changed), and methods used. For pesticides include the chemical(s) used, EPA Registration numbers, application rates, etc. A pesticide use report may be used for this.
- Submit a report of monitoring, pest finds, and treatments, or other pest management methods to the Agricultural Commissioner quarterly within 15 days after the end of the previous quarter, and upon request. The report is required even if no pests were found or treatment occurred. It may consist of a copy of all records for the previous quarter, or may be a summary letter/report as long as the original detailed records are available upon request.

Reimbursement

- The project shall reimburse the Agricultural Commissioner's office for the actual cost of investigations, inspections, or other required non-routine responses to the site that are not funded by other sources.

(442) 265-1500 • fax: (760) 353-9420 | 852 Broadway Street, El Centro, CA 92243
agcom@co.imperial.ca.us | agcom.imperialcounty.org

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January 4, 2024

Mr. Gerardo Quero
Planner II
Planning & Development Services Department
County of Imperial
801 Main Street
El Centro, CA 92243

SUBJECT: NorthStar 3 Solar Energy and BESS Project; GPA23-0002/ZC23-0002/CUP23-0007/CUP23-0008/IS23-0007

Dear Mr. Quero:

On December 22, 2023, the Imperial Irrigation District received from the Imperial County Planning & Development Services Department, a request for agency comments on the NorthStar 3 Solar Energy and Battery Energy Storage System project; General Plan Amendment No. 23-0002, Zone Change No. 23-0002, Conditional Use Permit No. 23-0007, Conditional Use Permit No. 23-0008, Initial Study No. 23-0007. The applicant, Apex Energy Solution, LLC; proposes the construction and operation of a 100MW PV energy generation facility, a 200MW battery storage system. The project will interconnect to the IID 161kV L transmission line via an approximately 0.75-mile gen-tie line. The nearly 585-acre project site is located at 4580 W. Hwy. 86, Salton City, **CA** (APNs 017-350-027, -030, -031).

1. There are a few mentions of MW output throughout the project documentation that don't seem to align. The project's Interconnection Request application submitted to the IID indicates a 100MW PV and 100 BESS facility.

2. If the project requires electrical service, the applicant should be advised to contact Gabriel Ramirez, IID project development service planner, at (760) 339-9257 or e-mail Mr. Ramirez at gramirez@iid.com to initiate the customer service application process. In addition to submitting a formal application (available for download at the district website http://www.iid.com/home/showdocument?id=12923), the applicant will be required to submit an AutoCAD file of site plan, approved electrical plans, electrical panel size and panel location, operating voltage, electrical loads, project schedule, and the applicable fees, permits, easements and environmental compliance documentation pertaining to the provision of electrical service to the project. The applicant shall be responsible for all costs and mitigation measures related to providing electrical service to the project.

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3. Electrical capacity is limited in the project area. A circuit study may be required. Any system improvements or mitigation identified in the circuit study to enable the provision of electrical service to the project shall be the financial responsibility of the applicant.

4. Applicant shall provide a surveyed legal description and an associated exhibit certified by a licensed surveyor for all rights of way deemed by IID as necessary to accommodate the project electrical infrastructure. Rights-of-Way and easements shall be in a form acceptable to and at no cost to IID for installation, operation, and maintenance of all electrical facilities.

5. Any construction or operation on IID property or within its existing and proposed right of way or easements including but not limited to: surface improvements such as proposed new streets, driveways, parking lots, landscape; and all water, sewer, storm water, or any other above ground or underground utilities; will require an encroachment permit, or encroachment agreement (depending on the circumstances). A copy of the IID encroachment permit application and instructions for its completion are available at https://www.iid.com/about-iid/department-directory/real-estate. The IID Real Estate Section should be contacted at (760) 339-9239 for additional information regarding encroachment permits or agreements. No foundations or buildings will be allowed within IID's right of way.

6. Any new, relocated, modified or reconstructed IID facilities required for and by the project (which can include but is not limited to electrical utility substations, electrical transmission and distribution lines, water deliveries, canals, drains, etc.) need to be included as part of the project's California Environmental Quality Act (CEQA) and/or National Environmental Policy Act (NEPA) documentation, environmental impact analysis and mitigation. Failure to do so will result in postponement of any construction and/or modification of IID facilities until such time as the environmental documentation is amended and environmental impacts are fully analyzed. Any and all mitigation necessary as a result of the construction, relocation and/or upgrade of IID facilities is the responsibility of the project proponent.

7. When the time comes for the project to go through the CEQA process and address the environmental factors to be assessed, pursuant to the checklist in Appendix G of the CEQA guidelines, to correctly evaluate the potential impacts related to the environmental factor "XIX. UTILITIES AND SERVICE SYSTEMS" and determine the appropriate compliance action, a circuit study/distribution impact study, facility study, and/or system impact study will have to be performed to establish if the project will require or result in the relocation or construction of new or expanded electric power facilities, the construction or relocation of which could cause significant environmental effects.

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8. The project is in the early stages of the IID interconnection process, the district has yet to perform a System Impact Study at this point. Thus, the IID infrastructure that may be necessary to accommodate the project has not been identified. However, assuming there are no issues with the point of interconnection at IID's 161kV "L" line, at minimum, a new switching station, most likely built on the project's property, to loop in-and-out the "L" line with a short gen-tie into the switching station would be required.

Should you have any questions, please do not hesitate to contact me at 760-482-3609 or at dvargas@iid.com. Thank you for the opportunity to comment on this matter.

Respectfully,

Donald Vargas
Compliance Administrator II

Jamie Asbury – General Manager
Mike Pacheco – Manager, Water Dept.
Matthew H Smelser – Manager, Energy Dept.
Geoffrey Holbrook – General Counsel
Michael P. Kemp – Superintendent General, Fleet Services and Reg. & Environ. Compliance
Laura Cervantes. – Supervisor, Real Estate
Jessica Humes – Environmental Project Mgr. Sr., Water Dept.

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COUNTY EXECUTIVE OFFICE

Miguel Figueroa
County Executive Officer
miguelfigueroa@co.imperial.ca.us
www.co.imperial.ca.us

County Administration Center
940 Main Street, Suite 208
El Centro, CA 92243
Tel: 442-265-1001
Fax: 442-265-1010

January 10, 2024

TO: Gerardo Quero, Planning and Development Services Department

FROM: Rosa Lopez, Executive Office

SUBJECT: Request for Comments – NorthStar 3 BESS Facility Project / CUP#23-0007, #23-0008; APN 017-350-027, 017-350-030 &017-350-031-000

The County of Imperial Executive Office is responding to a request for comments: NorthStar 3 BESS Facility Project / CUP#23-0007, #23-0008; APN 017-350-027, 017-350-030 &017-350-031-000. The Executive Office would like to inform the developer of conditions and responsibilities of the applicant seeking a Conditional Use Permit (CUP). The conditions commence prior to the approval of an initial grading permit and subsequently continue throughout the permitting process. This includes, but not limited to:

- Sales Tax Guarantee. The permittee is required to have a Construction Site Permit reflecting the project site address, allowing all eligible sales tax payments are allocated to the County of Imperial, Jurisdictional Code 13998. The permittee will provide the County of Imperial a copy of the CDTFA account number and sub-permit for its contractor and subcontractors (if any) related to the jobsite. Permittee shall provide in written verification to the County Executive Office that the necessary sales and use tax permits have been obtained, prior to the issuance of any grading permits.
- Construction/Material Budget: The permittee will provide the County Executive Office a construction materials budget: an official construction materials budget or detailed budget outlining the construction and materials cost for the processing facility on permittee letterhead.
- At developers cost, the County Executive Office shall hire a third-party consultant to produce a Fiscal and Economic Impact Analysis & Job and Employment Analysis (FEIA & JEIA) prior to project being placed on Planning Commission meeting.
- Public Service Agreement. The developer shall enter into a Public Service Agreement with the County of Imperial.

Should there be any concerns and/or questions, do not hesitate to contact me.

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150 SOUTH NINTH STREET
EL CENTRO, CA 92243-2850

TELEPHONE: (442) 265-1800
FAX: (442) 265-1799

AIR POLLUTION CONTROL DISTRICT

January 18, 2024

RECEIVED
By Imperial County Planning & Development Services at 5:14 pm, Jan 25, 2024

Jim Minnick, Director
Imperial County Planning & Development Services
801 Main Street
El Centro, CA 92243

SUBJECT: General Plan Amendment 23-0002, Zone Change 23-0002, Conditional Use Permit 23-0007 & 23-0008 and Initial Study 23-0007 – Apex Energy Solutions

Dear Mr. Minnick:

The Imperial County Air Pollution Control District (Air District) would like to thank you for the opportunity to review and comment on General Plan Amendment (GPA) 23-0002, Zone Change (ZC) 23-0002, and Conditional Use Permits (CUP) 23-0007 & 23-0008, and Initial Study (IS) 23-0007 regarding the proposed construction and operation of a 100 Megawatt (MW) solar photovoltaic (PV) energy generation system and a 200 MW battery energy storage system (BESS) (Project). The Project is located on approximately 585 acres at 4580 West US Highway 86, Salton City also identified with Assessor's Parcel Numbers017-350-027, 017-350-030, & 017-350-031.

After reviewing the Air Quality Assessment (AQA) titled *Air Quality and Greenhouse Gas Emissions Assessments for North Star 1*, the Air District is unable to concur with the CalEEMod analysis and the AQA's determination that impacts will be less than significant as presented due to inconsistencies as detailed below.

Air District staff review all AQAs to ensure consistency with the California Environmental Quality Act (CEQA), the Air District's CEQA Handbook (Handbook), Air District rules & regulations, and enforceability. During the review of the AQA multiple changes to default values of the CalEEMod were noted. Typically, the Air District requests to be consulted on changes to defaults to ensure consistency and enforceability of the analysis. At minimum changes should be sufficiently explained and provide adequate support for the change. While some description of changes to default values are included, the Air District finds that the changes are not sufficiently supported to be consistent with the Air District's guidance.

AN EQUAL OPPORTUNITY / AFFIRMATIVE ACTION EMPLOYER

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Of particular interest to the Air District are changes of Road Dust/Percent Pave sections of the CalEEMod from 50% to 100%. Historically, the Air District has allowed for a maximum of 85% due to the high amounts of re-entrained dust on roads in the area. The Air District concludes that changing the defaults to 100% does not provide an accurate representation of real-world conditions in the area and underestimates particulate emissions of the project.

Multiple changes to Fleet Makeup and Fleet Mix factors are not sufficiently explained with supporting information and in combination with changes to default Trip Numbers for Worker, Vendor, and Haul trips, brings into question the accuracy of NO_x emission estimates. As construction activities can generate significant NO_x emissions from equipment and given that solar projects tend to be constructed with relatively shortened timelines, it is imperative the Air District ensure the project does not exceed NO_x thresholds.

Section 2.3.1.1 of the AQA discusses cumulative impacts of the project and states "projects that do not exceed significance thresholds, would not be considered cumulative [sic] considerable." This interpretation of cumulative impacts is inconsistent with the Air District's guidance. Section 6.1.f of the Handbook includes the following reference to CEQA regarding cumulative impacts: "refers to two or more individual effects which when considered together are considerable ... any cumulative impact analysis should consider the incremental impact of a project added to other closely related past, present and reasonably foreseeable probable future projects." Solar projects can create significant cumulative emissions of PM_{10} both during construction and operation.

In order to ensure the project remains below significant impact levels and for the Air District to concur with the less than significant determination with the current AQA, the Air District would require the project comply with the following resolutions:

- Submit an **Enhanced Construction Dust Control Plan** to the Air District for review and approval.

- Submit an **Operational Dust Control Plan** to the Air District for review and approval.
    - Will require site visit to finalize.

- Submit an **Equipment List** periodically during construction to the Air District for review.
    - The list must be in Excel Format and include make, model, year, id/serial number(s), type, tier, horsepower, and actual dates and hours used.

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        - Typically submitted electronically on a monthly basis.
    - The Air District will calculate NO_x emissions using Equipment Lists once construction is completed to verify NO_x thresholds were not exceeded.
        - In the event an exceedance is determined the project may become subject to Policy 5 requirements.

If the applicant wishes to instead review and recreate the AQA and CalEEMod for additional review by the Air District, they may pursue that avenue. However, any changes to the above resolutions are contingent upon the Air Districts findings after additional review of any changes and updates to the AQA. In any event, the Air District suggests the applicant maintain active communications with the Air District to discuss the resolutions and/or AQA updates.

For your convenience, the Air District's rules and regulations are available via the web at https://apcd.imperialcounty.org/rules-and-regulations/. Please feel free to call our office at (442) 265-1800 or contact us through email to setup a discussion regarding the project or if you have any additional questions or concerns.

Respectfully,

Ismael Garcia
Environmental Coordinator

Reviewed by,
Monica Soucier
APC Division Manager

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AGUA CALIENTE BAND OF CAHUILLA INDIANS
TRIBAL HISTORIC PRESERVATION

03-015-2024-003

February 01, 2024

[VIA EMAIL TO:gerardoquero@co.imperial.ca.us]
Imperial County
Gerardo Quero
801 Main St.
El Centro, CA 92243

Re: NorthStar 3 PV Solar & Bess

Dear Gerardo Quero,

The Agua Caliente Band of Cahuilla Indians (ACBCI) appreciates your efforts to include the Tribal Historic Preservation Office (THPO) in the NorthStar 3 PV Solar & Bess project. The project area is not located within the boundaries of the ACBCI Reservation. However, it is within the Tribe's Traditional Use Area.A records check of the ACBCI registry indicates this area has not been surveyed for cultural resources. In consultation, the ACBCI THPO requests the following:

*Formal government to government consultation under California Senate Bill 18 (SB-18).

*A cultural resources inventory of the project area by a qualified archaeologist prior to any development activities in this area.

*Copies of any cultural resource documentation (report and site records) generated in connection with this project.

*A copy of the records search with associated survey reports and site records from the information center.

*The presence of an approved Cultural Resource Monitor(s) during any ground disturbing activities (including archaeological testing and surveys). Should buried cultural deposits be encountered, the Monitor may request that destructive construction halt and the Monitor shall notify a Qualified Archaeologist (Secretary of the Interior's Standards and Guidelines) to investigate and, if necessary, prepare a mitigation plan for submission to the State Historic Preservation Officer.

*The presence of an archaeologist that meets the Secretary of Interior's standards during any ground disturbing activities.

Again, the Agua Caliente appreciates your interest in our cultural heritage. If you have questions or require additional information, please call me at (760) 883-1134. You may also email me at ACBCI-THPO@aguacaliente.net.

5401 Dinah Shore Drive, Palm Springs, CA 92264
T 760 699-6800 F 760 699-6924 www.aguacalientensn.gov

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AGUA CALIENTE BAND OF CAHUILLA INDIANS

TRIBAL HISTORIC PRESERVATION

Cordially,

Claritsa Duarte
Cultural Resources Analyst
Tribal Historic Preservation Office
AGUA CALIENTE BAND
OF CAHUILLA INDIANS

5401 DINAH SHORE DRIVE, PALM SPRINGS, CA 92264
T 760 699 6800 F 760 899 6924 WWW.AGUACALIENTE-NSN.GOV

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Gerardo Quero

From: Ray Teran <rteran@viejas-nsn.gov>
Sent: Friday, 2 February, 2024 4:06 PM
To: Gerardo Quero
Cc: Ernest Pingleton; alan hatcher
Subject: NorthStar 1, 2 and 3

CAUTION: This email originated outside our organization; please use caution.

The Viejas Band of Kumeyaay Indians ("Viejas") has reviewed the proposed project and at this time we have determined that the project site has cultural significance or ties to Viejas. Cultural resources have been located within or adjacent to the APE-DE of the proposed project.

Viejas Band request that a Kumeyaay Cultural Monitor be on site for ground disturbing activities and to inform us of any new developments such as inadvertent discovery of cultural artifacts, cremation sites, or human remains.

If you wish to utilize Viejas cultural monitors (Viejas rate is $54.15/hr. plus GSA mileage), please call Ernest Pingleton at 619-655-0410 or email, epingleton@viejas-nsn.gov, for contracting and scheduling. Thank you.

If a Tribe, having a closer proximity to the Project, requests to perform cultural monitoring, Viejas will differ to them.

Ray Teran
Viejas Tribal Government
Resource Management Director
619-659-2312
rteran@viejas-nsn.gov

RECEIVED
FEB 02 2024
IMPERIAL COUNTY
PLANNING & DEVELOPMENT SERVICES

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CALIFORNIA STATE TRANSPORTATION AGENCY

GAVIN NEWSOM, GOVERNOR

California Department of Transportation

DISTRICT 11
4050 TAYLOR STREET, MS-240
SAN DIEGO, CA 92110
(619) 985-1587 | FAX (619) 688-4299 TTY 711
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RECEIVED
By Imperial County Planning & Development Services at 10:10 am, Feb 05, 2024

February 01, 2024

11-IMP-86
PM 47.093
NorthStar 3 Solar Energy Site
Request for Review and Comments Packet (GPA #23-0002, ZC#23-0002, CUP #23-0007, CUP #23-0008, IS #23-0007)

Mr. Gerardo Quero
Planner II
Imperial County Planning and Development Services
801 Main Street
El Centro, CA 92243

Dear Mr. Quero

Thank you for including the California Department of Transportation (Caltrans) in the review process for the Request for Review and Comments Packet (GPA #23-0002, ZC #23-0002, CUP #23-0007, CUP #23-0008, IS #23-0007) for the NorthStar 3 Solar Energy Site located near State Route 86 (SR-86). The mission of Caltrans is to provide a safe and reliable transportation network that serves all people and respects the environment. The Local Development Review (LDR) Program reviews land use projects and plans to ensure consistency with our mission and state planning priorities.

Safety is one of Caltrans' strategic goals. Caltrans strives to make the year 2050 the first year without a single death or serious injury on California's roads. We are striving for more equitable outcomes for the transportation network's diverse users. To achieve these ambitious goals, we will pursue meaningful collaboration with our partners. We encourage the implementation of new technologies, innovations, and best practices that will enhance the safety on the transportation network. These pursuits are both ambitious and urgent, and their accomplishment involves a focused departure from the status quo as we continue to institutionalize safety in all our work.

Caltrans has the following comments:

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Traffic Engineering and Analysis

- Under "Access to Project Site", the project proposed a commercial grade access entry near the southwest corner of the project site from SR-86. The site plan didn't show where the proposed driveway would be located. However, this portion of SR-86 is access controlled, the proposed driveway access will not be allowed. Furthermore, per Caltrans Highway Manual (HDM) Section 205.1 'Road Connections and Driveways', "Access openings should not be spaced closer than one-half mile to an adjacent public road or to another private access opening that is wider than 30 feet." There is an existing Sandy Beach Road adjacent to the south of the development. Move the access point/driveway to Sandy Beach Road instead of from SR-86.

Hydraulics

- Provide Preliminary Grading Plans, include contour grading at 0.1-foot intervals.
- Provide Hydrology and Hydraulics Study for the proposed project. Include existing and proposed conditions.
- Please show how the parcels will be accessed. Will a driveway or private roads be constructed? Provide a preliminary design showing these improvements.
- Provide a site plan showing the existing Caltrans SR-86 centerline stationing, Caltrans' Right-of-Way (R/W), existing drainage facilities, and proposed project improvements.

Design

Near the NorthStar 3 Solar project footprint, Caltrans has 2 planned projects on SR-86: - PID 1123000001 (IMP-086-25/67.8) Broadband project installing fiber optic conduit. - PID 1122000280 (IMP-086-34.8/64.1) Bridge Preservation. At the planned project access point (what was formerly Sandy Beach Road), a culvert is present under the intersection. If heavy loads, beyond what SR-86 is designed to bear, are planned for transport, future coordination may be needed to avoid damage to State facilities during construction.

Environmental

Caltrans welcomes the opportunity to be a Responsible Agency under the California Environmental Quality Act (CEQA), as we have some discretionary authority of a portion of the project that is in Caltrans' R/W through the form of an encroachment permit process. We look forward to the coordination of our efforts to ensure that Caltrans can adopt the alternative and/or mitigation measure for our R/W. We would appreciate meeting with you to discuss the elements of the Environmental Document that Caltrans will use for our subsequent environmental compliance.

An encroachment permit will be required for any work within the Caltrans' R/W prior to construction. As part of the encroachment permit process, the applicant must

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provide approved final environmental documents for this project, corresponding technical studies, and necessary regulatory and resource agency permits. Specifically, CEQA determination or exemption. The supporting documents must address all environmental impacts within the Caltrans' R/W and address any impacts from avoidance and/or mitigation measures.

We recommend that this project specifically identifies and assesses potential impacts caused by the project or impacts from mitigation efforts that occur within Caltrans' R/W that includes impacts to the natural environment, infrastructure including but not limited to highways, roadways, structures, intelligent transportation systems elements, on-ramps and off-ramps, and appurtenant features including but not limited to fencing, lighting, signage, drainage, guardrail, slopes and landscaping. Caltrans is interested in any additional mitigation measures identified for the project's draft Environmental Document.

Cultural Resources and Paleontology

- The document does not mention any work occurring on Caltrans' R/W. However, if there is proposed work within State R/W then the cultural resource report needs to address it. There is a site boundary that encroaches into Caltrans' R/W. So, the agency/consultant would need to follow Caltrans' 5024 compliance as well. In addition, we recommend avoidance of the portion of the site within Caltrans' R/W.
- Explain where the new proposed driveway will be located, or if it is an existing driveway that you plan on using/expanding.

Right-of-Way

- Per Business and Profession Code 8771, perpetuation of survey monuments by a licensed land surveyor is required, if they are being destroyed by any construction.
- Any work performed within Caltrans' R/W will require discretionary review and approval by Caltrans and an encroachment permit will be required for any work within the Caltrans' R/W prior to construction.

If you have any questions or concerns, please contact Charlie Lecourtois, LDR Coordinator, at (619) 985-4766 or by e-mail sent to Charlie.Lecourtois@dot.ca.gov.

Sincerely,

Kimberly D. Dodson

KIMBERLY D. DODSON, G.I.S.P.
Acting Branch Chief
Local Development Review

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1078 Dogwood Road
Heber, CA 92249

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Fax: (760) 482-2427

Training
Phone: (442) 265-6011

OPERATIONS/PREVENTION
2514 La Brucherie Road
Imperial, CA 92251

Operations
Phone: (442) 265-3000
Fax: (760) 355-1482

Prevention
Phone: (442) 265-3020

RECEIVED
By Imperial County Planning & Development Services at 1:20 pm, Feb 26, 2024

February 26, 2024

RE: Apex Energy Solutions, LLC, Northstar 3

Imperial County Fire Department Fire Prevention Bureau would like to thank you for the opportunity to review and comment on Northstar 3 Solar Energy Project and Battery Electric Storage Systems (BESS). ZC#23-0002, GPA#23-0002, CUP#23-0007, #23-0008, IS#23-0007

The project description is developing and operating a one hundred (100) megawatt (MW) alternating current (AC) solar photovoltaic (PV) energy generation and two hundred (200) megawatt (MW) battery storage project. This project is located on approximately 585 acres on APN: 017-350-027 and 017-350-030 and 017-350-031. The location current address is 4580 West US Highway 86, Salton City, CA 92275.

Energy storage facilities create extreme hazards for firefighters and emergency responders with the possibility of explosions, flammable gases, toxic fumes, water-reactive materials, electrical shock, corrosives, and chemical burns. Due to limited resources, the hazards listed can create potential significant impacts for fire department personnel to safely perform firefighting operations and hazardous material response to a utility-scale energy storage facility. The remote location of the project will result longer response times. These long response times may result in incidents that are more difficult to stabilize and requiring additional resources to manage safely. Utility-scale energy storage requires specialized and reliable equipment to perform firefighting operations safely and effectively to NFPA recommendations, OSHA requirements, and ICFD standards.

Standards and requirements for energy storage system includes but not limited to:
NFPA:

1 Fire Code
70 National Electrical Code
855 Standard for the installation of Energy Storage System
111 Stored Electrical Energy Emergency and Standby Power System
1710 Standard for Organization and Deployment of Fire Suppression Operations, Emergency Medial Operations, and Special Operations to the Public by Career Fire Departments.

OSHA:

29 CFR 1910.134(g)(4)

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CFC:

Chapter 12 section 1206 Electrical Energy Storage System
Chapter 9 Fire Protection and Life Safety System

Fire Department requirements are the following:

Solar Requirements

- Approved all-weather access roads for fire protection vehicles shall be provided throughout the project, conforming with the California Fire Code Chapter 5, section 503. Access roadways shall be all-weather surface (suitable for use by fire apparatus) right-of-way not less than 20 feet in width.
- Access roadways shall provide intersecting roadways to allow unobstructed movement of fire apparatus throughout the project site. Solar array layout shall meet Imperial County Fire Department layout requirements.
- Additional access shall be provided to the project site in accordance with the California Fire Code Chapter 5, section 503.
- KNOX Box and/or Locks will be required for all access gates as determined by Imperial County Fire Department.
- Solar array fields shall be clear of all vegetation.
- A pre-incident plan shall be developed and approved by the Imperial County Fire/OES Department in a format and using a platform determined by ICFD.

Battery Energy Storage Systems

- An approved water supply capable of supplying the required fire flow determined by appendix B in the California Fire Code Shall be installed and maintained. (Minimum fire flow of 1500 GPM for 2 hours) Private fire service mains and appurtenance shall be installed in accordance with NFPA 20, 22, 24
- An approved automatic fire suppression system shall be installed on all required structures as per the California Fire Code Chapter 12 and NFPA 855. All fire suppression systems will be installed and maintained to the current adapted fire code and regulations.
- An approved automatic fire detection system shall be installed on all required structures as per the California Fire Code Chapter 12 and NFPA 855. All fire detection systems will be installed and maintained to the current adapted fire code and regulations.
- Owners and operators of ESS must develop and Emergency Operation Plan in conjunction with local fire service personnel, the AHJ, and hold a

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comprehensive understanding of the hazards associated with lithium-ion battery technology. Lithium-ion battery ESS's must incorporate adequate explosion prevention protection in accordance with NFPA 855 and/or California Fire Code Chapter 12.

- Signage shall be provided in accordance California Fire Code Chapter 12
- Compliance with all required sections of the fire code.
- Applicant shall provide product containment areas(s) for both product and water run-off in case of fire applications and retained for removal.
- An emergency response/action plan shall be prepared and approved by the Imperial County Fire/OES Department.
- A Hazardous Waste Material Plan shall be submitted to Certified Unified Program Agency (CUPA) for their review and approval.
- All hazardous material and wastes shall be handled, store, and disposed as per the approved Hazardous Waste Materials Plan. All spills shall be documented and reported to Imperial County Fire Department and CUPA as required by the Hazardous Waste Material Plan

Again thank you for the opportunity to comment. Imperial County Fire Department reserves the right to comment and request additional requirements pertaining to this project regarding fire and life safety measures, California building and fire code, and National Fire Protection Association standards at a later time as we see necessary.

If you have any questions, please contact the Imperial County Fire Prevention Bureau at 442-265-3020 or 442-265-3021.

Sincerely

Andrew Loper
Lieutenant/Fire Prevention Specialist
Imperial County Fire Department
Fire Prevention Bureau

Robert Malek
Deputy Chief
Imperial County Fire Department
Fire Prevention Bureau

CC: David Lantzer Fire Chief

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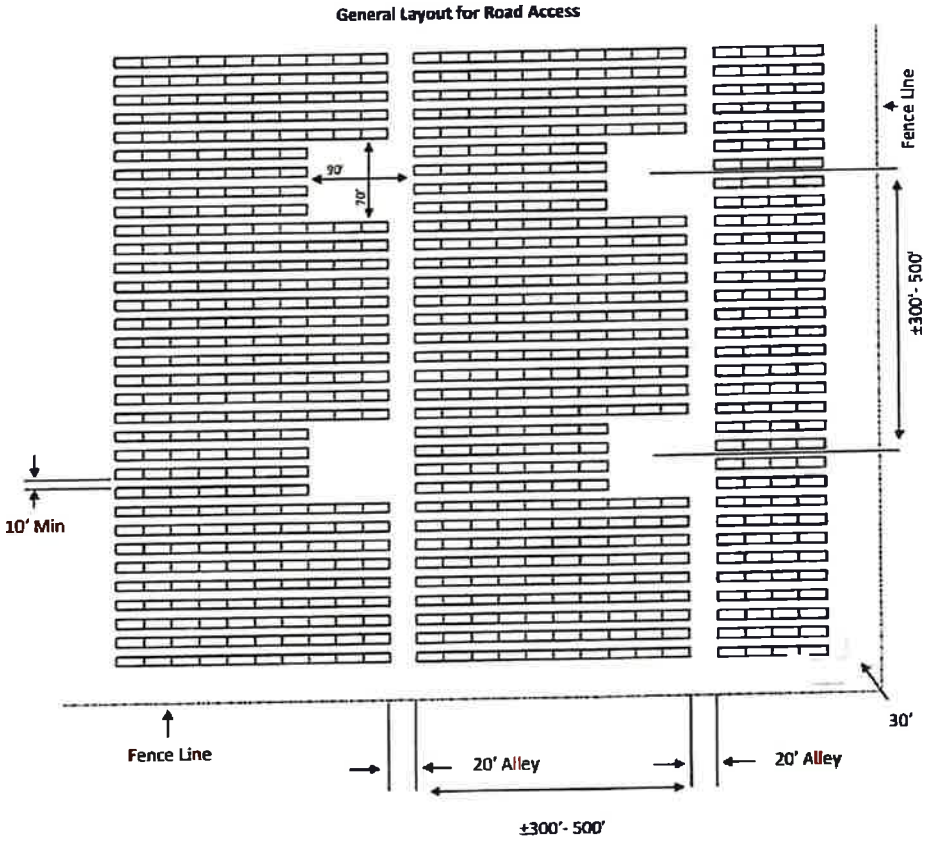
Imperial County Fire Department



AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER

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APPLICATION PACKAGE & SUPPORTING DOCUMENTS

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Clerical,

Please attach the following documents in the following order (Numbered Already):

ALL DOCUMENTS MAY BE FOUND AT:

S:\AllUsers\APN\017\350\027\GPA23-0002 ZC23-0002 CUP23-0007 CUP23-0008 IS23-0007\NORTHSTAR 3 SES CD SUBMITTAL

1. **NorthStar 3 Project Description and Site Plan**
2. **ESA Report**
3. **Geotechnical Report**
4. **NS3 Applications**
5. **ALTA Survey**
6. **Biotechnical Report**
7. **Cultural Report**
8. **Emissions Report**
9. **Energy Consumption Report**
10. **Noise Impacts Assessment**
11. **Transportation Study**
12. **Water Supply Assessment**
13. **Visual Resources Assessment**
14. **Equipment Site Plan**

Should you have any questions, please contact me.

-GQ#345

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Project Description
For the
NorthStar3PV/BESS

INTRODUCTION:

The NorthStar 3 Solar Energy Project and Battery Electric Storage System (BESS) (Project), includes the construction of a 100 -megawatt (MW) alternating current solar field and a 150 MW BESS, on approximately 585 acres of vacant land on two parcels in Imperial County, California (017-350-027 @ 120 AC and APN 017-350--31 @ 305 AC and 017-350-030 @ 160 AC) .

PROJECT OVERVIEW:

The Project proposes to construct a 100-megawatt (MW) alternating current solar field, consisting of 226800 single axis tracker modules in 7560 strings and associated collector and inverter facilities, and a 75 MW BESS, on approximately 585 acres of vacant land. The Project would connect to the grid offsite through an approximately .75 -mile gen-tie line to the 161 kV L IID transmission line which bisects the property. Operational water supply for the Project would be via a proposed groundwater well. None of the parcels are within the County's Renewable Energy and Transmission (RE) Element therefore, an amendment to the County's General Plan will be needed to include and classify the Project Site within the RE Overlay Zone. Additionally, a CUP to allow construction and operation of the solar energy generation facility with battery storage within the RE Overlay Zone will be required to implement the Project.

PROJECT LOCATION:

The total combined Project Site, consisting of three separate parcels of 585acres in size is located N HWY 86 southeast of Salton City. The Site is currently vacant, undeveloped land, and is surrounded by Open Space on all. Attached is the site plan (EXHIBIT A) and the gentie map (EXHIBIT B).

GENTIE CONNECTION:

To connect this project to the IID (Imperial Irrigation District) grid, a connection will be made to the on-site "L" line.

ACCESS to PROJECT SITE:

The site can be accessed from HWY 86 . The project proposes to construct an entrance near the southwest corner of the project site by constructing a commercial grade access entry. The access to the site will be gated and only authorized entities will be allowed access. An encroachment permit from CALTRANS will be required for the project.

BESS:

As noted above a 150 MW battery system is being proposed with this project. The location of the BESS will be along the north east side of project. The type of battery system is yet to be finalized however more than likely it will be the TESLA Megawall or equal type of system. This will not be a battery system within a conventional building.

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Project Description
For the
NorthStar3PV/BESS

SECURITY:

The entire site will be fenced with a 6 ft. high chain linked fence with secured access gate. In addition, this site is entirely remotely operated and will have a full video surveillance security system. Given that these type of projects are self monitored and given that they are secured by the operators there is minimal if no need for police services. At most if an incident occurred at the site the sheriff's office may receive a call for service in which case the project will pay all direct costs for such service.

FIRE PROTECTION:

This is a PV/BESS project that is located in a remote area of the County. The project will meet all County Fire Department requirements. However there will be limited need for actual fire protection in case of a fire insofar as the battery system will be the type that needs to burn to the ground rather than have water applied. These type of battery systems are in open areas and are designed not to be extinguished. In fact attempting to extinguish them creates additional problem with longer burn times and more obnoxious smoke. At most the fire department would need to perform stand by services to prevent the fire from spreading to adjacent property. Given however that adjacent lands are open space desert with no structures at most the fire department would need to minimize brush fires. There will be two 10,000 gallon water storage tanks located on site at location(s) determined by the fire dept. these tanks will be maintained full at all times for fire protection purposes only.

OPERATIONS:

This project once constructed will have no on site personnel nor on site offices. At most there may be a small storage building to house limited supplies. During normal operations there will be routine maintenance which would be performed by one or two individuals going to the site. In addition, there will be rare need for washing the panels. This may occur once each year at most.

WATER SOURCE:

Given that this site is outside of the IID"s irrigated district boundary, water cannot be obtained from any of the IID delivery canals unless IID policies change. In order to provide water for the construction and on going operations a water will need to be provided. A separate CUP application has been submitted for this project to drill and operate a water well.

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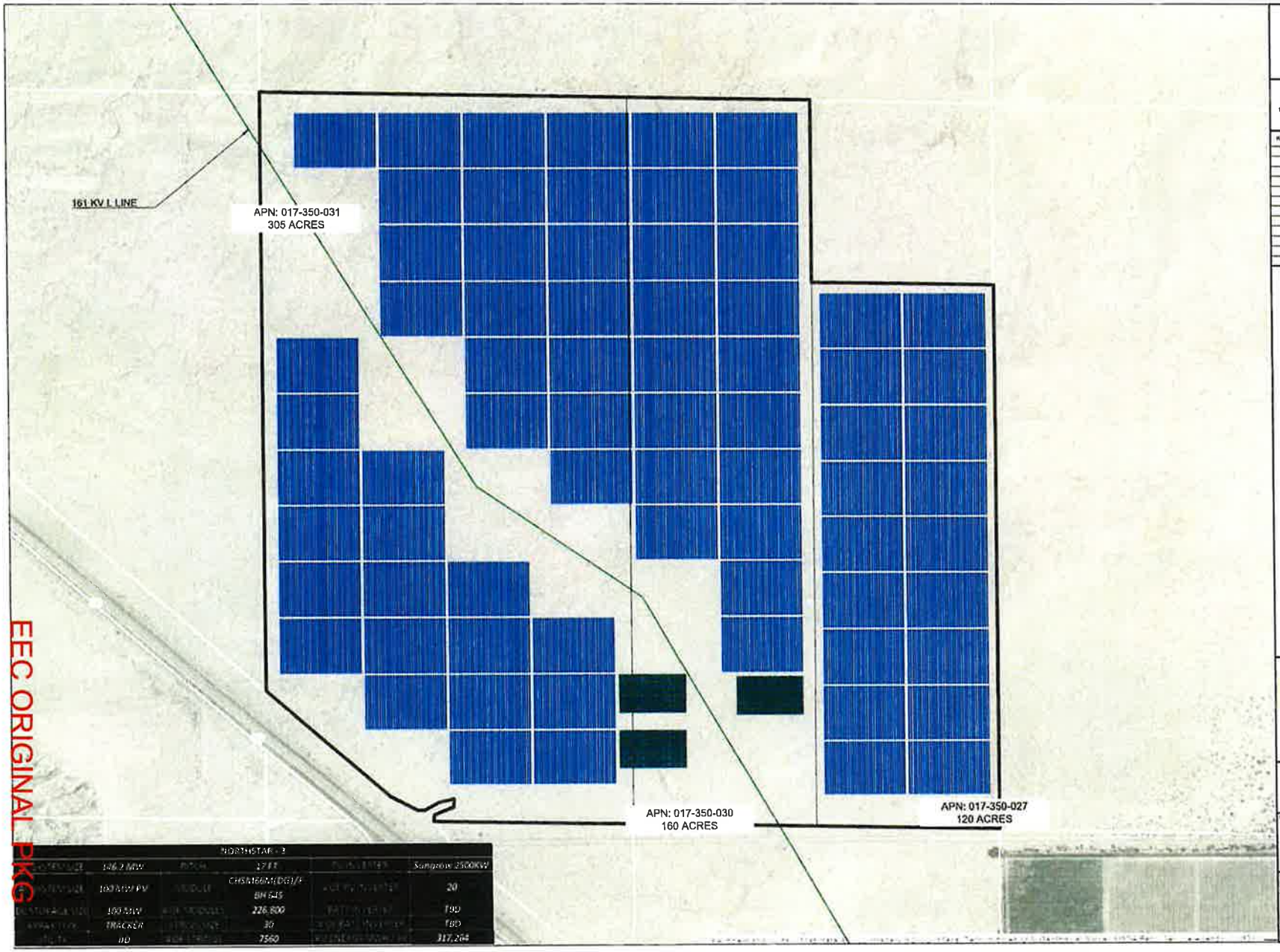

NORTHSTAR - 3					
[illegible]	146.2 MW	[illegible]	17 FT	[illegible]	Sungrow 2500KW
[illegible]	100 MW PV	[illegible]	CHSM66M(DG)/F BH 645	[illegible]	20
[illegible]	100 MW	[illegible]	226,800	[illegible]	TBD
[illegible]	TRACKER	[illegible]	30	[illegible]	TBD
[illegible]	8D	[illegible]	7560	[illegible]	317,264

NORTHSTAR 3

CONFIDENTIAL DOCUMENTS

THE INFORMATION SHOWN TO ON THIS DRAWING IS STRICTLY CONFIDENTIAL AND IS NOT TO BE SHOWN WITH THE SUBSTANTIAL DUALITY WILL BE HELD CONFIDENTIAL AND NOT DISCLOSED TO THIRD PARTIES WITHOUT THE PRIOR WRITTEN CONSENT OF ZGLOBAL, INC.

REV.	BY	DESCRIPTION	DATE	APPROVED BY
0	RD	SUBMITTAL #1	3/24/22	HP

1 inch

Scale to Confirm 24"x36" Plot

ZGLOBAL
Power Engineering & Energy Solutions

604 SUTTER ST, STE 250
FOLSOM, CA 95630
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"THESE DRAWINGS AND SPECIFICATIONS HAVE BEEN PREPARED BY ZGLOBAL INC. FOR THEIR EXCLUSIVE USE IN ACCORD WITH SEC. 8737.3 OF THE 2017 PROFESSIONAL ENGINEERS ACT OF THE STATE OF CALIFORNIA"

SHEET TITLE

DRAWN BY: RD
CHECKED: HP
SCALE:
JOB NO:
DATE:
DRAWING No.
REV No. 1

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Phase I ESA Report

NorthStar 3 Solar Site
Highway 86 and Old Navy Base Road
Salton City, California

Prepared for:

Apex Energy Solutions, LLC
750 Main Street
El Centro, CA 92243



Prepared by:

GS Lyon Consultants, Inc.
780 N. 4th Street
El Centro, CA 92243
(760) 337-1100

October 2022

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GS Lyon

Engineering And
Information Technology

October 14, 2022

Mr. Ziad Alaywan
Apex Energy Solutions, LLC
750 Main Street
El Centro, CA 92243

Phase I Environmental Site Assessment Report
NorthStar 3 Solar Site
Hwy 86 and Old Navy Base Road
Salton City, California
GSL Report No. GS2221

Dear Mr. Alaywan:

We have performed a Phase I Environmental Site Assessment in general conformance with the scope and limitations of ASTM E1527-13 of the approximately 585-acre property located at the northeast corner of Hwy 68, California. Any exceptions to, or deletions from, this practice are described in Section 1.4 of this report. **This assessment has revealed no evidence of recognized environmental conditions (REC's) in connection with the property:**

We declare that, to the best of our professional knowledge and belief, we meet the definition of *Environmental Professional* as defined in §312.10 of 40 CFR §312 and we have the specific qualifications based on education, training and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed all the appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Attached is our report which describes the procedures used and results of the assessment. If you have any questions or require additional information, please do not hesitate to contact the undersigned at (760) 337-1100. We appreciate the opportunity to provide our professional review for this subject property.

Respectfully Submitted,
GS Lyon Consultants, Inc.

Peter E. LaBrucherie, PE
Consulting Engineer

REGISTERED PROFESSIONAL ENGINEER
PETER E. LABRUCHERIE
No. 84812
CIVIL
STATE OF CALIFORNIA

Steven K. Williams, PG, CEG
Consulting Geologist

PROFESSIONAL GEOLOGIST
STEVEN K. WILLIAMS
CERTIFIED
ENGINEERING
GEOLOGIST
CEG 2261
STATE OF CALIFORNIA

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Appendix A: Site Photographs
Appendix B: Vicinity, Site, and Soils Maps
Appendix C: Historical Aerial Photographs
Appendix D: Historical Topographic Maps
Appendix E: EDR Sanborn Fire Insurance Maps
Appendix F: EDR Environmental Records Search Report
Appendix G: Other Environmental Records Search Results
Appendix H: EDR Street Directories
Appendix I: User Questionnaire and EDR Environmental Lien and AUL Search
Appendix J: Resumes of Environmental Professionals

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1.0 INTRODUCTION

1.1 Purpose

GS Lyon Consultants, Inc. was retained by Apex Energy Solutions, LLC to conduct a Phase I Environmental Site Assessment (ESA) for the Property (herein referred to as the subject property or subject site in this Phase I ESA Report) as a prerequisite to property transaction (purchase, sale, refinance, etc.). The approximately 585-acre property is located on the northeast corner of State Hwy 86 and Old Navy Base Road approximately 9 miles south of Salton City, California. See Plate 1 in Appendix B for a Vicinity Map of the subject property.

The purpose of this Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible, recognized environmental conditions (RECs) associated with past and present activities on the subject property or in the immediate subject property vicinity in general conformance to ASTM Standard E1527-13 "*Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*" that may affect future uses of the subject property.

This report is intended to satisfy the Phase I ESA portion of "*all appropriate inquiry*" into the previous ownership and uses of the subject property as defined under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) at Title 42 of the United States Code (U.S.C.) §9601(35)(B) and in accordance with 40 Code of Federal Regulations (CFR) Part 312, Standards and Practices for All Appropriate Inquiries; Final Rule (AAI Rule).

1.2 Scope of Services

The scope of work for this ESA is in general accordance with the requirements of ASTM Standard E1527-13. This assessment included:

- Reconnaissance of the subject property and adjacent properties
- Review user-provided information
- Interviews with persons with significant knowledge of the subject property
- Review of a regulatory database report provided by a third-party vendor
- Review readily-available historical sources (including but not limited to: aerial photographs, fire insurance maps, property tax files, recorded land title records, and topographical maps)
- Prepare report of findings

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1.3 Limitations

No Phase I ESA can completely eliminate uncertainty regarding the potential for RECs in connection with a property. Conformance of this assessment with ASTM Standard E1527-13 is intended to reduce, but not eliminate uncertainty regarding the potential for RECs in connection with the Subject Property. While GS Lyon has made reasonable effort to discover and interpret available historical and current information on the property within the time available, the possibility of undiscovered contamination remains. Our assessment of the subject property and surrounding areas was conducted in accordance with ASTM guidelines and the *generally accepted environmental engineering standard of practice* which existed in Imperial County, California at the time that the report was prepared. No warranty, express or implied, is made.

GS Lyon Consultants, Inc. derived the data in this report primarily from visual inspections, examination of public records and information in the public domain, informal interviews with individuals, and readily available information about the subject property. The passage of time, manifestation of latent conditions or occurrence of future events may require further exploration of the subject property, analysis of the data, and reevaluation of the findings, observations, and conclusions expressed in this report.

The findings, observations, and conclusions expressed by GS Lyon Consultants in this report are not, and should not be considered, an opinion concerning the compliance of any past or present owner or operator of the subject property with any federal, state or local law or regulation.

This report should not be relied upon after **180 days** from the date of issuance, unless additional services are performed as defined in ASTM E1527-13 - Section 4.7.

1.4 Deviations or Data Gaps

ASTM Standard E1527-13 requires any significant data gaps, deviations, and deletions from the ASTM Standard to be identified and addressed in the Phase I ESA. A significant data gap would be one that affected the ability to identify a REC on the subject property or adjacent properties.

Through the course of this assessment, *data failures* or *data gaps* may have been encountered. These failures or gaps, if any, are discussed below. The following provides the opinion of the Environmental Professional as to the significance of the data gaps in terms of defining *recognized environmental conditions* at the subject property. Data failures may or may not be significant data gaps, and the discussion also provides information pertaining to whether the data failures resulted in significant data gaps.

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1.4.1 Data Failures

Data failure is a failure to achieve the historical (property use) research objectives specified in the ASTM Standard Practice even after reviewing the eight standard historical sources that are reasonably ascertainable and likely to be useful. Data failure is one type of data gap. No *data failures* were encountered during this investigation.

1.4.2 Data Gaps

A *data gap* is a lack of or inability to obtain information required by the ASTM Standard Practice, despite good faith efforts by the Environmental Professional (EP) to gather such information. This could include any component of the Practice, e.g., standard environmental records, interviews, or a complete reconnaissance. A data gap by itself is not inherently significant, but if other information and/or the EP's experience raises reasonable concerns about the gap, it may be judged to be significant.

Due to the location of the subject property, Sanborn Fire Insurance maps were not available for the subject property. Because there is no historical data or physical indications that the property has ever been developed or occupied by a business that would have produced hazardous materials, the lack of Sanborn Fire Insurance maps is not considered a significant data gap.

Aerial photographs and other historical records were not available at 5 year intervals as required under the ASTM E1527-13 standard. This resulted in a data gap for years that records were not available regarding the area of the subject property. However, based upon other historical information reviewed, the subject property has been vacant desert land that has been used sporadically for mining of sand and clay. Therefore, this data gap is not considered to be significant.

Interviews with past owners, operators and occupants were not reasonably ascertainable and thus constitute a data gap. Based on information obtained from other historical sources (as discussed in Section 3.0), this data gap is not expected to alter the findings of this assessment.

1.5 Significant Assumptions

In preparing this report, GS Lyon Consultants, Inc. has relied upon and presumed accurate certain information (or the absence thereof) about the subject property and adjacent properties by governmental officials and agencies, the Client, and others identified herein. Except as otherwise stated in the report, GS Lyon Consultants has not attempted to verify the accuracy or completeness of any such information.

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1.6 User Reliance

This report has been prepared on behalf of and for the exclusive use of Apex Energy Solutions, LLC for the particular subject property identified in this report, and is subject to and issued in connection with the referenced Agreement and the provisions thereof. This report should not be relied upon by any party other than the client, its legal counsel, and financial institution without the express permission of GS Lyon Consultants, Inc. Any reliance on this report by other parties shall be at such party's sole risk. Any future consultation or provision of services to third parties related to the subject property requires written authorization from Apex Energy Solutions, LLC or their representatives. Any such services may be provided at GS Lyon Consultants sole discretion and under terms and conditions acceptable to GS Lyon Consultants, including potential additional compensation.

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2.0 SITE DESCRIPTION

2.1 Site Location and Legal Description

The approximately 585-acre subject property is located on the northeast side of Highway 86 and Old Navy Base Road (APN 017-350-031, 017-350-030 and 017-350-027) approximately 10 miles southeast of Salton City, California. The subject property location is depicted on Plate 1, Vicinity Map.

2.2 Current Property Use and Description

The subject property currently consists of approximately 585 acres of vacant desert land. The subject property is irregular in plan view, approximately square with cutouts at the southwest corner along Hwy 86 and at the northeast corner. The subject property is covered with scattered dry desert brush. Dry washes cross the subject property in a roughly northeast direction. There is a high voltage transmission powerline that bisects the property from the south to northwest corner.

2.3 Adjoining Property Use

The subject property is located at the transition between vacant desert land to the east, north and west and agricultural lands to the southeast. The abandoned Naval Auxiliary Air Station – Salton Sea is located approximately 1 mile northeast of the subject property. Highway 86 is located adjacent to the southwest corner of the subject site and Old Navy Base Road is located adjacent to the south.

2.4 Physical Site Characteristics

Topography: Topographic maps (USGS 7.5 minute Kane Spring NW, CA Quadrangle) indicate that the subject property elevation is approximately 10 feet above to 45 feet below mean sea level (MSL) or Elevation 1010 to 955 (local datum). The Imperial Irrigation District, which supplies power and raw (irrigation) water to the area, established local datum by equating mean sea level to El. 1000.00 feet.

Geologic Setting: The subject property 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. The Salton Trough represents northward extension of the Gulf of California, which has experienced continual in-filling with both marine and non-marine sediments since the Miocene Epoch (25 million years before present). The tectonic activity that formed the trough continues at a high rate as evidenced by deformed young sedimentary deposits and high levels of historic seismicity.

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The subject property is directly underlain by Holocene (0-11,000 years before present) Cahuilla Lake sediments, which consist of interbedded lenticular and tabular sand, silt, and clay. The predominant surface soil is silty clay. The Holocene lake deposits are considered to be less than 100 feet thick and are characterized by surficial clay and silt deposits with varying amounts of fine sand. The topography of the Imperial Valley is relatively flat, with few significant land features. 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.

Soil Conditions: The U. S. Soil Conservation Service compiled a map of surface soil conditions and published a soil survey report including maps in 1980. The subject property was not mapped by the SCS. The soil survey map indicates that surficial deposits adjacent to the subject property and surrounding area consist predominantly of sandy loams of the Niland, Rositas, and Indio-Vint soil groups. These loams are formed in sediment and alluvium of mixed origin (Colorado River overflows, fresh-water lake-bed sediments, and alluvial fan deposits).

Groundwater Conditions: The groundwater in the vicinity of the subject property is brackish and is estimated at a depth greater than 100 feet below the ground surface. Depth to groundwater may fluctuate due to localized geologic conditions, precipitation, irrigation, drainage and construction practices in the region.

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3.0 USER PROVIDED INFORMATION

In order to qualify for one of the *Landowner Liability Protections (LLPs)* offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the *Brownfields Amendments*), the *User* must provide the following information (if available) to the *environmental professional*. Failure to provide this information could result in a determination that *all appropriate inquiry* is not complete. The user was asked to provide information or knowledge of the following:

- Environmental cleanup liens that are filed or recorded against the subject property.
- Activity and land use limitations that are in place on the subject property or that have been filed or recorded in a registry.
- Specialized knowledge or experience of the person seeking to qualify for the LLPs.
- Relationship of the purchase price to the fair market value of the *property* if it were not contaminated.
- Commonly known or *reasonably ascertainable* information about the *property*.
- The degree of obviousness of the presence or likely presence of contamination at the *property*, and the ability to detect the contamination by appropriate investigation.
- The reason for preparation of this Phase I ESA.

A user questionnaire was provided to the user to aid in gathering information that may be pertinent to the evaluation of the subject property for environmental conditions. The completed user questionnaire is provided in Appendix I.

3.1 Title Records

GS Lyon reviewed preliminary title reports as part of this assessment and did not find past ownership or easements that would indicate environmentally hazardous uses on the parcels.

3.2 Environmental Liens or Activity and Use Limitations

An environmental lien is a charge, security, or encumbrance upon the title to a property to secure the payment of a cost, damage, debt, obligation, or duty arising out of response actions, cleanup, or other remediation of hazardous substances or petroleum products upon the property.

According to the User Questionnaire, Mr. Edgar Hernandez with ZGlobal is not aware of any Environmental Liens or Activity and Use Limitations associated with the subject property that have been filed or recorded under federal, tribal, state or local law (Appendix H).

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3.3 Specialized Knowledge

According to the User Questionnaire, Mr. Hernandez aware of any specialized knowledge or experience associated with the subject property or nearby properties.

GS Lyon does not have any personal knowledge of the subject property.

3.4 Commonly Known or Reasonable Ascertainable Information

No information was provided by the Client regarding any commonly known or reasonably ascertainable information within the local community that is material to RECs in connection with the subject property.

3.5 Valuation Reduction for Environmental Issues

The client indicated that the purchase price of this property reasonably reflects the fair market value of the property with no discounts for environmental issues.

3.6 Owner, Property Manager, and Occupant Information

The current owner of the subject property is Apex Energy Solutions, LLC.

The subject property is currently undeveloped desert land. No property manager or occupant information is available.

3.7 Previous Reports and Other Provided Documentation

No previous reports or other pertinent documentation was provided to GS Lyon for review during the course of this assessment.

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4.0 RECORDS REVIEW

A review of historic aerial photographs (Appendix C), historic topographic maps (Appendix D), historic Sanborn Fire Insurance maps (Appendix E), governmental regulatory databases (Appendix F), other regulatory and agency databases (Appendix G), and historic telephone and city directories (Appendix H) was performed to evaluate potentially adverse environmental conditions resulting from previous ownership and uses of the subject property. The details of the review are presented in Sections 4.1 through 4.5 of this report.

4.1 Regulatory Database Review

4.1.1 Standard Environmental Record Sources

GS Lyon Consultants contracted Environmental Data Resources, Inc. (EDR) of Shelton, Connecticut which queries and maintains comprehensive environmental databases and historical information, including proprietary databases, aerial photography, topographic maps, Sanborn Maps, and city directories to generate a compilation of Federal, State and Tribal regulatory lists containing information regarding hazardous materials occurrences on or within the prescribed radii of ASTM E1527-13. The search of each database was conducted using the approximate minimum search distances from the subject property defined by the ASTM E1527-13 Standard. The purpose of the records review is to obtain and review *reasonably ascertainable* records that will help identify *recognized environmental conditions* or *historical recognized environmental conditions* in connection with the subject property.

EDR's Phase I ESA search package was ordered and performed on June 21, 2022. The search package included: Radius Map with Geocheck, aerial photographs, historic topographic maps, Sanborn maps, building permits, city directory, and property tax information.

The results of EDR's search were used to evaluate if the subject property and/or properties within prescribed search distances are listed as having a past or present record of actual or potential environmental impact. Inclusion of a property in a government database list does not necessarily indicate that the property has an environmental problem.

The following is a brief synopsis of sites identified in the EDR Radius Map with Geocheck report. The government record search report is included in its entirety in Appendix E.

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Federal NPL List

The Environmental Protection Agency's (EPA) National Priorities List (NPL) of uncontrolled or abandoned hazardous waste sites was reviewed for risk sites within a 1 mile radius of the subject property. The NPL identifies sites for priority cleanup and long-term care of properties under the Superfund Program that are contaminated with hazardous substances.

The database search did not identify any NPL sites within 1 mile of the subject property.

Federal CERCLA List

The EPA's Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLA) listings were reviewed to determine if risks sites within ½ mile are listed for investigation. The CERCLA database identifies hazardous waste sites that are on or proposed to be included in the NPL and sites that require investigation and possible remedial action to mitigate potential negative impacts on human health or the environment.

The CERCLA database search did not identify any risk sites within 0.5 mile of the subject property.

Federal CERCLA – No Further Remedial Action Planned

The EPA's CERCLA – No Further Remedial Action Planned (NFRAP) database was reviewed to determine if risks sites within ½ mile are listed. CERCLA NFRAP site are risk sites that have been removed from and archived from the inventory of CERCLA sites. Archived status indicates that, to the best of EPA's knowledge, assessment at the subject property has been completed and the EPA has determined that no further steps will be taken to list this subject property on the NPL, unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time.

This designation is for sites where no contamination was found, contamination was quickly removed without the need for the subject property to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration.

The CERCLA – NFRAP database search did not identify any risk sites within ½mile of the subject property.

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Federal RCRA List

The Federal Resource Conservation Recovery Act (RCRA) Notifiers List was reviewed to determine if RCRA treatment, storage or disposal sites (TSD) are located within 1 mile of the subject property. The RCRA Correction Action Sites List (CORRACTS) is maintained for risk sites which are undergoing "a corrective action". A corrective action order is issued when there has been a release of hazardous waste constituents into the environment from a RCRA facility.

The RCRA and RCRA CORRACTS database searches did not identify any RCRA TSD or RCRA CORRACTS risk sites within ½ mile of the subject property.

The RCRA regulated hazardous waste generator notifiers list was reviewed to determine if RCRA generator facilities are located on or adjoining the subject property. No RCRA generator facilities within ¼ mile of the subject property were identified in the database.

Federal ERNS List

The Federal Emergency Response Notification System (ERNS) List was reviewed to determine if reported release of oil and/or hazardous substances occurred on the subject property.

The ERNS database searches did not identify any reported releases for the subject property.

State and Tribal NPL List

The Environmental Protection Agency's (EPA) National Priorities List (NPL) of uncontrolled or abandoned hazardous waste sites was reviewed for risk sites within a 1 mile radius of the subject property. The NPL identifies sites for priority cleanup and long-term care of properties under the Superfund Program that are contaminated with hazardous substances.

The database search did not identify any NPL sites within 1 mile of the subject property.

State and Tribal equivalent CERCLA

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites.

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EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

The EnviroStor database search did not identify any risk sites within 1 mile of the subject property.

State and Tribal Leaking Underground Storage Tank Sites

The California State Water Resources Control Board (SWRCB) maintains a list of information concerning reported leaking underground storage tanks (LUST). The LUST inventory list was reviewed to determine if any LUSTs are located within ½ mile the subject property.

The SWRCB LUST database did not identify any risk sites within ½ mile of the subject property.

State and Tribal Underground and Aboveground Storage Tank Sites

The California State Water Resource Control Board (SWRCB) underground storage tank (UST) and above ground storage tank (AST) inventory list was reviewed to determine if any UAST's are located on or adjacent to the subject property.

The SWRCB UAST database did not identify any risk sites within ½ mile of the subject property.

Solid Waste Disposal/Landfill Facilities

The Solid Waste Disposal/Landfill Sites records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. The data comes from the Integrated Waste Management Board's Solid Waste Information System (SWIS) database.

A review of the SWF/LF list database did not identify any risk sites within ½ mile of the subject property.

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Unmapped (Orphan) Sites

Not all sites or facilities identified in the database records can be accurately located in relation to the Subject Property due to incomplete information being supplied to the regulatory agencies and are referred to as "orphan sites" by EDR.

One orphan listing was reported. The orphan site listed is Salton City Solid Waste Transfer Station which is located approximately 6 miles northwest of the subject property. Therefore, the listed orphan site does not pose a risk to the subject property.

Additional Government Environmental Records

Additional government environmental record databases were reviewed. No listings in the following databases were found for the subject property:

CERS Hazardous Waste: List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

HWTS: Hazardous Waste Tracking System. DTSC maintains the Hazardous Waste Tracking System that stores ID number information since the early 1980s and manifest data since 1993. The system collects both manifest copies from the generator and destination facility.

HAZNET: Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

FINDS: Facility Index System/Facility Registry System Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

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HAULERS: A listing of registered waste tire haulers.

ECHO: Enforcement & Compliance History Information. ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

RCRC NonGen/NLR: RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

4.1.2 Additional Environmental Record Sources

California Department of Toxic Substances Control (DTSC) Records – Envirostor Database: EnviroStor is an online search and Geographic Information System tool for identifying sites that have known contamination or sites for which there may be reasons to investigate further. Public Access to EnviroStor is accessible via the DTSC Web Page located at: http://www.envirostor.dtsc.ca.gov/public/. The EnviroStor database includes the following site types: Federal Superfund sites (National Priority List); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites.

The information includes site name, site type, status, address, any restricted use (recorded deed restrictions), past use(s) that caused contamination, potential contaminants of concern, potential environmental media affected, site history, planned and completed activities. The EnviroStor database also contains current and historical information relating to Permitted and Corrective Action facilities. The EnviroStor database includes current and historical information on the following permit-related documents: facility permits; permit renewal applications; permit modifications to an existing permit; closure of hazardous waste management units (HWMUs) or entire facilities; facility corrective action (investigation and/or cleanup); and/or post-closure permits or other required post-closure activities.

The EnviroStor database was queried on August 23, 2022. A map showing the results of the query is provided in Appendix F. No reported cases were found on the subject property. No risk sites were located within ½ mile of the subject property.

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California State Water Resources Control Board Records – GeoTracker Database: GeoTracker is a geographic information system (GIS) maintained by the California State Water Resources Control Board (SWRCB) that provides online access to environmental data at http://www.geotracker.swrcb.ca.gov\. GeoTracker tracks regulatory data about underground fuel tanks, fuel pipelines, and public drinking water supplies. Site information from the Spills, Leaks, Investigations, and Cleanups (SLIC) Program is also included in GeoTracker.

The GeoTracker database was queried for environmental data pertaining to the Subject property on August 23, 2022. A map showing the results of the query is provided in Appendix F. No reported cases were found on the subject property. No risk sites were located within ½ mile of the subject property.

CUPA Records Search: The Unified Program consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities of six environmental and emergency response programs. Cal/EPA and other state agencies set the standards for their programs while local governments implement the standards—these local implementing agencies are called Certified Unified Program Agencies (CUPA).

The DTSC Imperial CUPA office was contacted on August 23, 2022. CUPA records were searched for environmental issues related to the subject property. The DTSC indicated that records are filed per address, and with no known address associated with the subject property, no records were found associated with the subject property.

4.2 Historical Use Records

ASTM E1527-13 requires the environmental professional to identify all obvious uses of the property from the present back to the property's first developed use or 1940, whichever is earliest. This information is collected to identify the likelihood that past uses have led to RECs in connection with the property. This task is accomplished by reviewing standard historical sources to the extent that they are necessary, reasonably ascertainable, and likely to be useful. These standard records include aerial photographs, fire insurance maps, property tax files, land title records, topographic maps, city directories, telephone directories, building department records, and zoning/land use records.

The general type of historical use (i.e., commercial, retail, residential, industrial, undeveloped, office) should be identified at 5-year intervals, unless the specific use of the property appears to be unchanged over a period longer than 5 years. The historical research is complete when the use is defined or when data failure occurs.

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Data failure occurs when all of the standard historical sources have been reviewed, yet the property use cannot be identified back to its first developed use or to 1940. Data failure is not uncommon in trying to identify the use of the property at 5-year intervals back to first use or 1940, whichever is earlier.

GS Lyon reviewed the following historical records to identify obvious uses of the subject property from the present back to the property's first developed use, or to 1940, whichever is earlier. The results of this research and data failure, if encountered, are presented in the following sections.

4.2.1 Title Records

GS Lyon reviewed preliminary title reports as part of this assessment and did not find past ownership or easements that would indicate environmentally hazardous uses on the parcels.

4.2.2 Sanborn Fire Insurance Maps

Sanborn Fire Insurance Maps are large scale maps depicting the commercial, industrial, and residential sections of various cities across the United States. Since the primary use of the fire insurance maps was to assess the buildings that were being insured, the existence and location of fuel storage tanks, flammable or other potentially toxic substances, and the nature of businesses are often shown on these maps.

Due to the rural undeveloped nature of the subject property and vicinity for the years the Sanborn Fire Insurance Maps were available for this subject property, no maps are available for the subject property.

4.2.3 Aerial Photographs

Aerial photographs obtained from Environmental Data Resources (EDR) dating back to 1937, the Imperial Irrigation District (IID) archives dating back to 1949, and Google Earth aerial photographs dating back to 1996 were reviewed for historical development of the subject property. Reproductions of the historical aerial photographs reviewed are included in Appendix C.

The 1949, 1953, 1976 and 1985 aerial photograph shows the subject site as being vacant desert lands with scattered sand dunes and desert vegetation. The high voltage powerline crossing the subject property can be seen in the 1949 aerial photograph. Surrounding properties are also vacant desert lands with Highway 86 located adjacent to the southwest corner and Old Navy Base Road to the south.

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The 1992, 1996, 2002, 2005, 2009, 2012 and 2016 aerial photographs are similar to the 1985 aerial photograph with addition of agricultural field located adjacent to the southeast corner of the subject property.

4.2.4 Street Directories

GS Lyon Consultants contracted Environmental Data Resources, Inc. (EDR) of Shelton, Connecticut to conduct a search of historic city directories for the subject property (Appendix H). City directories are used for locating individuals and businesses in a particular urban or suburban area. City directories are generally divided into three sections: a business index, a list of resident names and addresses, the name and type of businesses (if unclear from the name). While city directory coverage is comprehensive for major cities, it may be spotty for rural and small towns.

EDR Digital Archives: The EDR Digital Archives City Directories for the years 1992, 1995, 2000, 2005, 2010, 2014 and 2017 were reviewed. No listings were found for the subject property and adjacent properties.

Haines Criss-Cross Directories: The Haines Criss-Cross Directories for the years 1971, 1976, 1980, 1985, 1992, and 1995 were reviewed. No listings were found for the subject property and adjacent properties.

4.2.5 Historic Topographic Maps

Historic topographic maps (1940, 1944, 1947, 1956, 1979, 1995, 1998, 2012, 2015 and 2018), showed the subject property as being vacant desert land with the power transmission line passing through the site beginning in the 1956 topographic map (Appendix D).

4.2.6 Historical Telephone Directories

Telephone Directories: Telephone directories for the Imperial County, which included the City of Westmorland businesses published in 1941, 1955, and 1965 were reviewed. No service stations, chemical manufacturers, petroleum manufacturers, distributors, or automotive repair facilities were noted at or in the immediate vicinity of the subject property.

4.3 Historical Use Summary

4.3.1 Summary of the Historical Use of Property

Based on a review of the historical information, the subject property has been vacant desert land since prior to 1940.

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4.3.2 Summary of the Historical Use of Adjacent Properties

Historically, the properties located immediately adjacent to the subject property have been comprised of vacant desert lands and the abandoned Naval Auxiliary Air Station – Salton Sea is located approximately 1 mile northeast of the subject property. Agricultural development southeast of the southeast corner of the subject property began in the 1990s with agricultural fields and orchards.

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5.0 SITE RECONNAISSANCE

5.1 Methodology and Limiting Conditions

A site reconnaissance was performed by Mr. Pete LaBrucherie, a consulting engineer to GS Lyon Consultants, on August 31, 2022. The site visit consisted of driving the perimeter of the subject property and randomly crossing the subject property. The reconnaissance included visual observations of surficial conditions at the subject property and observation of adjoining properties to the extent that they were visible from public areas. Mr. LaBrucherie was unaccompanied during the site reconnaissance.

The site reconnaissance was limited to visual and/or physical observation of the exterior and interior of the subject property and its improvements, the current uses of the property and adjoining properties, and the current condition of the property. The site visit evaluated the subject property and adjoining properties for potential hazardous materials/waste and petroleum product use, storage, disposal, or accidental release, including the following: presence of tank and drum storage; mechanical or electrical equipment likely to contain liquids; evidence of soil or pavement staining or stressed vegetation; ponds, pits, lagoons, or sumps; suspicious odors; fill and depressions; or any other condition indicative of potential contamination. The site visit did not evaluate the presence of asbestos-containing materials, radon, lead-based paint, mold, indoor air quality, or structural defects, or other non-scope items.

A site reconnaissance can be limited by weather conditions, bodies of water, adjacent buildings, or other obstacles. The weather was warm and sunny and no access limitations were placed on the site visit.

5.2 General Site Setting

The subject property currently consists of approximately 585 acres of vacant desert land. The subject property is irregular in plan view, approximately square with cutouts at the southwest corner along Hwy 86 and at the northeast corner. The subject property is covered with scattered dry desert brush. Dry washes cross the subject property in a roughly northeast direction. There is a high voltage transmission powerline that bisects the property from the south to northwest corner.

Photographs of the subject property taken on August 31, 2022 during our site reconnaissance are included in Appendix A.

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5.3 Adjacent Properties

The subject property is located at the transition between vacant desert land to the east, north and west and agricultural lands to the southeast. The abandoned Naval Auxiliary Air Station – Salton Sea is located approximately 1 mile northeast of the subject property. Highway 86 is located adjacent to the southwest corner of the subject site and Old Navy Base Road is located adjacent to the south.

5.4 Exterior and Interior Observations

The following conditions were specifically assessed for their potential to indicate RECs and may include conditions inside or outside structures on the subject property.

5.4.1 Hazardous Substances and Petroleum Products

GS Lyon did not observe operations that use, treat, store, dispose of, or generate hazardous materials or petroleum products on the subject property.

5.4.2 Storage Tanks

Underground Storage Tanks (USTs) – No obvious visual evidence indicating the current presence of USTs (i.e. vent pipes, fill ports, etc.) was noted.

Aboveground Storage Tanks (ASTs) – No obvious visual evidence indicating the historical presence of ASTs (i.e. secondary containments, concrete saddles, etc.) was observed.

5.4.3 Odors

No obvious strong, pungent, or noxious odors were noted during the site reconnaissance.

5.4.4 Pools of Liquid

Pools of liquid were not observed during the site reconnaissance.

5.4.5 Drums and Containers

GS Lyon did not observe drums or storage containers on the subject property.

5.4.6 Unidentified Substance Containers

GS Lyon did not observe open or damaged containers containing unidentified substances at the subject property.

5.4.7 Suspect Polychlorinated Biphenyl (PCB) Containing Equipment

No potential PCB containing equipment such as electrical transformers, capacitors, and hydraulic equipment were observed during the site reconnaissance on the subject property or immediate vicinity.

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5.5 Interior Observations

The subject property is currently vacant with no structures; therefore, no interior observations were made.

5.6 Exterior Observations

5.6.1 Pits, Ponds, and Lagoons

No pits, ponds, or lagoons were noted on the subject property.

5.6.2 Stained Soils or Pavement

No evidence of significantly stained soil or pavement was noted on the subject property.

5.6.3 Stressed Vegetation

No evidence of stressed vegetation attributed to potential contamination was noted on the subject property.

5.6.4 Solid Waste

No evidence of debris was found within the subject site.

5.6.5 Wastewater

No waste water is generated at the subject site.

5.6.6 Wells

No evidence of wells (dry wells, drinking water, observation wells, groundwater monitoring wells, irrigation wells, injection wells or abandoned wells) was noted on the subject property.

5.6.7 Septic Systems

No septic systems are present on the subject property.

5.7 Non-Scope Issues

ASTM guidelines identify non-scope issues, which are beyond the scope of a Phase I ESA as defined by ASTM. These issues may affect environmental risk at the subject property and may warrant discussion and/or assessment. Some of these non-scope issues include; asbestos-containing building materials, radon, lead-based paint, and wetlands which are discussed below.

5.7.1 Asbestos-Containing Building Materials

The potential for asbestos containing materials (ACM) existing at the subject property is very low due to the lack of subject property structures.

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5.7.2 Lead-Based Paint

The potential or lead based paint residues existing at the subject property is very low due to the lack of subject property development.

5.7.3 Radon

The subject property is located in Zone 3 as shown on the EPA Map of Radon Zones indicating a predicted average indoor radon screening level of less than 2 pCi/L; therefore, no further action is required. Radon gas is not believed to be a potential hazard at the subject property.

5.7.4 Wetlands

No wetlands are located within one (1) mile of the subject property.

5.7.5 Agricultural Use

Based on our review of environmental records, historical documents, and subject property conditions, the property has not been in agricultural use; therefore the likelihood of residues of currently available pesticides and currently banned pesticides such as DDT/DDE existing on the subject site is very low.

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6.0 INTERVIEWS

GS Lyon interviewed various individuals familiar with the subject property, as identified to us, and/or government officials in order to evaluate historical uses and identify potential RECs existing on the subject property. The individuals interviewed were asked to provide responses in good faith and to the best of their knowledge. The following sections identify the individuals interviewed and summarize the information each provided; however, additional information provided by these individuals may be presented in other sections of this report.

6.1 Interview with Owner

Mr. Ramon Gonzalez, representative of the property owner, was interviewed by GS Lyon personnel on October 7, 2022. Mr. Gonzalez indicated that he had no information pertaining to any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the subject property; any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the subject property; or any notices from a governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products.

6.2 Interview with the Site Manager

The subject property is vacant, undeveloped land; therefore, there is no site manager.

6.3 Interview with Occupants

The subject property is vacant, undeveloped land; therefore, there are no occupants.

6.4 Interview with Local Government Officials

The DTSC Imperial CUPA office was contacted on August 23, 2022. CUPA records were searched for environmental issues related to the subject property. The DTSC indicated that records are filed per address, and with no known address associated with the subject property, no records were found associated with the subject property.

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7.0 EVALUATION

7.1 Summary of Findings

The approximately 585-acre subject property is located on the northeast side of Highway 86 and Old Navy Base Road (APN 017-350-031, 017-350-030 and 017-350-027) approximately 10 miles southeast of Salton City, California has been vacant desert land since prior to 1940.

7.2 Conclusions

GS Lyon has performed a Phase I Environmental Site Assessment in general conformance with the scope and limitations of ASTM E1527-13 of the approximately 585-acre subject property is located on the northeast side of Highway 86 and Old Navy Base Road (APN 017-350-031, 017-350-030 and 017-350-027) approximately 10 miles southeast of Salton City, California. Any exceptions to, or deviations from, this practice are described in Section 1.4 of this Phase I ESA report. This assessment has revealed the following recognized environmental conditions (RECs) in connection with the subject property:

7.2.1 Recognized Environmental Conditions

A *recognized environmental condition (REC)* refers to the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The term REC includes hazardous substances and petroleum products even under conditions that might be in compliance with laws. The term is not intended to include "de minimis" conditions as defined in Section 7.2.3 of this report.

This assessment has revealed no evidence of RECs for the study subject property:

7.2.2 Historical Recognized Environmental Conditions

A *historical recognized environmental condition (HREC)* refers to a past *release* of any *hazardous substances* or *petroleum products* that has occurred in connection with the *property* and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the *property* to any required controls (for example, *property* use restrictions, *activity and use limitations*, *institutional controls*, or *engineering controls*).

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This Phase I ESA has revealed no evidence of *historical recognized environmental conditions* in connection with the subject property.

7.2.3 Environmental Concerns and De Minimis Conditions

A *de minimis condition* is a condition that generally does not present a threat to human health or the *environment* and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be *de minimis conditions* are not *recognized environmental conditions* nor *controlled recognized environmental conditions*.

This Phase I ESA has revealed no *de minimis* conditions or environmental concerns in connection with the subject property.

7.3 Recommendations

Based on the scope of work performed for this assessment, it is our professional opinion that no RECs have been identified in connection with the subject property that would warrant further environmental study (Phase II) at this time.

EEC ORIGINAL PKG

8.0 REFERENCES

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Department of Toxic Substances Control. EnviroStor Database Website, http://www.envirostor.dtsc.ca.gov/public/ accessed via the Internet, August 2022.

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Environmental Data Resources, Inc., *The EDR-City Directory Abstract*. Inquiry number 7022967, dated June 17, 2022

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Environmental Data Resources, Inc., *The EDR Property Tax Map Report*. Inquiry number 7022967, dated June 17, 2022

State Water Resources Control Board. GeoTracker Database Website, http://geotracker.swrcb.ca.gov/ accessed via the Internet, August 2022

United States Department of Agriculture, Natural Resources Conservation Service, Web Soil Survey, accessed via the Internet, August 2022

United States Environmental Protection Agency, EPA Map of Radon Zones (Document EPA-402-R-93-071), accessed via the Internet, August 2022

United States Geological Survey Topographic Map, 7.5 minute series

EEC ORIGINAL PKG

APPENDIX A

EEC ORIGINAL PKG



Photo 1: Looking north to northwest from the southwest portion of the subject site.



Photo 2: Looking northeast from the southwest portion of the subject site.

EEC ORIGINAL PKG



Photo 3: Looking southeast from the southwest portion of the subject site.



Photo 4: Looking southeast along the powerline route through the subject site.

EEC ORIGINAL PKG



Photo 5: Looking southeast from the middle of the subject site.



Photo 6: Looking northwest from the middle of the subject site.

EEC ORIGINAL PKG



Photo 7: Looking northeast from the middle of the subject site.

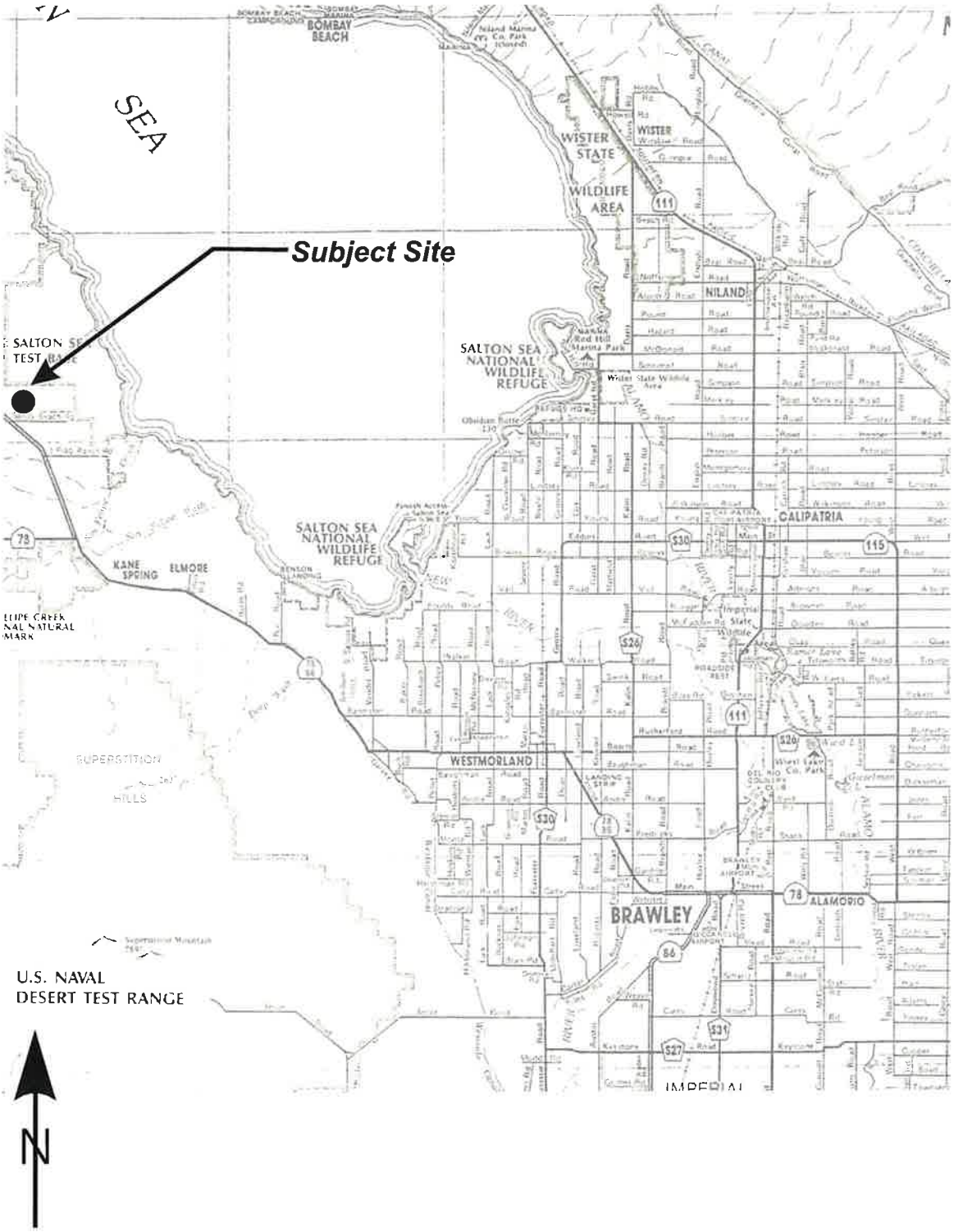


Photo 8: Looking south toward the southern boundary of the subject site.

EEC ORIGINAL PKG

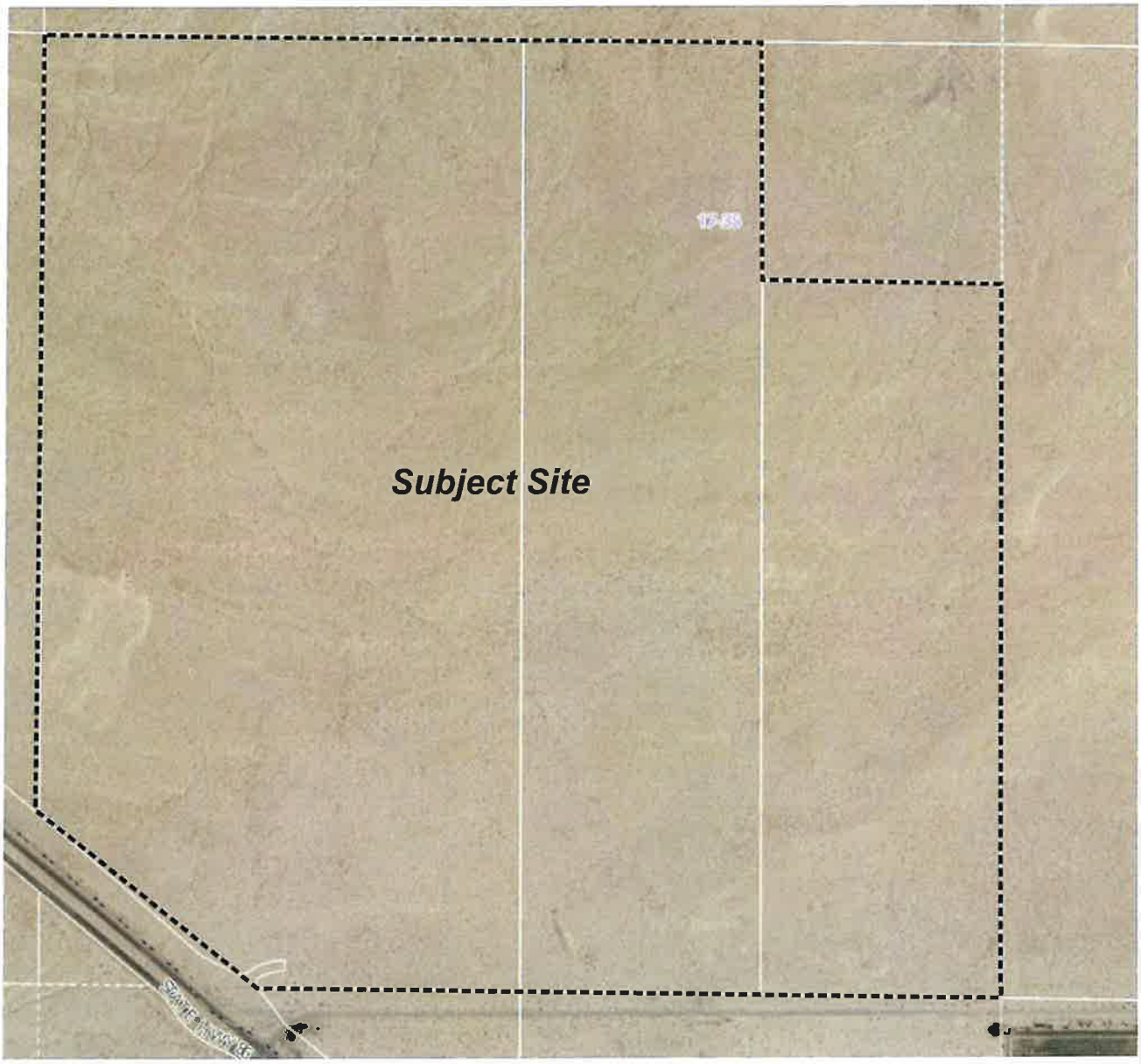
APPENDIX B

EEC ORIGINAL PKG



GSLyon Project No.: GS2221	Vicinity Map	Plate 1

EEC ORIGINAL PKG



GS Lyon Project No.: GS2221	Site Map	Plate 2

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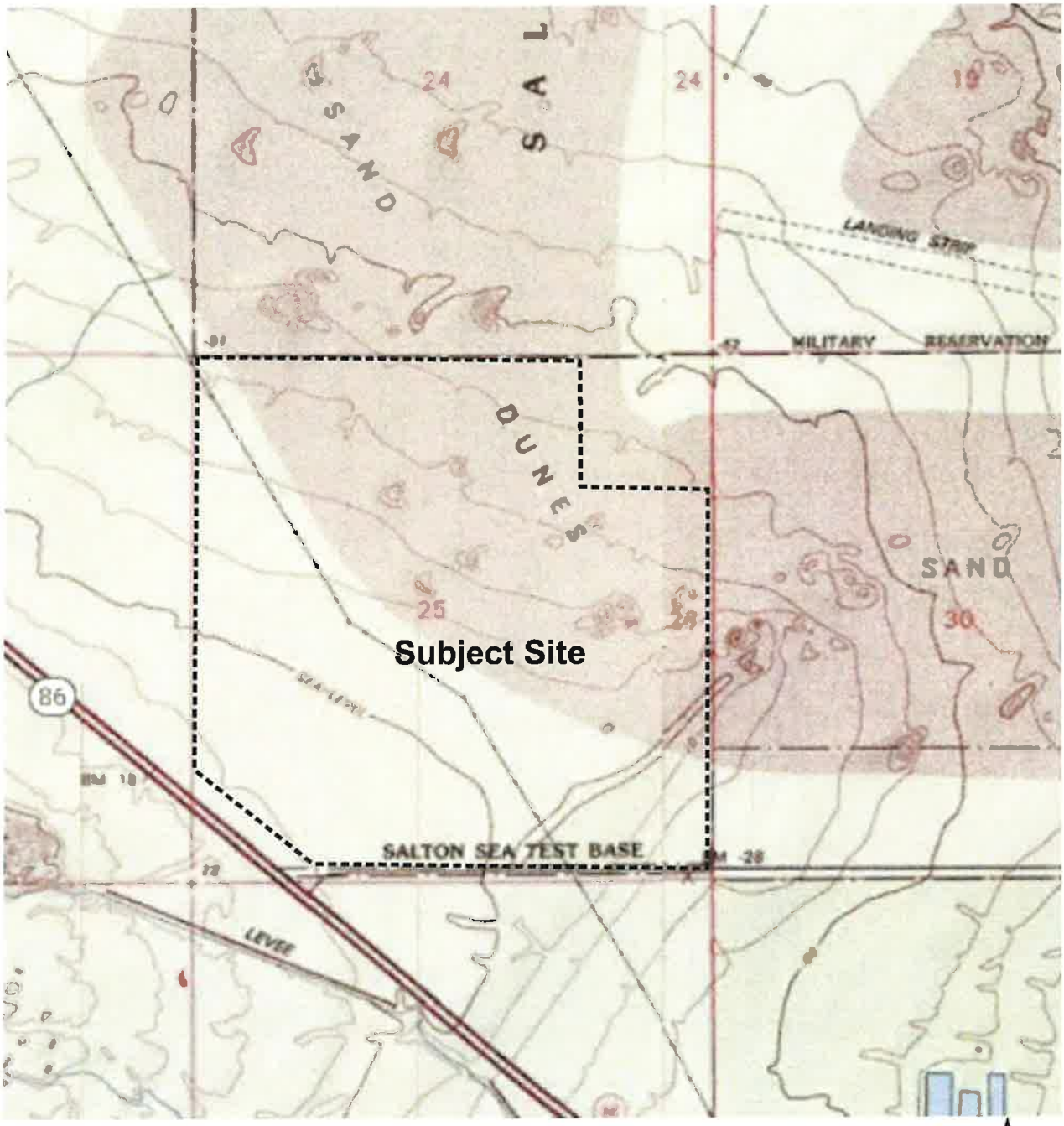

GS Lyon Project No.: GS2221	Topographic Map	Plate 3

EEC ORIGINAL PKG

APPENDIX C

EEC ORIGINAL PKG

NorthStar 3 Solar Project
Hwy 86 and Old Navy Base Road
Thermal, CA 92274

Inquiry Number: 7022967.11
June 21, 2022

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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EDR Aerial Photo Decade Package

06/21/22

Site Name:

NorthStar 3 Solar Project
Hwy 86 and Old Navy Base Ro
Thermal, CA 92274
EDR Inquiry # 7022967.11

Client Name:

GS Lyon Consultants
780 N. Fourth Street
El Centro, CA 92243
Contact: Steven Williams

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

Year	Scale	Details	Source
2016	1"=750'	Flight Year: 2016	USDA/NAIP
2012	1"=750'	Flight Year: 2012	USDA/NAIP
2009	1"=750'	Flight Year: 2009	USDA/NAIP
2005	1"=750'	Flight Year: 2005	USDA/NAIP
2002	1"=750'	Acquisition Date: January 01, 2002	USGS/DOQQ
1996	1"=750'	Acquisition Date: January 01, 1996	USGS/DOQQ
1992	1"=750'	Acquisition Date: January 01, 1992	USGS/DOQQ
1985	1"=500'	Flight Date: January 01, 1985	USDA
1976	1"=750'	Flight Date: October 12, 1976	USGS
1953	1"=750'	Flight Date: April 18, 1953	USDA
1949	1"=750'	Flight Date: February 22, 1949	USDA

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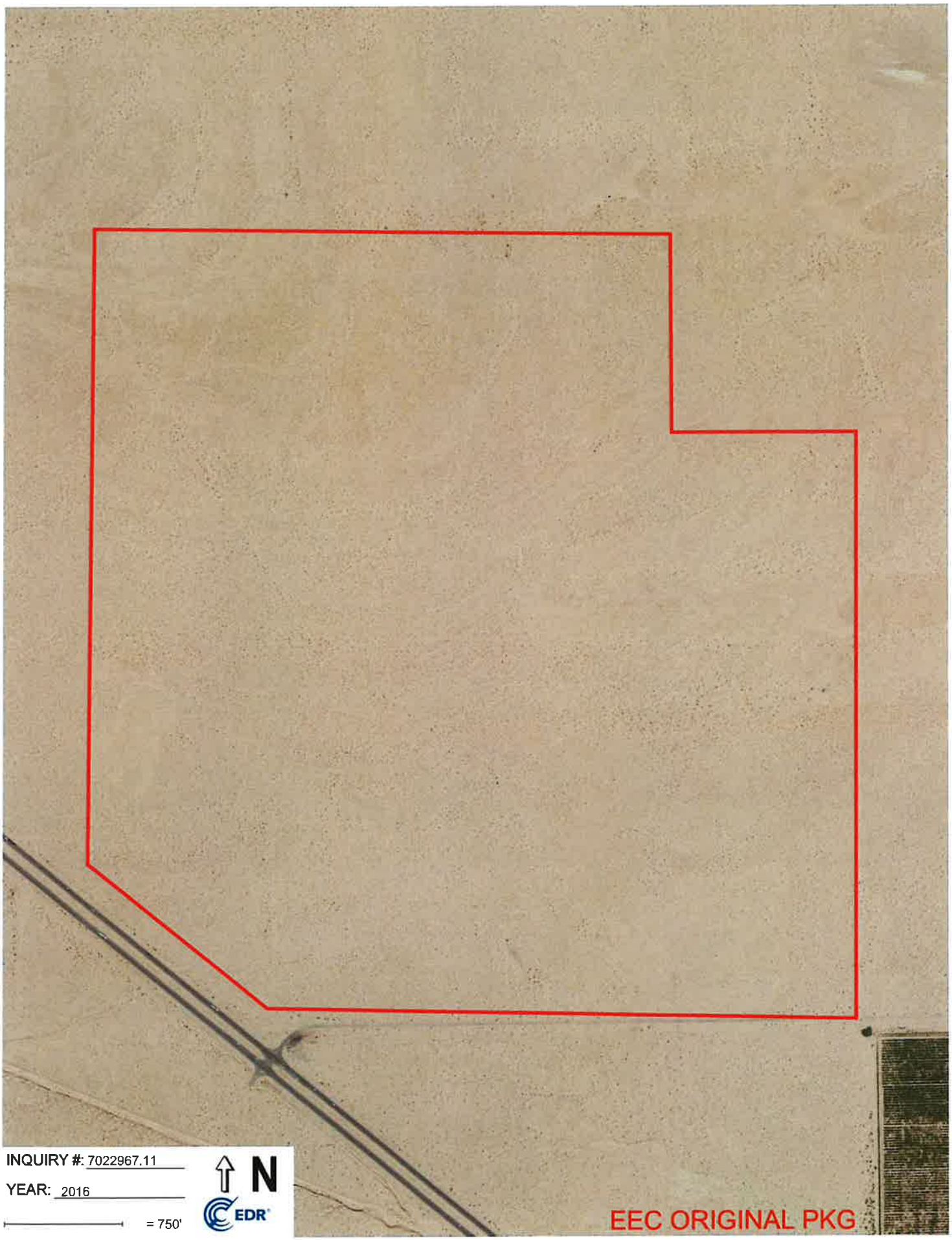
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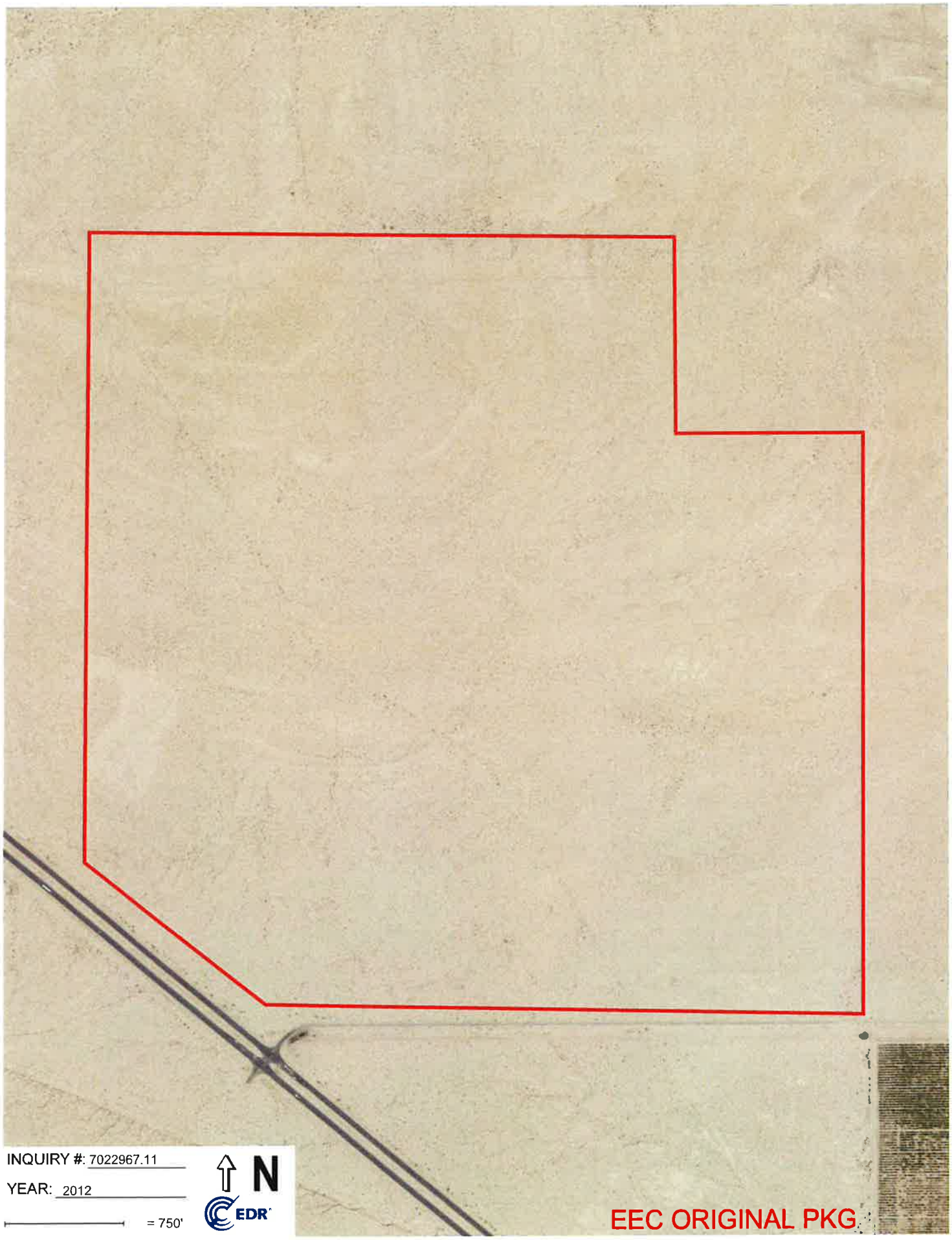
EDR
EEC ORIGINAL PKG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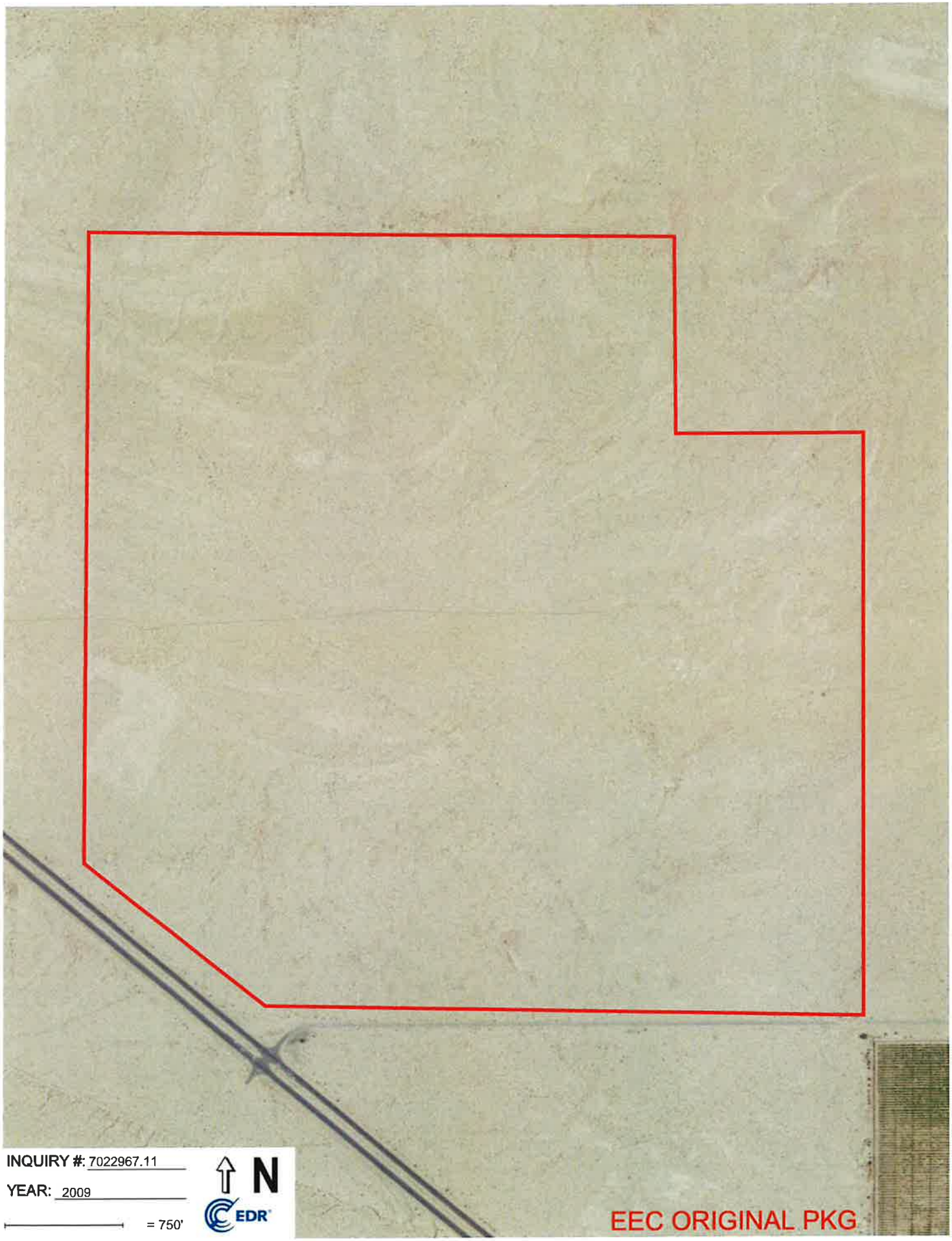
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EEC ORIGINAL PKG


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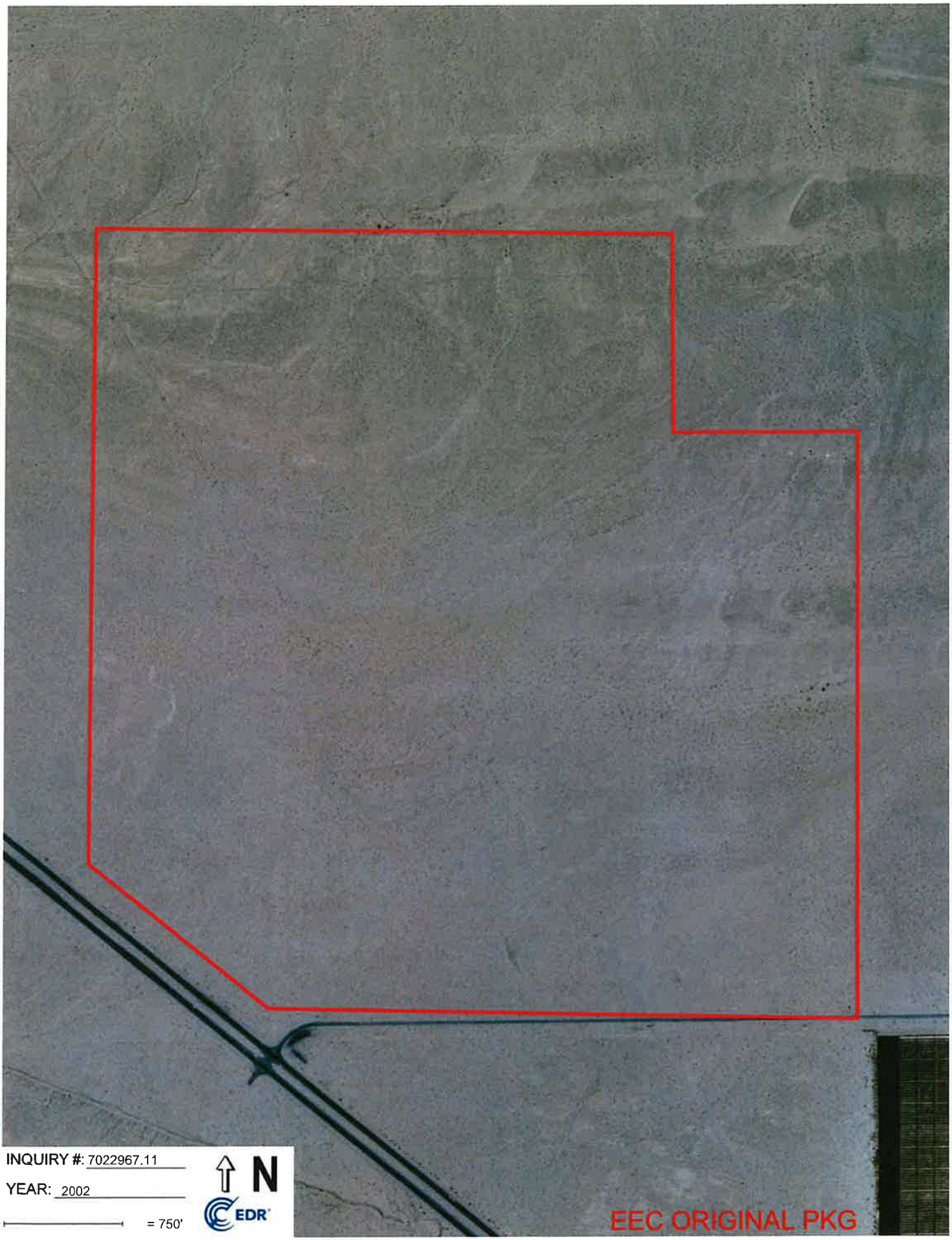
EEC ORIGINAL PKG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EDR
EEC ORIGINAL PKG


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N
EDR
EEC ORIGINAL PKG



INQUIRY #: 7022967.11

YEAR: 1992

= 750'

N

EDR

EEC ORIGINAL PKG


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YEAR: 1985
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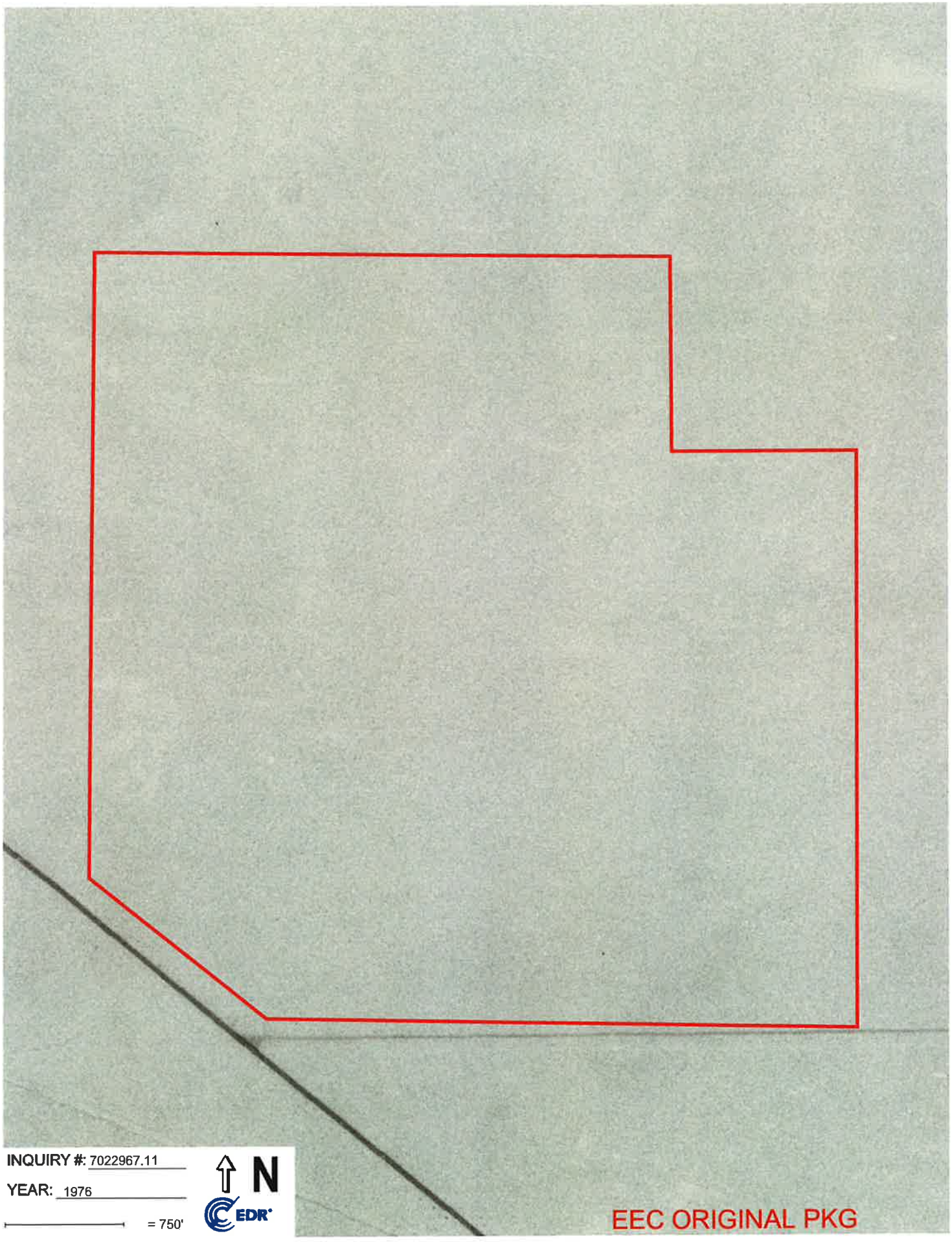
EDR
EEC ORIGINAL PKG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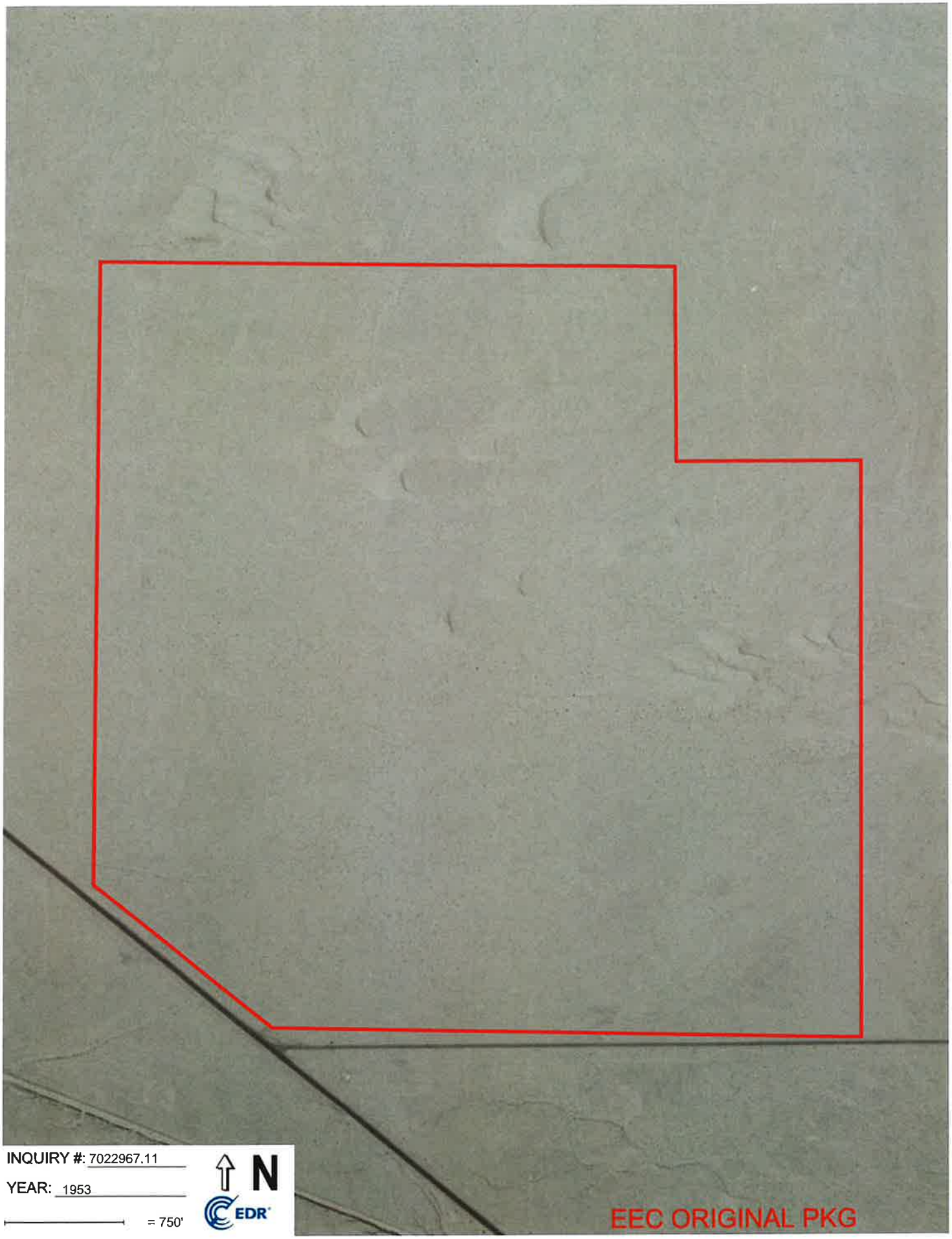

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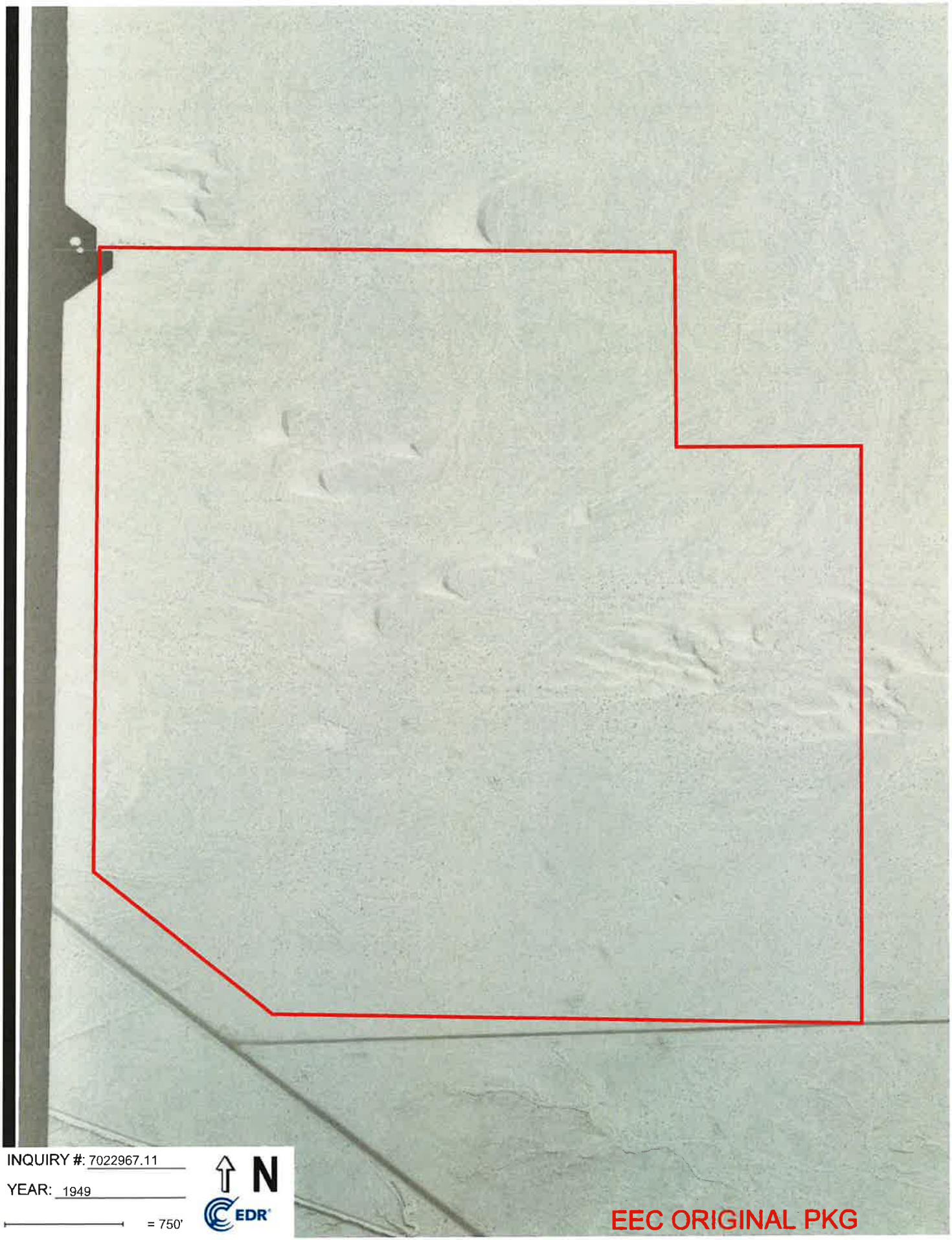
EDR

EEC ORIGINAL PKG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EDR
EEC ORIGINAL PKG

APPENDIX D

EEC ORIGINAL PKG

NorthStar 3 Solar Project
Hwy 86 and Old Navy Base Road
Thermal, CA 92274

Inquiry Number: 7022967.4
June 17, 2022

EDR Historical Topo Map Report
with QuadMatch™

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EEC ORIGINAL PKG

EDR Historical Topo Map Report

06/17/22

Site Name:	Client Name:
NorthStar 3 Solar Project	GS Lyon Consultants
Hwy 86 and Old Navy Base Ro	780 N. Fourth Street
Thermal, CA 92274	El Centro, CA 92243
EDR Inquiry # 7022967.4	Contact: Steven Williams

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by GS Lyon Consultants were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:

P.O.# GS2221

Project: NorthStar 3 Solar Project

Coordinates:

Latitude:	33.184705 33° 11' 5" North
Longitude:	-115.883362 -115° 53' 0" West
UTM Zone:	Zone 11 North
UTM X Meters:	604096.44
UTM Y Meters:	3672318.91
Elevation:	-8.06' below sea level

Maps Provided:

2018	1944
2015	1940
2012	
1998	
1995	
1979	
1956	
1947	

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EEC ORIGINAL PKG

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2018 Source Sheets



Kane Spring NW

7.5-minute, 24000



Kane Spring NE

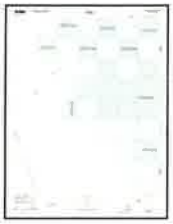
7.5-minute, 24000

2015 Source Sheets



Kane Spring NW

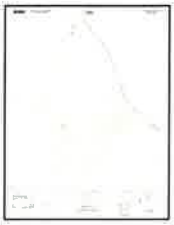
7.5-minute, 24000



Kane Spring NE

7.5-minute, 24000

2012 Source Sheets



Kane Spring NW

7.5-minute, 24000



Kane Spring NE

7.5-minute, 24000

1998 Source Sheets



Kane Spring NW

7.5-minute, 24000
Aerial Photo Revised 1992

EEC ORIGINAL PKG

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1995 Source Sheets



Kane Spring NE

7.5-minute, 24000
Aerial Photo Revised 1992



Kane Spring NW

7.5-minute, 24000
Aerial Photo Revised 1992

1979 Source Sheets



Kane Spring NW

7.5-minute, 24000
Aerial Photo Revised 1978



KANE SPRING NW

7.5-minute, 24000

1956 Source Sheets



Kane Spring NE

7.5-minute, 24000
Aerial Photo Revised 1953



Kane Spring NW

7.5-minute, 24000
Aerial Photo Revised 1953

1947 Source Sheets



KANE SPRING

15-minute, 50000

EEC ORIGINAL PKG

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1944 Source Sheets



Kane Spring

15-minute, 62500
Aerial Photo Revised 1940

1940 Source Sheets



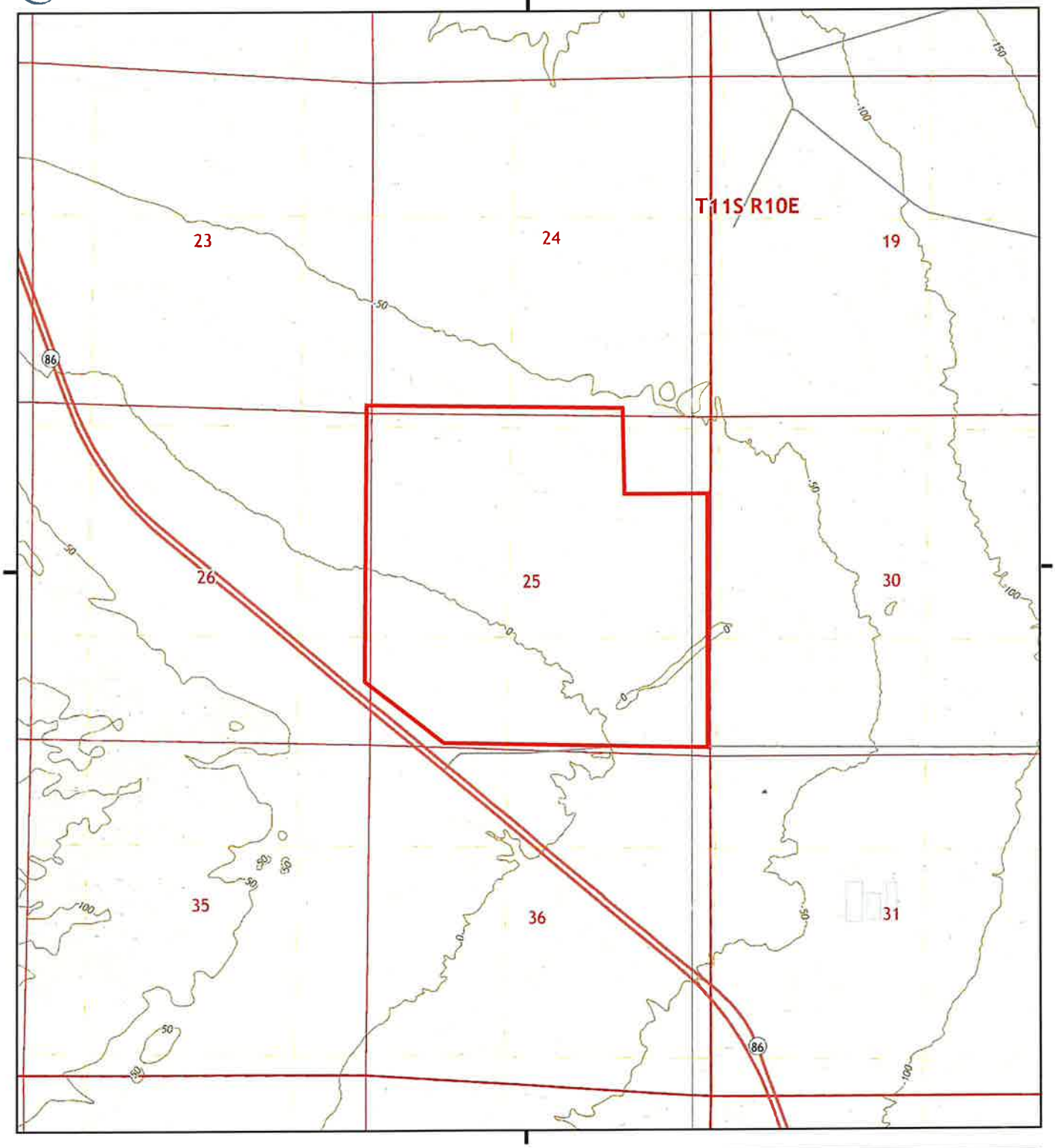
Kane Spring

15-minute, 62500
Aerial Photo Revised 1940

EEC ORIGINAL PKG

Historical Topo Map

2018



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0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Kane Spring NW, 2018, 7.5-minute
E, Kane Spring NE, 2018, 7.5-minute

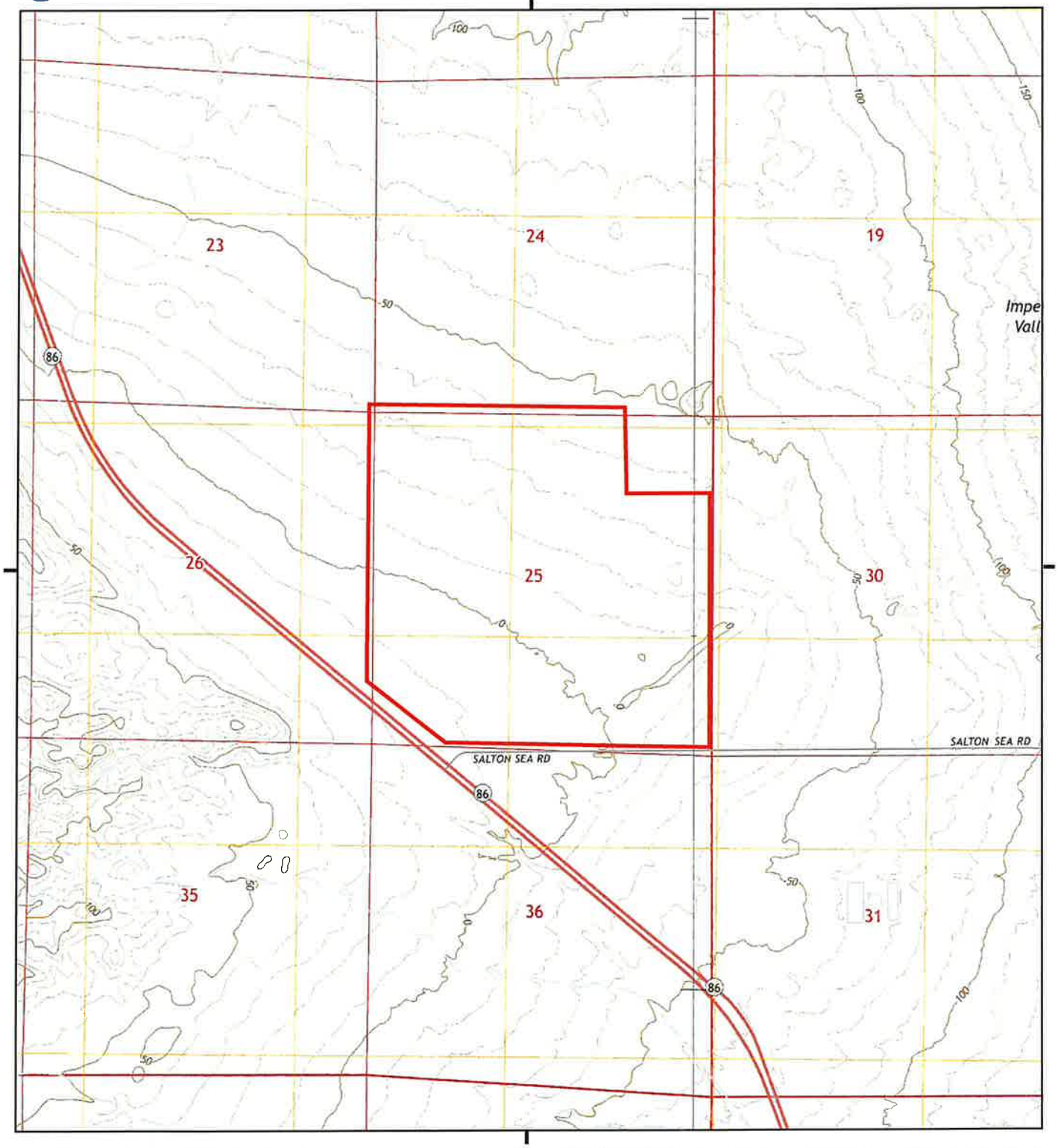
SITE NAME: NorthStar 3 Solar Project
ADDRESS: Hwy 86 and Old Navy Base Road
Thermal, CA 92274
CLIENT: GS Lyon Consultants

N

EEC ORIGINAL PKG

Historical Topo Map

2015



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NW N NE
W E
SW S SE

TP, Kane Spring NW, 2015, 7.5-minute
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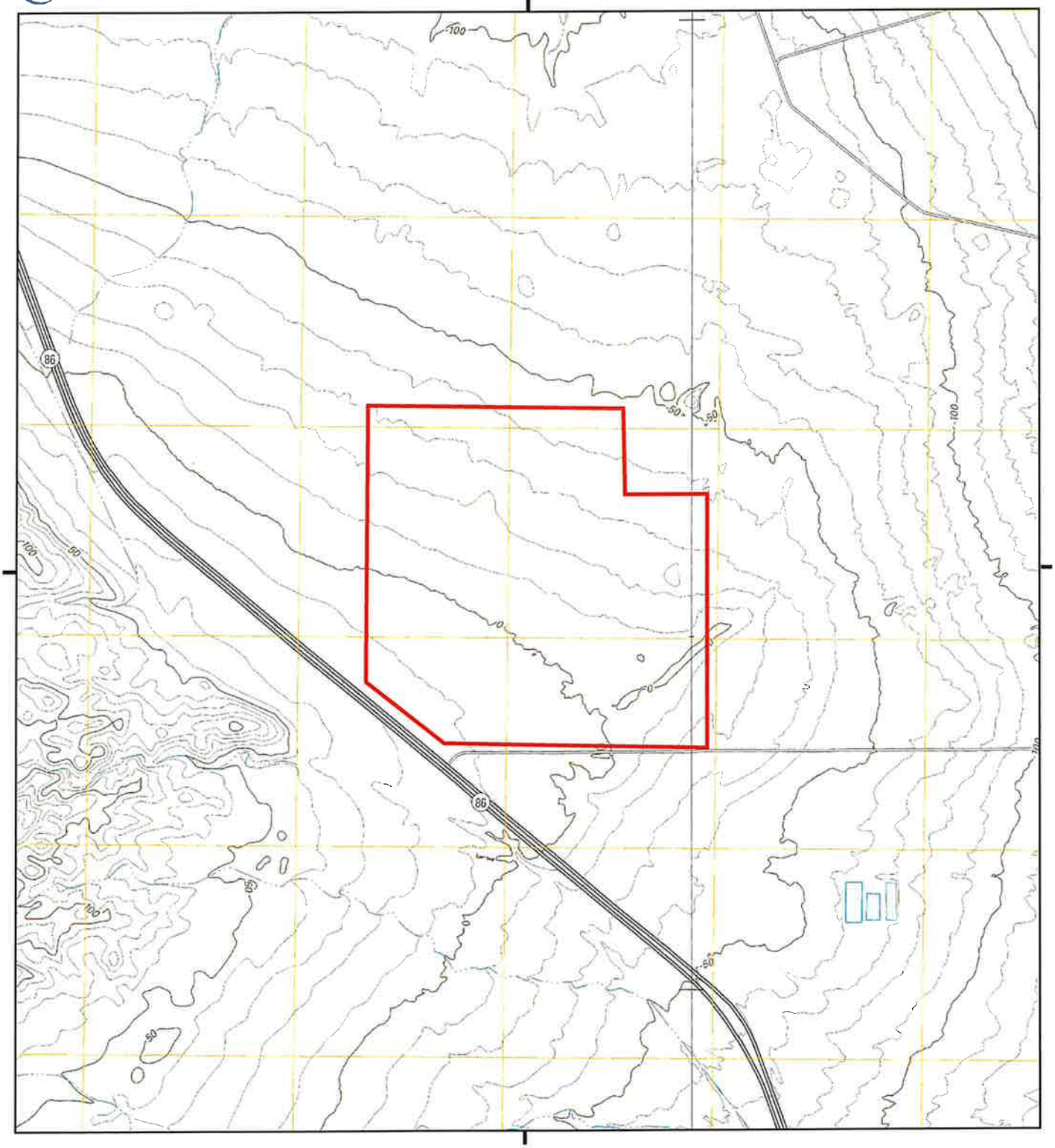
SITE NAME: NorthStar 3 Solar Project
ADDRESS: Hwy 86 and Old Navy Base Road
Thermal, CA 92274
CLIENT: GS Lyon Consultants

N

EEC ORIGINAL PKG

Historical Topo Map

2012



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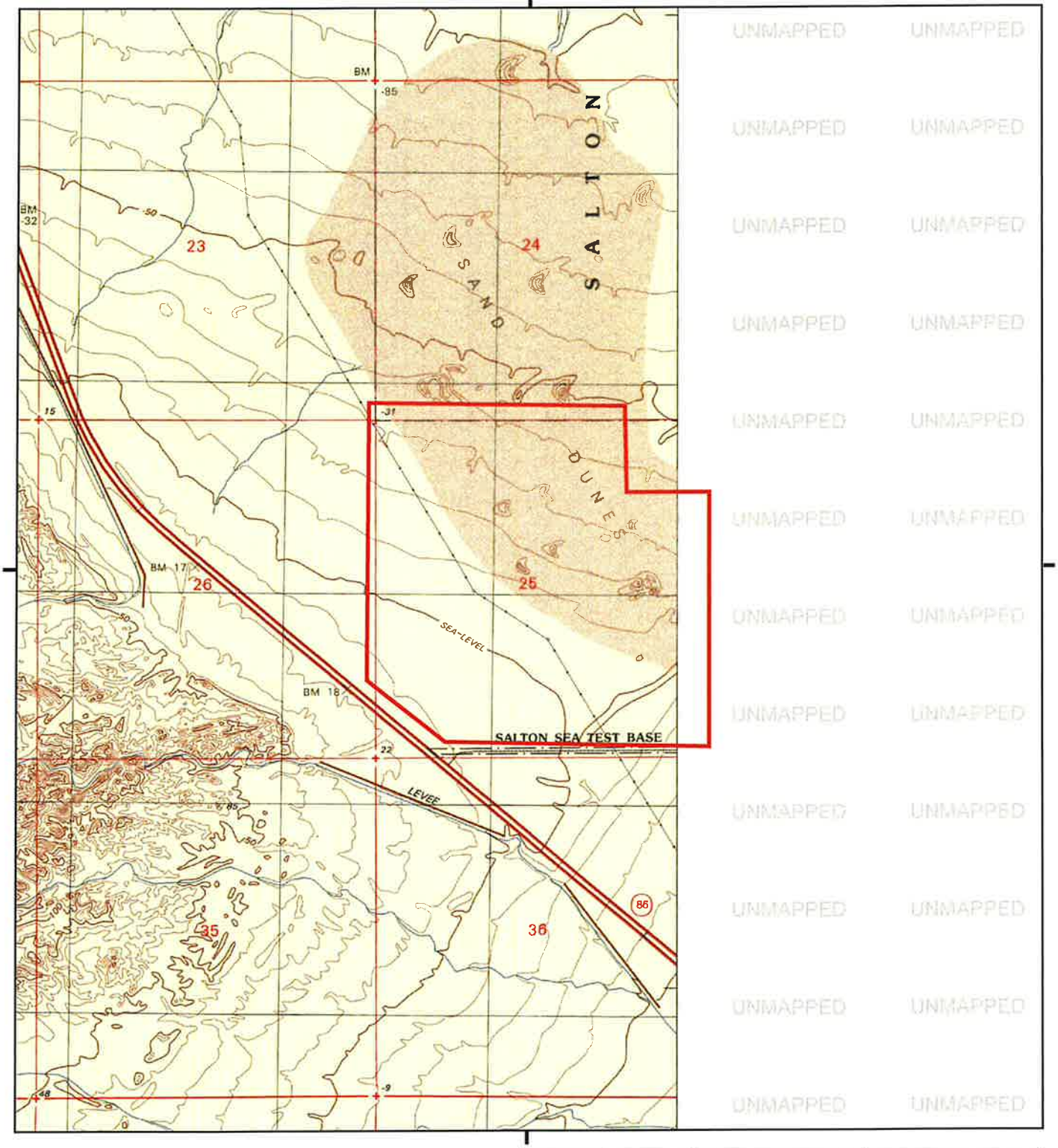
W E
SW S SE

TP, Kane Spring NW, 2012, 7.5-minute
E, Kane Spring NE, 2012, 7.5-minute

SITE NAME: NorthStar 3 Solar Project
ADDRESS: Hwy 86 and Old Navy Base Road
Thermal, CA 92274
CLIENT: GS Lyon Consultants

N

EEC ORIGINAL PKG



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NW N NE
W E
SW S SE

TP, Kane Spring NW, 1998, 7.5-minute

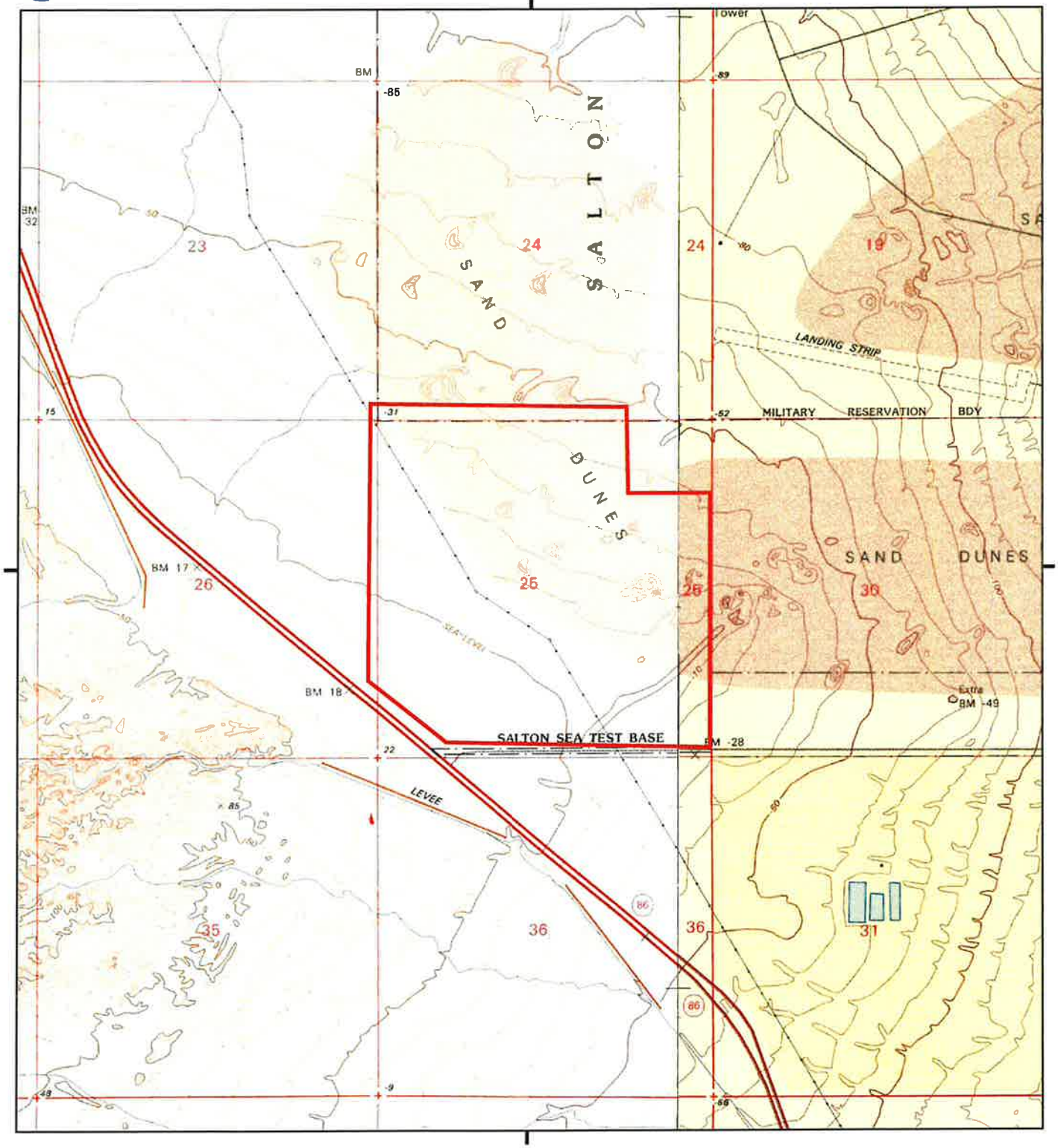
SITE NAME: NorthStar 3 Solar Project
ADDRESS: Hwy 86 and Old Navy Base Road
Thermal, CA 92274
CLIENT: GS Lyon Consultants

N

EEC ORIGINAL PKG

Historical Topo Map

1995



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SW S SE

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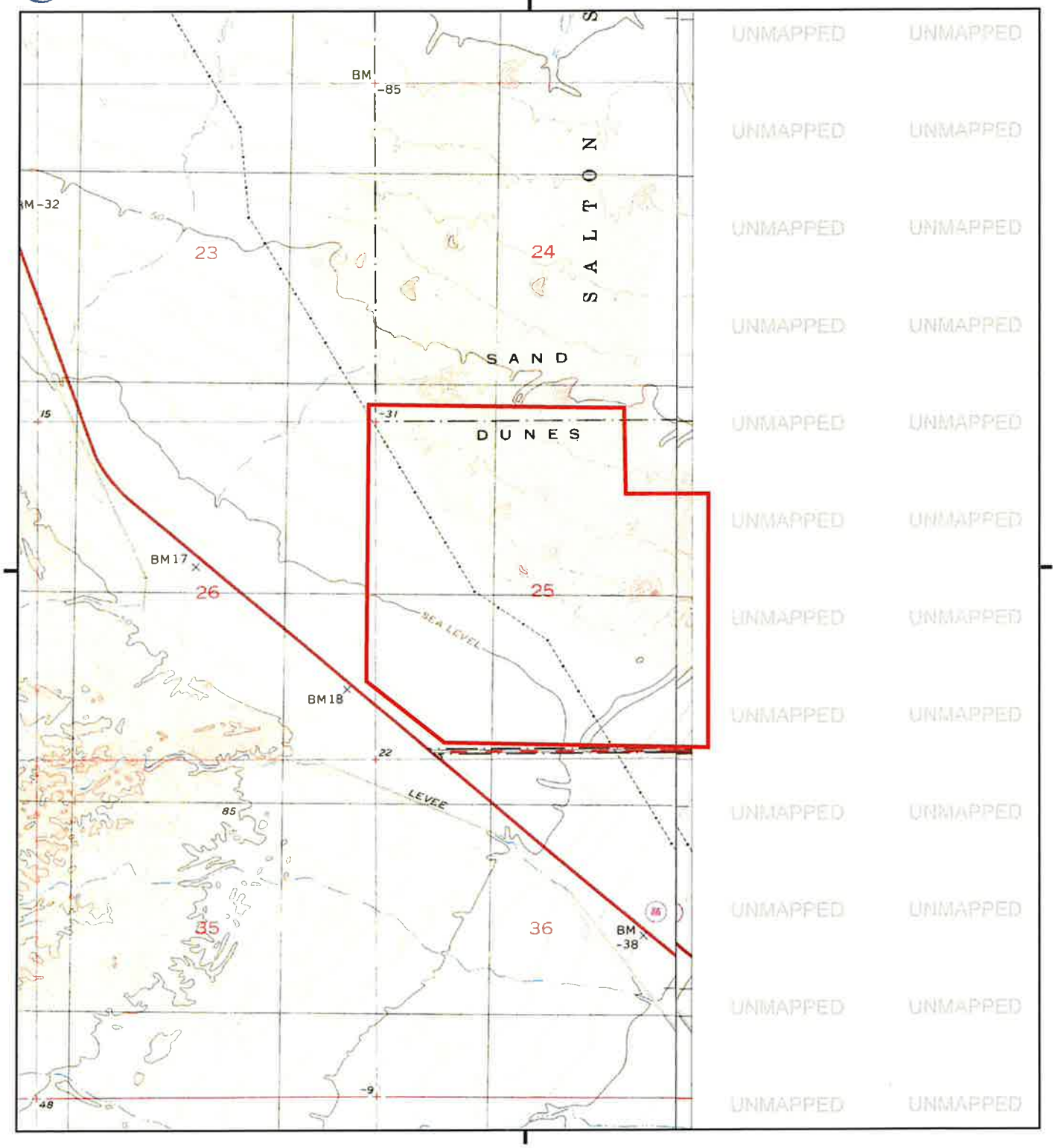
E, Kane Spring NE, 1995, 7.5-minute

SITE NAME: NorthStar 3 Solar Project
ADDRESS: Hwy 86 and Old Navy Base Road
Thermal, CA 92274
CLIENT: GS Lyon Consultants

N

EEC ORIGINAL PKG



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0 Miles 0.25 0.5 1 1.5

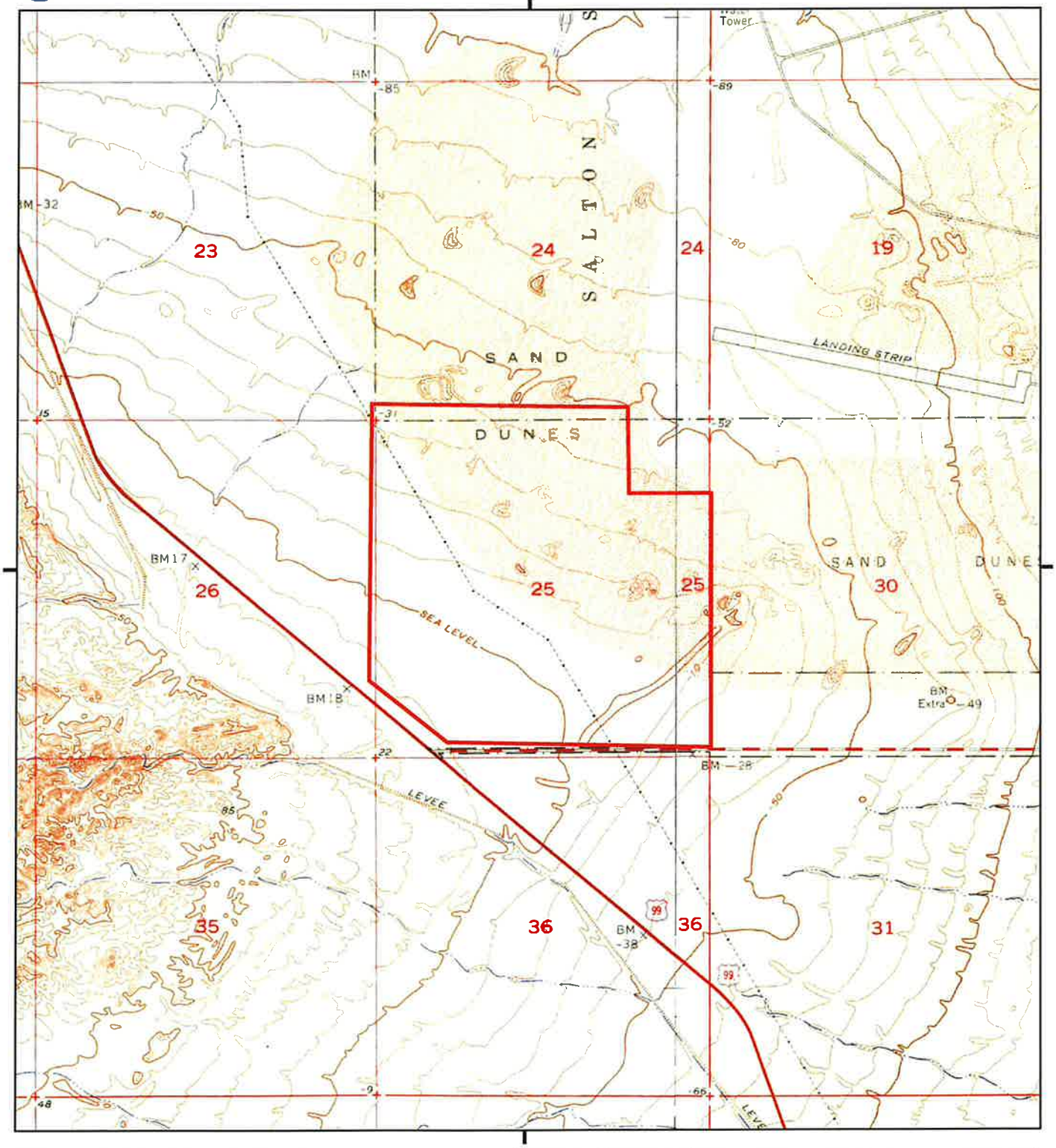
NW N NE
W E
SW S SE

TP, Kane Spring NW, 1979, 7.5-minute
TP, KANE SPRING NW, 1979, 7.5-minute

SITE NAME: NorthStar 3 Solar Project
ADDRESS: Hwy 86 and Old Navy Base Road
Thermal, CA 92274
CLIENT: GS Lyon Consultants

N

EEC ORIGINAL PKG



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SW S SE

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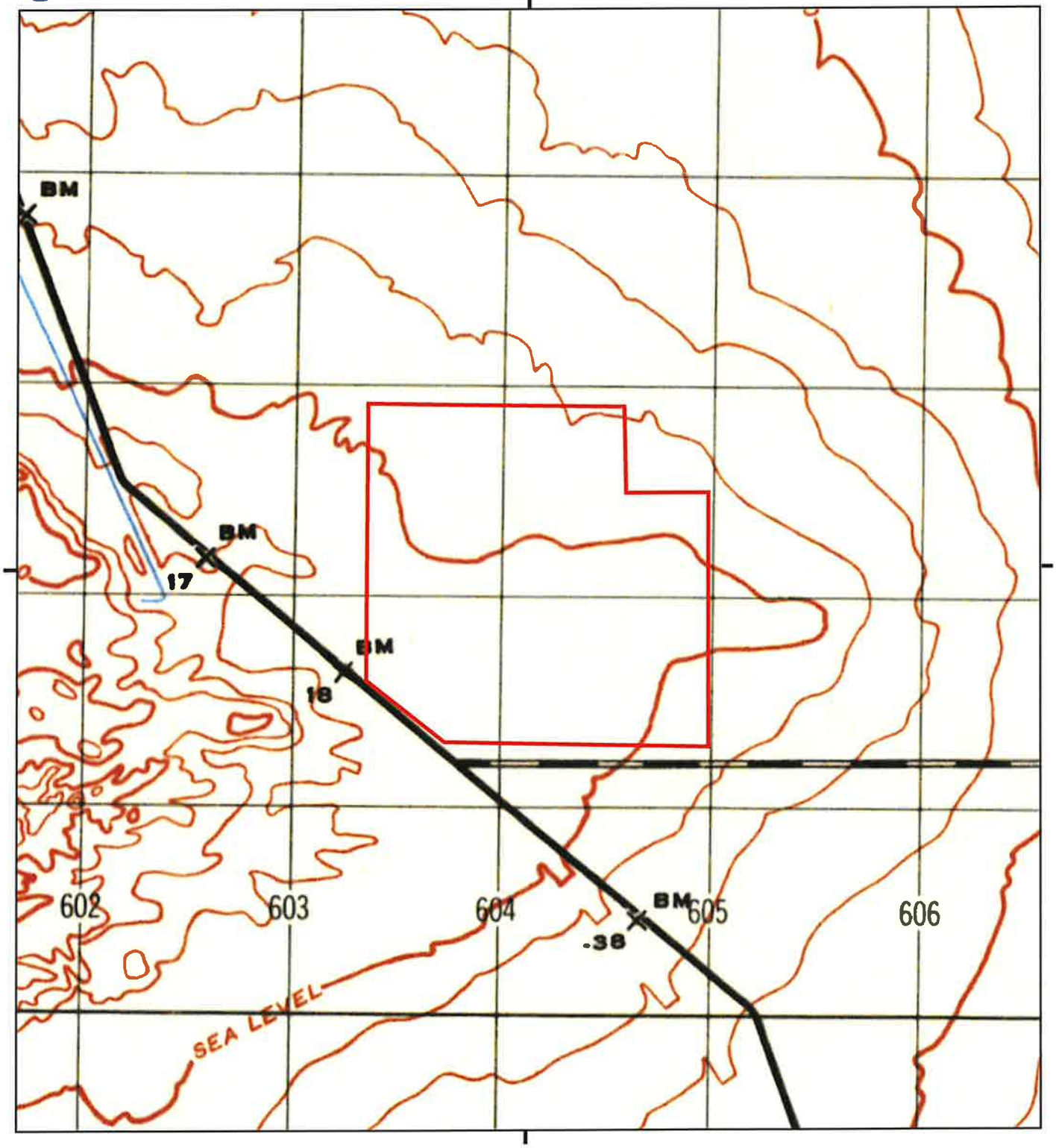
E, Kane Spring NE, 1956, 7.5-minute

SITE NAME: NorthStar 3 Solar Project
ADDRESS: Hwy 86 and Old Navy Base Road
Thermal, CA 92274
CLIENT: GS Lyon Consultants

N

EEC ORIGINAL PKG



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0 Miles 0.25 0.5 1 1.5

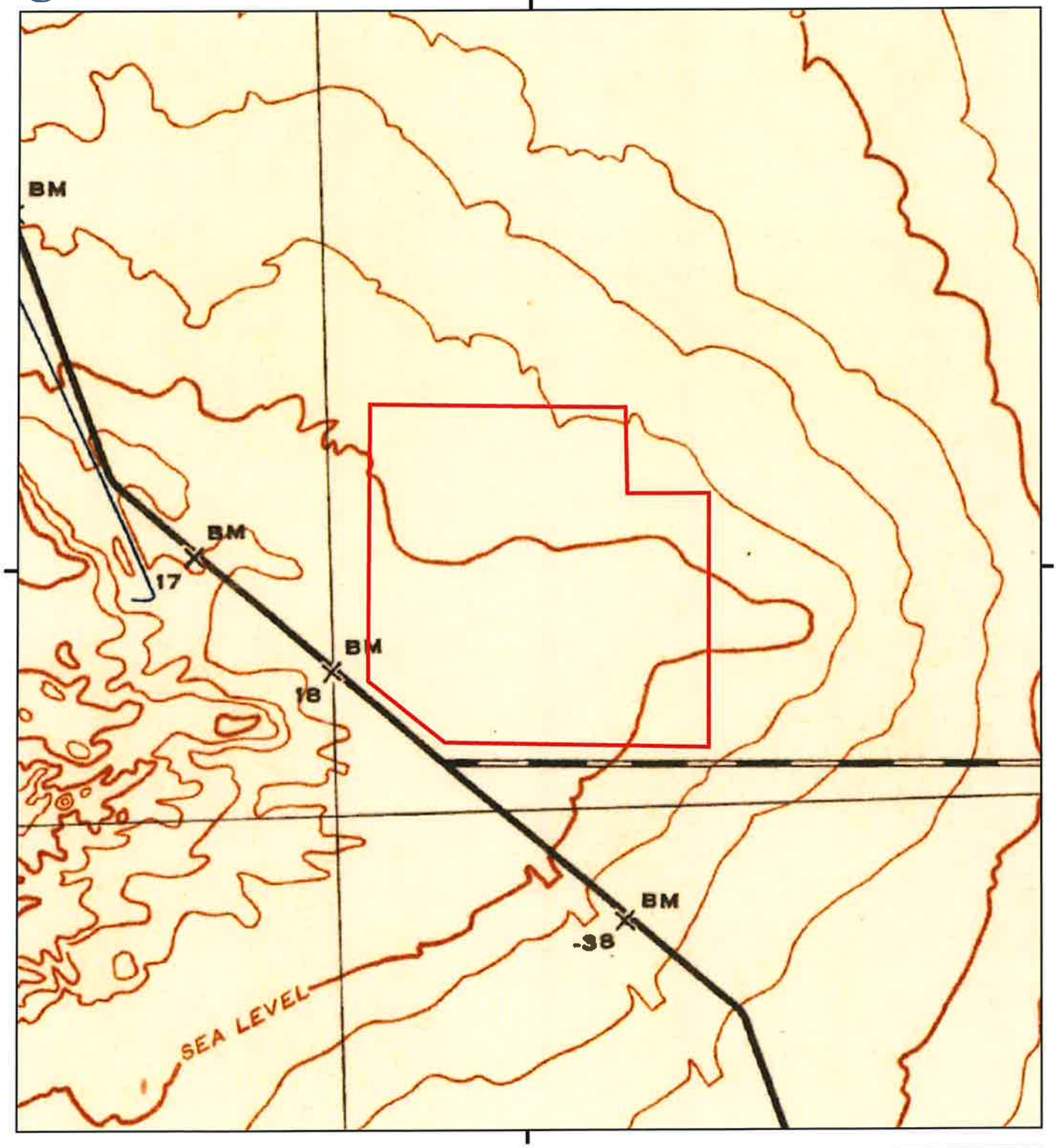
NW N NE
W E
SW S SE

TP, KANE SPRING, 1947, 15-minute

SITE NAME: NorthStar 3 Solar Project
ADDRESS: Hwy 86 and Old Navy Base Road
Thermal, CA 92274
CLIENT: GS Lyon Consultants

N

EEC ORIGINAL PKG



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NW N NE
W E
SW S SE

TP, Kane Spring, 1944, 15-minute

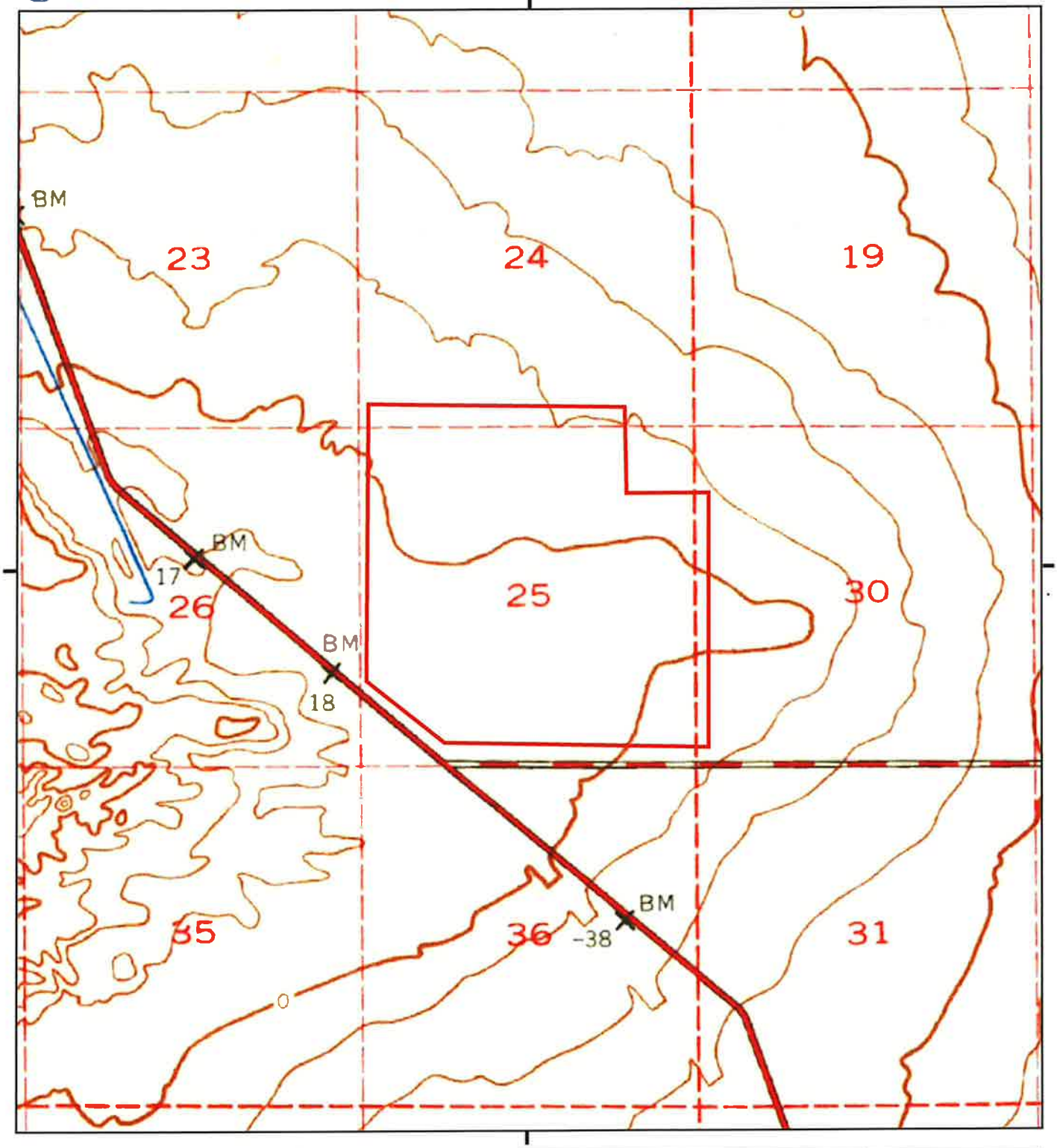
SITE NAME: NorthStar 3 Solar Project
ADDRESS: Hwy 86 and Old Navy Base Road
Thermal, CA 92274
CLIENT: GS Lyon Consultants

N

EEC ORIGINAL PKG

Historical Topo Map

1940



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W E
SW S SE

TP, Kane Spring, 1940, 15-minute

SITE NAME: NorthStar 3 Solar Project
ADDRESS: Hwy 86 and Old Navy Base Road
Thermal, CA 92274
CLIENT: GS Lyon Consultants

N

EEC ORIGINAL PKG

APPENDIX E

EEC ORIGINAL PKG

NorthStar 3 Solar Project
Hwy 86 and Old Navy Base Road
Thermal, CA 92274

Inquiry Number: 7022967.3
June 17, 2022

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
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EEC ORIGINAL PKG

Certified Sanborn® Map Report

06/17/22

Site Name:

NorthStar 3 Solar Project
Hwy 86 and Old Navy Base Ro
Thermal, CA 92274
EDR Inquiry # 7022967.3

Client Name:

GS Lyon Consultants
780 N. Fourth Street
El Centro, CA 92243
Contact: Steven Williams

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by GS Lyon Consultants were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

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Certified Sanborn Results:

Certification # 7B08-41B3-AABB

PO # GS2221

Project NorthStar 3 Solar Project

UNMAPPED PROPERTY

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Sanborn® Library search results

Certification #: 7B08-41B3-AABB

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ✓ Library of Congress
- ✓ University Publications of America
- ✓ EDR Private Collection

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APPENDIX F

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NorthStar 3 Solar Project
Hwy 86 and Old Navy Base Road
Thermal, CA 92274

Inquiry Number: 7022967.2s
June 17, 2022

The EDR Radius Map™ Report with GeoCheck®

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Shelton, CT 06484
Toll Free: 800.352.0050
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FORM-LBB-KKT

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E1527-21), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

HWY 86 AND OLD NAVY BASE ROAD
THERMAL, CA 92274

COORDINATES

Latitude (North):	33.1847050 - 33ˆ 11' 4.93"
Longitude (West):	115.8833620 - 115ˆ 53' 0.10"
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	604098.8
UTM Y (Meters):	3672127.2
Elevation:	7 ft. below sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	12016566 KANE SPRING NW, CA
Version Date:	2018
East Map:	12016564 KANE SPRING NE, CA
Version Date:	2018

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140519
Source:	USDA

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MAPPED SITES SUMMARY

Target Property Address:
HWY 86 AND OLD NAVY BASE ROAD
THERMAL, CA 92274

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
1	BLUFF		MINES	Higher	815, 0.154, SW

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EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Lists of Federal NPL (Superfund) sites

NPL ..... National Priority List
Proposed NPL ..... Proposed National Priority List Sites
NPL LIENS ..... Federal Superfund Liens

Lists of Federal Delisted NPL sites

Delisted NPL ..... National Priority List Deletions

Lists of Federal sites subject to CERCLA removals and CERCLA orders

FEDERAL FACILITY ..... Federal Facility Site Information listing
SEMS ..... Superfund Enterprise Management System

Lists of Federal CERCLA sites with NFRAP

SEMS-ARCHIVE ..... Superfund Enterprise Management System Archive

Lists of Federal RCRA facilities undergoing Corrective Action

CORRACTS ..... Corrective Action Report

Lists of Federal RCRA TSD facilities

RCRA-TSDF ..... RCRA - Treatment, Storage and Disposal

Lists of Federal RCRA generators

RCRA-LQG ..... RCRA - Large Quantity Generators
RCRA-SQG ..... RCRA - Small Quantity Generators
RCRA-VSQG ..... RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

Federal institutional controls / engineering controls registries

LUCIS ..... Land Use Control Information System

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EXECUTIVE SUMMARY

US ENG CONTROLS..... Engineering Controls Sites List
US INST CONTROLS..... Institutional Controls Sites List

Federal ERNS list

ERNS..... Emergency Response Notification System

Lists of state- and tribal (Superfund) equivalent sites

RESPONSE..... State Response Sites

Lists of state- and tribal hazardous waste facilities

ENVIROSTOR..... EnviroStor Database

Lists of state and tribal landfills and solid waste disposal facilities

SWF/LF..... Solid Waste Information System

Lists of state and tribal leaking storage tanks

LUST..... Geotracker's Leaking Underground Fuel Tank Report
INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land
CPS-SLIC..... Statewide SLIC Cases

Lists of state and tribal registered storage tanks

FEMA UST..... Underground Storage Tank Listing
UST..... Active UST Facilities
AST..... Aboveground Petroleum Storage Tank Facilities
INDIAN UST..... Underground Storage Tanks on Indian Land

Lists of state and tribal voluntary cleanup sites

VCP..... Voluntary Cleanup Program Properties
INDIAN VCP..... Voluntary Cleanup Priority Listing

Lists of state and tribal brownfield sites

BROWNFIELDS..... Considered Brownfieds Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT..... Waste Management Unit Database
SWRCY..... Recycler Database
HAULERS..... Registered Waste Tire Haulers Listing
INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands
DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations

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EXECUTIVE SUMMARY

ODI	Open Dump Inventory
IHS OPEN DUMPS	Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL	Delisted National Clandestine Laboratory Register
HIST Cal-Sites	Historical Calsites Database
SCH	School Property Evaluation Program
CDL	Clandestine Drug Labs
Toxic Pits	Toxic Pits Cleanup Act Sites
CERS HAZ WASTE	CERS HAZ WASTE
US CDL	National Clandestine Laboratory Register
AQUEOUS FOAM	Former Fire Training Facility Assessments Listing
PFAS	PFAS Contamination Site Location Listing

Local Lists of Registered Storage Tanks

SWEEPS UST	SWEEPS UST Listing
HIST UST	Hazardous Substance Storage Container Database
CA FID UST	Facility Inventory Database
CERS TANKS	California Environmental Reporting System (CERS) Tanks

Local Land Records

LIENS	Environmental Liens Listing
LIENS 2	CERCLA Lien Information
DEED	Deed Restriction Listing

Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
CHMIRS	California Hazardous Material Incident Report System
LDS	Land Disposal Sites Listing
MCS	Military Cleanup Sites Listing
SPILLS 90	SPILLS 90 data from FirstSearch

Other Ascertainable Records

RCRA NonGen / NLR	RCRA - Non Generators / No Longer Regulated
FUDS	Formerly Used Defense Sites
DOD	Department of Defense Sites
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR	Financial Assurance Information
EPA WATCH LIST	EPA WATCH LIST
2020 COR ACTION	2020 Corrective Action Program List
TSCA	Toxic Substances Control Act
TRIS	Toxic Chemical Release Inventory System
SSTS	Section 7 Tracking Systems
ROD	Records Of Decision
RMP	Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
PRP	Potentially Responsible Parties
PADS	PCB Activity Database System
ICIS	Integrated Compliance Information System
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

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MLTS	Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
RADINFO	Radiation Information Database
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS	Incident and Accident Data
CONSENT	Superfund (CERCLA) Consent Decrees
INDIAN RESERV	Indian Reservations
FUSRAP	Formerly Utilized Sites Remedial Action Program
UMTRA	Uranium Mill Tailings Sites
LEAD SMELTERS	Lead Smelter Sites
US AIRS	Aerometric Information Retrieval System Facility Subsystem
US MINES	Mines Master Index File
ABANDONED MINES	Abandoned Mines
FINDS	Facility Index System/Facility Registry System
UXO	Unexploded Ordnance Sites
ECHO	Enforcement & Compliance History Information
DOCKET HWC	Hazardous Waste Compliance Docket Listing
FUELS PROGRAM	EPA Fuels Program Registered Listing
CA BOND EXP. PLAN	Bond Expenditure Plan
Cortese	"Cortese" Hazardous Waste & Substances Sites List
CUPA Listings	CUPA Resources List
DRYCLEANERS	Cleaner Facilities
EMI	Emissions Inventory Data
ENF	Enforcement Action Listing
Financial Assurance	Financial Assurance Information Listing
HAZNET	Facility and Manifest Data
ICE	ICE
HIST CORTESE	Hazardous Waste & Substance Site List
HWP	EnviroStor Permitted Facilities Listing
HWT	Registered Hazardous Waste Transporter Database
MWMP	Medical Waste Management Program Listing
NPDES	NPDES Permits Listing
PEST LIC	Pesticide Regulation Licenses Listing
PROC	Certified Processors Database
Notify 65	Proposition 65 Records
UIC	UIC Listing
UIC GEO	UIC GEO (GEOTRACKER)
WASTEWATER PITS	Oil Wastewater Pits Listing
WDS	Waste Discharge System
WIP	Well Investigation Program Case List
MILITARY PRIV SITES	MILITARY PRIV SITES (GEOTRACKER)
PROJECT	PROJECT (GEOTRACKER)
WDR	Waste Discharge Requirements Listing
CIWQS	California Integrated Water Quality System
CERS	CERS
NON-CASE INFO	NON-CASE INFO (GEOTRACKER)
OTHER OIL GAS	OTHER OIL & GAS (GEOTRACKER)
PROD WATER PONDS	PROD WATER PONDS (GEOTRACKER)
SAMPLING POINT	SAMPLING POINT (GEOTRACKER)
WELL STIM PROJ	Well Stimulation Project (GEOTRACKER)
HWTS	Hazardous Waste Tracking System
MINES MRDS	Mineral Resources Data System

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	EDR Proprietary Manufactured Gas Plants

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EXECUTIVE SUMMARY

EDR Hist Auto..... EDR Exclusive Historical Auto Stations
EDR Hist Cleaner..... EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF..... Recovered Government Archive Solid Waste Facilities List
RGA LUST..... Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

ADDITIONAL ENVIRONMENTAL RECORDS

Other Ascertainable Records

MINES: A listing of mine site locations from the Office of Mine Reclamation.

A review of the MINES list, as provided by EDR, and dated 03/07/2022 has revealed that there is 1 MINES site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
BLUFF		SW 1/8 - 1/4 (0.154 mi.)	1	9

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Due to poor or inadequate address information, the following sites were not mapped. Count: 1 records.

Site Name	Database(s)
SALTON CITY SOLID WASTE TRANSFER S	SWF/LF

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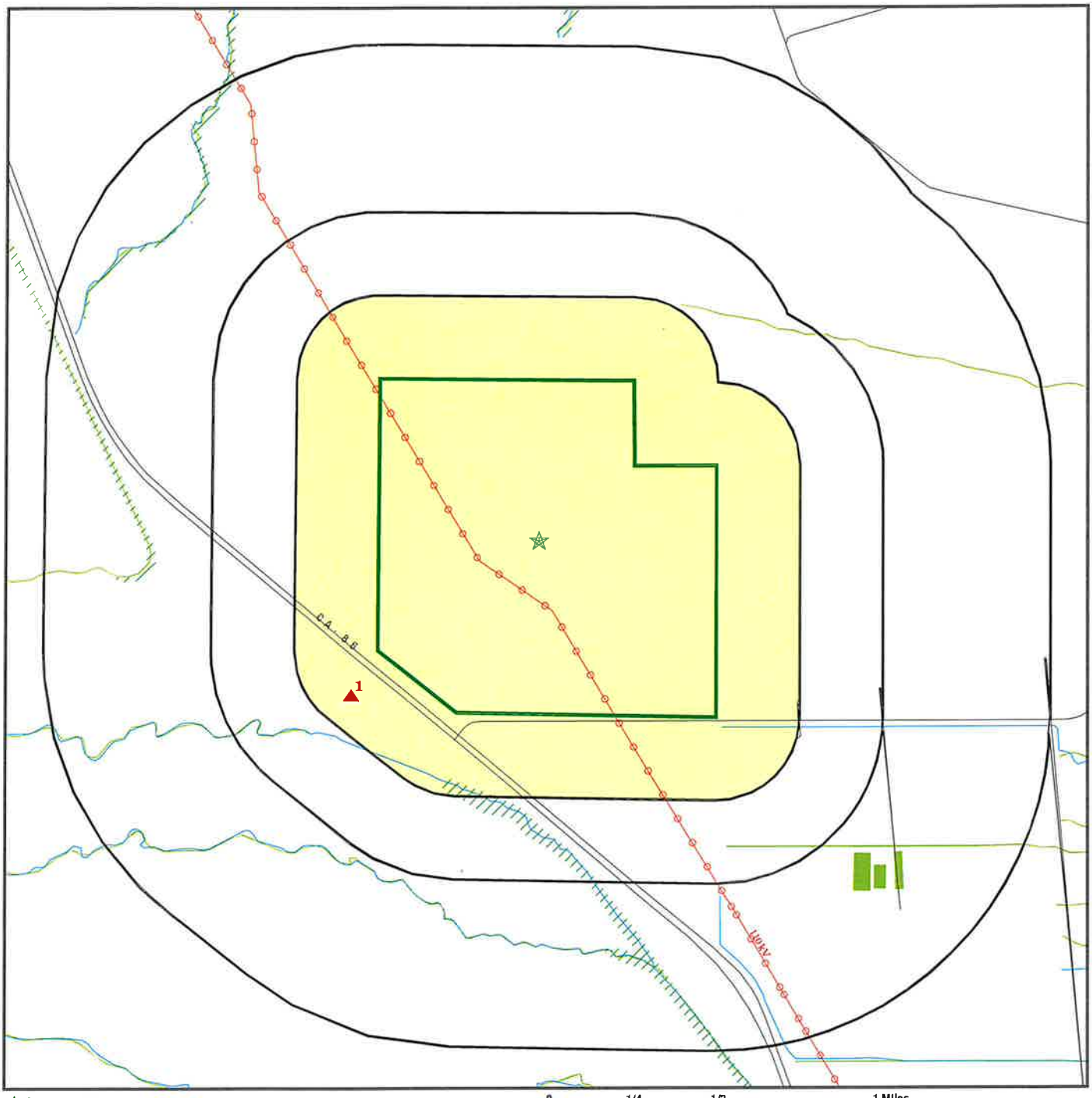
OVERVIEW MAP - 7022967.2S



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Special Flood Hazard Area (1%)
- 0.2% Annual Chance Flood Hazard
- National Wetland Inventory
- State Wetlands
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: NorthStar 3 Solar Project	CLIENT: GS Lyon Consultants
ADDRESS: Hwy 86 and Old Navy Base Road Thermal CA 92274	CONTACT: Steven Williams
LAT/LONG: 33.184705 / 115.883362	INQUIRY #: 7022967.2s DATE: June 17, 2022 1:56 pm

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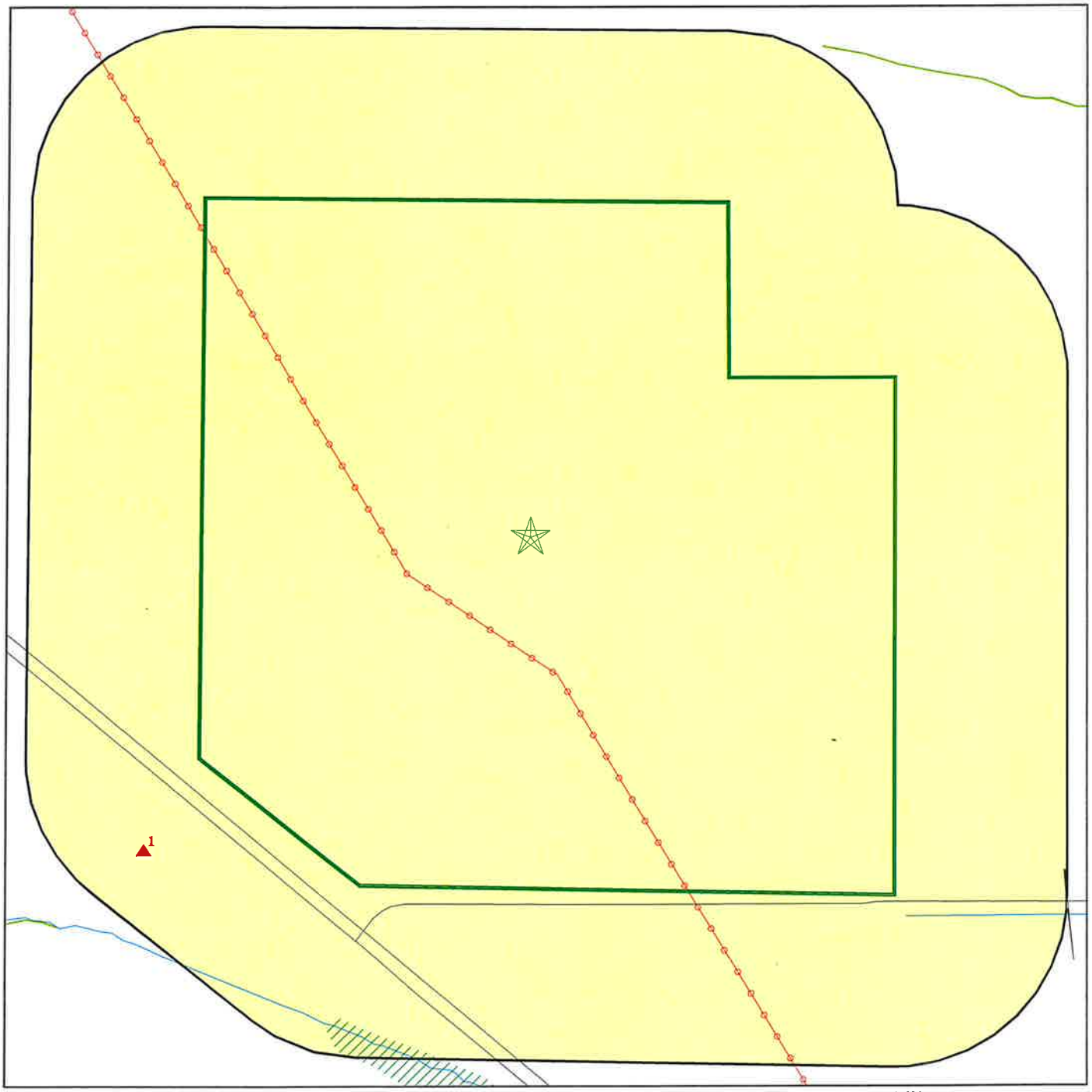
DETAIL MAP - 7022967.2S



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Special Flood Hazard Area (1%)
- 0.2% Annual Chance Flood Hazard
- National Wetland Inventory
- State Wetlands
- Areas of Concern

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SITE NAME: NorthStar 3 Solar Project	CLIENT: GS Lyon Consultants
ADDRESS: Hwy 86 and Old Navy Base Road Thermal CA 92274	CONTACT: Steven Williams
LAT/LONG: 33.184705 / 115.883362	INQUIRY #: 7022967.2s DATE: June 17, 2022 4:36 pm

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Lists of Federal NPL (Superfund) sites								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
Lists of Federal Delisted NPL sites								
Delisted NPL	1.000		0	0	0	0	NR	0
Lists of Federal sites subject to CERCLA removals and CERCLA orders								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Lists of Federal CERCLA sites with NFRAP								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Lists of Federal RCRA facilities undergoing Corrective Action								
CORRACTS	1.000		0	0	0	0	NR	0
Lists of Federal RCRA TSD facilities								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Lists of Federal RCRA generators								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROLS	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	0.001		0	NR	NR	NR	NR	0
Lists of state- and tribal (Superfund) equivalent sites								
RESPONSE	1.000		0	0	0	0	NR	0
Lists of state- and tribal hazardous waste facilities								
ENVIROSTOR	1.000		0	0	0	0	NR	0
Lists of state and tribal landfills and solid waste disposal facilities								
SWF/LF	0.500		0	0	0	NR	NR	0

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
Lists of state and tribal leaking storage tanks								
LUST	0.500		0	0	0	NR	NR	0
INDIAN LUST	0.500		0	0	0	NR	NR	0
CPS-SLIC	0.500		0	0	0	NR	NR	0
Lists of state and tribal registered storage tanks								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
Lists of state and tribal voluntary cleanup sites								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
Lists of state and tribal brownfield sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	0.001		0	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	0	NR	NR	NR	0
CDL	0.001		0	NR	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
CERS HAZ WASTE	0.250		0	0	NR	NR	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
AQUEOUS FOAM	TP		NR	NR	NR	NR	NR	0
PFAS	0.500		0	0	0	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250		0	0	NR	NR	NR	0
HIST UST	0.250		0	0	NR	NR	NR	0
CA FID UST	0.250		0	0	NR	NR	NR	0

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
CERS TANKS	0.250		0	0	NR	NR	NR	0
Local Land Records								
LIENS	0.001		0	NR	NR	NR	NR	0
LIENS 2	0.001		0	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0
CHMIRS	0.001		0	NR	NR	NR	NR	0
LDS	0.001		0	NR	NR	NR	NR	0
MCS	0.001		0	NR	NR	NR	NR	0
SPILLS 90	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
ECHO	0.001		0	NR	NR	NR	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0

EEC ORIGINAL PKG

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500		0	0	0	NR	NR	0
CUPA Listings	0.250		0	0	NR	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMI	0.001		0	NR	NR	NR	NR	0
ENF	0.001		0	NR	NR	NR	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
HAZNET	0.001		0	NR	NR	NR	NR	0
ICE	0.001		0	NR	NR	NR	NR	0
HIST CORTESE	0.500		0	0	0	NR	NR	0
HWP	1.000		0	0	0	0	NR	0
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.250		0	1	NR	NR	NR	1
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	0.001		0	NR	NR	NR	NR	0
PEST LIC	0.001		0	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	0	0	NR	0
UIC	0.001		0	NR	NR	NR	NR	0
UIC GEO	0.001		0	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	0.001		0	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
MILITARY PRIV SITES	0.001		0	NR	NR	NR	NR	0
PROJECT	0.001		0	NR	NR	NR	NR	0
WDR	0.001		0	NR	NR	NR	NR	0
CIWQS	0.001		0	NR	NR	NR	NR	0
CERS	0.001		0	NR	NR	NR	NR	0
NON-CASE INFO	0.001		0	NR	NR	NR	NR	0
OTHER OIL GAS	0.001		0	NR	NR	NR	NR	0
PROD WATER PONDS	0.001		0	NR	NR	NR	NR	0
SAMPLING POINT	0.001		0	NR	NR	NR	NR	0
WELL STIM PROJ	0.001		0	NR	NR	NR	NR	0
HWTS	TP		NR	NR	NR	NR	NR	0
MINES MRDS	0.001		0	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	0.001		0	NR	NR	NR	NR	0
RGA LUST	0.001		0	NR	NR	NR	NR	0
- Totals --		0	0	1	0	0	0	1

EEC ORIGINAL PKG

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

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1
SW
1/8-1/4
0.154 mi.
815 ft.

BLUFF

, CA

MINES **S117661137**
N/A

Relative:
Higher

Actual:
27 ft.

MINES:

Name:	BLUFF
Address:	Not reported
City,State,Zip:	CA
Latitude:	33.178056
Longitude:	-115.893056
Lead Agency identification code:	13
Lead Agency name:	County of Imperial
Year of the operator supplied annual report:	1992
Type of report submitted by operator:	2
Number of acres disturbed by the mine:	0
Status of mining operation:	RECLAIMED
Status of mine reclamation:	RECLAMATION NOT STARTED
Mine operator:	CALTRANS
Operator Address:	PO BOX 85406
Operator City, State, Zip:	SAN DIEGO, CA 92186-5406
Operator County:	Not reported
Mine owner:	BUREAU OF LAND MANAGEMENT
Owner Address:	333 S. WATERMAN AVENUE
Owner City, State, Zip:	EL CENTRO, CA 92243
Owner County:	Not reported
Reclamation plan identification number:	Not reported
Primary product produced by the mine:	Sand and Gravel
Other products produced by the mine:	Not reported
Conditional use permit identification number:	26-86
Number of acres permitted for mining disturbance:	0
Total amount of funds posted by the mine for reclamation:	Not reported
Financial Assurance Cost Estimate for reclamation:	Not reported
X Coordinates:	-12901155.98
Y Coordinates:	3918961.8379

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Count: 1 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
SALTON CITY	S126983089	SALTON CITY SOLID WASTE TRANSFER S	3 M SOUTH SALTON CITY AND 3 M	92274	SWF/LF

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GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Lists of Federal NPL (Superfund) sites

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/27/2022
Date Data Arrived at EDR: 05/05/2022
Date Made Active in Reports: 05/31/2022
Number of Days to Update: 26

Source: EPA
Telephone: N/A
Last EDR Contact: 06/01/2022
Next Scheduled EDR Contact: 07/11/2022
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 3
Telephone 215-814-5418

EPA Region 4
Telephone 404-562-8033

EPA Region 5
Telephone 312-886-6686

EPA Region 10
Telephone 206-553-8665

EPA Region 6
Telephone: 214-655-6659

EPA Region 7
Telephone: 913-551-7247

EPA Region 8
Telephone: 303-312-6774

EPA Region 9
Telephone: 415-947-4246

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 04/27/2022
Date Data Arrived at EDR: 05/05/2022
Date Made Active in Reports: 05/31/2022
Number of Days to Update: 26

Source: EPA
Telephone: N/A
Last EDR Contact: 06/01/2022
Next Scheduled EDR Contact: 07/11/2022
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Lists of Federal Delisted NPL sites

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/27/2022
Date Data Arrived at EDR: 05/05/2022
Date Made Active in Reports: 05/31/2022
Number of Days to Update: 26

Source: EPA
Telephone: N/A
Last EDR Contact: 06/01/2022
Next Scheduled EDR Contact: 07/11/2022
Data Release Frequency: Quarterly

Lists of Federal sites subject to CERCLA removals and CERCLA orders

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 05/25/2021
Date Data Arrived at EDR: 06/24/2021
Date Made Active in Reports: 09/20/2021
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 04/01/2022
Next Scheduled EDR Contact: 07/11/2022
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 04/27/2022
Date Data Arrived at EDR: 05/05/2022
Date Made Active in Reports: 05/31/2022
Number of Days to Update: 26

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 06/01/2022
Next Scheduled EDR Contact: 07/25/2022
Data Release Frequency: Quarterly

Lists of Federal CERCLA sites with NFRAP

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

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SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 04/27/2022
Date Data Arrived at EDR: 05/05/2022
Date Made Active in Reports: 05/31/2022
Number of Days to Update: 26

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 06/01/2022
Next Scheduled EDR Contact: 07/25/2022
Data Release Frequency: Quarterly

Lists of Federal RCRA facilities undergoing Corrective Action

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 02/28/2022
Date Data Arrived at EDR: 03/02/2022
Date Made Active in Reports: 03/17/2022
Number of Days to Update: 15

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 04/06/2022
Next Scheduled EDR Contact: 07/04/2022
Data Release Frequency: Quarterly

Lists of Federal RCRA TSD facilities

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 02/28/2022
Date Data Arrived at EDR: 03/02/2022
Date Made Active in Reports: 03/17/2022
Number of Days to Update: 15

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 04/06/2022
Next Scheduled EDR Contact: 07/04/2022
Data Release Frequency: Quarterly

Lists of Federal RCRA generators

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 02/28/2022
Date Data Arrived at EDR: 03/02/2022
Date Made Active in Reports: 03/17/2022
Number of Days to Update: 15

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 04/06/2022
Next Scheduled EDR Contact: 07/04/2022
Data Release Frequency: Quarterly

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RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 02/28/2022
Date Data Arrived at EDR: 03/02/2022
Date Made Active in Reports: 03/17/2022
Number of Days to Update: 15

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 04/06/2022
Next Scheduled EDR Contact: 07/04/2022
Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 02/28/2022
Date Data Arrived at EDR: 03/02/2022
Date Made Active in Reports: 03/17/2022
Number of Days to Update: 15

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 04/06/2022
Next Scheduled EDR Contact: 07/04/2022
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 02/08/2022
Date Data Arrived at EDR: 02/11/2022
Date Made Active in Reports: 05/10/2022
Number of Days to Update: 88

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 05/05/2022
Next Scheduled EDR Contact: 08/22/2022
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 02/21/2022
Date Data Arrived at EDR: 02/23/2022
Date Made Active in Reports: 05/24/2022
Number of Days to Update: 90

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 05/24/2022
Next Scheduled EDR Contact: 09/05/2022
Data Release Frequency: Varies

US INST CONTROLS: Institutional Controls Sites List

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 02/21/2022
Date Data Arrived at EDR: 02/23/2022
Date Made Active in Reports: 05/24/2022
Number of Days to Update: 90

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 05/04/2022
Next Scheduled EDR Contact: 09/05/2022
Data Release Frequency: Varies

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GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/2021
Date Data Arrived at EDR: 03/01/2022
Date Made Active in Reports: 03/10/2022
Number of Days to Update: 9

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 06/15/2022
Next Scheduled EDR Contact: 10/03/2022
Data Release Frequency: Quarterly

Lists of state- and tribal (Superfund) equivalent sites

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 01/24/2022
Date Data Arrived at EDR: 01/25/2022
Date Made Active in Reports: 04/13/2022
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 04/26/2022
Next Scheduled EDR Contact: 08/08/2022
Data Release Frequency: Quarterly

Lists of state- and tribal hazardous waste facilities

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 01/24/2022
Date Data Arrived at EDR: 01/25/2022
Date Made Active in Reports: 04/13/2022
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 04/26/2022
Next Scheduled EDR Contact: 08/08/2022
Data Release Frequency: Quarterly

Lists of state and tribal landfills and solid waste disposal facilities

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 02/07/2022
Date Data Arrived at EDR: 02/08/2022
Date Made Active in Reports: 05/05/2022
Number of Days to Update: 86

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 05/09/2022
Next Scheduled EDR Contact: 08/22/2022
Data Release Frequency: Quarterly

Lists of state and tribal leaking storage tanks

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 9: Leaking Underground Storage Tank Report
Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks
California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List
Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List
Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

LUST REG 1: Active Toxic Site Investigation
Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST: Leaking Underground Fuel Tank Report (GEOTRACKER)
Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 05/23/2022
Date Data Arrived at EDR: 05/23/2022
Date Made Active in Reports: 05/24/2022
Number of Days to Update: 1

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 05/23/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Quarterly

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 10/12/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 85

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

EEC ORIGINAL PKG

Date of Government Version: 10/12/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 85

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 04/28/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/12/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 85

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 10/12/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 85

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 10/12/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 85

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 05/28/2021
Date Data Arrived at EDR: 06/22/2021
Date Made Active in Reports: 09/20/2021
Number of Days to Update: 90

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 10/12/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 85

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Varies

EEC ORIGINAL PKG

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CPS-SLIC: Statewide SLIC Cases (GEOTRACKER)
Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 05/23/2022
Date Data Arrived at EDR: 05/23/2022
Date Made Active in Reports: 05/24/2022
Number of Days to Update: 1

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 05/23/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

EEC ORIGINAL PKG

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: No Update Planned

Lists of state and tribal registered storage tanks

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 10/14/2021
Date Data Arrived at EDR: 11/05/2021
Date Made Active in Reports: 02/01/2022
Number of Days to Update: 88

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 04/04/2022
Next Scheduled EDR Contact: 07/18/2022
Data Release Frequency: Varies

EEC ORIGINAL PKG

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 03/07/2022
Date Data Arrived at EDR: 03/08/2022
Date Made Active in Reports: 06/02/2022
Number of Days to Update: 86

Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 06/07/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Semi-Annually

MILITARY UST SITES: Military UST Sites (GEOTRACKER)
Military ust sites

Date of Government Version: 05/23/2022
Date Data Arrived at EDR: 05/23/2022
Date Made Active in Reports: 06/02/2022
Number of Days to Update: 10

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 05/23/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Varies

UST CLOSURE: Proposed Closure of Underground Storage Tank (UST) Cases
UST cases that are being considered for closure by either the State Water Resources Control Board or the Executive Director have been posted for a 60-day public comment period. UST Case Closures being proposed for consideration by the State Water Resources Control Board. These are primarily UST cases that meet closure criteria under the decisional framework in State Water Board Resolution No. 92-49 and other Board orders. UST Case Closures proposed for consideration by the Executive Director pursuant to State Water Board Resolution No. 2012-0061. These are cases that meet the criteria of the Low-Threat UST Case Closure Policy. UST Case Closure Review Denials and Approved Orders.

Date of Government Version: 03/07/2022
Date Data Arrived at EDR: 03/08/2022
Date Made Active in Reports: 06/03/2022
Number of Days to Update: 87

Source: State Water Resources Control Board
Telephone: 916-327-7844
Last EDR Contact: 06/09/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Varies

AST: Aboveground Petroleum Storage Tank Facilities
A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 09/19/2016
Number of Days to Update: 69

Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 06/09/2022
Next Scheduled EDR Contact: 09/26/2022
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/14/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 85

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/06/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Varies

EEC ORIGINAL PKG

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 10/12/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 85

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 05/28/2021
Date Data Arrived at EDR: 06/22/2021
Date Made Active in Reports: 09/20/2021
Number of Days to Update: 90

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 10/12/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 85

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 10/12/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 85

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 10/12/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 85

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 10/12/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 85

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Varies

EEC ORIGINAL PKG

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Lists of state and tribal voluntary cleanup sites

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 06/15/2022
Next Scheduled EDR Contact: 10/03/2022
Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Properties
Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 01/24/2022
Date Data Arrived at EDR: 01/25/2022
Date Made Active in Reports: 04/13/2022
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 04/26/2022
Next Scheduled EDR Contact: 08/08/2022
Data Release Frequency: Quarterly

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 07/08/2021
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

Lists of state and tribal brownfield sites

BROWNFIELDS: Considered Brownfieds Sites Listing
A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 03/21/2022
Date Data Arrived at EDR: 03/21/2022
Date Made Active in Reports: 06/14/2022
Number of Days to Update: 85

Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 03/21/2022
Next Scheduled EDR Contact: 07/04/2022
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 02/23/2022
Date Data Arrived at EDR: 03/10/2022
Date Made Active in Reports: 03/10/2022
Number of Days to Update: 0

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 09/26/2022
Data Release Frequency: Semi-Annually

EEC ORIGINAL PKG

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 04/21/2022
Next Scheduled EDR Contact: 08/08/2022
Data Release Frequency: No Update Planned

SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 03/07/2022
Date Data Arrived at EDR: 03/08/2022
Date Made Active in Reports: 06/02/2022
Number of Days to Update: 86

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 06/07/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing

A listing of registered waste tire haulers.

Date of Government Version: 02/15/2022
Date Data Arrived at EDR: 02/24/2022
Date Made Active in Reports: 05/25/2022
Number of Days to Update: 90

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 05/19/2022
Next Scheduled EDR Contact: 08/22/2022
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 04/21/2022
Next Scheduled EDR Contact: 08/08/2022
Data Release Frequency: Varies

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 04/14/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: No Update Planned

EEC ORIGINAL PKG

IHS OPEN DUMPS: Open Dumps on Indian Land
A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 04/28/2022
Next Scheduled EDR Contact: 08/08/2022
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register
A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 02/22/2022
Date Data Arrived at EDR: 02/23/2022
Date Made Active in Reports: 05/10/2022
Number of Days to Update: 76

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/24/2022
Next Scheduled EDR Contact: 09/05/2022
Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database
The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program
This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 01/24/2022
Date Data Arrived at EDR: 01/25/2022
Date Made Active in Reports: 04/13/2022
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 04/26/2022
Next Scheduled EDR Contact: 08/08/2022
Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs
A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 01/20/2021
Date Made Active in Reports: 04/08/2021
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 05/12/2022
Next Scheduled EDR Contact: 07/18/2022
Data Release Frequency: Varies

TOXIC PITS: Toxic Pits Cleanup Act Sites
Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

EEC ORIGINAL PKG

CERS HAZ WASTE: CERS HAZ WASTE

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

Date of Government Version: 01/18/2022
Date Data Arrived at EDR: 01/19/2022
Date Made Active in Reports: 04/11/2022
Number of Days to Update: 82

Source: CalEPA
Telephone: 916-323-2514
Last EDR Contact: 04/19/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Quarterly

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 02/22/2022
Date Data Arrived at EDR: 02/23/2022
Date Made Active in Reports: 05/10/2022
Number of Days to Update: 76

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/24/2022
Next Scheduled EDR Contact: 09/05/2022
Data Release Frequency: Quarterly

AQUEOUS FOAM: Former Fire Training Facility Assessments Listing

Airports shown on this list are those believed to use Aqueous Film Forming Foam (AFFF), and certified by the Federal Aviation Administration (FAA) under Title 14, Code of Federal Regulations (CFR), Part 139 (14 CFR Part 139). This list was created by SWRCB using information available from the FAA. Location points shown are from the latitude and longitude listed on the FAA airport master record.

Date of Government Version: 02/20/2020
Date Data Arrived at EDR: 12/10/2021
Date Made Active in Reports: 02/25/2022
Number of Days to Update: 77

Source: State Water Resources Control Board
Telephone: 916-341-5455
Last EDR Contact: 06/10/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Varies

PFAS: PFAS Contamination Site Location Listing

A listing of PFAS contaminated sites included in the GeoTracker database.

Date of Government Version: 03/07/2022
Date Data Arrived at EDR: 03/08/2022
Date Made Active in Reports: 06/02/2022
Number of Days to Update: 86

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/07/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Varies

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EEC ORIGINAL PKG

HIST UST: Hazardous Substance Storage Container Database
The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SAN FRANCISCO AST: Aboveground Storage Tank Site Listing
Aboveground storage tank sites

Date of Government Version: 02/03/2022
Date Data Arrived at EDR: 02/04/2022
Date Made Active in Reports: 05/02/2022
Number of Days to Update: 87

Source: San Francisco County Department of Public Health
Telephone: 415-252-3896
Last EDR Contact: 04/28/2022
Next Scheduled EDR Contact: 08/15/2022
Data Release Frequency: Varies

CA FID UST: Facility Inventory Database
The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CERS TANKS: California Environmental Reporting System (CERS) Tanks
List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs.

Date of Government Version: 01/18/2022
Date Data Arrived at EDR: 01/19/2022
Date Made Active in Reports: 04/11/2022
Number of Days to Update: 82

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 04/19/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Quarterly

Local Land Records

LIENS: Environmental Liens Listing
A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 02/24/2022
Date Data Arrived at EDR: 02/25/2022
Date Made Active in Reports: 03/09/2022
Number of Days to Update: 12

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/25/2022
Next Scheduled EDR Contact: 09/12/2022
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information
A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 04/27/2022
Date Data Arrived at EDR: 05/05/2022
Date Made Active in Reports: 05/31/2022
Number of Days to Update: 26

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 06/01/2022
Next Scheduled EDR Contact: 07/11/2022
Data Release Frequency: Semi-Annually

EEC ORIGINAL PKG

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 02/28/2022
Date Data Arrived at EDR: 02/28/2022
Date Made Active in Reports: 05/25/2022
Number of Days to Update: 86

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 05/31/2022
Next Scheduled EDR Contact: 09/12/2022
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 03/21/2022
Date Data Arrived at EDR: 03/21/2022
Date Made Active in Reports: 06/14/2022
Number of Days to Update: 85

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 03/21/2022
Next Scheduled EDR Contact: 07/04/2022
Data Release Frequency: Quarterly

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 12/31/2021
Date Data Arrived at EDR: 01/19/2022
Date Made Active in Reports: 04/08/2022
Number of Days to Update: 79

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 04/19/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Semi-Annually

LDS: Land Disposal Sites Listing (GEOTRACKER)

Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 05/23/2022
Date Data Arrived at EDR: 05/23/2022
Date Made Active in Reports: 05/24/2022
Number of Days to Update: 1

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 05/23/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing (GEOTRACKER)

Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 05/23/2022
Date Data Arrived at EDR: 05/23/2022
Date Made Active in Reports: 05/24/2022
Number of Days to Update: 1

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 05/23/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Quarterly

EEC ORIGINAL PKG

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 02/28/2022
Date Data Arrived at EDR: 03/02/2022
Date Made Active in Reports: 03/17/2022
Number of Days to Update: 15

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 04/06/2022
Next Scheduled EDR Contact: 07/04/2022
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/01/2021
Date Data Arrived at EDR: 02/15/2022
Date Made Active in Reports: 05/10/2022
Number of Days to Update: 84

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 05/17/2022
Next Scheduled EDR Contact: 08/29/2022
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 06/07/2021
Date Data Arrived at EDR: 07/13/2021
Date Made Active in Reports: 03/09/2022
Number of Days to Update: 239

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 04/12/2022
Next Scheduled EDR Contact: 07/25/2022
Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/11/2018
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 574

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 04/05/2022
Next Scheduled EDR Contact: 07/18/2022
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

EEC ORIGINAL PKG

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 05/06/2022
Next Scheduled EDR Contact: 08/22/2022
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 03/21/2022
Date Data Arrived at EDR: 03/21/2022
Date Made Active in Reports: 06/14/2022
Number of Days to Update: 85

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 03/21/2022
Next Scheduled EDR Contact: 07/04/2022
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 04/28/2022
Next Scheduled EDR Contact: 08/15/2022
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 05/06/2022
Next Scheduled EDR Contact: 08/15/2022
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/17/2020
Date Made Active in Reports: 09/10/2020
Number of Days to Update: 85

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 06/14/2022
Next Scheduled EDR Contact: 09/26/2022
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

EEC ORIGINAL PKG

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 08/14/2020
Date Made Active in Reports: 11/04/2020
Number of Days to Update: 82

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 05/20/2022
Next Scheduled EDR Contact: 08/29/2022
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 01/19/2022
Date Data Arrived at EDR: 01/19/2022
Date Made Active in Reports: 04/11/2022
Number of Days to Update: 82

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 04/20/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 04/27/2022
Date Data Arrived at EDR: 05/05/2022
Date Made Active in Reports: 05/31/2022
Number of Days to Update: 26

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 06/01/2022
Next Scheduled EDR Contact: 09/12/2022
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 04/27/2022
Date Data Arrived at EDR: 05/04/2022
Date Made Active in Reports: 05/10/2022
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 04/18/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

EEC ORIGINAL PKG

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 01/25/2022
Date Data Arrived at EDR: 02/03/2022
Date Made Active in Reports: 02/25/2022
Number of Days to Update: 22

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 06/01/2022
Next Scheduled EDR Contact: 08/15/2022
Data Release Frequency: Quarterly

PADS: PCB Activity Database System
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 01/20/2022
Date Data Arrived at EDR: 01/20/2022
Date Made Active in Reports: 03/25/2022
Number of Days to Update: 64

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 04/08/2022
Next Scheduled EDR Contact: 07/18/2022
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 03/31/2022
Next Scheduled EDR Contact: 07/18/2022
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 03/11/2022
Date Data Arrived at EDR: 03/15/2022
Date Made Active in Reports: 06/14/2022
Number of Days to Update: 91

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 04/18/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Quarterly

EEC ORIGINAL PKG

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 11/30/2021
Date Made Active in Reports: 02/22/2022
Number of Days to Update: 84

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 06/02/2022
Next Scheduled EDR Contact: 09/12/2022
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 11/11/2019
Number of Days to Update: 251

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 05/25/2022
Next Scheduled EDR Contact: 09/12/2022
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 09/13/2019
Date Data Arrived at EDR: 11/06/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 96

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 05/06/2022
Next Scheduled EDR Contact: 08/15/2022
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019
Date Data Arrived at EDR: 07/01/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 84

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 03/28/2022
Next Scheduled EDR Contact: 07/11/2022
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

EEC ORIGINAL PKG

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data
Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 01/02/2020
Date Data Arrived at EDR: 01/28/2020
Date Made Active in Reports: 04/17/2020
Number of Days to Update: 80

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 04/26/2022
Next Scheduled EDR Contact: 08/08/2022
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees
Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2021
Date Data Arrived at EDR: 01/14/2022
Date Made Active in Reports: 03/25/2022
Number of Days to Update: 70

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 04/04/2022
Next Scheduled EDR Contact: 07/18/2022
Data Release Frequency: Varies

BRS: Biennial Reporting System
The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 03/02/2022
Date Made Active in Reports: 03/25/2022
Number of Days to Update: 23

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 03/02/2022
Next Scheduled EDR Contact: 07/04/2022
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations
This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 04/05/2022
Next Scheduled EDR Contact: 07/18/2022
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program
DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 07/26/2021
Date Data Arrived at EDR: 07/27/2021
Date Made Active in Reports: 10/22/2021
Number of Days to Update: 87

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 04/28/2022
Next Scheduled EDR Contact: 08/15/2022
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites
Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

EEC ORIGINAL PKG

Date of Government Version: 08/30/2019
Date Data Arrived at EDR: 11/15/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 74

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 05/16/2022
Next Scheduled EDR Contact: 08/29/2022
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites
A listing of former lead smelter site locations.

Date of Government Version: 04/27/2022
Date Data Arrived at EDR: 05/05/2022
Date Made Active in Reports: 05/31/2022
Number of Days to Update: 26

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 09/01/2022
Next Scheduled EDR Contact: 07/11/2022
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites
A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)
The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data
A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US MINES: Mines Master Index File
Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 02/01/2022
Date Data Arrived at EDR: 02/23/2022
Date Made Active in Reports: 05/24/2022
Number of Days to Update: 90

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 05/25/2022
Next Scheduled EDR Contact: 09/05/2022
Data Release Frequency: Semi-Annually

MINES VIOLATIONS: MSHA Violation Assessment Data
Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 03/21/2022
Date Data Arrived at EDR: 03/22/2022
Date Made Active in Reports: 03/25/2022
Number of Days to Update: 3

Source: DOL, Mine Safety & Health Admi
Telephone: 202-693-9424
Last EDR Contact: 05/26/2022
Next Scheduled EDR Contact: 09/12/2022
Data Release Frequency: Quarterly

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 05/06/2020
Date Data Arrived at EDR: 05/27/2020
Date Made Active in Reports: 08/13/2020
Number of Days to Update: 78

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 05/27/2022
Next Scheduled EDR Contact: 09/05/2022
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 05/27/2022
Next Scheduled EDR Contact: 09/05/2022
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 03/10/2022
Date Data Arrived at EDR: 03/10/2022
Date Made Active in Reports: 06/14/2022
Number of Days to Update: 96

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 06/14/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 05/13/2022
Date Data Arrived at EDR: 05/18/2022
Date Made Active in Reports: 05/31/2022
Number of Days to Update: 13

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 05/18/2022
Next Scheduled EDR Contact: 09/12/2022
Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/06/2021
Date Data Arrived at EDR: 05/21/2021
Date Made Active in Reports: 08/11/2021
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 05/19/2022
Next Scheduled EDR Contact: 09/05/2022
Data Release Frequency: Varies

UXO: Unexploded Ordnance Sites
A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 01/11/2022
Date Made Active in Reports: 02/14/2022
Number of Days to Update: 34

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 04/12/2022
Next Scheduled EDR Contact: 07/25/2022
Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information
ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 01/01/2022
Date Data Arrived at EDR: 01/04/2022
Date Made Active in Reports: 01/10/2022
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 04/05/2022
Next Scheduled EDR Contact: 07/18/2022
Data Release Frequency: Quarterly

FUELS PROGRAM: EPA Fuels Program Registered Listing
This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 02/17/2022
Date Data Arrived at EDR: 02/17/2022
Date Made Active in Reports: 05/10/2022
Number of Days to Update: 82

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 05/17/2022
Next Scheduled EDR Contact: 08/29/2022
Data Release Frequency: Quarterly

CA BOND EXP. PLAN: Bond Expenditure Plan
Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List
The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 03/21/2022
Date Data Arrived at EDR: 03/21/2022
Date Made Active in Reports: 06/14/2022
Number of Days to Update: 85

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 03/21/2022
Next Scheduled EDR Contact: 07/04/2022
Data Release Frequency: Quarterly

CUPA LIVERMORE-PLEASANTON: CUPA Facility Listing
list of facilities associated with the various CUPA programs in Livermore-Pleasanton

Date of Government Version: 12/07/2021
Date Data Arrived at EDR: 05/09/2022
Date Made Active in Reports: 05/17/2022
Number of Days to Update: 8

Source: Livermore-Pleasanton Fire Department
Telephone: 925-454-2361
Last EDR Contact: 05/09/2022
Next Scheduled EDR Contact: 08/22/2022
Data Release Frequency: Varies

DRYCLEAN AVAQMD: Antelope Valley Air Quality Management District Drycleaner Listing
A listing of dry cleaners in the Antelope Valley Air Quality Management District.

EEC ORIGINAL PKG

Date of Government Version: 02/24/2022
Date Data Arrived at EDR: 02/25/2022
Date Made Active in Reports: 05/18/2022
Number of Days to Update: 82

Source: Antelope Valley Air Quality Management District
Telephone: 661-723-8070
Last EDR Contact: 05/25/2022
Next Scheduled EDR Contact: 09/12/2022
Data Release Frequency: Varies

DRYCLEAN SOUTH COAST: South Coast Air Quality Management District Drycleaner Listing
A listing of dry cleaners in the South Coast Air Quality Management District

Date of Government Version: 02/17/2022
Date Data Arrived at EDR: 02/24/2022
Date Made Active in Reports: 05/18/2022
Number of Days to Update: 83

Source: South Coast Air Quality Management District
Telephone: 909-396-3211
Last EDR Contact: 05/19/2022
Next Scheduled EDR Contact: 09/05/2022
Data Release Frequency: Varies

DRYCLEANERS: Cleaner Facilities
A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 08/27/2021
Date Data Arrived at EDR: 09/01/2021
Date Made Active in Reports: 11/19/2021
Number of Days to Update: 79

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 06/01/2022
Next Scheduled EDR Contact: 09/12/2022
Data Release Frequency: Annually

EMI: Emissions Inventory Data
Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 06/10/2021
Date Made Active in Reports: 08/27/2021
Number of Days to Update: 78

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 09/26/2022
Data Release Frequency: Varies

ENF: Enforcement Action Listing
A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 04/12/2022
Date Data Arrived at EDR: 04/19/2022
Date Made Active in Reports: 05/31/2022
Number of Days to Update: 42

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 04/19/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing
Financial Assurance information

Date of Government Version: 01/13/2022
Date Data Arrived at EDR: 01/14/2022
Date Made Active in Reports: 04/08/2022
Number of Days to Update: 84

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 04/28/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing
A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

EEC ORIGINAL PKG

Date of Government Version: 02/23/2022
Date Data Arrived at EDR: 02/24/2022
Date Made Active in Reports: 05/18/2022
Number of Days to Update: 83

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 05/19/2022
Next Scheduled EDR Contact: 08/22/2022
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 04/15/2020
Date Made Active in Reports: 07/02/2020
Number of Days to Update: 78

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 04/08/2022
Next Scheduled EDR Contact: 07/18/2022
Data Release Frequency: Annually

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 02/14/2022
Date Data Arrived at EDR: 02/15/2022
Date Made Active in Reports: 05/12/2022
Number of Days to Update: 86

Source: Department of Toxic Subsances Control
Telephone: 877-786-9427
Last EDR Contact: 05/17/2022
Next Scheduled EDR Contact: 08/29/2022
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 02/14/2022
Date Data Arrived at EDR: 02/15/2022
Date Made Active in Reports: 05/12/2022
Number of Days to Update: 86

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/17/2022
Next Scheduled EDR Contact: 08/29/2022
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 01/03/2022
Date Data Arrived at EDR: 01/04/2022
Date Made Active in Reports: 03/18/2022
Number of Days to Update: 73

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 04/05/2022
Next Scheduled EDR Contact: 07/18/2022
Data Release Frequency: Quarterly

EEC ORIGINAL PKG

MINES: Mines Site Location Listing
A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 03/07/2022
Date Data Arrived at EDR: 03/08/2022
Date Made Active in Reports: 06/01/2022
Number of Days to Update: 85

Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 06/07/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing
The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 02/17/2022
Date Data Arrived at EDR: 02/28/2022
Date Made Active in Reports: 05/25/2022
Number of Days to Update: 86

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 05/31/2022
Next Scheduled EDR Contact: 09/12/2022
Data Release Frequency: Varies

NPDES: NPDES Permits Listing
A listing of NPDES permits, including stormwater.

Date of Government Version: 02/07/2022
Date Data Arrived at EDR: 02/08/2022
Date Made Active in Reports: 05/05/2022
Number of Days to Update: 86

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 05/09/2022
Next Scheduled EDR Contact: 08/22/2022
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing
A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 02/28/2022
Date Data Arrived at EDR: 02/28/2022
Date Made Active in Reports: 05/25/2022
Number of Days to Update: 86

Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 05/31/2022
Next Scheduled EDR Contact: 09/12/2022
Data Release Frequency: Quarterly

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 03/07/2022
Date Data Arrived at EDR: 03/08/2022
Date Made Active in Reports: 06/02/2022
Number of Days to Update: 86

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 06/07/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records
Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 03/11/2022
Date Data Arrived at EDR: 03/15/2022
Date Made Active in Reports: 06/08/2022
Number of Days to Update: 85

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 06/09/2022
Next Scheduled EDR Contact: 09/26/2022
Data Release Frequency: No Update Planned

EEC ORIGINAL PKG

UIC: UIC Listing
A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 03/07/2022
Date Data Arrived at EDR: 03/08/2022
Date Made Active in Reports: 06/02/2022
Number of Days to Update: 86

Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 06/07/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Varies

UIC GEO: Underground Injection Control Sites (GEOTRACKER)
Underground control injection sites

Date of Government Version: 05/23/2022
Date Data Arrived at EDR: 05/23/2022
Date Made Active in Reports: 06/02/2022
Number of Days to Update: 10

Source: State Water Resource Control Board
Telephone: 866-480-1028
Last EDR Contact: 05/23/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing
Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water boards review found that more than one-third of the region's active disposal pits are operating without permission.

Date of Government Version: 02/11/2021
Date Data Arrived at EDR: 07/01/2021
Date Made Active in Reports: 09/29/2021
Number of Days to Update: 90

Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 04/08/2022
Next Scheduled EDR Contact: 07/18/2022
Data Release Frequency: Varies

WDS: Waste Discharge System
Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 05/12/2022
Next Scheduled EDR Contact: 08/29/2022
Data Release Frequency: No Update Planned

WIP: Well Investigation Program Case List
Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 06/14/2022
Next Scheduled EDR Contact: 10/03/2022
Data Release Frequency: No Update Planned

MILITARY PRIV SITES: Military Privatized Sites (GEOTRACKER)
Military privatized sites

Date of Government Version: 05/23/2022
Date Data Arrived at EDR: 05/23/2022
Date Made Active in Reports: 06/02/2022
Number of Days to Update: 10

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 05/23/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Varies

PROJECT: Project Sites (GEOTRACKER)
Projects sites

EEC ORIGINAL PKG

Date of Government Version: 05/23/2022
Date Data Arrived at EDR: 05/23/2022
Date Made Active in Reports: 06/02/2022
Number of Days to Update: 10

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 05/23/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Varies

WDR: Waste Discharge Requirements Listing

In general, the Waste Discharge Requirements (WDRs) Program (sometimes also referred to as the "Non Chapter 15 (Non 15) Program") regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. Exemptions from Title 27 may be granted for nine categories of discharges (e.g., sewage, wastewater, etc.) that meet, and continue to meet, the preconditions listed for each specific exemption. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to section 20230 of Title 27.

Date of Government Version: 03/07/2022
Date Data Arrived at EDR: 03/08/2022
Date Made Active in Reports: 06/03/2022
Number of Days to Update: 87

Source: State Water Resources Control Board
Telephone: 916-341-5810
Last EDR Contact: 06/07/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Quarterly

CIWQS: California Integrated Water Quality System

The California Integrated Water Quality System (CIWQS) is a computer system used by the State and Regional Water Quality Control Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities.

Date of Government Version: 02/28/2022
Date Data Arrived at EDR: 02/28/2022
Date Made Active in Reports: 05/25/2022
Number of Days to Update: 86

Source: State Water Resources Control Board
Telephone: 866-794-4977
Last EDR Contact: 05/31/2022
Next Scheduled EDR Contact: 09/12/2022
Data Release Frequency: Varies

CERS: CalEPA Regulated Site Portal Data

The CalEPA Regulated Site Portal database combines data about environmentally regulated sites and facilities in California into a single database. It combines data from a variety of state and federal databases, and provides an overview of regulated activities across the spectrum of environmental programs for any given location in California. These activities include hazardous materials and waste, state and federal cleanups, impacted ground and surface waters, and toxic materials

Date of Government Version: 01/18/2022
Date Data Arrived at EDR: 01/19/2022
Date Made Active in Reports: 04/08/2022
Number of Days to Update: 79

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 04/19/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Varies

NON-CASE INFO: Non-Case Information Sites (GEOTRACKER)

Non-Case Information sites

Date of Government Version: 05/23/2022
Date Data Arrived at EDR: 05/23/2022
Date Made Active in Reports: 06/02/2022
Number of Days to Update: 10

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 05/23/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Varies

OTHER OIL GAS: Other Oil & Gas Projects Sites (GEOTRACKER)

Other Oil & Gas Projects sites

Date of Government Version: 05/23/2022
Date Data Arrived at EDR: 05/23/2022
Date Made Active in Reports: 06/02/2022
Number of Days to Update: 10

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 05/23/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Varies

PROD WATER PONDS: Produced Water Ponds Sites (GEOTRACKER)
Produced water ponds sites

Date of Government Version: 05/23/2022
Date Data Arrived at EDR: 05/23/2022
Date Made Active in Reports: 06/02/2022
Number of Days to Update: 10

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 05/23/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Varies

SAMPLING POINT: Sampling Point ? Public Sites (GEOTRACKER)
Sampling point - public sites

Date of Government Version: 05/23/2022
Date Data Arrived at EDR: 05/23/2022
Date Made Active in Reports: 06/02/2022
Number of Days to Update: 10

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 05/23/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Varies

WELL STIM PROJ: Well Stimulation Project (GEOTRACKER)
Includes areas of groundwater monitoring plans, a depiction of the monitoring network, and the facilities, boundaries, and subsurface characteristics of the oilfield and the features (oil and gas wells, produced water ponds, UIC wells, water supply wells, etc?) being monitored

Date of Government Version: 05/23/2022
Date Data Arrived at EDR: 05/23/2022
Date Made Active in Reports: 06/02/2022
Number of Days to Update: 10

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 05/23/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Varies

PCS ENF: Enforcement data
No description is available for this data

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 02/05/2015
Date Made Active in Reports: 03/06/2015
Number of Days to Update: 29

Source: EPA
Telephone: 202-564-2497
Last EDR Contact: 03/31/2022
Next Scheduled EDR Contact: 07/18/2022
Data Release Frequency: Varies

PCS: Permit Compliance System
PCS is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

Date of Government Version: 07/14/2011
Date Data Arrived at EDR: 08/05/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 55

Source: EPA, Office of Water
Telephone: 202-564-2496
Last EDR Contact: 03/31/2022
Next Scheduled EDR Contact: 07/18/2022
Data Release Frequency: Semi-Annually

PCS INACTIVE: Listing of Inactive PCS Permits
An inactive permit is a facility that has shut down or is no longer discharging.

Date of Government Version: 11/05/2014
Date Data Arrived at EDR: 01/06/2015
Date Made Active in Reports: 05/06/2015
Number of Days to Update: 120

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 03/31/2022
Next Scheduled EDR Contact: 07/18/2022
Data Release Frequency: Semi-Annually

MINES MRDS: Mineral Resources Data System
Mineral Resources Data System

EEC ORIGINAL PKG

Date of Government Version: 04/06/2018
Date Data Arrived at EDR: 10/21/2019
Date Made Active in Reports: 10/24/2019
Number of Days to Update: 3

Source: USGS
Telephone: 703-648-6533
Last EDR Contact: 05/27/2022
Next Scheduled EDR Contact: 09/05/2022
Data Release Frequency: Varies

HWTS: Hazardous Waste Tracking System

DTSC maintains the Hazardous Waste Tracking System that stores ID number information since the early 1980s and manifest data since 1993. The system collects both manifest copies from the generator and destination facility.

Date of Government Version: 04/05/2022
Date Data Arrived at EDR: 04/05/2022
Date Made Active in Reports: 04/26/2022
Number of Days to Update: 21

Source: Department of Toxic Substances Control
Telephone: 916-324-2444
Last EDR Contact: 04/05/2022
Next Scheduled EDR Contact: 07/18/2022
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List
The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank
The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

CS ALAMEDA: Contaminated Sites
A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/09/2019
Date Data Arrived at EDR: 01/11/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 53

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 03/31/2022
Next Scheduled EDR Contact: 07/18/2022
Data Release Frequency: Semi-Annually

UST ALAMEDA: Underground Tanks
Underground storage tank sites located in Alameda county.

Date of Government Version: 12/28/2021
Date Data Arrived at EDR: 12/28/2021
Date Made Active in Reports: 03/18/2022
Number of Days to Update: 80

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 04/28/2022
Next Scheduled EDR Contact: 07/18/2022
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

EEC ORIGINAL PKG

CUPA AMADOR: CUPA Facility List
Cupa Facility List

Date of Government Version: 02/04/2022
Date Data Arrived at EDR: 02/04/2022
Date Made Active in Reports: 05/02/2022
Number of Days to Update: 87

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 05/12/2022
Next Scheduled EDR Contact: 08/15/2022
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA BUTTE: CUPA Facility Listing
Cupa facility list.

Date of Government Version: 04/21/2017
Date Data Arrived at EDR: 04/25/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 106

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 03/31/2022
Next Scheduled EDR Contact: 07/18/2022
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA CALVERAS: CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 03/17/2022
Date Data Arrived at EDR: 03/18/2022
Date Made Active in Reports: 06/08/2022
Number of Days to Update: 82

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 06/14/2022
Next Scheduled EDR Contact: 10/03/2022
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA COLUSA: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/06/2020
Date Data Arrived at EDR: 04/23/2020
Date Made Active in Reports: 07/10/2020
Number of Days to Update: 78

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 04/28/2022
Next Scheduled EDR Contact: 08/15/2022
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

SL CONTRA COSTA: Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 01/24/2022
Date Data Arrived at EDR: 01/25/2022
Date Made Active in Reports: 04/14/2022
Number of Days to Update: 79

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 04/21/2022
Next Scheduled EDR Contact: 08/08/2022
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

EEC ORIGINAL PKG

CUPA DEL NORTE: CUPA Facility List
Cupa Facility list

Date of Government Version: 01/10/2022
Date Data Arrived at EDR: 01/26/2022
Date Made Active in Reports: 04/14/2022
Number of Days to Update: 78

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 05/04/2022
Next Scheduled EDR Contact: 08/08/2022
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA EL DORADO: CUPA Facility List
CUPA facility list.

Date of Government Version: 02/16/2022
Date Data Arrived at EDR: 02/17/2022
Date Made Active in Reports: 05/10/2022
Number of Days to Update: 82

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 06/14/2022
Next Scheduled EDR Contact: 08/08/2022
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA FRESNO: CUPA Resources List
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 06/28/2021
Date Data Arrived at EDR: 12/21/2021
Date Made Active in Reports: 03/03/2022
Number of Days to Update: 72

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 03/31/2022
Next Scheduled EDR Contact: 07/11/2022
Data Release Frequency: Semi-Annually

GLENN COUNTY:

CUPA GLENN: CUPA Facility List
Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 49

Source: Glenn County Air Pollution Control District
Telephone: 830-934-6500
Last EDR Contact: 04/14/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: No Update Planned

HUMBOLDT COUNTY:

CUPA HUMBOLDT: CUPA Facility List
CUPA facility list.

Date of Government Version: 08/12/2021
Date Data Arrived at EDR: 08/12/2021
Date Made Active in Reports: 11/08/2021
Number of Days to Update: 88

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 05/12/2022
Next Scheduled EDR Contact: 08/29/2022
Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

EEC ORIGINAL PKG

CUPA IMPERIAL: CUPA Facility List
Cupa facility list.

Date of Government Version: 01/13/2022
Date Data Arrived at EDR: 01/14/2022
Date Made Active in Reports: 04/06/2022
Number of Days to Update: 82

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 04/18/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Varies

INYO COUNTY:

CUPA INYO: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/03/2018
Date Made Active in Reports: 06/14/2018
Number of Days to Update: 72

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 05/12/2022
Next Scheduled EDR Contact: 08/29/2022
Data Release Frequency: Varies

KERN COUNTY:

CUPA KERN: CUPA Facility List
A listing of sites included in the Kern County Hazardous Material Business Plan.

Date of Government Version: 02/10/2022
Date Data Arrived at EDR: 02/11/2022
Date Made Active in Reports: 05/04/2022
Number of Days to Update: 82

Source: Kern County Public Health
Telephone: 661-321-3000
Last EDR Contact: 04/28/2022
Next Scheduled EDR Contact: 08/15/2022
Data Release Frequency: Varies

UST KERN: Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 02/10/2022
Date Data Arrived at EDR: 02/11/2022
Date Made Active in Reports: 05/04/2022
Number of Days to Update: 82

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 04/28/2022
Next Scheduled EDR Contact: 08/15/2022
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA KINGS: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 12/03/2020
Date Data Arrived at EDR: 01/26/2021
Date Made Active in Reports: 04/14/2021
Number of Days to Update: 78

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 05/25/2022
Next Scheduled EDR Contact: 08/29/2022
Data Release Frequency: Varies

LAKE COUNTY:

EEC ORIGINAL PKG

CUPA LAKE: CUPA Facility List
Cupa facility list

Date of Government Version: 02/10/2022
Date Data Arrived at EDR: 02/11/2022
Date Made Active in Reports: 05/04/2022
Number of Days to Update: 82

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 04/11/2022
Next Scheduled EDR Contact: 07/25/2022
Data Release Frequency: Varies

LASSEN COUNTY:

CUPA LASSEN: CUPA Facility List
Cupa facility list

Date of Government Version: 07/31/2020
Date Data Arrived at EDR: 08/21/2020
Date Made Active in Reports: 11/09/2020
Number of Days to Update: 80

Source: Lassen County Environmental Health
Telephone: 530-251-8528
Last EDR Contact: 04/14/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Varies

LOS ANGELES COUNTY:

AOCONCERN: Key Areas of Concerns in Los Angeles County
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office. Date of Government Version: 3/30/2009 Exide Site area is a cleanup plan of lead-impacted soil surrounding the former Exide Facility as designated by the DTSC. Date of Government Version: 7/17/2017

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: N/A
Telephone: N/A
Last EDR Contact: 06/09/2022
Next Scheduled EDR Contact: 09/26/2022
Data Release Frequency: No Update Planned

HMS LOS ANGELES: HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 04/04/2022
Date Data Arrived at EDR: 04/05/2022
Date Made Active in Reports: 04/13/2022
Number of Days to Update: 8

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 04/04/2022
Next Scheduled EDR Contact: 07/18/2022
Data Release Frequency: Semi-Annually

LF LOS ANGELES: List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 01/10/2022
Date Data Arrived at EDR: 01/11/2022
Date Made Active in Reports: 04/04/2022
Number of Days to Update: 83

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 04/12/2022
Next Scheduled EDR Contact: 07/25/2022
Data Release Frequency: Varies

LF LOS ANGELES CITY: City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2022
Date Data Arrived at EDR: 01/21/2022
Date Made Active in Reports: 04/11/2022
Number of Days to Update: 80

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 04/08/2022
Next Scheduled EDR Contact: 07/25/2022
Data Release Frequency: Varies

EEC ORIGINAL PKG

LOS ANGELES AST: Active & Inactive AST Inventory
A listing of active & inactive above ground petroleum storage tank site locations, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 06/14/2022
Next Scheduled EDR Contact: 10/03/2022
Data Release Frequency: Varies

LOS ANGELES CO LF METHANE: Methane Producing Landfills
This data was created on April 30, 2012 to represent known disposal sites in Los Angeles County that may produce and emanate methane gas. The shapefile contains disposal sites within Los Angeles County that once accepted degradable refuse material. Information used to create this data was extracted from a landfill survey performed by County Engineers (Major Waste System Map, 1973) as well as historical records from CalRecycle, Regional Water Quality Control Board, and Los Angeles County Department of Public Health

Date of Government Version: 01/10/2022
Date Data Arrived at EDR: 01/12/2022
Date Made Active in Reports: 04/04/2022
Number of Days to Update: 82

Source: Los Angeles County Department of Public Works
Telephone: 626-458-6973
Last EDR Contact: 04/13/2022
Next Scheduled EDR Contact: 07/25/2022
Data Release Frequency: No Update Planned

LOS ANGELES HM: Active & Inactive Hazardous Materials Inventory
A listing of active & inactive hazardous materials facility locations, located in the City of Los Angeles.

Date of Government Version: 01/13/2022
Date Data Arrived at EDR: 03/21/2022
Date Made Active in Reports: 06/15/2022
Number of Days to Update: 86

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 03/21/2022
Next Scheduled EDR Contact: 07/04/2022
Data Release Frequency: Varies

LOS ANGELES UST: Active & Inactive UST Inventory
A listing of active & inactive underground storage tank site locations and underground storage tank historical sites, located in the City of Los Angeles.

Date of Government Version: 01/13/2022
Date Data Arrived at EDR: 03/21/2022
Date Made Active in Reports: 06/15/2022
Number of Days to Update: 86

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 03/21/2022
Next Scheduled EDR Contact: 07/04/2022
Data Release Frequency: Varies

SITE MIT LOS ANGELES: Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 05/26/2021
Date Data Arrived at EDR: 07/09/2021
Date Made Active in Reports: 09/29/2021
Number of Days to Update: 82

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 04/14/2022
Next Scheduled EDR Contact: 07/25/2022
Data Release Frequency: Annually

UST EL SEGUNDO: City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 04/19/2017
Date Made Active in Reports: 05/10/2017
Number of Days to Update: 21

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 04/08/2022
Next Scheduled EDR Contact: 07/25/2022
Data Release Frequency: No Update Planned

EEC ORIGINAL PKG

UST LONG BEACH: City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 04/22/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/27/2019
Number of Days to Update: 65

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 04/14/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Varies

UST TORRANCE: City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 02/02/2021
Date Data Arrived at EDR: 04/28/2021
Date Made Active in Reports: 07/13/2021
Number of Days to Update: 76

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 04/18/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA MADERA: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 08/10/2020
Date Data Arrived at EDR: 08/12/2020
Date Made Active in Reports: 10/23/2020
Number of Days to Update: 72

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 05/12/2022
Next Scheduled EDR Contact: 08/29/2022
Data Release Frequency: Varies

MARIN COUNTY:

UST MARIN: Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 09/26/2018
Date Data Arrived at EDR: 10/04/2018
Date Made Active in Reports: 11/02/2018
Number of Days to Update: 29

Source: Public Works Department Waste Management
Telephone: 415-473-6647
Last EDR Contact: 03/23/2022
Next Scheduled EDR Contact: 07/11/2022
Data Release Frequency: Semi-Annually

MENDOCINO COUNTY:

UST MENDOCINO: Mendocino County UST Database
A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 09/22/2021
Date Data Arrived at EDR: 11/18/2021
Date Made Active in Reports: 11/22/2021
Number of Days to Update: 4

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 05/19/2022
Next Scheduled EDR Contact: 09/05/2022
Data Release Frequency: Annually

MERCED COUNTY:

EEC ORIGINAL PKG

CUPA MERCED: CUPA Facility List
CUPA facility list.

Date of Government Version: 02/15/2022
Date Data Arrived at EDR: 02/17/2022
Date Made Active in Reports: 05/11/2022
Number of Days to Update: 83

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 06/09/2022
Next Scheduled EDR Contact: 08/29/2022
Data Release Frequency: Varies

MONO COUNTY:

CUPA MONO: CUPA Facility List
CUPA Facility List

Date of Government Version: 02/22/2021
Date Data Arrived at EDR: 03/02/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 78

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 05/19/2022
Next Scheduled EDR Contact: 09/05/2022
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA MONTEREY: CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 10/04/2021
Date Data Arrived at EDR: 10/06/2021
Date Made Active in Reports: 12/29/2021
Number of Days to Update: 84

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 04/04/2022
Next Scheduled EDR Contact: 07/11/2022
Data Release Frequency: Varies

NAPA COUNTY:

LUST NAPA: Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 05/19/2022
Next Scheduled EDR Contact: 09/05/2022
Data Release Frequency: No Update Planned

UST NAPA: Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 09/05/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 52

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 05/19/2022
Next Scheduled EDR Contact: 09/05/2022
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA NEVADA: CUPA Facility List
CUPA facility list.

EEC ORIGINAL PKG

Date of Government Version: 01/25/2022
Date Data Arrived at EDR: 01/26/2022
Date Made Active in Reports: 04/14/2022
Number of Days to Update: 78

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 04/21/2022
Next Scheduled EDR Contact: 08/08/2022
Data Release Frequency: Varies

ORANGE COUNTY:

IND_SITE ORANGE: List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 01/14/2022
Date Data Arrived at EDR: 02/03/2022
Date Made Active in Reports: 04/14/2022
Number of Days to Update: 70

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/02/2022
Next Scheduled EDR Contact: 08/15/2022
Data Release Frequency: Annually

LUST ORANGE: List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 01/14/2022
Date Data Arrived at EDR: 02/04/2022
Date Made Active in Reports: 05/02/2022
Number of Days to Update: 87

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/02/2022
Next Scheduled EDR Contact: 08/15/2022
Data Release Frequency: Quarterly

UST ORANGE: List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 01/14/2022
Date Data Arrived at EDR: 02/01/2022
Date Made Active in Reports: 04/18/2022
Number of Days to Update: 76

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/03/2022
Next Scheduled EDR Contact: 08/15/2022
Data Release Frequency: Quarterly

PLACER COUNTY:

MS PLACER: Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 05/25/2022
Date Data Arrived at EDR: 05/26/2022
Date Made Active in Reports: 06/01/2022
Number of Days to Update: 6

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 05/25/2022
Next Scheduled EDR Contact: 09/12/2022
Data Release Frequency: Semi-Annually

PLUMAS COUNTY:

CUPA PLUMAS: CUPA Facility List
Plumas County CUPA Program facilities.

Date of Government Version: 03/31/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/26/2019
Number of Days to Update: 64

Source: Plumas County Environmental Health
Telephone: 530-283-6355
Last EDR Contact: 04/14/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Varies

RIVERSIDE COUNTY:

EEC ORIGINAL PKG

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LUST RIVERSIDE: Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 03/31/2022
Date Data Arrived at EDR: 03/31/2022
Date Made Active in Reports: 04/08/2022
Number of Days to Update: 8

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 06/09/2022
Next Scheduled EDR Contact: 09/26/2022
Data Release Frequency: Quarterly

UST RIVERSIDE: Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 03/31/2022
Date Data Arrived at EDR: 03/31/2022
Date Made Active in Reports: 04/08/2022
Number of Days to Update: 8

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 06/09/2022
Next Scheduled EDR Contact: 09/26/2022
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

CS SACRAMENTO: Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 06/18/2021
Date Data Arrived at EDR: 09/28/2021
Date Made Active in Reports: 12/14/2021
Number of Days to Update: 77

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 03/31/2022
Next Scheduled EDR Contact: 07/11/2022
Data Release Frequency: Quarterly

ML SACRAMENTO: Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 08/02/2021
Date Data Arrived at EDR: 08/04/2021
Date Made Active in Reports: 11/02/2021
Number of Days to Update: 90

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 03/31/2022
Next Scheduled EDR Contact: 07/11/2022
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA SAN BENITO: CUPA Facility List
Cupa facility list

Date of Government Version: 04/29/2022
Date Data Arrived at EDR: 04/29/2022
Date Made Active in Reports: 05/05/2022
Number of Days to Update: 6

Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 04/28/2022
Next Scheduled EDR Contact: 08/15/2022
Data Release Frequency: Varies

SAN BERNARDINO COUNTY:

PERMITS SAN BERNARDINO: Hazardous Material Permits
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

EEC ORIGINAL PKG

Date of Government Version: 05/12/2022
Date Data Arrived at EDR: 05/12/2022
Date Made Active in Reports: 05/18/2022
Number of Days to Update: 6

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 04/28/2022
Next Scheduled EDR Contact: 08/15/2022
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

HMMD SAN DIEGO: Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 02/28/2022
Date Data Arrived at EDR: 02/28/2022
Date Made Active in Reports: 05/25/2022
Number of Days to Update: 86

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 05/31/2022
Next Scheduled EDR Contact: 09/12/2022
Data Release Frequency: Quarterly

LF SAN DIEGO: Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/27/2021
Date Data Arrived at EDR: 03/04/2022
Date Made Active in Reports: 05/31/2022
Number of Days to Update: 88

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 04/14/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Varies

SAN DIEGO CO LOP: Local Oversight Program Listing

A listing of all LOP release sites that are or were under the County of San Diego's jurisdiction. Included are closed or transferred cases, open cases, and cases that did not have a case type indicated. The cases without a case type are mostly complaints; however, some of them could be LOP cases.

Date of Government Version: 07/22/2021
Date Data Arrived at EDR: 10/19/2021
Date Made Active in Reports: 01/13/2022
Number of Days to Update: 86

Source: Department of Environmental Health
Telephone: 858-505-6874
Last EDR Contact: 04/18/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Varies

SAN DIEGO CO SAM: Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 05/25/2022
Next Scheduled EDR Contact: 09/12/2022
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

CUPA SAN FRANCISCO CO: CUPA Facility Listing

Cupa facilities

EEC ORIGINAL PKG

Date of Government Version: 02/03/2022
Date Data Arrived at EDR: 02/04/2022
Date Made Active in Reports: 02/11/2022
Number of Days to Update: 7

Source: San Francisco County Department of Environmental Health
Telephone: 415-252-3896
Last EDR Contact: 04/28/2022
Next Scheduled EDR Contact: 08/15/2022
Data Release Frequency: Varies

LUST SAN FRANCISCO: Local Oversite Facilities
A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 04/28/2022
Next Scheduled EDR Contact: 08/15/2022
Data Release Frequency: No Update Planned

UST SAN FRANCISCO: Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 02/03/2022
Date Data Arrived at EDR: 02/04/2022
Date Made Active in Reports: 05/02/2022
Number of Days to Update: 87

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 04/28/2022
Next Scheduled EDR Contact: 08/15/2022
Data Release Frequency: Quarterly

SAN FRANCISO COUNTY:

SAN FRANCISCO MAHER: Maher Ordinance Property Listing
a listing of properties that fall within a Maher Ordinance, for all of San Francisco

Date of Government Version: 01/18/2022
Date Data Arrived at EDR: 01/20/2022
Date Made Active in Reports: 04/27/2022
Number of Days to Update: 97

Source: San Francisco Planning
Telephone: 628-652-7483
Last EDR Contact: 05/06/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Varies

SAN JOAQUIN COUNTY:

UST SAN JOAQUIN: San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/22/2018
Date Data Arrived at EDR: 06/26/2018
Date Made Active in Reports: 07/11/2018
Number of Days to Update: 15

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 06/09/2022
Next Scheduled EDR Contact: 09/26/2022
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA SAN LUIS OBISPO: CUPA Facility List
Cupa Facility List.

Date of Government Version: 02/15/2022
Date Data Arrived at EDR: 02/16/2022
Date Made Active in Reports: 05/13/2022
Number of Days to Update: 86

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 05/12/2022
Next Scheduled EDR Contact: 08/29/2022
Data Release Frequency: Varies

SAN MATEO COUNTY:

EEC ORIGINAL PKG

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

BI SAN MATEO: Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 02/20/2020
Date Data Arrived at EDR: 02/20/2020
Date Made Active in Reports: 04/24/2020
Number of Days to Update: 64

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 06/10/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Annually

LUST SAN MATEO: Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 03/29/2019
Date Data Arrived at EDR: 03/29/2019
Date Made Active in Reports: 05/29/2019
Number of Days to Update: 61

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 06/02/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA SANTA BARBARA: CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 05/12/2022
Next Scheduled EDR Contact: 08/29/2022
Data Release Frequency: No Update Planned

SANTA CLARA COUNTY:

CUPA SANTA CLARA: Cupa Facility List
Cupa facility list

Date of Government Version: 02/14/2022
Date Data Arrived at EDR: 02/16/2022
Date Made Active in Reports: 05/12/2022
Number of Days to Update: 85

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 05/12/2022
Next Scheduled EDR Contact: 08/29/2022
Data Release Frequency: Varies

HIST LUST SANTA CLARA: HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LUST SANTA CLARA: LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 05/19/2022
Next Scheduled EDR Contact: 09/05/2022
Data Release Frequency: No Update Planned

EEC ORIGINAL PKG

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SAN JOSE HAZMAT: Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 11/03/2020
Date Data Arrived at EDR: 11/05/2020
Date Made Active in Reports: 01/26/2021
Number of Days to Update: 82

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 04/28/2022
Next Scheduled EDR Contact: 08/15/2022
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA SANTA CRUZ: CUPA Facility List
CUPA facility listing.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 90

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 05/12/2022
Next Scheduled EDR Contact: 08/29/2022
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA SHASTA: CUPA Facility List
Cupa Facility List.

Date of Government Version: 06/15/2017
Date Data Arrived at EDR: 06/19/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 51

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 05/12/2022
Next Scheduled EDR Contact: 08/29/2022
Data Release Frequency: Varies

SOLANO COUNTY:

LUST SOLANO: Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 06/04/2019
Date Data Arrived at EDR: 06/06/2019
Date Made Active in Reports: 08/13/2019
Number of Days to Update: 68

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 05/25/2022
Next Scheduled EDR Contact: 09/12/2022
Data Release Frequency: Quarterly

UST SOLANO: Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 09/15/2021
Date Data Arrived at EDR: 09/16/2021
Date Made Active in Reports: 12/09/2021
Number of Days to Update: 84

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 05/25/2022
Next Scheduled EDR Contact: 09/12/2022
Data Release Frequency: Quarterly

SONOMA COUNTY:

CUPA SONOMA: Cupa Facility List
Cupa Facility list

EEC ORIGINAL PKG

Date of Government Version: 07/02/2021
Date Data Arrived at EDR: 07/06/2021
Date Made Active in Reports: 07/14/2021
Number of Days to Update: 8

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 06/14/2022
Next Scheduled EDR Contact: 10/03/2022
Data Release Frequency: Varies

LUST SONOMA: Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 06/30/2021
Date Data Arrived at EDR: 06/30/2021
Date Made Active in Reports: 09/24/2021
Number of Days to Update: 86

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 06/14/2022
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA STANISLAUS: CUPA Facility List
Cupa facility list

Date of Government Version: 02/08/2022
Date Data Arrived at EDR: 02/10/2022
Date Made Active in Reports: 05/04/2022
Number of Days to Update: 83

Source: Stanislaus County Department of Ennvironmental Protection
Telephone: 209-525-6751
Last EDR Contact: 04/11/2022
Next Scheduled EDR Contact: 07/25/2022
Data Release Frequency: Varies

SUTTER COUNTY:

UST SUTTER: Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 11/23/2021
Date Data Arrived at EDR: 11/29/2021
Date Made Active in Reports: 02/11/2022
Number of Days to Update: 74

Source: Sutter County Environmental Health Services
Telephone: 530-822-7500
Last EDR Contact: 05/25/2022
Next Scheduled EDR Contact: 09/12/2022
Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

CUPA TEHAMA: CUPA Facility List
Cupa facilities

Date of Government Version: 01/13/2021
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 04/06/2021
Number of Days to Update: 82

Source: Tehama County Department of Environmental Health
Telephone: 530-527-8020
Last EDR Contact: 04/28/2022
Next Scheduled EDR Contact: 08/15/2022
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA TRINITY: CUPA Facility List
Cupa facility list

Date of Government Version: 01/13/2022
Date Data Arrived at EDR: 01/14/2022
Date Made Active in Reports: 04/06/2022
Number of Days to Update: 82

Source: Department of Toxic Substances Control
Telephone: 760-352-0381
Last EDR Contact: 04/18/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Varies

TULARE COUNTY:

CUPA TULARE: CUPA Facility List
Cupa program facilities

Date of Government Version: 04/26/2021
Date Data Arrived at EDR: 04/28/2021
Date Made Active in Reports: 07/13/2021
Number of Days to Update: 76

Source: Tulare County Environmental Health Services Division
Telephone: 559-624-7400
Last EDR Contact: 04/14/2022
Next Scheduled EDR Contact: 08/15/2022
Data Release Frequency: Varies

TUOLUMNE COUNTY:

CUPA TUOLUMNE: CUPA Facility List
Cupa facility list

Date of Government Version: 04/23/2018
Date Data Arrived at EDR: 04/25/2018
Date Made Active in Reports: 06/25/2018
Number of Days to Update: 61

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 04/14/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Varies

VENTURA COUNTY:

BWT VENTURA: Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 12/27/2021
Date Data Arrived at EDR: 01/20/2022
Date Made Active in Reports: 04/08/2022
Number of Days to Update: 78

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 04/18/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Quarterly

LF VENTURA: Inventory of Illegal Abandoned and Inactive Sites
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 03/23/2022
Next Scheduled EDR Contact: 07/11/2022
Data Release Frequency: No Update Planned

LUST VENTURA: Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 05/04/2022
Next Scheduled EDR Contact: 08/22/2022
Data Release Frequency: No Update Planned

MED WASTE VENTURA: Medical Waste Program List
To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 12/27/2021
Date Data Arrived at EDR: 01/20/2022
Date Made Active in Reports: 04/11/2022
Number of Days to Update: 81

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 04/18/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Quarterly

EEC ORIGINAL PKG

UST VENTURA: Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 02/28/2022
Date Data Arrived at EDR: 03/08/2022
Date Made Active in Reports: 06/02/2022
Number of Days to Update: 86

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 06/07/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Quarterly

YOLO COUNTY:

UST YOLO: Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 12/27/2021
Date Data Arrived at EDR: 01/04/2022
Date Made Active in Reports: 03/18/2022
Number of Days to Update: 73

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 03/24/2022
Next Scheduled EDR Contact: 07/11/2022
Data Release Frequency: Annually

YUBA COUNTY:

CUPA YUBA: CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 01/26/2022
Date Data Arrived at EDR: 01/27/2022
Date Made Active in Reports: 04/14/2022
Number of Days to Update: 77

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 04/21/2022
Next Scheduled EDR Contact: 08/08/2022
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 12/03/2021
Date Data Arrived at EDR: 02/11/2022
Date Made Active in Reports: 05/06/2022
Number of Days to Update: 84

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 05/09/2022
Next Scheduled EDR Contact: 08/22/2022
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 04/10/2019
Date Made Active in Reports: 05/16/2019
Number of Days to Update: 36

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 04/07/2022
Next Scheduled EDR Contact: 07/18/2022
Data Release Frequency: Annually

EEC ORIGINAL PKG

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 10/29/2021
Date Made Active in Reports: 01/19/2022
Number of Days to Update: 82

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 04/28/2022
Next Scheduled EDR Contact: 08/08/2022
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 07/19/2019
Date Made Active in Reports: 09/10/2019
Number of Days to Update: 53

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 04/08/2022
Next Scheduled EDR Contact: 07/25/2022
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 11/30/2021
Date Made Active in Reports: 02/18/2022
Number of Days to Update: 80

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 05/16/2022
Next Scheduled EDR Contact: 08/29/2022
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 06/19/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 76

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 06/03/2022
Next Scheduled EDR Contact: 09/19/2022
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: Endeavor Business Media
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data
Source: Endeavor Business Media
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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

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Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.
Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.
Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.
Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

NORTHSTAR 3 SOLAR PROJECT
HWY 86 AND OLD NAVY BASE ROAD
THERMAL, CA 92274

TARGET PROPERTY COORDINATES

Latitude (North):	33.184705 - 33° 11' 4.94"
Longitude (West):	115.883362 - 115° 53' 0.10"
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	604098.8
UTM Y (Meters):	3672127.2
Elevation:	7 ft. below sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	12016566 KANE SPRING NW, CA
Version Date:	2018
East Map:	12016564 KANE SPRING NE, CA
Version Date:	2018

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

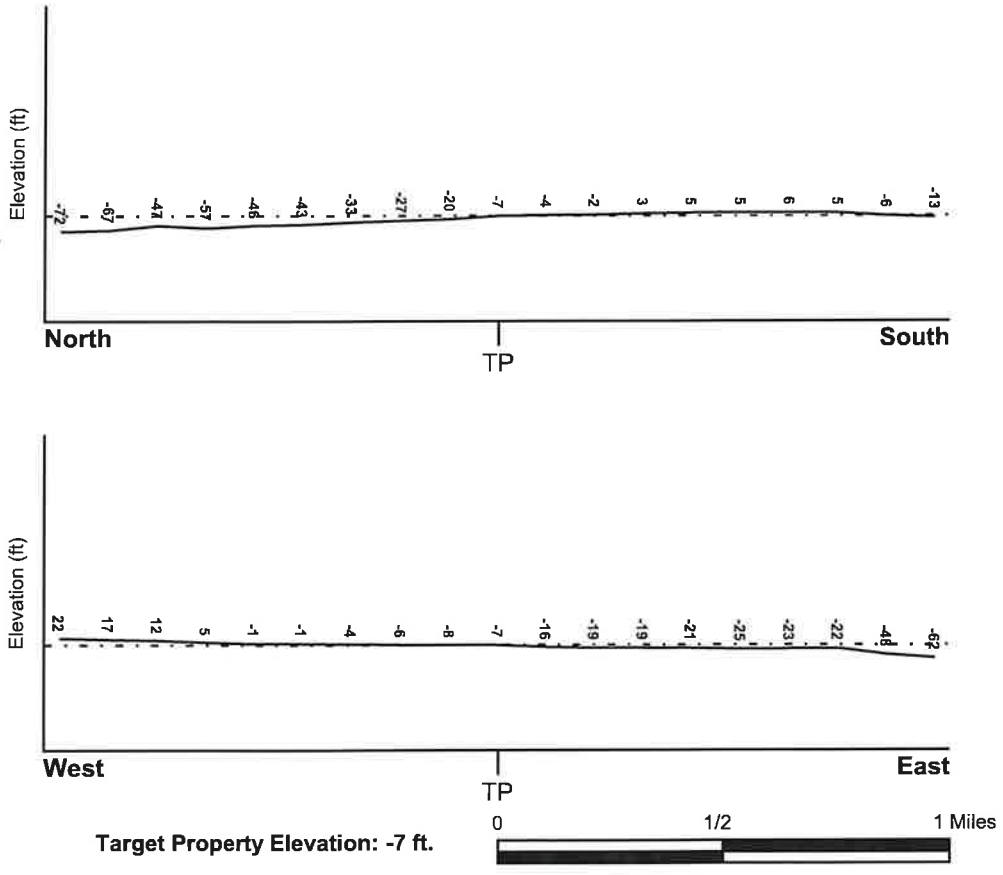
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General NNE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Target Property Elevation: -7 ft.

Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
06025C0650C	FEMA FIRM Flood data
Additional Panels in search area:	**FEMA Source Type**
06025C0675C	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
NOT AVAILABLE	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site-specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

Era:	Cenozoic
System:	Tertiary
Series:	Pliocene
Code:	Tpc *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Continental Deposits

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name:	MELOLAND
Soil Surface Texture:	very fine sandy loam
Hydrologic Group:	Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.
Soil Drainage Class:	Not reported

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel:	HIGH
Depth to Bedrock Min:	> 60 inches
Depth to Bedrock Max:	> 60 inches

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification			
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	Permeability Rate (in/hr)	Soil Reaction (pH)
1	0 inches	12 inches	very fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 2.00 Min: 0.60	Max: 8.40 Min: 7.40
2	12 inches	26 inches	stratified	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 2.00 Min: 0.60	Max: 8.40 Min: 7.40
3	26 inches	71 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 0.20 Min: 0.06	Max: 8.40 Min: 7.40

OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: loam
loamy very fine sand
fine sandy loam
silty clay
fine sand
loamy fine sand

Surficial Soil Types: loam
loamy very fine sand
fine sandy loam
silty clay
fine sand
loamy fine sand

Shallow Soil Types: No Other Soil Types

Deeper Soil Types: stratified
loamy fine sand
silty clay loam
loamy very fine sand
clay loam
sand

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

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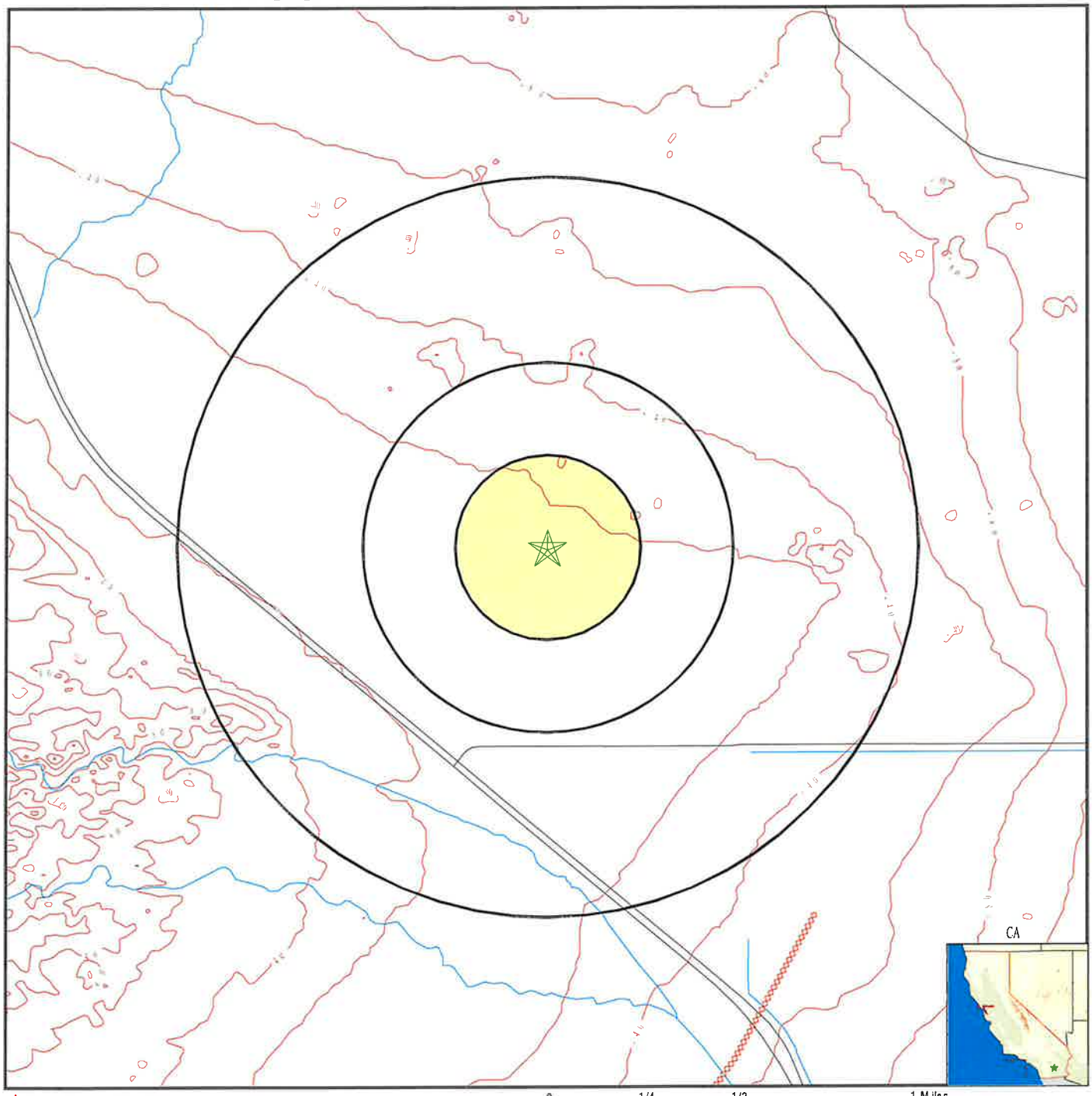
PHYSICAL SETTING SOURCE MAP - 7022967.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME: NorthStar 3 Solar Project	CLIENT: GS Lyon Consultants
ADDRESS: Hwy 86 and Old Navy Base Road Thermal CA 92274	CONTACT: Steven Williams
LAT/LONG: 33.184705 / 115.883362	INQUIRY #: 7022967.2s DATE: June 17, 2022 1:56 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
92274	1	0

Federal EPA Radon Zone for IMPERIAL County: 3

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for IMPERIAL COUNTY, CA

Number of sites tested: 2

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	1.450 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

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PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

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PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

OTHER STATE DATABASE INFORMATION

Groundwater Ambient Monitoring & Assessment Program
State Water Resources Control Board
Telephone: 916-341-5577
The GAMA Program is Californias comprehensive groundwater quality monitoring program. GAMA collects data by testing the untreated, raw water in different types of wells for naturally-occurring and man-made chemicals. The GAMA data includes Domestic, Monitoring and Municipal well types from the following sources, Department of Water Resources, Department of Heath Services, EDF, Agricultural Lands, Lawrence Livermore National Laboratory, Department of Pesticide Regulation, United States Geological Survey, Groundwater Ambient Monitoring and Assessment Program and Local Groundwater Projects.

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

California Oil and Gas Well Locations
Source: Dept of Conservation, Geologic Energy Management Division
Telephone: 916-323-1779
Oil and Gas well locations in the state.

California Earthquake Fault Lines
Source: California Division of Mines and Geology
The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

RADON

State Database: CA Radon
Source: Department of Public Health
Telephone: 916-210-8558
Radon Database for California

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PHYSICAL SETTING SOURCE RECORDS SEARCHED

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

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APPENDIX G

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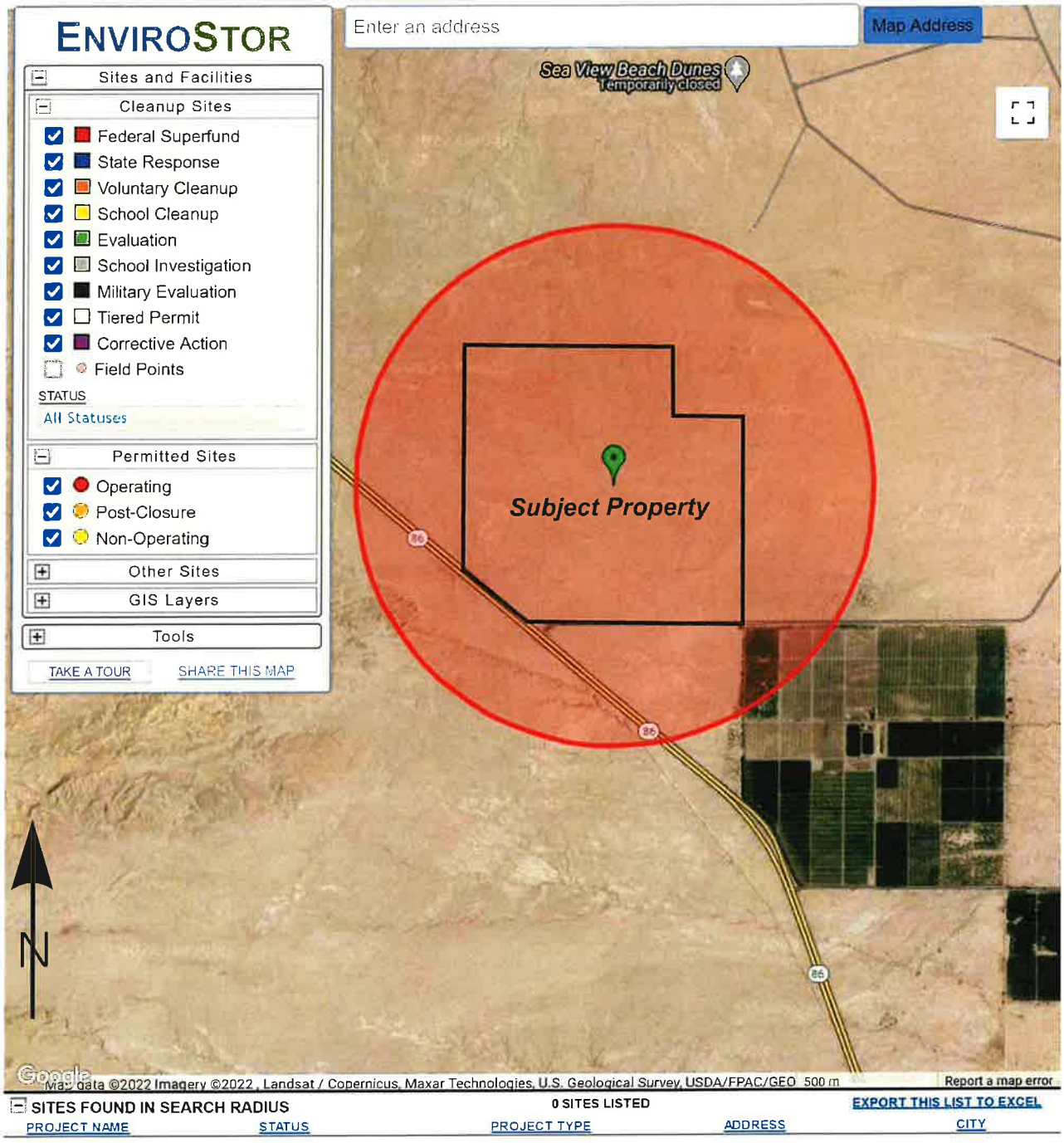

GSLyon Project No.: GS2221	Envirostor Map	Plate 5

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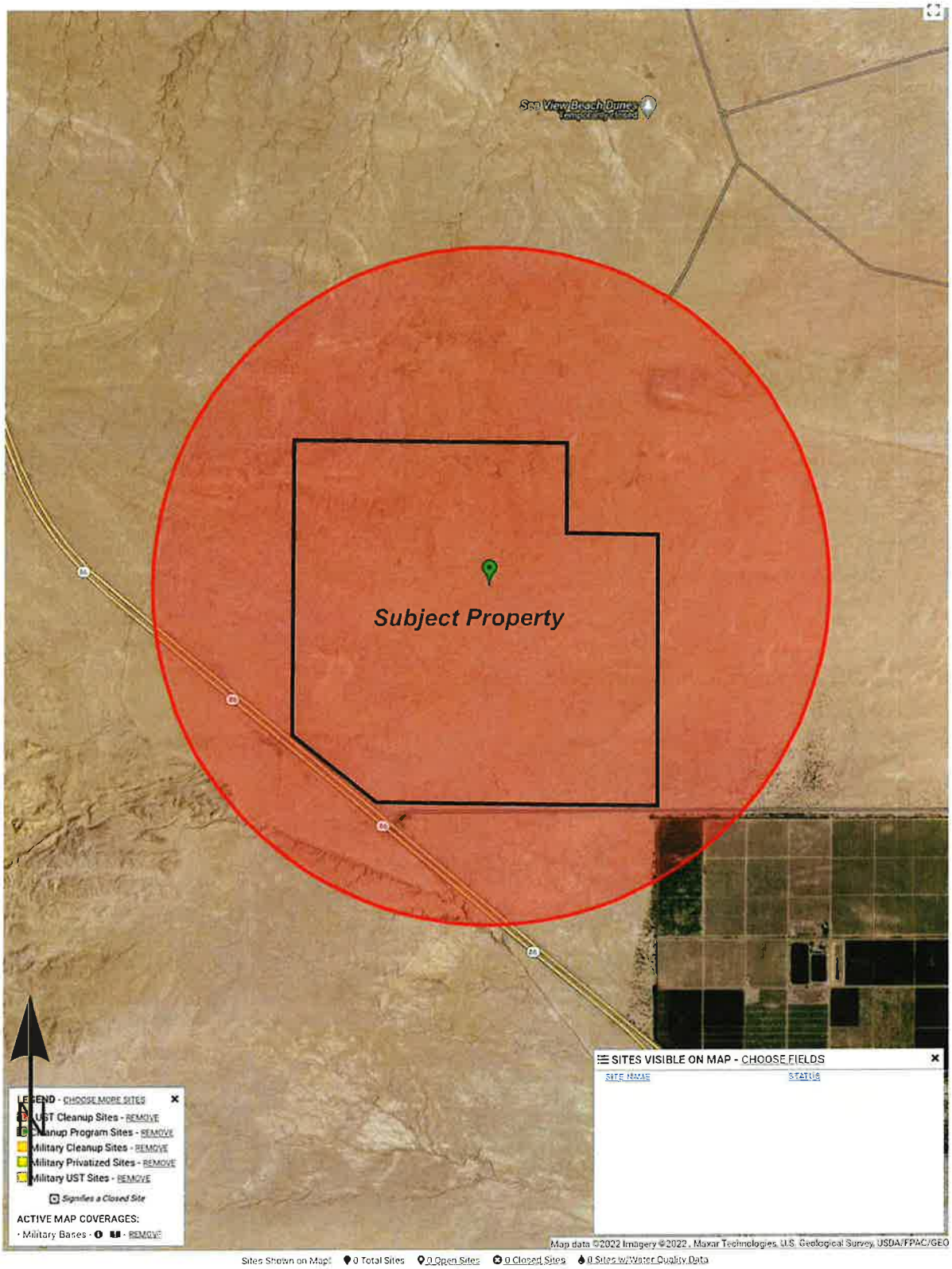

GS Lyon Project No.: GS2221	Geotracker Map	Plate 6

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GSLyon Project No.: GS2221	CalEPA Map	Plate 7

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APPENDIX H

EEC ORIGINAL PKG

NorthStar 3 Solar Project
Hwy 86 and Old Navy Base Road
Thermal, CA 92274

Inquiry Number: 7022967.5
June 22, 2022

The EDR-City Directory Image Report

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

EEC ORIGINAL PKG

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Executive Summary

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City Directory Images

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Brad street. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

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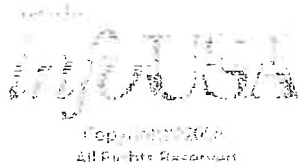

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RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

Year	Target Street	Cross Street	Source
2017	☑	☐	EDR Digital Archive
2014	☑	☐	EDR Digital Archive
2010	☑	☐	EDR Digital Archive
2005	☑	☐	EDR Digital Archive
2000	☑	☐	EDR Digital Archive
1995	☑	☐	EDR Digital Archive
	☑	☐	Haines Criss-Cross Directory
1992	☑	☐	EDR Digital Archive
	☑	☐	Haines Criss-Cross Directory
1990	☑	☐	Haines Criss-Cross Directory
1985	☑	☐	Haines Criss-Cross Directory
1980	☑	☐	Haines Criss-Cross Directory
1976	☑	☐	Haines Criss-Cross Directory
1971	☐	☐	Haines Criss-Cross Directory

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EXECUTIVE SUMMARY

Year	Target Street	Cross Street	Source

EEC ORIGINAL PKG

FINDINGS

TARGET PROPERTY STREET

Hwy 86 and Old Navy Base Road
Thermal, CA 92274

Year	CD Image	Source	
OLD NAVY BASE RD			
2017	-	EDR Digital Archive	Target and Adjoining not listed in Source
2014	-	EDR Digital Archive	Target and Adjoining not listed in Source
2010	-	EDR Digital Archive	Target and Adjoining not listed in Source
2005	-	EDR Digital Archive	Target and Adjoining not listed in Source
2000	-	EDR Digital Archive	Target and Adjoining not listed in Source
1995	-	Haines Criss-Cross Directory	Street not listed in Source
1992	-	Haines Criss-Cross Directory	Street not listed in Source
1990	-	Haines Criss-Cross Directory	Street not listed in Source
1985	-	Haines Criss-Cross Directory	Street not listed in Source
1980	-	Haines Criss-Cross Directory	Street not listed in Source
1976	-	Haines Criss-Cross Directory	Street not listed in Source
1971	-	Haines Criss-Cross Directory	Street not listed in Source
STATE HIGHWAY 86			
2017	pg A1	EDR Digital Archive	
2014	pg A2	EDR Digital Archive	
2010	pg A3	EDR Digital Archive	
2005	pg A4	EDR Digital Archive	
2000	pg A8	EDR Digital Archive	
US HIGHWAY 86			
1995	pg A9	EDR Digital Archive	
1992	pg A10	EDR Digital Archive	
1990	pg A13	Haines Criss-Cross Directory	
1990	pg A14	Haines Criss-Cross Directory	
1990	pg A15	Haines Criss-Cross Directory	

EEC ORIGINAL PKG

FINDINGS

Year	CD Image	Source	
1985	pg A16	Haines Criss-Cross Directory	
1985	pg A17	Haines Criss-Cross Directory	
1980	pg A18	Haines Criss-Cross Directory	
1980	pg A19	Haines Criss-Cross Directory	
1976	pg A20	Haines Criss-Cross Directory	
1976	pg A21	Haines Criss-Cross Directory	
1971	-	Haines Criss-Cross Directory	Street not listed in Source

EEC ORIGINAL PKG

FINDINGS

CROSS STREETS

No Cross Streets Identified

EEC ORIGINAL PKG

City Directory Images

EEC ORIGINAL PKG

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

STATE HIGHWAY 86 2017

3100	BLAIR, JEFF
	KLEIN, THOMAS M
	PACHECO, VERONICA
	RAMIREZ, JUAN L
	SANDERS, PHILLIP E
	STEPHENS, DON P
	WILSON, FAYE
88610	LOPEZ, JUAN
	MCCLUNG, RANDALL T
	RARDON, DEBRA A

EEC ORIGINAL PKG

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

STATE HIGHWAY 86 2014

3100	KLEIN, THOMAS M
	PACHECO, VERONICA
	STEPHENS, DON P
	WILSON, GARY B
88610	HAGAN, LYNDA
	MATOS, GILPATRICK
	MORA, ALFREDO
	PENA, ZEFF
	PHILLIPS, MICHAEL C
	RARDON, DEBRA A
	RUELAS, ELIAS
	SILVER SANDS RV & CAMP RESORT
	WALKER, DONNA A
	WONDERLING, GARY
	WOOLLEY, JOHN P
89150	IVIE, ALAN A

EEC ORIGINAL PKG

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

STATE HIGHWAY 86 2010

3095	SUBWAY
3100	GREEN, JAN E
	KLEIN, THOMAS M
	STEPHENS, DON
	WILSON, GARY B
3600	BORUNDA, LEO B
76800	OASIS FIRE STATION
88610	LOPEZ, JUAN
	MATOS, GILPATRICK
	MENDOZA, EUSTAQUIO
	MORA, SEVERIANO V
	WONDERLING, GARY
89150	IVIE, ALAN A

EEC ORIGINAL PKG

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

STATE HIGHWAY 86 2005

3100	CHAPALA MARKET
	KLEIN, THOMAS M
	WILSON, GARY
3600	OCCUPANT UNKNOWN,
54684	CANO, RAYMOND
54694	ESPINOZA, JESUS G
54722	GONZALEZ, MARIA
54754	MELENDEZ, ROSA
54868	GUTIERREZ, LETICIA C
54874	BONILLA, FREDDY
54878	MENDOZA, MARIA G
55526	MEDINA, SERRANO
55568	MARTINEZ, ANDREW
55570	RODRIGUEZ, DOMITILA S
55600	OCCUPANT UNKNOWN,
55644	ROCHA, MARIA T
55648	BETANCOURTH, S J
55650	RODRIGUEZ, GRISELDA
55700	CENTRO MUFFLER & AUTO REPAIR
55750	DIAZ, BLANCA
	GOMEZ, VERONICA
	VELA, RICARDO N
55800	CEASAR TOVAR
	CENTRO MUFFLER AND AUTO REPAIR
56541	CORRALES, MANUELA
56589	AVILA, MIGUEL A
56675	SUERTE, JAIME G
56801	NAVA, PAUL R
56811	ANAYA, MAGDALENA M
56815	OCCUPANT UNKNOWN,
57401	GONZALEZ, DANILO
57875	FOUNDER, JOHN
57901	ZARATE, MARIA
60171	ZARAGOZA, JOSE A
60261	GARCIA, CONCEPCION M
60275	PANIAGUA, FRANCISCO T
60499	ADAIR, DOUGLASS N
	PATOS DREAM DATE GARDENS CO
60723	CASTILLO, CANDELARIA
	GRACIANO, HERMENEJILDO
	HERRERA, EDUARDO
	MENDOZA, MANUELA
	MONTANEZ, CARLOS
	RAPACON, ROSARIO
	SANCHEZRAMIREZ, MANUEL
	VALENZUELA, BEATRICE
	VELASQUEZ, RAMON
61225	OLVERA, RAMON S
61335	RODRIGUEZ, HERIBERTO
61495	OCCUPANT UNKNOWN,

EEC ORIGINAL PKG

STATE HIGHWAY 86 2005 (Cont'd)

61610	OCCUPANT UNKNOWN,
64670	COSSIO, JOSE A
	GALARZA, MARIA
	GOMEZ, FRANCISCO R
	GUZMAN, GLORIA
	LOPEZ, JOSE L
	MARQUEZ, PORFIRIO
	SUPULVEDA, CARLOS
	VELASCO, DIEGO
	VELASQUEZ, PILAR
64975	CAMACHO, MARIA
	CONTRERAS, MARIA
	MORENO, RODOLFO
	SALAZAR, ANTONIO
	SAMANO, SERAPIO C
	VALDEZ, OSCAR
	VILLANUEVA, JUAN M
65075	VASQUEZ, IGNACIO
65450	OCCUPANT UNKNOWN,
65730	CASTRO JANITORIAL SERVICES
	CASTRO, RAMON
65830	ARTEAGA, MARIA
	AVILA, FRANCISCO
	CECENA, RAYMOND
	FUENTES, FRANCISCA
	RODRIGUEZ, VICTOR N
	SANTILLAN, FRANCISCO
65940	RODRIGUEZ, EULOJIO
65949	DS APPLE RECYCLING
65959	APPLE MARKET TWO
66021	DERUEDA, RAFAEL
66115	MORENO, MANUEL
66190	FRIAS, MA G
66215	ONE HUNDRED PALMS AUTO PARTS
	SAMS FENCE CO
66351	CHAPALA MARKET
	VELAZQUEZ ADOLFO
66363	BAZALDUA, JOSE A
66371	SOTO, RAYMOND G
66705	G & C INTERIORS
	ROMERO, ELOISA
66808	AVC FARM & AUTO REPAIR
	RODRIGUEZ, SALVADOR Z
66845	100 PALMS RESORT
66991	HERNANDEZ, JAVIER
66997	MESA, EFRAIN
67280	ESCOBEDO, LOPEZ J
67284	MEZA, IGNACIO
67305	OCCUPANT UNKNOWN,
67683	YOUNG, VOYT D

EEC ORIGINAL PKG

STATE HIGHWAY 86 2005 (Cont'd)

68035	THERMAL PLAZA RANCH & NURSERY
68401	OCCUPANT UNKNOWN,
68461	OCCUPANT UNKNOWN,
	YOUNG DOWLIN L
	YOUNGS NURSERY
68600	MAGANA, RICARDO A
75550	ALVARADO, MARCIAL
75850	CAR WASH MOVIL GARCIA
	CEJA, ANTONIO C
76467	RIVAS, VINCENT J
76553	FLORES, FRANCISCO
76600	TEQUILA MARKET
77110	KONO FARMS INC
	OASIS VEGETABLE EXCHANGE
77800	OCCUPANT UNKNOWN,
77860	TORRES, JOSE
78479	BRITO, RUTILIO M
	MIRANDA, PEDRO
	RENAGA, ENRIQUE
78498	BENITEZ, MIGUEL A
78499	BENITEZ, MACEDONIO
80100	OCCUPANT UNKNOWN,
80200	MENDEZ, BRENDA
80500	OCCUPANT UNKNOWN,
80624	MORA, JUAN C
80637	RAMOS, ALFREDO
80638	GOPAR, VALENTE P
80640	VALDEZ, FRANCISCO
80671	OCCUPANT UNKNOWN,
80705	FOOKES, THOMAS
80761	MARTINEZ, ANTONIO M
81050	ALAMO DISCOUNT STORE
81370	RIVERA, CARDIEL
81400	CHAPA, LUZ M
81550	GARCIA, O
81850	ALVAREZ, RODRIGUEZ S
82900	RODRIGUEZ, MARTIN
88610	FRANCO, GUSTAVO
	HARGIS, HERBERT
	HUNT, ROBERT N
	ISBELL, EMILY
	MENDOZA, EUSTAQUIO
	MONZINGO, JOE
	MORA, ALFREDO
	REEVES, WADE
	RUSSELL, NORMAN
	SALDANA, MARIO
	SALDANA-ESCOBAR, MARIO A
	TEEKAMP, JANET
	WALKER, DONNA L

EEC ORIGINAL PKG

STATE HIGHWAY 86 2005 (Cont'd)

88610 WOOLLEY, JOHN P
89150 IVIE, ALAN A

EEC ORIGINAL PKG

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

STATE HIGHWAY 86 2000

3100	DECKERS, KAREN L
54684	CHRIST IS SALVATION CHURCH
	RUBENS TRANSMISSIONS
55996	JUANITOS TIRE SERVICE
56801	NAVA BROTHERS LANDSCAPE MAINTENANCE
57401	BLIXSETH FARMS
66845	ONE HUNDRED PALMS MARKET
68461	YOUNGS NURSERY

EEC ORIGINAL PKG

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

US HIGHWAY 86 1995

54050	IRBY CONSTRUCTION
	TORRENCES FARM IMPLEMENTS
54722	NOAHS ARK CHURCH
	RUBENS GARAGE & CORVETTES
55750	MIRANDA, MYRNA
	PADILLA CAMP VERDE
55996	JUANITOS TIRE SVC
56801	NAVA BROS LANDSCAPE MNTNC
60261	ORTIZ GROWERS
	RODRIGUEZ, LUCINDA
61610	BARRENECHEA, LUIS
64949	CAFE SEA COMBER
65959	APPLE MARKET TWO
66021	VALERIE JEAN DATE SHOP
66215	AZTEC FENCE CO III
	ONE HUNDRED PALMS AUTO PARTS
66351	CHAPALA MARKET
	NAVAS MARKET & DRIVE IN
66705	MARYS FARM INC
66845	ONE HUNDRED PALMS RESORT
68461	C & T FARMS
	YOUNGS NURSERY
75800	OASIS FIRE STATION
76447	LAS PALMAS MARKET
76600	MAYS OASIS
77110	OASIS VEGETABLE EXCHANGE
78479	SANTA ROSA DATE & FRUIT
80761	MOLINAS TIRE SHOP
81050	ALAMO DISCOUNT STORE
89100	CUSTOM ELECTRIC

EEC ORIGINAL PKG

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

US HIGHWAY 86 1992

54020	DIAZ, PEDRO J
54050	IRBY CONSTRUCTION
	TORRENCES FARM
54684	TOVAR, JUANITA
54722	CRUZ, ALFREDO
	RAMIREZ, MARIA V
	RODRIGUEZ, LIONEL
	RUBENS GAR&CORVETTS
54754	MELENDEZ, MAGGIE
54878	MENDOZA, MARIA G
55526	PAYNE, JESSE B
55560	GUDINO, F
55568	HERNANDEZ, LILIA
55600	RODRIGUEZ, REYNA
55650	DURAN, CECILIO H
	MEDINA, MARIA A
	ROJAS, F
	VEGA, MARIA C
55750	RAMIREZMIRANDA, MYRNA
55996	JUANITOS TIRE SERV
56541	PALALAY PRODUCE
56625	MENDEZ, JOSE
56801	NAVA BROS LNDSCP MN
56851	LAS VEGAS CLUB
56955	LUCAS, ROMEO
60261	ORTIZ GROWERS
	ORTIZ, GROWERS
60499	ADAIR, D
61225	DIAZ, MANUEL
	GUERRERO, JUAN M
61610	WHITE, JOHN H
64975	ALBAREZ, MODESTA
	SANCHEZ, MARIA S
65730	CASTRO, ELVIRA
65940	FRANCO, CARMEN
65959	APPLE MARKET TWO
66021	VALERIE JEAN DTE SH
66025	HUMAGRO
66045	ZARAFOZA, H
66215	ACOSTA, F
	AZTEC FENCE CO 3
	GOMAR, LORENA A
	MAGANA, JOSE M
	MARIAS SHOP
	SALAZAR, GONZALO
	SUAREZ, RODOLFO
	WEST CONSULTING INC
66351	NAVAS MRKT&DRIVE IN
66371	QUESADA, MARTIN
	QUEZADA, JOSE T

EEC ORIGINAL PKG

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

US HIGHWAY 86 1992 (Cont'd)

66705	ACUNA, C
	MONTELLANO, JOSE
66808	RODRIGUEZ, S Z
66845	BROWN, IVY C
	CASTRO, M
	CUEVAS, MARIA
	DORAME, JESUS
	GUTIERREZ, JUSTINO
	HERNANDEZDIAZ, MIGUEL
	MCDONOUGH, G
	MILLER, DON
	MURILLO, JOSE
	ONE HUNDRED RESORT
	PEREZ, BENITO
	REGALADO, JUANA
	RUBIO, ALICIA
	TORRES, C
	TORRES, JESUS
	TORRES, RAMON
	ZARAGOC, AMRIA R
	ZARAGOZA, PEDRO
	ZENDEJAS, F
66991	HERNANDEZ, MARIA
67280	NAVOR, G
67284	SOTO, F
67305	CONTRERAS, JUAN
67683	BAASTAD, DOLORES
	YOUNG, ROCKY
68035	CHAIDEZ, F
	COLORADO, DIMAS
	HERNANDEZ, GONZALO
	THERMAL PLZ RANCH
68301	COLORADO, JOSE
68461	C&T FARMS
	COLLINS, C JR
	YOUNGS NURSERY
68600	AVALOS, MARIA C
	MAGANA, JULIAN A
71908	RODRIGUEZ, MARIA F
75550	ALVARADO, JUAN
	MARTINEZ, M
75850	CAMPAS, NOE A
76447	LAS PALMAS MARKET
	MORENO, C
77110	OASIS VEG EXCHANGE
77860	REYES, MARIA C
78479	RENAGA, ENRIQUE
	REYNAGA, CELSO
	VERA, VELINO S
80634	MEJIA, JESUS

EEC ORIGINAL PKG

US HIGHWAY 86 1992 (Cont'd)

80640	BARRANAGAN, ANGEUNA D
	LOPEZ, JOSE A
80705	SANCHEZ, ALBERTO
80761	ALAMO DISCOUNT MRKT
	BURTON, ROY
81050	ALAMO DISCOUNT STR
81400	PEREZ, MARIA
81480	BAUTISTA, ROBERTO
81550	AMADOR, CRUZ
	CASTRO, E
	HIPOLITO, R D
	MIRANDA, FELIPE
	PEREZ, RAUL
	PEREZ, RICARDO
	SANCHEZ, MA G
	SANCHEZ, MARTIN M
	SANCHEZ, THOMAS P
81850	DUVALL, ARTHUR
	FIMBRES, ALVA
82900	CARRILLO, S B
88610	HOBBS, LOMAS
	VILLAREAL, JUAN
89100	CUSTOM ELECTRIC
668453	DELGADO, JUANA R
668454	HERNANDEZ, CECILIO L
668455	ACEVES, LUIS B
784791	FERNANDEZ, JOSE J
6072386	IBARRA, MANUEL
6637186	SOTO, C G
6684522	SALAZAR, GONZALO
7555076	HERNANDEZ, MARIA G

EEC ORIGINAL PKG

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

US HIGHWAY 86 1990

ST HWY 86 92274
THERMAL

DESERT SHORES AREA

135..... APARTMENTS

	LONG Mari	395-5850	6
	MULLEN Edw	395-5853	5
	NEMETH Tonette	395-5647	8
	WATTERS Clarissa	395-3804	+0
	WEBB Stanley	395-2506	+0

135.....

295	★B C H MANGMNT CORP	395-5000	+0
297	★A P B A J V	395-0703	+0
NO #	BITTENBENDER Ethel	395-5129	
NO #	BITTENBENDER S	395-5129	
NO #	★BLACK DIAMOND NRSRY	395-5161	
NO #	★MASSEY SAND&ROCK CO	395-5611	+0
NO #	★SILVER SANDS CAMP	395-5437	
NO #	WILSON Lambeth	395-5169	

★ 5 BUS 8 RES 5 NEW

ST HWY 86 92274
THERMAL

54594	ESPINOZA Carlos G	00	5
54684	QUIROZ Andres B	00	4
	RIVAS Placido R	00	7
54685	ESTRADA Imelda	398-4107	9
54694	ESPINOZA Jesus G	00	9
54722	ANGUIANO Antonio	00	4

EEC ORIGINAL PKG

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

US HIGHWAY 86 1990



ST HWY 86 92274
THERMAL

OASIS AREA

EEC ORIGINAL PKG

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

US HIGHWAY 86 1990

	ST HWY 86		92274 CONT	
0	72875	ALVARADO Barnabe	00	4
9	72961	XXXX	00	
4	75550	ALVARADO Crescensio	00	+0
6		HERNANDEZ Maria G	397-4522	3
4		KITAGAWA Yeichi	397-4308	+0
4	76443	ALVAREZ Marcos O	397-2803	+0
7	76447	ARELLANO Apolinar	00	5
		BAZA Matilde M	00	
		BENITEZ Santana A	00	7
6		CRUZ Hector	00	7
8		ESCOBAR Francisco G	00	4
		GALARZA Afanacio	00	7
8		JAIMES Roberto A	00	4
5		★LAS PALMAS MARKET	397-4249	2
0		LOPEZ Ana M	00	7
8		MARTINEZ Jose S	00	4
9		REAL Alfonso	00	7
0		RIVAS Vincent	00	
4		RODRIGUEZ Demetrio	00	
		SOLIZ Servando A	00	+0
4	76467	RIVAS Vincent	00	4
0	76474	XXXX	00	
7	76600	★MAYS OASIS	397-4464	6
	76998	★FIRE DEPT BUSINESS	397-4173	1
	77660	OSHIKI Mas	00	3
7		REYNAGA Filiberto A	397-0718	9
5	78479	ANGULO San Juana	397-6609	+0
2		BRITO Rutilio M	00	5
		GONZALEZ Jose	00	5
8		HERNANDEZ Enrique R	00	5
6		REINAGA Ramon	397-4472	3
7		RENAGA Enrique	397-4632	4
7	80100	XXXX	00	
	80624	PENA Arturo	397-3911	+0
4	80640	BARRAGAN Manuel M	397-4203	
9		LOPEZ Jose A	397-4118	9
0	80705	FAIR Olivia L	00	6
6		★OASIS MARKET&GEN ST	397-1006	+0
9		★OASIS STA GENL STR	397-1908	+0
0		SALAS Gloria V	397-8309	+0
0	80761	BURTON Roy	397-4486	1
0	81050	★ALAMO DISC STORE	397-4666	5
0		ALVAREZ Silvestre	00	4
0		BERRIOZABAL Albino	00	4
8		CASTILLO Gabriel	00	+0
		GUEVARA Alfredo P	00	4
		LOPEZ Alberto A	00	4
		RAMOS Cesar S	00	+0
		SANCHEZ Luis J	00	+0
		SOREQUE Salvador M	00	4
		TORRES Virgilio	00	4
		VILLA Sergio A	00	+0
	81400	BAUTISTA Alfonso	00	6
		CARO Maria M	00	6
		CARRILLO Mateo	00	
		GARCIA Pedro B	00	+0
6		MENDOZA Adan M	00	+0
9		SEBASTIAN Andres B	00	4
4	81460	BAUTISTA Roberto	397-4362	4
0	81500	LOPEZ Andres A	00	+0
	81550	AMADOR Cruz	397-1216	+0
7		AMADOR Epifania	397-1216	+0
4		ESTRADA Yolanda R	397-3516	+0
8		FLORES Manuel V	00	4
		MIRANDA Felipe	397-3909	9
		SANDOVAL Jesus B	00	4
		VALENZUELA Francisc	00	6
0	81850	ALVARADO Jose M	00	4
9		DUVALL Arthur	397-1300	9
0		FIMBRES Alva	397-1106	8
4	82900	CARRILLO Silveria	397-4265	2
5	84700	RODRIGUEZ Salvador	397-4398	+0
4	85396	RUBIO Antonio	397-3871	9
8	86998	★RIVRSD CO FIRE BUS	397-4173	9
4	88855	MENDOZA Nora A	00	4
4	88885	XXXX	00	
0	89100	★CUSTOM ELECTRIC	397-1108	+0
5		★ 17 BUS 159 RES	39 NEW	

EEC ORIGINAL PKG

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

US HIGHWAY 86 1985

ST HWY 86 92274
THERMAL

DESERT SHORES AREA

135	APARTMENTS	
	CLAWSON JULION	395-5811 +5
	MORGAN VERNIE	395-5253 3
	MULLEN EDW	395-5853 +5
	PELOQUIN LEO U	395-5613 3
	WILSON CHAS K	395-5497 2
135		
136	XXXX	00
NO #	BITTENBENDER S	395-5129
NO #	BLACK DIAMOND NRSRY	395-5161 7
NO #	KERTESZ V	395-5127
NO #	SILVER SANDS TRLR	395-5437
NO #	WILSON LAMBETH	395-5169

* 2 BUS 9 RES 2 NEW

ST HWY 86 92274
THERMAL

55526	PAYNE JESSE B	399-5404 6
55568	VALENCIA VICTORIA	399-1350 +5
55570	RODRIGUEZ DOMITILA	399-1313 4
55600	RODRIGUEZ ARTHUR C	399-5494
55644	XXXX	00
55648	CHILPA ADRIAN	399-5209 +5
55650	MARTINEZ JOSE	399-1332 +5
55660	ISAIAS ROMERO L	399-1263 +5
55710	XXXX	00
55750	XXXX	00
55900	VANDIEST ANTHONY	399-5469 0
55998	SANDY CORNER	399-1121 +5
56541	PALALAY PRODUCE	399-5571
56655	XXXX	00
56801	NAVA BROS LNDSCP MN	399-5380 9
	NAVA OLIVIA G	399-1329 +5
56811	XXXX	00
56815	XXXX	00
56831	XXXX	00
56955	XXXX	00
57401	HALL JIM	399-5737 4
	THERMAL NURSERY FRM	399-5497 8
57875	DELAPAZ JAIME	399-1382 +5
57901	STRICKLAND LETA	399-1233 4
59021	MORENO FRANCISCO R	399-5216
59980	MARTIN RICHARD	399-5476
60030	XXXX	00
60171	XXXX	00
60499	ADAIR DOUGLASS	399-5669 0
60605	MAGANA JESUS	399-1302 +5

* 4 BUS 26 RES 8 NEW

ST HWY 86 92274
THERMAL

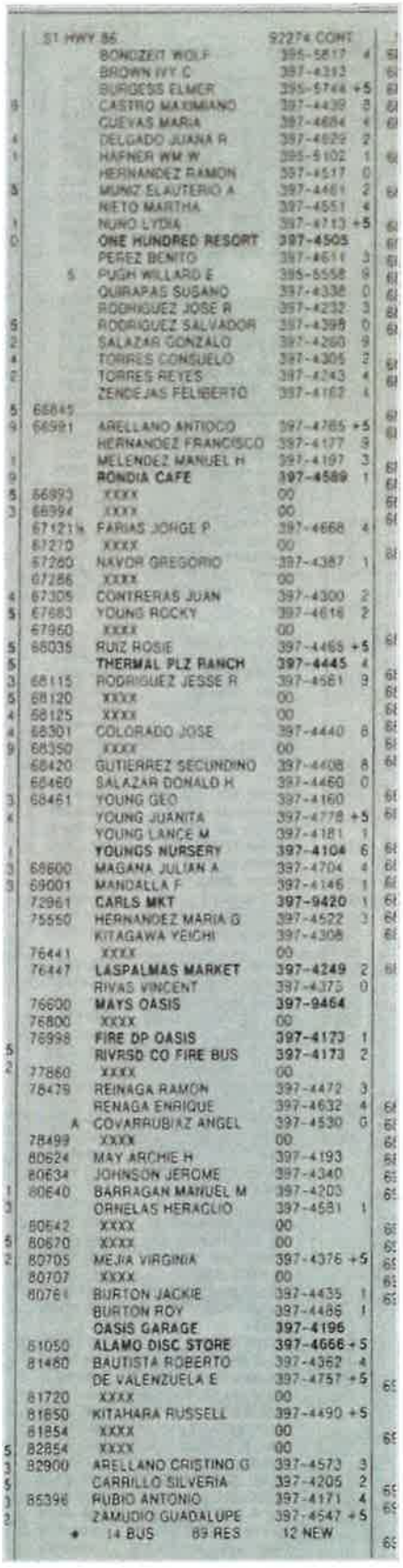
OASIS AREA

65940	AGUILAR EDW	397-4543 +5
	DEROUEN BELINDA	397-4793 +5
65949	CONDOR	397-4279 1
66020	XXXX	00
66021	NICOLL RUSSELL	397-4159
	VALERIE JEAN DTE SH	397-4159
66125	LOS LAURELS CAFE	397-4569 6
66134	DELEON VICENTE	397-4333 9
66190	VENCEL NICOLA P	397-4341
66351	NAVAS MRKT&DRIVE IN	397-4438 4
66371	SOTO RAMON L SR	397-4331
	SOTO RAYMOND	397-4167
66377	XXXX	00
66705	ROSA MARIA	397-4693 4
66805	XXXX	00
66845	ONE HUNDRED PALMS	
	ARRIZON ISAAC	397-4493 4
	BAUTISTA LUIS	397-4475 4

EEC ORIGINAL PKG

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

US HIGHWAY 86 1985



		ST HWY 86	92274 CONT	
		BONDZEIT WOLF	395-5617	4
		BROWN IVY C	397-4312	
		BURGESS ELMER	395-5744	+5
8		CASTRO MAXIMIANO	397-4439	8
		CUEVAS MARIA	397-4684	4
4		DELGADO JUANA R	397-4629	2
1		HAFNER WM W	395-5102	1
		HERNANDEZ RAMON	397-4517	0
3		MUNIZ ELAUTERIO A	397-4461	2
		NIETO MARTHA	397-4551	4
1		NUNO LYDIA	397-4713	+5
0		**ONE HUNDRED RESORT**	**397-4505**	
		PEREZ BENITO	397-4611	3
	S	PUGH WILLARD E	395-5558	9
		QUIRAPAS SUSANO	397-4338	0
		RODRIGUEZ JOSE R	397-4232	3
5		RODRIGUEZ SALVADOR	397-4396	0
2		SALAZAR GONZALO	397-4260	9
4		TORRES CONSUELO	397-4305	2
2		TORRES REYES	397-4743	4
		ZENDEJAS FELIBERTO	397-4162	4
5	66845			
9	66981	ARELLANO ANTIOCO	397-4785	+5
		HERNANDEZ FRANCISCO	397-4177	3
1		MELENDEZ MANUEL H	397-4197	3
9		**RONDIA CAFE**	**397-4589**	1
5	66893	XXXX	00	
3	66894	XXXX	00	
	67121½	FARIAS JORGE P	397-4668	4
	67270	XXXX	00	
	67280	NAVOR GREGORIO	397-4387	1
	67286	XXXX	00	
4	67305	CONTRERAS JUAN	397-4300	2
5	67683	YOUNG ROCKY	397-4616	2
	67950	XXXX	00	
5	68035	RUIZ ROSIE	397-4465	+5
5		**THERMAL PLZ RANCH**	**397-4445**	4
3	68115	RODRIGUEZ JESSE R	397-4581	9
5	68120	XXXX	00	
4	68125	XXXX	00	
4	68301	COLORADO JOSE	397-4440	8
9	68350	XXXX	00	
	68420	GUTIERREZ SECUNDINO	397-4408	8
	68460	SALAZAR DONALD H	397-4460	0
3	68461	YOUNG GEO	397-4160	
4		YOUNG JUANITA	397-4778	+5
		YOUNG LANCE M	397-4181	1
1		**YOUNGS NURSERY**	**397-4104**	6
3	68600	MAGANA JULIAN A	397-4704	4
3	69001	MANDALLA F	397-4146	1
	72961	**CARLS MKT**	**397-9420**	1
	75550	HERNANDEZ MARIA G	397-4522	3
		KITAGAWA YEICHI	397-4308	
	76441	XXXX	00	
	76447	**LASPALMAS MARKET**	**397-4249**	2
		RIVAS VINCENT	397-4375	0
	76600	**MAYS OASIS**	**397-9464**	
	76800	XXXX	00	
	76998	**FIRE DP OASIS**	**397-4173**	1
5		**RIVRSD CO FIRE BUS**	**397-4173**	2
2	77860	XXXX	00	
	78479	REINAGA RAMON	397-4472	3
		RENAGA ENRIQUE	397-4632	4
	A	COVARRUBIAZ ANGEL	397-4530	0
	78499	XXXX	00	
	80624	MAY ARCHIE H	397-4193	
	80634	JOHNSON JEROME	397-4340	
1	80640	BARRAGAN MANUEL M	397-4203	
3		ORNELAS HERACLIO	397-4581	1
	80642	XXXX	00	
5	80670	XXXX	00	
2	80705	MEJIA VIRGINIA	397-4376	+5
	80707	XXXX	00	
	80761	BURTON JACKIE	397-4435	1
		BURTON ROY	397-4486	1
		OASIS GARAGE	**397-4196**	
	81050	**ALAMO DISC STORE**	**397-4666**	+5
	81460	BAUTISTA ROBERTO	397-4362	4
		DE VALENZUELA E	397-4757	+5
	81720	XXXX	00	
	81650	KITAHARA RUSSELL	397-4490	+5
	81854	XXXX	00	
5	82854	XXXX	00	
3	82900	ARELLANO CRISTINO G	397-4573	3
5		CARRILLO SILVERIA	397-4205	2
3	85396	RUBIO ANTONIO	397-4171	4
2		ZAMUDIO GUADALUPE	397-4547	+5
	*	14 BUS 89 RES	12 NEW	

EEC ORIGINAL PKG

Target Street	Cross Street	Source
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US HIGHWAY 86 1980



ST HWY 86 92274
THERMAL

DESERT SHORES AREA

135	APARTMENTS	
	DONNELLY WILLIAM J	395-5220 9
	GRAY HOWARD E	395-5739 +0
	VANZANT EDW	395-5746 +0
	WILSON MARIE	395-5514 9
	WIMMER J	395-5496 +0
135		
136*	**BREWER GRIGGS CNSTR**	**395-5311+0**
297	SCHAAL W C	395-5175 6
NO #	BITTENBENDER S	395-5129 4
NO #*	**BLACK DIAMOND NRSRY**	**395-5161 7**
NO #	KERTESZ V	395-5127
NO #	MORGAN VERNIE R	395-5253 6
NO #	STOWE ROY C	395-5476 9
NO #	TELGENHOFF HEROLD B	395-5729 9
NO #	TERRY JOHN H	395-5742 +0
NO #	WEDGEWORTH LOIS	395-5102 4
NO #	WILSON LAMBETH	395-5169 5
NO #	WILSON MARIE T	395-5497 8
	* 2 BUS 15 RES	6 NEW

ST HWY 86 92274
THERMAL

54582	XXXX	00
54684*	**L&L RNCH MKT&SMK HS**	**398-5213 5**
54694	SILVA GUADALUPE	398-0869
54722	XXXX	00
54754	XXXX	00
54878	XXXX	00
55526	PAYNE JESSE B	399-5404 6
55568	VALENCIA JORGE	399-5439 +0
55570	ELIZONDO IRMA	399-1164 +0
55600	RODRIGUEZ ARTHUR C	399-5494
55650	LEE GORDON	399-5780
55660	DEANDA GUADALUPE	399-5001 8
55710	XXXX	00
55750*	**CAMP VERDE STORE**	**399-9705 7**
55900	VANDIEST ANTHONY	399-5469 +0
55998	XXXX	00
56541	PALALAY ALBERT	399-5571
56555	XXXX	00
56801	NAVA PAUL R	399-5380 9
56811	LLANES ANDY	399-5426
56815	RAMOS ANGEL	399-5667 7
56831*	**LAS VEGAS NIGHT CLB**	**399-5058+0**
56955	LUCAS JOSE G	399-5451 +0
57401*	**THERMAL NURSERY**	**399-5497 8**
57875	COCHRAN DONALD W	399-5454
57901	XXXX	00
59021	MORENO FRANCISCO R	399-5216 4
59980	MARTIN GARY	399-1120 +0
	MARTIN RICHARD	399-5476 5
	VILLENEUVE R	399-1120 +0
60030	JONES VERA IRENE	399-5450 +0
60170	CULLUM JACK	399-5737 9
60171	XXXX	00
60499	ADAIR DOUGLASS	399-5669 +0
61620	MCDOWELL MITCHELL	399-5472 +0
	* 4 BUS 31 RES	10 NEW

ST HWY 86 92274
THERMAL

OASIS AREA

64949	XXXX	00
64975	SCROGGINS JAS	397-4468
65001	XXXX	00
65201	FRAKES MINNIE	397-4158 8
65910	XXXX	00
65920	XXXX	00
65938	XXXX	00
65940	CHIALA VITO	397-4378 +0
65949*	**GONZALES ARCO**	**397-4872 8**
	MONTANO LETICIA HAM	397-4287 +0
66020	CORRAL GUADALUPE	397-4386 +0
66021	NICOLL RUSSELL	397-4159 5
	* **VALERIE JEAN DTE SH**	**397-4159**
66125*	**LOS LAURELS CAFE**	**397-4689 6**
66134	DELEON VICENTE	397-4333 9
66190	VENGEL NICOLA P	397-4341 4
66251*	**KY RONS MKT**	**397-4438 9**
66371	SOTO RAMON L SR	397-4331
	SOTO RAYMOND	397-4167
66377	DELGADILLO JULIAN	397-4332 9
66505	XXXX	00
66808	REYES SANTIAGO	397-4242
66941	ONE HUNDRED PALMS	
25	AGUILA JAVIER S	397-4503 7
26	BROWN IVY C	397-4313
16	CASTRO MAXIMIANO	397-4439 8
	GONZALEZ JESUS A	397-4182 +0
12	GONZALEZ MOE A	397-4344 9
	HERNANDEZ LUCY	397-4484 +0
	HERNANDEZ RAMON	397-4817 +0
	MOORE BARRY N	398-5790 +0

EEC ORIGINAL PKG

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

US HIGHWAY 86 1980

..ST HWY 86 92274 CONT

9	MUNIZ ELAUTERIO A	397-4345 6
	NIETO NICOLAS	397-4169 +0
★	ONE HUNDRED RESORT	397-4505 5
	PINEDO JUAN	397-4194
5	PUGH WILLARD E	395-5558 9
	QUIRAPAS SUSANO	397-4338 +0
	RODRIGUEZ SALVADOR	397-4398 +0
22	SALAZAR GONZALO	397-4260 9
21	SANCHEZ MARY HELEN	397-4234 4
24	SANCHEZ SOCORRO	397-4206 8
66845	.....	.....
66991	HERNANDEZ F	397-4177 9
★	TRINIS CAFE	397-4149
67121	CONTRERAS JUAN	397-4300 6
67121½	SNACHEZ NATIVIDAD	397-4504 +0
67270	NAVOR GREGORIO	397-4387 +0
67280	XXXX	00
67286	SANDEZ ALFONSO R	397-4423 +0
67683	YOUNG VOYT	397-4549 6
67950	XXXX	00
68035	CASTRO MARIA	397-4417 9
★	CORONA FOOTHILL	397-4445
	MEZA JOSE C	397-4478 6
	PEREZ MARIO C	397-4485 +0
68115	RODRIGUEZ JESSE R	397-4561 9
68120	CHAIDEZ JESUS	397-4263
68125	XXXX	00
68301	COLORADO JOSE	397-4440 8
68360	XXXX	00
68420	GUTIERREZ SECUNDIN	397-4408 8
68460	SALAZAR DONALD H	397-4460 +0
68461	JUDD CLARENCE	397-4470 +0
	YOUNG GEO	397-4160 5
★	YOUNGS NURSERY	397-4104 6
68600	AGUILAR SAML	397-4152 8
69001	FOOKES TROY	397-4146
70150	XXXX	00
71856	XXXX	00
71908	YERENA ANTONIO C	397-4467 +0
72650	BAKER ORVAL	397-4383 9
72875	BAEHR IRWIN S	397-4394 +0
76441	XXXX	00
76447★	LAS PALMAS MARKET	397-4249 +0
	RIVAS VINCENT	397-4373 +0
76600★	MAYS OASIS	397-9464
	SAMORA ANN	397-4388
76800	XXXX	00
77860	OSHIKI MASAO	397-4185
78479	FREELAND LARRY	397-4205 +0
★	YOST LELAND J INS	397-4186
A	COBARUBIAS ANGEL	397-4530 +0
78499	XXXX	00
80624	MAY ARCHIE H	397-4193
80634	JOHNSON JEROME	397-4340
80640	BARRAGAN MANUEL M	397-4203 5
80642	XXXX	00
80670	XXXX	00
80705★	FORT OASIS	397-4131 +0
80761★	OASIS GARAGE	397-4196
81050	XXXX	00
81480	XXXX	00
81720	XXXX	00
81864	XXXX	00
82854	MURPHY IOWA	397-4166 8
82900	LLANOS FERNANDO	397-4574 +0
★	13 BUS 81 RES	24 NEW

EEC ORIGINAL PKG

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

US HIGHWAY 86 1976

STATE HWY 86 92274 THERMAL

DESERT SHORES AREA

297 SCHAAL W C 395-5175+6
NO # AULICK JULIUS 395-5463 4
NO # BITTENBENDER S 395-5129 4
NO # MITCHELL HARRY L 395-5482 5
NO # MORGAN VERNIE R 395-5253+6
NO # MUTH JOHN G 395-5161+6
NO # REHBEIN EDW J 395-5159 4
NO #*SILVER SNDS TRLR PK 395-5437 4
NO # TERRY JOHN H 395-5426
NO # THOMAS R 395-5267 4
NO # WEDGEWORTH LOIS 395-5102 4
NO # WILSON LAMBETH 395-5169 5
* 1 BUS 11 RES 3 NEW

STATE HWY 86 92274 THERMAL

54582 FUENTES FELIX 398-0280
54684 XXXX OO
54694 SILVA GUADALUPE 398-0869
54722 XXXX OO
54754 MELENDEZ ERNIE 398-0636
54868 BRIGGS S W SR 398-0581
54878 XXXX OO
55526 PAYNE JESSE B 399-5404+6
55600 RODRIGUEZ ARTHUR C 399-5494
55650 LEE GORDON 399-5790
55710*OSBORNS SERVICE 399-5844
*OSBORNS SHELL SERV 399-5844
55750*HOTHS CAMP VROE STR 399-5401
55900 XXXX OO
55998*GONZALES ARCO 399-5363 4
56541 PALALAY ALBERT 399-5571
56655 XXXX OO
56801*DUKES MOBILE HM SV 399-5253+6
56811 LLANES ANDY 399-5426
56815 RAMOS ANGEL 399-5686+6
57401 MOUNSEY HAROLD 399-5497
*TRIPL TWN PLM NRSRY 399-5497
57875 COCHRAN DONALD W 399-5454
COCHRANE DEBRA 399-5239+6
57901*ALBRIGHT WALLY TRKG 399-5884
COTTON JACK 399-5943+6
COTTON TREESA 399-5943+6
59021 MORENO FRANCISCO R 399-5216 4
59615 XXXX OO
59980*CLASSIC PLATING 399-5656 5
MARTIN RICHARD 399-5476 5
60030 CULLUM JACK 399-5737
60171*MARK 2 ENTERPRISES 399-5612+6
60499 DEAN A M 399-5377
61620 MCDOWELL MITCHELL 399-5215
* 9 BUS 26 RES 7 NEW

STATE HWY 86 92274 THERMAL

OASIS AREA

64975 SCROGGINS JAS 397-4468
65201 FRAKES MINNIE 397-4158+6
65938 XXXX OO
65940 SCOTT GEO E 397-4385
65949 DELEON VICENTE 397-4333 4
GARCIA ADAIS A 397-4214 5
*SCOTTS ARCO 397-4378 4
*SEA COMBER THE 397-4323+6
66021 NICOLL RUSSELL 397-4159 5
*VALERIE JEAN OTE SH 397-4159
66125*LOS LAURELS CAFE 397-4569+6
66190 VENCEL NICOLA P 397-4341 4
66351 BROWN FRED 397-4438
66371 SOTO RAMON L SR 397-4331
SOTO RAYMOND 397-4167
66805 XXXX OO

EEC ORIGINAL PKG

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

US HIGHWAY 86 1976

```
..STATE HWY 86          92274 CONT..
66808 REYES SANTIAGO          397-4242
66845...ONE HUNDRED PALMS
  28  BROWN IVY C             397-4313
      DELGADILLO JULIAN       397-4332+6
  22  GURGANUS SPENCER        397-4226
  19  HERNANDEZ F             397-4177 4
      MUNIZ ELAUTERIO A       397-4345+6
  21 *ONE HUNDRED PALMS       397-4505 5
   6  PINEDO JUAN             397-4194
  20  SANCHEZ MARY HELEN      397-4234 4
   7  SIMO MANUELA            397-4230 4
66845.........................
66991 ALVAREZ ARLENE          397-4235 5
     *TRINIS CAFE             397-4149
67121 CONTRERAS JUAN          397-4300+6
67280 NAVOR GREGORIO          397-4387
67683 YOUNG VOYT              397-4549+6
67950  XXXX                   OO
68035*CORONA FOOTHILL         397-4445
      MEZA JOSE C             397-4478+6
      MEZA NORBERTO           397-4433+6
     *WILLITS&NEWCOMB INC     397-4553+6
68120 CHAIDEZ JESUS           397-4263
68125  XXXX                   OO
68350 CRUZ RUDY               397-4286
68420 GUTIERREZ S             397-4408 5
68461 CARDENAS AGAPIPO        397-4329
      RAWSON W H              397-4162 4
      YOUNG GEO               397-4160 5
     *YOUNGS NURSERY          397-4104+6
68600  XXXX                   OO
69001 FOOKES TROY             397-4146
70150  XXXX                   OO
70624 MENDOZA ELISEO          397-4144+6
71856 CERVANTES JESUS         397-4131 4
72875 JIMENEZ DAVID B         397-4111 5
      MATSUISHI BOB           397-4288
75700 BROOKS WM I             397-4180
76441  XXXX                   OO
76447 RIVAS VINCENT           397-4249
     *VINCES MKT              397-4249
76600*MAYS OASIS               397-9464
      SAMORA ANN              397-4388
76800 VOSBURGH GERALD         397-4292+6
76998*CAL ST FORSTRY FIRE      397-4173
77860 OSHIKI MASAO            397-4185
78479*QUALITY TREES           397-4545 5
     *YOST LELAND J INS       397-4186
78499 RIVAS PEDRO JR          397-4335
80624 MAY ARCHIE H            397-4193
80634 JOHNSON JEROME          397-4340
80640 BARRAGAN MANUEL M       397-4203 5
      CARRASCO FLORENCIO      397-4338 4
80670  XXXX                   OO
80705  XXXX                   OO
80761*OASIS GARAGE            397-4196
81050  XXXX                   OO
81854 MORENO HENRY            397-4480
82854 MURPHY IOWA             397-4166
84510 HILL J R                397-4175
 NO # SALAZAR DONALD H        397-4401
     *  15 BUS   60 RES   13 NEW
```


EEC ORIGINAL PKG

APPENDIX I

EEC ORIGINAL PKG

780 N. 4th Street
El Centro, CA 92243
(760) 337-1100

Phase I Environmental Site Assessment (ESA)
User Questionnaire

1) Environmental liens that are filed or recorded against the *property*.
Did a search of *recorded land title records* (or judicial records where appropriate) identify any environmental liens filed or recorded against the *property* under federal, tribal, state, or local law?

None

2) Activity and use limitations that are in place on the *property* or that have been filed or recorded against the *property*.
Did a search of *recorded land title records* (or judicial records where appropriate) identify any AULs, such as *engineering controls*, land use restrictions or *institutional controls* that are in place at the property and/or have been filed or recorded against the *property* under federal, tribal, state or local law?

None

3) Specialized knowledge or experience of the person seeking to qualify for the LLP.
Do you have any specialized knowledge or experience related to the *property* or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the *property* or an *adjoining property* so that you would have specialized knowledge of the chemicals and processes used by this type of business?

No

EEC ORIGINAL PKG

4) **Relationship of the purchase price to the fair market value of the *property* if it were not contaminated.**
Does the purchase price being paid for this *property* reasonable reflect the fair market value of the *property*? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the *property*?

Yes, market price was paid.

5) **Commonly known or *reasonably ascertainable* information about the *property*.**
Are you aware of commonly known or *reasonably ascertainable* information about the *property* that would help the *environmental professional* to identify conditions indicative of releases or threatened releases? For example,

a. Do you know the past uses of the *property*?
We do not.

b. Do you know of specific chemicals or oils that are present or once were present at the *property*?
We do not.

c. Do you know of spills or other chemical releases that have taken place at the *property*?
We do not.

d. Do you know of any environmental cleanups that have taken place at the *property*?
We do not.

6) **The degree of obviousness of the presence or likely presence of contamination at the *property*, and the ability to detect the contamination by appropriate investigation.**
Based on your knowledge and experience related to the *property* are there any *obvious* indicators that point to the presence or likely presence of releases at the *property*?

Not that we know of.

EEC ORIGINAL PKG

Additional Information

1) Reason why Phase I ESA is required:

Due Diligence

2) Type of Property:

Commercial	☐
Industrial	☐
Residential	☐
Vacant/Undeveloped	X
Other _____	

Type of Transaction:

Purchase	☐
Financing	☐
Sale	☐
Lease	☐
Other _____	

3) Complete and correct address for the property:

Vacant Land, CA - APN 017-350-031, 017-350-030 and 017-350-027

4) Are there any existing environmental report, documents, correspondence, etc. available for review?

Not that we are aware of.

User Name/Company: _ZGlobal_____

Address:
604 Sutter Street, Suite 250
Folsom, CA 95630

User Signature: _____

Date: _____

EEC ORIGINAL PKG

NorthStar 3 Solar Project
Hwy 86 and Old Navy Base Road
Thermal, CA 92274

Inquiry Number: 7022967.7
June 21, 2022

EDR Environmental Lien and AUL Search

EDR® Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

EEC ORIGINAL PKG

EDR Environmental Lien and AUL Search

The EDR Environmental Lien and AUL Search Report provides results from a search of available current land title records for environmental cleanup liens and other activity and use limitations, such as engineering controls and institutional controls.

A network of professional, trained researchers, following established procedures, uses client supplied address information to:

- search for parcel information and/or legal description;
- search for ownership information;
- research official land title documents recorded at jurisdictional agencies such as recorders' offices, registries of deeds, county clerks' offices, etc.;
- access a copy of the deed;
- search for environmental encumbering instrument(s) associated with the deed;
- provide a copy of any environmental encumbrance(s) based upon a review of key words in the instrument(s) (title, parties involved, and description); and
- provide a copy of the deed or cite documents reviewed.

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EEC ORIGINAL PKG

EDR Environmental Lien and AUL Search

TARGET PROPERTY INFORMATION

ADDRESS

Hwy 86 and Old Navy Base Road
NorthStar 3 Solar Project
Thermal, CA 92274

ENVIRONMENTAL LIEN

Environmental Lien: Found ☐ Not Found ☒

OTHER ACTIVITY AND USE LIMITATIONS (AULs)

AULs: Found ☐ Not Found ☒

EEC ORIGINAL PKG

RESEARCH SOURCE

Source 1:

Imperial Recorder
Imperial, CA

EEC ORIGINAL PKG

PROPERTY INFORMATION

Deed 1:

Type of Deed:	deed
Title is vested in:	The Tahoe Group LLC
Title received from:	Page Ranch LLC
Deed Dated	1/3/2017
Deed Recorded:	1/5/2017
Book:	NA
Page:	na
Volume:	na
Instrument	na
Docket	NA
Land Record Comments:	
Miscellaneous Comments:	
Legal Description:	See Exhibit
Legal Current Owner:	The Tahoe Group LLC
Parcel # / Property Identifier:	017-350-031, 017-350-027
Comments:	See Exhibit

Deed 2:

Type of Deed:	deed
Title is vested in:	The Tahoe Group LLC
Title received from:	Page Ranch LLC
Deed Dated	6/12/2017
Deed Recorded:	6/14/2017
Book:	NA
Page:	na
Volume:	na
Instrument	na
Docket	NA
Land Record Comments:	
Miscellaneous Comments:	
Legal Description:	See Exhibit
Legal Current Owner:	The Tahoe Group LLC
Parcel # / Property Identifier:	017-350-031
Comments:	See Exhibit

EEC ORIGINAL PKG

Deed Exhibit 1

EEC ORIGINAL PKG

2. . .

Recorded in Official Records, IMPERIAL COUNTY

CHUCK STOREY
COUNTY CLERK/RECORDER

P PUBLIC

01/05/2017
11:29 AM
AlexisLeimgruber

Doc#: 2017000201

$R0000233491$

Titles: 1	Pages: 4
Fees	23.00
Taxes	0.00
Other	0.00
PAID	23.00

ORANGE COAST TITLE

RECORDING REQUESTED BY
AND WHEN RECORDED RETURN TO:

The Tahoe Group, LLC
Attn: Jake Friedberg
18124 Wedge Parkway, #1077
Reno, NV 89511

SPACE ABOVE THIS LINE IS FOR RECORDER'S USE

APN/Parcel ID(s): 017-350-027; 017-350-027; 017-350-031

DEED IN LIEU OF FORECLOSURE OF DEED OF TRUST

The undersigned declares:

Exempt from Documentary Transfer Tax
Pursuant to California Revenue and Taxation
Code Section 11926

For the good and valuable considerations hereinafter described, receipt of which is hereby acknowledged, Page Ranch, LLC, a California limited liability company (**"Grantor"**), does hereby grant, bargain, convey, set over and remise to The Tahoe Group, LLC, a Nevada limited liability company (collectively **"Grantee"**), that certain real property located in the County of Imperial and more particularly described on the attached Exhibit A that is incorporated herein by this reference.

Together with all tenements, hereditaments, appurtenances, and all title and rights of Grantor in and to the Property and the reversion and reversions, remainder and remainders thereof and thereto and all right, title and interest of Grantor in and to all streets, roads and public places, open or proposed, and all easements, and rights of way, public or private, now or hereafter used in connection with the premises and all water and water rights (whether riparian, appropriative or otherwise, and whether or not appurtenant) in or hereafter relating to or used in connection with the Property that Grantor may, but without warranty to the fact, have and all reports, approvals, permits, rights, studies and contracts pertaining thereto now or hereafter in the possession or control of Grantor.

SUBJECT, HOWEVER, TO any title exceptions of public record as may be shown on a current title report.

TO HAVE AND TO HOLD the same unto the Grantee, its successors and assigns forever.

By its execution hereof, Grantor warrants and covenants as follows:

THIS DOCUMENT FILED FOR RECORD BY ORANGE COAST TITLE COMPANY AS AN ACCOMMODATION ONLY. IT HAS NOT BEEN EXAMINED AS TO ITS EXECUTION OR AS TO ITS EFFECT UPON THE TITLE

EEC ORIGINAL PKG

1. The consideration for the execution of this Deed consists of Grantee's release of Grantor, along with any guarantors, from all liability for the indebtedness evidenced by that certain Promissory Note dated November 30, 2006 by and between Grantor and Melvin Morris, LLC, a California limited liability company and secured by that certain Short Form Deed of Trust and Assignment of Rents dated as of November 28, 2006 and recorded November 30, 2006 as Document No. 2006-055967 in the Official Records of Imperial County, and Grantee's covenant not to sue Grantor, or any such guarantors, with respect to such indebtedness.

2. The total consideration, set forth in paragraph 1 above, for the execution of this Deed is equal to or greater than the fair value of Grantor's interest in the real property being conveyed hereunder, including, without limitation, all of Grantor's right of redemption and/or reinstatement.

3. This Deed is given for the express consideration set forth in paragraph 1, is executed voluntarily and not as a result of duress or threats of any kind, nor is it given in reliance upon any representation as to its effect upon Grantor's credit rating, and is bona fide, and not given to hinder, delay or defraud the rights of creditors or contravene the bankruptcy laws of the United States.

4. This Deed is not given as security for the payment or repayment of money or indebtedness or as security of any kind or nature; and there is no agreement or understanding, oral or written, between Grantor and Grantee herein, or any other person whomsoever relative to a reconveyance of the above-described property to said Grantor, or to a sale or conveyance to anyone else for the benefit of Grantor, or to any division of any proceeds realized from said property by sale or otherwise.

5. The actual possession of the property herein conveyed has been surrendered and delivered to Grantee and Grantor intends by this Deed to vest the absolute and unconditional title to said property in Grantee, and forever to estop and bar Grantor and Grantor's successors or assigns from having or claiming any right, title or interest of any nature whatsoever, either in law or in equity, or in possession or in expectancy, in and to said property or any part thereof.

6. Words and expressions used herein shall be applicable according to the context thereof, and without regard to the number or gender of such words or expressions.

DATED this 3 day of January, 2017.

PAGE RANCH, LLC,
a California limited liability company

By: _____
Gregory P. Lansing
Its: Managing Member

EEC ORIGINAL PKG

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA:

COUNTY OF San Diego :

On January 3, 2017 before me, Katharina Mahn Houser a Notary Public, personally appeared Gregory P. Lansing who proved to me on the basis of satisfactory evidence to be the person(s)whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies) and that by his/her/their signature(s)on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Katharina Mahn Houser

FOR NOTARY SEAL OR STAMP

KATHARINA MAHN HOUSER
COMMISSION NO. 2147002
NOTARY PUBLIC-CALIFORNIA
SAN DIEGO COUNTY
COMMISSION EXPIRES MARCH 20, 2020

EEC ORIGINAL PKG

Exhibit A
[Property Description]

Real property in the County of Imperial, State of California, described as follows:

EXHIBIT "A"

Parcel 1:
The West Half of the East Half of Section 25, Township 11 South, Range 10 East, S.B.M. in the County of Imperial, State of California, according to the official Plat thereof.
Excepting therefrom an undivided one-half of all oil, gas and other hydrocarbon substances and minerals lying in an under all of said lands or produced and saved therefrom but without, however, any right to enter upon the surface of said land and the subsurface thereof to a depth of 500 feet, measured from said surface, as reserved by Will Ward by deed recorded May 25, 1960 in Book 1051, Page 174 of Official Records.

Parcel 2:
The West Half of Section 25 in Township 11 South, Range 10 East, S.B.M. in the County of Imperial, State of California, according to the Official Plat thereof.
Excepting therefrom that portion conveyed to the State of California by deed recorded April 8, 1986 in Book 1557, Page 384, Official Records.
Also, excepting therefrom that portion conveyed to the State of California, Department of Parks and Recreation by deed recorded Mary 27, 1889 in Book 1925, Page 1015 of Official Records.

Parcel 3:
The East Half of the East Half of Section 25, Township 11 South, Range 10 East, S. B. M., in an unincorporated area of the County of Imperial, State of California, according to the official plat thereof.
Except the Northeast Quarter of the Northeast Quarter of Said Section 25.
Also, excepting an undivided one-half of all oil, gas and other hydrocarbon substances and minerals lying in an under all of said lands or produced and saved therefrom, but without, however, any right to enter upon the surface of said land and the subsurface thereof to a depth of 500 feet, measured from said surface, as reserved by Will Ward by deed recorded May 25, 1960, as Document No. 30.

APNs: 017-350-027, 017-350-027, 017-350-031

[END OF LEGAL DESCRIPTION]

EEC ORIGINAL PKG

Deed Exhibit 2

EEC ORIGINAL PKG

3

Orange Coast Title/Ontario
RECORDING REQUESTED BY
AND WHEN RECORDED RETURN TO:

Recorded in Official Records, IMPERIAL COUNTY
CHUCK STOREY
COUNTY CLERK/RECORDER
P PUBLIC

06/14/2017
11:46 AM
IsabelVargas

Doc#: **2017013313**

$R00002561 18$

Titles: 1	Pages: 4
Fees	23.00
Taxes	0.00
Other	0.00
PAID	23.00

The Tahoe Group, LLC
Attn: Jake Friedberg
18124 Wedge Parkway, #1077
Reno, NV 89511
140-5078-ACC

SPACE ABOVE THIS LINE IS FOR RECORDER'S USE

APN/Parcel ID(s): 017-350-030

DEED IN LIEU OF FORECLOSURE OF DEED OF TRUST

Exempt from Documentary Transfer Tax
Pursuant to California Revenue and Taxation
Code Section 11926 Ron Beterle

THIS DOCUMENT FILED FOR RECORD BY ORANGE COAST TITLE COMPANY AS AN ACCOMMODATION ONLY. IT HAS NOT BEEN EXAMINED AS TO ITS EXECUTION OR AS TO ITS EFFECT UPON THE TITLE.

For the good and valuable considerations hereinafter described, receipt of which is hereby acknowledged, Page Ranch, LLC, a California limited liability company (**"Grantor"**), does hereby grant, bargain, convey, set over and remise to The Tahoe Group, LLC, a Nevada limited liability company (collectively **"Grantee"**), that certain real property located in the County of Imperial and more particularly described on the attached Exhibit A that is incorporated herein by this reference.

Together with all tenements, hereditaments, appurtenances, and all title and rights of Grantor in and to the Property and the reversion and reversions, remainder and remainders thereof and thereto and all right, title and interest of Grantor in and to all streets, roads and public places, open or proposed, and all easements, and rights of way, public or private, now or hereafter used in connection with the premises and all water and water rights (whether riparian, appropriative or otherwise, and whether or not appurtenant) in or hereafter relating to or used in connection with the Property that Grantor may, but without warranty to the fact, have and all reports, approvals, permits, rights, studies and contracts pertaining thereto now or hereafter in the possession or control of Grantor.

SUBJECT, HOWEVER, TO any title exceptions of public record as may be shown on a current title report.

TO HAVE AND TO HOLD the same unto the Grantee, its successors and assigns forever.

By its execution hereof, Grantor warrants and covenants as follows:

EEC ORIGINAL PKG

1. The consideration for the execution of this Deed consists of Grantee's release of Grantor, along with any guarantors, from all liability for the indebtedness evidenced by that certain Promissory Note dated November 30, 2006 by and between Grantor and Melvin Morris, LLC, a California limited liability company and secured by that certain Short Form Deed of Trust and Assignment of Rents dated as of November 28, 2006 and recorded November 30, 2006 as Document No. 2006-055967 in the Official Records of Imperial County, and Grantee's covenant not to sue Grantor, or any such guarantors, with respect to such indebtedness.

2. The total consideration, set forth in paragraph 1 above, for the execution of this Deed is equal to or greater than the fair value of Grantor's interest in the real property being conveyed hereunder, including, without limitation, all of Grantor's right of redemption and/or reinstatement.

3. This Deed is given for the express consideration set forth in paragraph 1, is executed voluntarily and not as a result of duress or threats of any kind, nor is it given in reliance upon any representation as to its effect upon Grantor's credit rating, and is bona fide, and not given to hinder, delay or defraud the rights of creditors or contravene the bankruptcy laws of the United States.

4. This Deed is not given as security for the payment or repayment of money or indebtedness or as security of any kind or nature; and there is no agreement or understanding, oral or written, between Grantor and Grantee herein, or any other person whomsoever relative to a reconveyance of the above-described property to said Grantor, or to a sale or conveyance to anyone else for the benefit of Grantor, or to any division of any proceeds realized from said property by sale or otherwise.

5. The actual possession of the property herein conveyed has been surrendered and delivered to Grantee and Grantor intends by this Deed to vest the absolute and unconditional title to said property in Grantee, and forever to estop and bar Grantor and Grantor's successors or assigns from having or claiming any right, title or interest of any nature whatsoever, either in law or in equity, or in possession or in expectancy, in and to said property or any part thereof.

6. Words and expressions used herein shall be applicable according to the context thereof, and without regard to the number or gender of such words or expressions.

DATED this 12 day of June, 2017.

PAGE RANCH, LLC,
a California limited liability company

By: _____
Gregory P. Lansing
Its: Managing Member

EEC ORIGINAL PKG

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA:

COUNTY OF San Diego:

On June 12, 2017 before me, Katharina Mahn Houser, a Notary Public, personally appeared Gregory P. Lansing who proved to me on the basis of satisfactory evidence to be the person(s)whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies) and that by his/her/their signature(s)on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature

FOR NOTARY SEAL OR STAMP

KATHARINA MAHN HOUSER
COMMISSION NO. 2147002
NOTARY PUBLIC-CALIFORNIA
SAN DIEGO COUNTY
COMMISSION EXPIRES MARCH 20, 2020

EEC ORIGINAL PKG

Exhibit A
[Property Description]

Real property in the County of Imperial, State of California, described as follows:

The west half of the east half of Section 25, Township 11 south, Range 10 east, San Bernardino Base and Meridian, in an unincorporated area of the County of Imperial, State of California, according to the Official Plat thereof;

Excepting therefrom an undivided 1/2 of all oil, gas and other hydrocarbon substances and minerals lying in and under all of said lands or produced and saved therefrom but without, however, any right to enter upon the surface of said land and the subsurface thereof to a depth of 500 feet, measured from said surface, as reserved by Will Ward by deed recorded May 25, 1960 as Instrument No. 30 in Book 1051, Page(s) 174 of Official Records.

APNs: 017-350-030

[END OF LEGAL DESCRIPTION]

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APPENDIX J

EEC ORIGINAL PKG

GS Lyon

Steven K. Williams, PG, CEG
Consulting Geologist

Education
M.S. Geology
University of Utah, 1993
B.S. Geology
University of Utah, 1989

Registration
Registered Geologist
Arizona 33759
California 6975
Certified Engineering Geologist
California 2261

Professional Experience

2000 – Present	Senior Engineering Geologist GS Lyon Consultants, Inc.
1994 - 2000	Staff Geologist GS Lyon Consultants, Inc.
1994	Field Geologist Bureau of Land Management
1991 - 1992	Exploration Geologist Kennecott Corporation

Summary of Experience
Mr. Williams has 27 years of experience in performing Phase I Environmental Site Assessments throughout the Imperial and Coachella Valleys. The scope of work for these projects typically include a site reconnaissance, review of historical and government records pertaining to previous site uses, and preparation of a report identifying potential environmental risks.

Mr. Williams has also conducted Phase II Environmental Site Assessments for the evaluation of potential soil contamination by hydrocarbons, pesticides, and other hazardous materials. Mr. Williams has also conducted Preliminary Endangerment Assessments (PEAs) for school sites within the Imperial and Coachella Valleys.

Professional Affiliations
Geological Society of America, Member
Seismological Society of America, Member

Selected Project Experience

Residential
- El Centro Seniors Apartments, El Centro, CA
- Brawley Pioneers Apartments, Brawley, CA
- Calexico Family Apartments, Calexico, CA
- Bratton Subdivision, Imperial, CA
- Linda Vista Subdivision, El Centro, CA
- Mayfield Subdivision, Imperial, CA

Industrial
- Drew Solar Farm Phase I ESA, El Centro, CA
- Seville Solar Facility Phase I ESA, Imperial County, CA
- Dixieland East and West Solar Phase I ESA, Imperial County, CA
- Imperial Solar Energy Center South Phase I ESA, Imperial County, CA
- Imperial Solar Energy Center West Phase I ESA, Imperial County, CA
- Mt. Signal III Solar Facility Phase I ESA, Imperial County, CA
- Midway Solar Facility Phase I ESA, Calipatria, CA
- Iris Cluster Solar Facility Phase I ESA, Calexico, CA
- Vega Solar Facility Phase I ESA, Calexico, CA

Municipal/Commercial
- River Ranch Packing Facility, El Centro, CA
- Farm Fresh Cooling Facility, El Centro, CA
- El Centro Magistrate Court, El Centro, CA
- Bolthouse Farms Packing Facility, Holtville, CA
- Imperial Avenue Extension, El Centro, CA
- Taco Bell, Brawley, CA
- Taco Bell, Calexico, CA
- Calexico Crossroads Plaza, Calexico, CA
- Valley Plaza, El Centro, CA
- Gateway to the Americas Phase I ESA, Calexico, CA

School Sites
- Brawley Union High School, Brawley, CA
- La Paloma Middle School PEA, Brawley, CA
- Cross Elementary School Phase I ESA, Imperial, CA
- Oasis Elementary School PEA, Mecca, CA
- North Shore Elementary School Phase I ESA, Mecca, CA

EEC ORIGINAL PKG

GS Lyon

Peter LaBrucherie, PE
Consulting Engineer

Education

B.S. Civil Engineering
California Polytechnic University, San Luis Obispo, 2011

M.S. Civil Engineering
California Polytechnic University, San Luis Obispo, 2012

Registration
Professional Engineer C84812, California

Professional Experience

2013 - Present	Project Engineer GS Lyon, Inc.
2012 - 2013	Project Engineer BNBuilders.

Summary of Experience
Mr. LaBrucherie has 7 years of experience performing Phase I Environmental Site Assessments in Imperial County. The scope of work for these assessments typically includes site reconnaissance, review of historical and government records pertaining to previous site uses, and preparation of a report identifying potential environmental risks.

Selected Project Experience

Seville Solar Farm, Westmorland, CA
Conducted Phase I environmental site assessment for solar project located about 9 miles northwest of Westmorland, CA.

Drew Solar Farm, Imperial County, CA
Conducted Phase I environmental site assessment for 1000 acre solar project located about 9 miles southwest of El Centro, CA.

Clean Harbors Facility, Westmorland, CA
Conducted annual reports which included flood diversion, photo documentation and post closure for waste facility located about 5 miles west of Westmorland, CA.

Ching Properties, Brawley, CA
Conducted Phase I environmental site assessment for vacant property located in Brawley, CA.

Imperial Apartments, Imperial, CA
Conducted Phase I environmental site assessment for vacant property located in Imperial, CA. Property is being proposed for apartment complex.

1409 E. Alamo Road, Holtville, CA
Conducted Phase I environmental site assessment for property (mostly vacant with some unused shop buildings and abandoned residential home) located west of Holtville, CA.

BUSD School Site, Brawley, CA
Conducted Phase I environmental site assessment for school site proposal on a vacant property located in south Brawley, CA.

CR&R Direct Transfer, El Centro, CA
Conducted Phase I environmental site assessment for commercial property (large warehouse and office with large laydown area) located in El Centro, CA.

Villa Primavera Apartments, Calexico, CA
Conducted Phase I environmental site assessment for vacant property located in Calexico, CA.

EEC ORIGINAL PKG

Geotechnical Report

Proposed Northstar 3 Solar Project
APN 017-350-027, -030 and -031
Salton City, California

Prepared for:

Apex Energy Solutions, LLC
750 W. Main Street
El Centro, CA 92243



LANDMARK
Geo-Engineers and Geologists

Prepared by:

Landmark Consultants, Inc.
780 N. 4th Street
El Centro, CA 92243
(760) 337-1100

November 2022

EEC ORIGINAL PKG

LANDMARK
Geo-Engineers and Geologists

780 N. 4th Street
El Centro, CA 92243
(760) 370-3000
landmark@landmark-ca.com

77-948 Wildcat Drive
Palm Desert, CA 92211
(760) 360-0665
gchandra@landmark-ca.com

November 18, 2022

Mr. Ramon Gonzalez
Apex Energy Solutions, LLC
750 W. Main Street
El Centro, CA 92243

Geotechnical Report
Proposed NorthStar 3 Solar Project
(APN 017-350-027, -030 and -031)
Salton City, California
LCI Report No. LE22171

Dear Mr. Gonzalez:

This geotechnical report is provided for design and construction of the proposed 585-acre NorthStar 3 solar project located at the east side of Hwy 86 and north of the road to the old Navy base (APN 017-350-027, -030 and -031) approximately 10 miles southeast of Salton City, California. Our geotechnical exploration was conducted in response to your request for our services. The enclosed report describes our soil engineering site evaluation and presents our professional opinions regarding geotechnical conditions at the site to be considered in the design and construction of the project.

Based on the geotechnical conditions encountered at the points of exploration, the project site appears suitable for the proposed construction provided the professional opinions contained in this report are considered in the design and construction of this project.

We appreciate the opportunity to provide our findings and professional opinions regarding geotechnical conditions at the site. Please provide our office with a set of the foundation plans and civil plans for review to insure that the geotechnical site constraints have been included in the design documents. If you have any questions or comments regarding our findings, please call our office at (760) 370-3000.

Respectfully Submitted,
Landmark Consultants, Inc.

Julian R. Avalos, GE
Senior Geotechnical Engineer

REGISTERED PROFESSIONAL ENGINEER
JULIAN R. AVALOS
No. 3164
GEOTECHNICAL
STATE OF CALIFORNIA

Steven K. Williams, PG, CEG
Senior Engineering Geologist

PROFESSIONAL GEOLOGIST
STEVEN K. WILLIAMS
CERTIFIED ENGINEERING GEOLOGIST
CEG 2261
STATE OF CALIFORNIA

Peter E. LaBrucherie, PE
Principal Engineer

REGISTERED PROFESSIONAL ENGINEER
PETER E. LABRUCHERIE
No. 84812
CIVIL
STATE OF CALIFORNIA

EEC ORIGINAL PKG

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EEC ORIGINAL PKG

EXECUTIVE SUMMARY

This executive summary presents ***selected*** elements of our findings and professional opinions. This summary ***may not*** present all details needed for the proper application of our findings and professional opinions. Our findings, professional opinions, and application options are ***best related through reading the full report***, and are best evaluated with the active participation of the engineer of record who developed them. The findings of this study are summarized below:

- The site soils consist of a interbedded sand/silty sand (SP/SM) and clay soils (CL-CH) of medium to high expansion (EI = 70 to 130).
- The evaluation for the potential for liquefaction induced settlements at the site is not included in the scope of work for this project.
- The native clay soils are aggressive to concrete and steel. Concrete mixes for concrete placed in contact with native soils shall have a maximum water cement ratio of 0.50 and a minimum compressive strength of 4,000 psi (minimum of 6 sacks Type V cement per cubic yard). Bare steel in contact with native soil will require protective coatings to mitigate corrosion.
- 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). Hold-down straps are not allowed at foundation perimeters. No pressurized water lines are allowed below or within foundations.
- Pavement structural sections should be designed with an R-value of 5 for native clays or 40 for the native sandy soils.
- All-weather accessways should consist of a minimum of 6 inches of Caltrans Class 2 aggregate base material placed over 12 inches of compacted native sands (95%). Cement stabilization or polymer modified soil is an alternative for internal roads stabilization within this project due to the existing subgrade composition of fine to medium grained sands.

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Section 1
INTRODUCTION

1.1 Project Description

This report presents the findings of our geotechnical exploration and soil testing for the proposed NorthStar 3 solar project located at the east side of Hwy 86 and north of the road to the old Navy base (APN 017-350-027, -030 and -031) approximately 10 miles southeast of Salton City, California (See Vicinity Map, Plate A-1). The proposed project will consist of approximately 585 acres of PV solar panels mounted on steel racks supported by short piers, shallow driven steel posts or shallow spread footings. Also, the proposed solar energy facility will have ground mounted or pier supported inverter stations. The photovoltaic modules will be ground mounted on single-axis trackers or fixed-tilt frames. A grading plan for the proposed development was not made available to us at the time that this report was prepared.

Information about O&M building, control rooms, electrical substation, gen-tie line and/or battery storage structures was not provided at the time that this report was prepared. If mentioned structures are planned to be part of this project additional subsurface exploration may be required. Site development will include site grading, solar panel installation, underground utility installation, substation construction, and site fence construction.

1.2 Purpose and Scope of Work

The purpose of this geotechnical study was to investigate the subsurface soil at selected locations within the site for evaluation of physical/engineering properties and liquefaction potential during seismic events. Professional opinions were developed from field and laboratory test data and are provided in this report regarding geotechnical conditions at this site and the effect on design and construction. The scope of our services consisted of the following:

- Field exploration and in-situ testing of the site soils at selected locations and depths.
- Laboratory testing for physical and/or chemical properties of selected samples.
- Review of the available literature and publications pertaining to local geology, faulting, and seismicity.
- Engineering analysis and evaluation of the data collected.
- Preparation of this report presenting our findings and professional opinions regarding the geotechnical aspects of project design and construction.

EEC ORIGINAL PKG

This report addresses the following geotechnical parameters:

- Subsurface soil and groundwater conditions
- Site geology, regional faulting and seismicity, near source factors, and site seismic accelerations
- Expansive soil and methods of mitigation
- Aggressive soil conditions to metals and concrete

Professional opinions with regard to the above parameters are provided for the following:

- Site grading and earthwork
- Building pad and foundation subgrade preparation
- Allowable soil bearing pressures and expected settlements
- Concrete slabs-on-grade
- Typical capacities for drilled piers and driven steel piles
- Excavation conditions and buried utility installations
- Mitigation of the potential effects of salt concentrations in native soil to concrete mixes and steel reinforcement
- Seismic design parameters

Our scope of work for this report did not include an evaluation of the site for liquefaction during earthquakes or for the presence of environmentally hazardous materials or conditions, storm water infiltration, on-site wastewater percolation rates, groundwater mounding, or landscape suitability of the soil.

1.3 Authorization

Mr. Ziad Alaywan, President of Apex Energy Solutions, LLC provided authorization by written agreement to proceed with our work on August 8, 2022. We conducted our work in general accordance with our written proposal dated June 28, 2022.

EEC ORIGINAL PKG

Section 2
METHODS OF INVESTIGATION

2.1 Field Exploration

Subsurface exploration was performed on August 29, 2022 by using a backhoe to excavate 6 test pits to an approximate depth of 7 feet below the existing ground surface. The test pit locations are shown on the Site and Exploration Plan (Plate A-2). Bulk samples were obtained at selected depths in the test pits. A nuclear densometer (ASTM D6938) was used to evaluate in-situ densities and natural moisture content at selected depths in the upper 7 feet of the backhoe pits. Pocket penetrometer readings were also obtained to evaluate the stiffness of cohesive soil encountered.

After logging and sampling the soil, the exploratory test pits were backfilled with the excavated material. The backfill was loosely placed and was not compacted to the requirements specified for engineered fill. The backhoe pits shall be located during rough grading of the site to properly recompact the backfill.

Additional subsurface exploration was performed on October 10, 2022 using 2R Drilling of Ontario, California to advance seven (7) borings to depths of 21.5 feet below existing ground surface. The borings were advanced with a track-mounted, CME 75 drill rig using 8-inch diameter, hollow-stem, continuous-flight augers. The approximate boring locations were established in the field and plotted on the site map by sighting to discernible site features. The boring locations are shown on the Site and Exploration Plan (Plate A-2).

A professional engineer observed the drilling operations and maintained logs of the soil encountered with sampling depths. Soils were classified during drilling according to the Unified Soil Classification System using the visual-manual procedure in accordance with ASTM D2488. Relatively undisturbed and bulk samples of the subsurface materials were obtained at selected intervals. The relatively undisturbed soil samples were retrieved using a 2-inch outside diameter (OD) split-spoon sampler or a 3-inch OD Modified California Split-Barrel (ring) sampler lined with 6-inch stainless-steel sleeves. In addition, Standard Penetration Tests (SPT) were performed in accordance with ASTM D1586 and ASTM D6066. The samples were obtained by driving the samplers ahead of the auger tip at selected depths using a 140-pound CME automatic hammer with a 30-inch drop.

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The number of blows required to drive the samplers the last 12 inches of an 18-inch drive depth into the soil is recorded on the boring logs as "blows per foot". Blow counts (N values) reported on the boring logs represent the field blow counts. No corrections have been applied to the blow counts shown on the boring logs for effects of overburden pressure, automatic hammer drive energy, drill rod lengths, liners, and sampler diameter. Pocket penetrometer readings were also obtained to evaluate the stiffness of cohesive soils retrieved from sampler barrels.

After logging and sampling the soil, the exploratory borings were backfilled with the excavated material. The backfill was loosely placed and was not compacted to the requirements specified for engineered fill.

A professional engineer and soil technician maintained logs of the borings and test pits during exploration. The logs were edited in final form after a review of retrieved samples and the field and laboratory data. The test pit logs are presented on Plates B-1 through B-13 in Appendix B. Soils encountered in the test pits were classified according to the Unified Soil Classification System using the visual-manual procedure in accordance with ASTM D2488. A key to the test pit logs is presented on Plate B-14. The stratification lines shown on the subsurface logs represent the approximate boundaries between the various strata. However, the transition from one stratum to another may be gradual over some range of depth.

2.2 Field Electrical Resistivity Testing

Wenner 4-pin field resistivity testing was conducted by RF Yeager Engineering of Lakeside, California under sub-contract to Landmark at three (3) locations within the proposed solar array site in accordance with ASTM G57 standards. Tests were conducted with both North-South and East-West pin orientations. The tests were conducted at pin spacings of 2.5, 5, 10, 15, 20 and 40 feet. Additionally, near surface soil samples (upper 3 feet) were obtained for laboratory soil corrosivity testing at the select location. The results of the electrical resistivity and soil corrosivity testing are presented in Appendix E.

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2.3 Insitu Thermal Resistivity Testing

Insitu soil thermal resistivity testing was conducted by RF Yeager Engineering at three (3) locations within the project site. The testing was conducted in accordance with ASTM D5334. Near surface soil samples were obtained from test pits T-1, T-2 and T-3 as shown on Figure 1 in Appendix E.

2.4 Laboratory Testing

Laboratory tests were conducted on selected bulk (auger cuttings) and relatively undisturbed soil samples obtained from the soil borings to aid in classification and evaluation of selected engineering properties of the site soils. The tests were conducted in general conformance to the procedures of the American Society for Testing and Materials (ASTM) or other standardized methods as referenced below.

The laboratory testing program consisted of the following tests:

- Plasticity Index (ASTM D4318)
- Particle Size Analyses (ASTM D422)
- Unit Dry Densities (ASTM D2937)
- Moisture Contents (ASTM D2216)
- Moisture-Density Relationship (ASTM D1557)
- Unconfined Compression (ASTM D2166)
- Direct Shear (ASTM D3080)
- Chemical Analyses (soluble sulfates & chlorides, pH, and resistivity) (Caltrans Methods)

The laboratory test results are presented on the subsurface logs (Appendix B) and in Appendix C.

Engineering parameters of soil strength, compressibility and relative density utilized for developing design criteria provided within this report were obtained from the field and laboratory testing program.

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Section 3
DISCUSSION

3.1 Site Conditions

The project site is located at the east side of Hwy 86 and north of the road to the old Navy base (APN 017-350-027, -030 and -031) approximately 10 miles southeast of Salton City, California. The project site is irregular in plan view and slopes gently (about 1%) to the northeast. The site consists of approximately 585 acres of vacant desert land. ***The project site is crossed (southwest to northeast) by numerous dry wash beds.*** Scattered sandstone cobbles are located throughout the site surface. Several linear cracks are observed in the near surface soils in the southern and southwestern portion of the project site. These cracks may be desiccation cracks from drying of the underlying clay soils. Adjacent properties are flat-lying and are approximately at the same elevation with this site, consisting of desert lands to the north, south and east, agricultural fields to the southeast.

The project site lies at an elevation of approximately 20 feet above to 50 feet below mean sea level (MSL) (El. 950 to 1020 local datum) in the Imperial Valley region of the California low desert. The surrounding properties lie on terrain which is planar, sloping downward to the northeast, at the northwestern fringe of a large agricultural valley, which was previously an ancient lake bed covered with fresh water to an elevation of 43± feet above MSL. The ancient shoreline is located at the northeast corner of the site. Annual rainfall in this arid region is less than 3 inches per year with four months of average summertime temperatures above 100 °F. Winter temperatures are mild, seldom reaching freezing.

3.2 Geologic Setting

The project site is located near the transition between the Borrego Springs Valley and the Imperial Valley of the Salton Trough physiographic province. The Salton Trough is a topographic and geologic structural depression resulting extending from the San Gorgonio Pass to the Gulf of California (Norris & Webb, 1990). The Salton Trough is bounded on the northeast by the San Andreas Fault and Chocolate Mountains and the southwest by the Peninsular Range and faults of the San Jacinto Fault Zone. The Salton Trough represents the northward extension of the Gulf of California, containing both marine and non-marine sediments deposited since the Miocene Epoch (Morton, 1977).

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Tectonic activity that formed the trough continues at a high rate as evidenced by deformed young sedimentary deposits and high levels of seismicity. Figure 1 shows the location of the site in relation to regional faults and physiographic features.

The region of the project site is underlain by the Quaternary Lake Cahuilla beds, Pleistocene Borrego Formation, and the Pliocene Palm Spring Formation. The Lake Cahuilla lacustrine deposits consist of interbedded lenticular and tabular sand, silt, and clay and alluvial deposits consisting of gravelly sands. The Palm Spring Formation consists of at least 6,000 feet of reddish clay and light gray arkosic sands. The Borrego Formation consists of gray lacustrine clays with interbedded sands. The Borrego Formation is interpreted as the lacustrine facies of the Palm Spring Formation (Dibblee, 1954), although Morton (1977) suggests that the Borrego Formation is younger that the Palm Spring Formation. Basement rock consisting of Mesozoic granite and possibly Paleozoic metamorphic rocks are estimated to exist at depths between 15,000 and 20,000 feet below the surface.

The area of the project site exhibits a complexly folded stratigraphy when viewed in aerial photographs and surficial mapping. Kirby and others (2004) suggest that folding and uplift of the San Felipe Hills began approximately 0.57 to 0.39 Ma (million years ago). Janecke and others (2003) suggest that the folding is associated with either deformation above a blind continuation of the Clark Fault or as step-overs between local strike slip faults. Dronyk (1977) reported that the faulting observed during studies of the Borrego and Brawley Formations is related to folding.

3.3 Subsurface Soil

Subsurface soils encountered during the field exploration conducted on August 29 and October 10, 2022 consist of interbedded sands/silty sands (SP/SM) and silty clays to a depth of 21.5 feet, the maximum depth of exploration. Areas of lithified sands (sandstone) was noted throughout the project site surface that may impact pile driving. The subsurface logs (Plates B-1 through 13) depict the stratigraphic relationships of the subsurface soil encountered at the points of exploration. Variations in subsurface stratigraphy may occur between the points of exploration. The stratification lines shown on the subsurface log represent the approximate boundaries between the various strata. However, the transition from one stratum to another may be gradual over some range of depth.

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3.4 Groundwater

Groundwater was not encountered in the borings and test pits at the time of exploration.

3.5 Faulting

The project site is located in the seismically active Imperial Valley of southern California with numerous mapped faults traversing the region including the San Andreas, San Jacinto, and Elsinore Fault Zones in southern California. The Imperial fault represents a transition from the more continuous San Andreas fault to a more nearly echelon pattern characteristic of the faults under the Gulf of California (USGS, 1990). We have performed a computer-aided search of known faults or seismic zones that lie within a 36.6 mile radius of the project site (Table 1).

A fault map illustrating known active faults relative to the site is presented on Figure 1, *Regional Fault Map*. Figure 2 shows the project site in relation to local faults. The criterion for fault classification adopted by the California Geological Survey defines Earthquake Fault Zones along Holocene-active or pre-Holocene faults (CGS, 2022b). Earthquake Fault Zones are regulatory zones that address the hazard of surface fault rupture. A Holocene-active fault is one that has ruptured during Holocene time (within the last 11,700 years). A pre-Holocene fault is a fault that has not ruptured in the last 11,700 years. Pre-Holocene faults may still be capable of surface rupture in the future, but are not regulated by the A-P act.

Geologic mapping west of State Hwy 86 (west of the project site) shows numerous northeast-southwest trending en echelon faults within the Extra fault array consisting of the Extra fault zone, Bondit fault zone, and Shoreline fault that project onto the project site (Thornock, 2013). It is likely that Holocene-active faults may be encountered on the project site.

Review of the current Earthquake Fault Zone maps (CGS, 2022a) indicates that the nearest zoned fault is the Elmore Ranch fault located approximately 7.5 miles south of the project site.

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3.6 General Ground Motion Analysis

The project site is considered likely to be subjected to moderate to strong ground motion from earthquakes in the region. Ground motions are dependent primarily on the earthquake magnitude and distance to the seismogenic (rupture) zone. Acceleration magnitudes also are dependent upon attenuation by rock and soil deposits, direction of rupture and type of fault; therefore, ground motions may vary considerably in the same general area.

2019 CBC General Ground Motion Parameters: The California Building Code (CBC) requires that a site-specific ground motion hazard analysis be performed in accordance with ASCE 7-16 Section 11.4.8 (ASCE, 2016) for structures on Site Class D and E sites with S_1 greater than or equal to 0.2 and Site Class E sites with S_s greater than or equal to 1.0 (CBC, 2019). **This project site has been classified as Site Class D and has a S_1 value of 0.59, which would require a site-specific ground motion hazard analysis**. However, ASCE 7-16 Section 11.4.8 provides three exceptions which permit the use of conservative values of design parameters for certain conditions for Site Class D and E sites in lieu of a site specific hazard analysis. The exceptions are:

- Exception 1: Structures on Site Class E sites with S_s greater than or equal to 1.0, provided the site coefficient F_a is taken as equal to that of Site Class C.
- Exception 2: Structures on Site Class D sites with S_1 greater than or equal to 0.2, provided the value of the seismic response coefficient C_s is determined by Equations 12.8-2 for values of $T \leq 1.5T_S$ and taken as equal to 1.5 times the value computed in accordance with either Equation 12.8-3 for $T_L \geq T > 1.5T_S$ or Equation 12.8-4 for $T > T_L$.
- Exception 3: Structures on Site Class E sites with S_1 greater than or equal to 0.2, provided that T is less than or equal to T_S and the equivalent static force procedure is used for design.

Based on our understanding of the proposed development, the seismic design parameters presented in Table 2 were calculated assuming that one of the exceptions listed above applies to the proposed structures at this site. **However, the structural engineer should verify that one of the exceptions is applicable to the proposed structures.** If none of the exceptions apply, our office should be consulted to perform a site-specific ground motion hazard analysis.

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The 2019 CBC general ground motion parameters are based on the Risk-Targeted Maximum Considered Earthquake (MCE_R). The Structural Engineers Association of California (SEAOC) and Office of Statewide Health Planning and Development (OSHPD) Seismic Design Maps Web Application (SEAOC, 2022) was used to obtain the site coefficients and adjusted maximum considered earthquake spectral response acceleration parameters. Design spectral response acceleration parameters are defined as the earthquake ground motions that are two-thirds (2/3) of the corresponding MCE_R ground motions. The Maximum Considered Earthquake Geometric Mean (MCE_G) peak ground acceleration adjusted for soil site class effects (PGA_M) value to be used for liquefaction and seismic settlement analysis in accordance with 2019 CBC Section 1803.5.12 ($PGA_M = F_{PGA}*PGA$) is estimated at 0.55g for the project site. **Design earthquake ground motion parameters are provided in Table 2.**

3.7 Seismic and Other Hazards

- **Groundshaking.** The primary seismic hazard at the project site is the potential for strong groundshaking during earthquakes along the Elmore Ranch, Superstition Hills and San Jacinto faults.
- **Surface Rupture.** The California Geological Survey (2016) has established Earthquake Fault Zones in accordance with the 1972 Alquist-Priolo Earthquake Fault Zone Act. The Earthquake Fault Zones consists of boundary zones surrounding well defined, active faults or fault segments. The project site does not lie within an A-P Earthquake Fault Zone. There is a low to moderate potential for future surface fault rupture from Holocene-active faults crossing the project site.
- **Liquefaction and lateral spreading.** Liquefaction is unlikely to be a potential hazard at the site due to the lack of saturated granular soil (clay soils predominate) and the estimated depth to groundwater (greater than 50 feet). ***The evaluation for the potential for liquefaction induced settlements at the site is not included in the scope of work for this project.***

Other Potential Geologic Hazards.

- **Landsliding.** The hazard of landsliding is unlikely due to the regional planar topography. No ancient landslides are shown on geologic maps, aerial photographs and topographic maps of the region and no indications of landslides were observed during our site investigation.

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- **Volcanic hazards.** The site is not located proximal to any known volcanically active area and the risk of volcanic hazards is considered low. Obsidian Butte and Red Hill, located at the south end of the Salton Sea approximately 13 miles east of the project site, are small remnants of volcanic domes. The domes erupted about 1,800 to 2,500 years ago (Wright et al, 2015). The subsurface brine fluids around the domes have a high heat flow and are currently being utilized to produce geothermal energy.
- **Tsunamis and seiches.** Tsunamis are giant ocean waves created by strong underwater seismic events, asteroid impact, or large landslides. Seiches are large waves generated in enclosed bodies of water in response to strong ground shaking. The site is not located near any large bodies of water, so the threat of tsunami, seiches, or other seismically-induced flooding is considered unlikely.
- **Flooding.** Based on our review of FEMA (2008) FIRM Panel 06025C0650C which encompasses the project site, the project site is located in Flood Zone X, an area determined to be outside the 0.2% annual chance (500-year) floodplain. However several unmapped dry wash beds cross the subject site from the southwest to the northeast.
- **Collapsible soils.** Collapsible soil generally consists of dry, loose, low-density material that have the potential collapse and compact (decrease in volume) when subjected to the addition of water or excessive loading. Soils found to be most susceptible to collapse include loess (fine grained wind-blown soils), young alluvium fan deposits in semi-arid to arid climates, debris flow deposits and residual soil deposits. Due to the cohesive nature of the subsurface soils, the potential for hydro-collapse of the subsurface soils at this project site is considered very low.
- **Expansive soils.** In general, much of the subsurface soils in the Imperial Valley consist of silty clays and clays which are moderate to highly expansive. The expansive soil conditions are discussed in more detail in Section 3.3.

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Section 4
DESIGN CRITERIA

4.1 Site Preparation

Clearing and Grubbing: All debris or vegetation including grass and weeds on the site at the time of construction should be removed from the construction area. Root balls should be completely excavated. Organic strippings should be stockpiled and not used as engineered fill.

Grading: Prior to general site grading, the backhoe test pit locations shall be identified and the loose backfill compacted to a depth of 7 feet. In areas designated for fill, the surface 12 inches of native soil shall be scarified uniformly moisture conditioned to within 2% of optimum and compacted to at least 90% of ASTM D1557 maximum density.

Onsite native soils used for fill should be placed in lifts no greater than 8 inches in loose thickness and compacted to a minimum of 90% of ASTM D1557 maximum dry density at optimum moisture ±2%.

Embankment construction: All areas to receive new fill for the embankments should be stripped of all vegetation. The surface 12 inches of native soil shall be uniformly moisture conditioned to ±2% of optimum moisture by discing and compacted in 6-inch maximum lifts to a minimum of 90% of ASTM D1557 maximum density.

The embankment slopes may be constructed no steeper than 3:1 (unless slope protection is provided) with a minimum crown width of 15 feet. Embankments should be overbuilt by 6 inches and subsequently cut to the plan line and grade to remove loose material along the slope faces.

Granular Building Pad Preparation: The existing soils within building pad/foundation areas should be overexcavated to a minimum depth of 36 inches below the existing natural surface grade or building pad grade (whichever is greater) and should extend at least five (5) feet beyond all exterior wall/column lines (including concreted areas adjacent to the building). Exposed subgrade should be scarified to a depth of 8 inches, uniformly moisture conditioned to 2% below to 2% above optimum (sands), 5 to 10% above optimum (clays) and recompacted to a minimum of 90% (sands), between 85 to 90% (clays) of the maximum density determined in accordance with ASTM D1557 methods.

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The native sand and silty sand soil is suitable for use as engineered fill provided it is free from concentrations of organic matter or other deleterious material. The fill soil should be uniformly moisture conditioned by discing and watering to the limits specified above, placed in maximum 8-inch lifts (loose), and compacted to the limits specified above. ***Clay soil, if encountered, should not be incorporated into any engineered building pads.***

If imported soils are required, these should meet the USCS classifications of ML (non-plastic), SM, SP-SM, or SW-SM with a maximum rock size of 3 inches and no less than 5% passing the No. 200 sieve. The geotechnical engineer should approve imported fill soil sources before hauling material to the site. Imported fill should be placed in lifts no greater than 8 inches in loose thickness and compacted to a minimum of 90% of ASTM D1557 maximum dry density at optimum moisture ±2%.

Utility Trench Backfill: On-site soil free of debris, vegetation, and other deleterious matter may be suitable for use as utility trench backfill above pipezone, but may be difficult to uniformly maintain at specified moistures and compact to the specified densities. Native backfill should only be placed and compacted after encapsulating buried pipes or direct burial cables with suitable granular bedding materials and pipe envelope material.

Backfill soil of utility trenches within paved areas should be placed in layers not more than 6 inches in thickness and mechanically compacted to a minimum of 90% of the ASTM D1557 maximum dry density.

Observation and Density Testing: All site preparation and fill placement should be observed and tested by a representative of a qualified geotechnical engineering firm. The geotechnical firm that provides observation and testing during construction shall assume the responsibility of "*geotechnical engineer of record*" and, as such, shall perform additional tests and investigation as necessary to satisfy themselves as to the site conditions and the recommendations for site development.

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4.2 Foundations and Settlements

Shallow spread or continuous conventional footings are suitable to support the building and site structures within the electrical substation. The foundations may be designed using an allowable soil bearing pressure of 2,000 psf when foundations are supported on imported or native compacted sands (extending a minimum of 1.5 feet below footings). The allowable soil pressure may be increased by 20% for each foot of embedment depth in excess of 18 inches and by one-third for short term loads induced by winds or seismic events. The maximum basic allowable soil pressure at increased embedment depths shall not exceed 3,500 psf.

Resistance to horizontal loads will be developed by passive earth pressure on the sides of footings and frictional resistance developed along the bases of footings and concrete slabs. Passive resistance to lateral earth pressure may be calculated using an equivalent fluid pressure of 300 pcf to resist lateral loadings. The top one foot of embedment should not be considered in computing passive resistance unless the adjacent area is confined by a slab or pavement. An allowable friction coefficient of 0.35 may also be used at the base of the footings to resist lateral loading.

Perimeter footings should be embedded a minimum of 18 inches below the lowest adjacent final grade. Continuous wall footings should have a minimum width of 12 inches. Spread footings should have a minimum dimension of 24 inches and should be structurally tied to perimeter footings or grade beams. Recommended concrete reinforcement and sizing for all footings should be provided by the structural engineer.

Flat Plate Structural Mats: Structural concrete mat foundations may be designed using an allowable soil bearing pressure of 2,000 psf when the foundation is supported on minimum 18 inches of compacted sands. The allowable soil pressure may be increased by one-third for short term loads induced by winds or seismic events. Design criteria for mat foundations are provided below.

Structural mats may be designed for a modulus of subgrade reaction (Ks) of 175 pci when placed on 18 inches of compacted sands and 200 pci when placed on 6 inches of compacted Class 2 aggregate base. Resistance to horizontal loads will be developed by passive earth pressure on the sides of footings and frictional resistance developed along the bases of footings and concrete slabs. Passive resistance to lateral earth pressure may be calculated using an equivalent fluid pressure of 300 pcf to resist lateral loadings. The top one foot of embedment should not be considered in

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computing passive resistance unless the adjacent area is confined by a slab or pavement. An allowable friction coefficient of 0.35 may also be used at the base of the footings to resist lateral loading.

Foundation movement under the estimated loadings are estimated to not exceed 1 inch with differential movement of about two-thirds of total movement for the loading assumptions stated above when the subgrade preparation guidelines given above are followed.

4.3 Drilled Piers and Driven Steel Piles

Drilled Piers: Individual short piers should be adequate to support solar panel frames, inverter frames, and security camera poles. Embedment depth for short piers to resist lateral loads where no lateral constraint at the ground surface is provided may be designed using the following formula per 2016 CBC Section 1807.3.2.1:

$$d = A/2\ [1 + (1+4.36h/A)^{½}]$$

where:

A = $2.34P/S_1b$
b = Pier diameter in feet
d = Embedment depth in feet (but not over 12 feet for purpose of computing lateral pressure)
h = Distance in feet from ground surface to point of application of "P"
P = Applied lateral force in pounds
S_1 = Allowable lateral soil bearing pressure (basic value of 150 psf/ft. Isolated piers such solar panel short piers that are not adversely affected by a 0.5 inch motion at the ground surface due to short-term lateral loads are permitted to be designed using lateral soil bearing pressures equal to two times the provided value (300 psf/ft). This load increase should not be used for the security camera pole foundation designs.

The short pier foundations may be designed using an allowable soil bearing pressure of 2,000 psf and a cohesion of 150 psf for the native clay soil. The cohesion value shall be multiplied by the contact area, as limited by Section 1806.3 of the 2016 CBC. The uplift capacity may be defined as the sum of the frictional resistance of the soils against the concrete pile plus the weight of the pile as follows:

$$Pall = (KHT*Po*Tan\ \delta*\pi*D*H)/FS + Wp,$$

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Incorporating the soil conditions at the site and applying a Safety Factor of 3 it may be expressed as,

$$Pall = 16DH^2 + Wp$$

where:

Pall = Allowable Uplift Capacity in pounds
D = Diameter of the pile in feet
H = Depth of embedment below ground surface in feet (to a maximum of 14 feet)
Wp = Weight of the pile in pounds

Installation: Excavation for piers should be inspected by the geotechnical consultant. A tremie pipe should be used to pour concrete from the bottom up and to ensure less than five feet of free fall. Groundwater was not encountered in the borings (>21.5 feet bgs) during the time of exploration. The structural steel and concrete should be placed immediately after drilling. Prior to placing any structural steel or concrete, loose soil or slough material should be removed from the bottom of the drilled pier excavation.

Driven Steel Piles: The use of driven steel posts requires special provisions for corrosion protection due to the corrosive nature of the subsurface soils. Steel posts for PV panel mounting frames have been preliminary sized as W8x10 (frame and axle supports).

Vertical Capacity: Vertical capacity for the preliminary W8x10 steel post section is presented in Table 3. End bearing and skin friction parameters have been used to determine the allowable shaft capacity. The allowable capacities include a factor of safety of 2.5. The allowable vertical compression capacities may be increased by 33 percent to accommodate temporary loads from wind or seismic forces. The allowable vertical shaft capacities are based on the supporting capacity of the soil.

Lateral Capacity: The allowable lateral capacity for a W8x10 steel post section at 6, 8 and 10 feet embedment depths are given in Table 3. The allowable lateral capacity is based on a deflection of one-half inch at the top of the steel post section. If greater deflection can be tolerated, lateral load capacity can be increased directly in proportion to a maximum of one inch deflection. Since the subsurface soils consist of surficial sands/silty sands (SP/SM) and silty clays (CL) overlaying hard silty clays/clays (CL-CH) or very dense sands (SP/SM) the following tables provide allowable axial and lateral capacities for sand and clay conditions. Axial and lateral loads were applied at 4.0 feet above ground surface.

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Allowable Capacities of Driven Steel Posts (Sand Areas)

Pile Type:	Driven W8x10		
Pile Length (ft):	**10 ft**	**12 ft**	**14 ft**
Specified Tip Depth (ft):	**6 ft**	**8 ft**	**10 ft**
Height Above Ground (ft):	**4 ft**	**4 ft**	**4 ft**
Allowable Axial Capacity (kips) – FS=2.5:	1.11	1.69	2.24
Allowable Uplift Capacity (kips) – FS=2.5:	0.48	0.77	1.07
Lateral Load – Free Head Condition (kips):	1.08	1.23	1.26
Top Deflection (in) – Free Head Condition	0.50	0.50	0.50
Maximum Moment from Lateral Load, Free Head Condition (ft-kips):	6.18	7.30	7.36
Depth of Maximum Moment (from Top of Post), Free Head (ft):	6.3	6.5	6.5

Recommendations for other post sections can be made available upon request.

Allowable Capacities of Driven Steel Posts (Clay Areas)

Pile Type:	Driven W8x10		
Pile Length (ft):	**10 ft**	**12 ft**	**14 ft**
Specified Tip Depth (ft):	**6 ft**	**8 ft**	**10 ft**
Height Above Ground (ft):	**4 ft**	**4 ft**	**4 ft**
Allowable Axial Capacity (kips) – FS=2.5:	12.0	16.0	19.9
Allowable Uplift Capacity (kips) – FS=2.5:	11.9	15.9	19.8
Lateral Load – Free Head Condition (kips):	2.2	2.2	2.2
Top Deflection (in) – Free Head Condition	0.50	0.50	0.50
Maximum Moment from Lateral Load, Free Head Condition (ft-kips):	10.6	10.67	10.67
Depth of Maximum Moment (from Top of Post), Free Head (ft):	5.1	5.4	5.5

Recommendations for other post sections can be made available upon request.

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Note: Due to the presence of dense to very dense sand layers and hard clays, pre-drilling may be necessary to cross through these layers.

Soil Parameters: Interpretive soil parameters of the subsoil for AllPile software are presented in the Tables 5 (Sand) and 6 (Clay) below.

Soil Strength Parameters for AllPile Program (Sand Areas)

Layer Type	Depth (ft)	Unit Weight (pcf)	Friction Angle (deg)	Cohesion (ksf)	Lateral Soil Modulus, k (pci)	e50 or Dr
SP/SM	0 to 15	115	36°	0.0	160	65

(*) k value for static loading. For cycling loading, use 50% of listed value.

Soil Strength Parameters for AllPile Program (Clay Areas)

Layer Type	Depth (ft)	Unit Weight (pcf)	Friction Angle (deg)	Cohesion (ksf)	Lateral Soil Modulus, k (pci)	e50 or Dr
CL/CH	0 to 15	125	0°	2.5	750	0.55

(*) k value for static loading. For cycling loading, use 50% of listed value.

Settlement: Total settlements of less than ¼ inch, and differential movement of about two-thirds of total movement for single piles designed according to the preceding recommendations.

Axial Load Group Effect: Reduction in axial load capacity shall be considered necessary for group effect. The axial load capacity shall be reduced by an efficiency factor, η. Efficiency factor, η should be 0.65 for shafts with spacing center to center equal to 2.5 shaft diameters and increases linearly to 1.0 for shafts with center to center spacing equal to 6.0 shaft diameters or more. The factor of safety of the group is the same as that of individual shaft elements.

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4.4 Slabs-On-Grade

Concrete slabs and flatwork placed on the native silty clay should be a minimum of 6 inches thick due to expansive soil conditions. Concrete floor slabs shall be monolithically placed with the footings (no cold joints). The concrete slabs should be underlain by a 10-mil polyethylene vapor retarder that works as a capillary break to reduce moisture migration into the slab section. The vapor retarder should be properly lapped and continuously sealed. The vapor retarder should be overlain by 2 inches of clean sand (Sand Equivalent SE>30). Concrete slabs may be placed without a sand cover directly over a 15-mil vapor retarder (Stego-Wrap or equivalent).

Concrete slab and flatwork reinforcement should consist of chaired rebar slab reinforcement (minimum of No. 4 bars at 18-inch centers, both horizontal directions) placed at slab mid-height to resist potential swell forces and cracking.

Slab thickness and steel reinforcement are minimums only and should be verified by the structural engineer/designer knowing the actual project loadings. All steel components of the foundation system should be protected from corrosion by maintaining a 3-inch minimum concrete cover of densely consolidated concrete at footings (by use of a vibrator). The construction joint between the foundation and any sidewalks placed adjacent to foundations should be sealed with a polyurethane based non-hardening sealant to prevent moisture migration between the joint. Epoxy coated embedded steel components or permanent waterproofing membranes placed at the exterior footing sidewall may also be used to mitigate the corrosion potential of concrete placed in contact with native soil.

Control joints should be provided in all concrete slabs-on-grade at a maximum spacing (in feet) of 2 to 3 times the slab thickness (in inches) as recommended by American Concrete Institute (ACI) guidelines. All joints should form approximately square patterns to reduce randomly oriented contraction cracks. Contraction joints in the slabs should be tooled at the time of the pour or sawcut (¼ of slab depth) within 6 to 8 hours of concrete placement. Construction (cold) joints in foundations and area flatwork should either be thickened butt-joints with dowels or a thickened keyed-joint designed to resist vertical deflection at the joint. All joints in flatwork should be sealed to prevent moisture, vermin, or foreign material intrusion. Precautions should be taken to prevent curling of slabs in this arid desert region (refer to ACI guidelines).

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All independent flatwork (housekeeping slabs) should be placed on a minimum of 2 inches of concrete sand or aggregate base, dowelled to the perimeter foundations where adjacent to the building and sloped 2% or more away from the building. A minimum of 24 inches of moisture conditioned (minimum of optimum) and 8 inches of compacted subgrade (90% min) should underlie all independent flatwork. All flatwork should be jointed in square patterns and at irregularities in shape at a maximum spacing of 10 feet or the least width of the sidewalk.

4.5 Concrete Mixes and Corrosivity

Selected chemical analyses for corrosivity were conducted on bulk samples of the near surface soil from the project site (Appendix E). The native soils were found to have S0 (low) levels of sulfate ion concentration (50 to 270 ppm). Sulfate ions in high concentrations can attack the cementitious material in concrete, causing weakening of the cement matrix and eventual deterioration by raveling.

The following table provides American Concrete Institute (ACI) recommended cement types, water-cement ratio and minimum compressive strengths for concrete in contact with soils:

Concrete Mix Design Criteria due to Soluble Sulfate Exposure

Sulfate Exposure Class	Water-soluble Sulfate (SO_4) in soil, ppm	Cement Type	Maximum Water-Cement Ratio by weight	Minimum Strength f'c (psi)
S0	0-1,000	–	–	–
S1	1,000-2,000	II	0.50	4,000
S2	2,000-20,000	V	0.45	4,500
S3	Over 20,000	V (plus Pozzolon)	0.45	4,500

Note: From ACI 318-14 Table 19.3.1.1 and Table 19.3.2.1

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Due to the scattered silty clay surface soils a minimum of 6.0 sacks per cubic yard of concrete (4,000 psi) of Type V Portland Cement with a maximum water/cement ratio of 0.50 (by weight) should be used for concrete placed in contact with native soil on this project (sitework including sidewalks, driveways, housekeeping slabs and foundations). Admixtures may be required to allow placement of this low water/cement ratio concrete.

The native soil has low levels of chloride ion concentration (30 to 110 ppm). Chloride ions can cause corrosion of reinforcing steel, anchor bolts and other buried metallic conduits. Resistivity determinations on the soil indicate severe to very severe potential for metal loss because of electrochemical corrosion processes. Mitigation of the corrosion of steel can be achieved by using steel elements coated with epoxy corrosion inhibitors, asphaltic and epoxy coatings, cathodic protection or by zinc galvanizing.

Foundation designs shall provide a minimum concrete cover of three (3) inches around steel reinforcing or embedded components (anchor bolts, etc.) exposed to native soil or landscape water (to 18 inches above grade). If the 3-inch concrete edge distance cannot be achieved, all embedded steel components (anchor bolts, etc.) shall be epoxy dipped for corrosion protection or a corrosion inhibitor and a permanent waterproofing membrane shall be placed along the exterior face of the exterior footings. Additionally, the concrete should be thoroughly vibrated at footings during placement to decrease the permeability of the concrete.

4.6 Seismic Design

This site is located in the seismically active southern California area and the site structures are subject to strong ground shaking due to potential fault movements along the San Andreas Fault, Elmore Ranch Fault, and Brawley Seismic Zone. Engineered design and earthquake-resistant construction are the common solutions to increase safety and development of seismic areas. Designs should comply with the latest edition of the CBC for Site Class D using the seismic coefficients given in Section 3.4 of this report.

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4.7 Pavements and Unpaved Roads

Pavements should be designed according to CALTRANS or other acceptable methods. Traffic indices were not provided by the project engineer or owner; therefore, we have provided structural sections for several traffic indices for comparative evaluation. The public agency or design engineer should decide the appropriate traffic index for the site. Maintenance of proper drainage is necessary to prolong the service life of the pavements.

Based on the current State of California CALTRANS method, an estimated R-value of 5 (for exposed clay soil) and 40 (for sand soils) and assumed traffic indices, the following tables provides our estimates for asphaltic concrete (AC) and Portland Cement Concrete (PCC) pavement sections.

Pavement Structural Sections (Clay Areas)

R-Value of Subgrade Soil – 5 (est. clay soil) Design Method - CALTRANS 2020

Traffic Index (assumed)	Flexible Pavements		Rigid (PCC) Pavements	
	Asphaltic Concrete Thickness (in.)	Aggregate Base Thickness (in.)	Concrete Thickness (in.)	Aggregate Base Thickness (in.)
4.0	3.0	6.5	5.0	6.0
5.0	3.0	10.0	5.5	6.0
6.0	4.0	11.5	6.0	8.0
6.5	4.0	14.0	7.0	8.0

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Pavement Structural Sections (Sand Areas)

R-Value of Subgrade Soil – 40 (est. sand soil) Design Method - CALTRANS 2020

Traffic Index (assumed)	Flexible Pavements		Rigid (PCC) Pavements	
	Asphaltic Concrete Thickness (in.)	Aggregate Base Thickness (in.)	Concrete Thickness (in.)	Aggregate Base Thickness (in.)
4.0	3.0	4.0	5.0	4.0
5.0	3.0	4.0	5.5	4.0
6.0	3.0	6.0	6.0	4.0
6.5	3.0	8.0	7.0	6.0

Notes:

1) Asphaltic concrete shall be Caltrans, Type B, ¾ inch maximum (½ inch maximum for parking areas), medium grading with PG70-10 asphalt cement, compacted to a minimum of 95% of the Hveem density (CAL 366).
2) Aggregate base shall conform to Caltrans Class 2 (¾ in. maximum), compacted to a minimum of 95% of ASTM D1557 maximum dry density.
3) Place pavements on 12 inches of moisture conditioned (minimum 4% above optimum if clays) native clay soil compacted to a minimum of 90% (95% if sand subgrade) of the maximum dry density determined by ASTM D1557.
4) Portland cement concrete for pavements should have Type V cement, a minimum compressive strength of 4,500 psi at 28 days, and a maximum water-cement ratio of 0.45.
5) Typical Street Classifications (Imperial County)
   - Parking Areas: TI = 4.0
   - Cul-de-Sacs: TI = 5.0
   - Local Streets: TI = 6.0
   - Minor Collectors: TI = 6.5

Unpaved Roads: Unpaved roads may be used for stabilized roadways. The unpaved roads should consist of 12 inches of native soils compacted to 95% of ASTM D1557 maximum density at a minimum of optimum moisture with a 6 inch layer of Class 2 aggregate base compacted to a minimum of 95% of ASTM D1557 maximum density placed over the compacted subgrade.

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Cement stabilization is an alternative for internal roads stabilization within this project since the existing subgrade is comprised of fine to medium grained sands. An 80,000 lb. two-axle truck (fire truck) was considered for the subgrade soil stabilization recommendations. Soil–cement stabilization of the subgrade soils will result in a Gravel Factor for the treated depth, typically in the range of 1.2 to 1.5.

A minimum of 8 inches of cement-treated subgrade soil (estimated at 4% by weight) compacted to 95% minimum should yield a minimum Unconfined Compressive Strength of 300 psi. The cement application ratio should be confirmed through proper testing to obtain the minimum Unconfined Compressive Strength of 300 psi. The 80,000 lb. axle load will be adequately supported by the compacted soil–cement.

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Section 5
LIMITATIONS AND ADDITIONAL SERVICES

5.1 Limitations

The findings and professional opinions within this report are based on current information regarding the proposed 585-acre NorthStar 3 solar project located at the east side of Hwy 86 and north of the road to the old Navy base (APN 017-350-027, -030 and -031) approximately 10 miles southeast of Salton City, California. The conclusions and professional opinions of this report are invalid if:

- Structural loads change from those stated or the structures are relocated.
- The Additional Services section of this report is not followed.
- This report is used for adjacent or other property.
- Changes of grade or groundwater occur between the issuance of this report and construction other than those anticipated in this report.
- Any other change that materially alters the project from that proposed at the time this report was prepared.

This report was prepared according to the generally accepted *geotechnical engineering standards of practice* that existed in Imperial County at the time the report was prepared. No express or implied warranties are made in connection with our services.

Findings and professional opinions in this report are based on selected points of field exploration, geologic literature, limited laboratory testing, and our understanding of the proposed project. Our analysis of data and professional opinions presented herein are based on the assumption that soil conditions do not vary significantly from those found at specific exploratory locations. Variations in soil conditions can exist between and beyond the exploration points or groundwater elevations may change. The nature and extend of such variations may not become evident until, during or after construction. If variations are detected, we should immediately be notified as these conditions may require additional studies, consultation, and possible design revisions.

Environmental or hazardous materials evaluations were not performed by Landmark for this project. Landmark will assume no responsibility or liability whatsoever for any claim, damage, or injury which results from pre-existing hazardous materials being encountered or present on the project site, or from the discovery of such hazardous materials.

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The client has responsibility to see that all parties to the project including designer, contractor, and subcontractor are made aware of this entire report within a reasonable time from its issuance. This report should be considered invalid for periods after two years from the date of report issuance without a review of the validity of the findings and professional opinions by our firm, because of potential changes in the Geotechnical Engineering Standards of Practice. This report is based upon government regulations in effect at the time of preparation of this report. Future changes or modifications to these regulations may require modification of this report. Land or facility use, on and off-site conditions, regulations, design criteria, procedures, or other factors may change over time, which may require additional work. Any party other than the client who wishes to use this report shall notify Landmark of such intended use. Based on the intended use of the report, Landmark may require that additional work be performed and that an updated report be issued. Non-compliance with any of these requirements by the client or anyone else will release Landmark from any liability resulting from the use of this report by any unauthorized party and client agrees to defend, indemnify, and hold Landmark harmless from any claim or liability associated with such unauthorized use or non-compliance.

This report contains information that may be useful in the preparation of contract specifications. However, the report is not worded is such a manner that we recommend its use as a construction specification document without proper modification. The use of information contained in this report for bidding purposes should be done at the contractor's option and risk.

5.2 Plan Review

Landmark Consultants, Inc. should be retained during development of design and construction documents to check that the geotechnical professional opinions are appropriate for the proposed project and that the geotechnical professional opinions are properly interpreted and incorporated into the documents. Landmark should have the opportunity to review the final design plans and specifications for the project prior to the issuance of such for bidding.

Governmental agencies may require review of the plans by the geotechnical engineer of record for compliance to the geotechnical report.

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5.3 Additional Services

We recommend that Landmark Consultant be retained to provide the tests and observations services during construction. *The geotechnical engineering firm providing such tests and observations shall become the geotechnical engineer of record and assume responsibility for the project.*

Landmark Consultants, Inc. professional opinions for this site are, to a high degree, dependent upon appropriate quality control of subgrade preparation, fill placement, and foundation construction. Accordingly, the findings and professional opinions in this report are made contingent upon the opportunity for Landmark Consultants to observe grading operations and foundation excavations for the proposed construction.

If parties other than Landmark Consultants, Inc. are engaged to provide observation and testing services during construction, such parties must be notified that they will be required to assume complete responsibility as the geotechnical engineer of record for the geotechnical phase of the project by concurring with the professional opinions in this report and/or by providing alternative professional guidance.

Additional information concerning the scope and cost of these services can be obtained from our office.

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TABLES

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Table 1
Summary of Characteristics of Closest Known Active Faults

Fault Name	Approximate Distance (miles)	Approximate Distance (km)	Maximum Moment Magnitude (Mw)	Fault Length (km)	Slip Rate (mm/yr)
Elmore Ranch	7.5	12.0	6.6	29 ± 3	1 ± 0.5
Superstition Hills	11.5	18.4	6.6	23 ± 2	4 ± 2
San Jacinto - Borrego	11.6	18.6	6.6	29 ± 3	4 ± 2
Superstition Mountain	13.2	21.2	6.6	24 ± 2	5 ± 3
San Jacinto - Anza	14.6	23.4	7.2	91 ± 9	12 ± 6
San Andreas - Coachella	14.8	23.7	7.2	96 ± 10	25 ± 5
Hot Springs *	19.5	31.1			
San Jacinto - Coyote Creek	19.8	31.7	6.8	41 ± 4	4 ± 2
Painted Gorge Wash*	21.3	34.1			
Imperial	26.0	41.6	7	62 ± 6	20 ± 5
Elsinore - Coyote Mountain	28.1	45.0	6.8	39 ± 4	4 ± 2
Brawley *	28.3	45.2			
Vista de Anza*	29.0	46.4			
Yuha Well *	29.0	46.5			
Ocotillo*	29.1	46.6			
Shell Beds	29.8	47.7			
Earthquake Valley	31.5	50.4	6.5	20 ± 2	2 ± 1
Laguna Salada	31.5	50.4	7	67 ± 7	3.5 ± 1.5
Route 247*	32.2	51.5			
Yuha*	33.3	53.4			
Elsinore - Julian	34.3	54.9	7.1	76 ± 8	5 ± 2
Northern Centinela*	36.6	58.5			

* Note: Faults not included in CGS database.

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Table 2
2019 California Building Code (CBC) and ASCE 7-16 Seismic Parameters

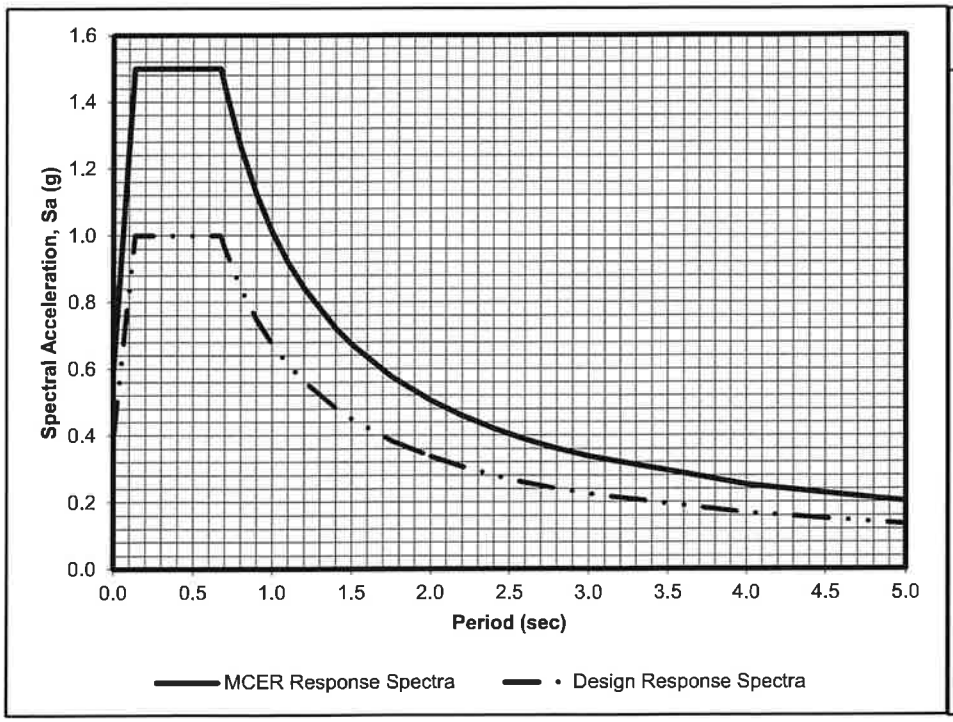
		ASCE 7-16 Reference
Soil Site Class:	D	Table 20.3-1
Latitude:	33.1827 N	
Longitude:	-115.8841 W	
Risk Category:	II	
Seismic Design Category:	D	

Maximum Considered Earthquake (MCE) Ground Motion

Mapped MCE_R Short Period Spectral Response	S_s	1.500 g	ASCE Figure 22-1	
Mapped MCE_R 1 second Spectral Response	S_1	0.591 g	ASCE Figure 22-2	
Short Period (0.2 s) Site Coefficient	F_a	1.00	ASCE Table 11.4-1	
Long Period (1.0 s) Site Coefficient	F_v	1.71	ASCE Table 11.4-2	
MCE_R Spectral Response Acceleration Parameter (0.2 s)	S_{MS}	1.500 g	= Fa * S_s	ASCE Equation 11.4-1
MCE_R Spectral Response Acceleration Parameter (1.0 s)	S_{M1}	1.011 g	= Fv * S_1	ASCE Equation 11.4-2

Design Earthquake Ground Motion

Design Spectral Response Acceleration Parameter (0.2 s)	S_{DS}	1.000 g	= 2/3*S_{MS}	ASCE Equation 11.4-3
Design Spectral Response Acceleration Parameter (1.0 s)	S_{D1}	0.674 g	= 2/3*S_{M1}	ASCE Equation 11.4-4
Risk Coefficient at Short Periods (less than 0.2 s)	C_{RS}	0.963		ASCE Figure 22-17
Risk Coefficient at Long Periods (greater than 1.0 s)	C_{R1}	0.926		ASCE Figure 22-18
	T_L	8.00 sec		ASCE Figure 22-12
	T_O	0.13 sec	=0.2*S_{D1}/S_{DS}	
	T_S	0.67 sec	=S_{D1}/S_{DS}	
Peak Ground Acceleration	PGA_M	0.55 g		ASCE Equation 11.8-1



Period T (sec)	Sa (g)	MCE_R Sa (g)
0.00	0.40	0.60
0.13	1.00	1.50
0.67	1.00	1.50
0.70	0.96	1.44
0.80	0.84	1.26
0.90	0.75	1.12
1.00	0.67	1.01
1.10	0.61	0.92
1.20	0.56	0.84
1.20	0.56	0.84
1.40	0.48	0.72
1.50	0.45	0.67
1.75	0.38	0.58
2.00	0.34	0.51
2.20	0.31	0.46
2.40	0.28	0.42
2.60	0.26	0.39
2.80	0.24	0.36
3.00	0.22	0.34
4.00	0.17	0.25
5.00	0.13	0.20

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FIGURES

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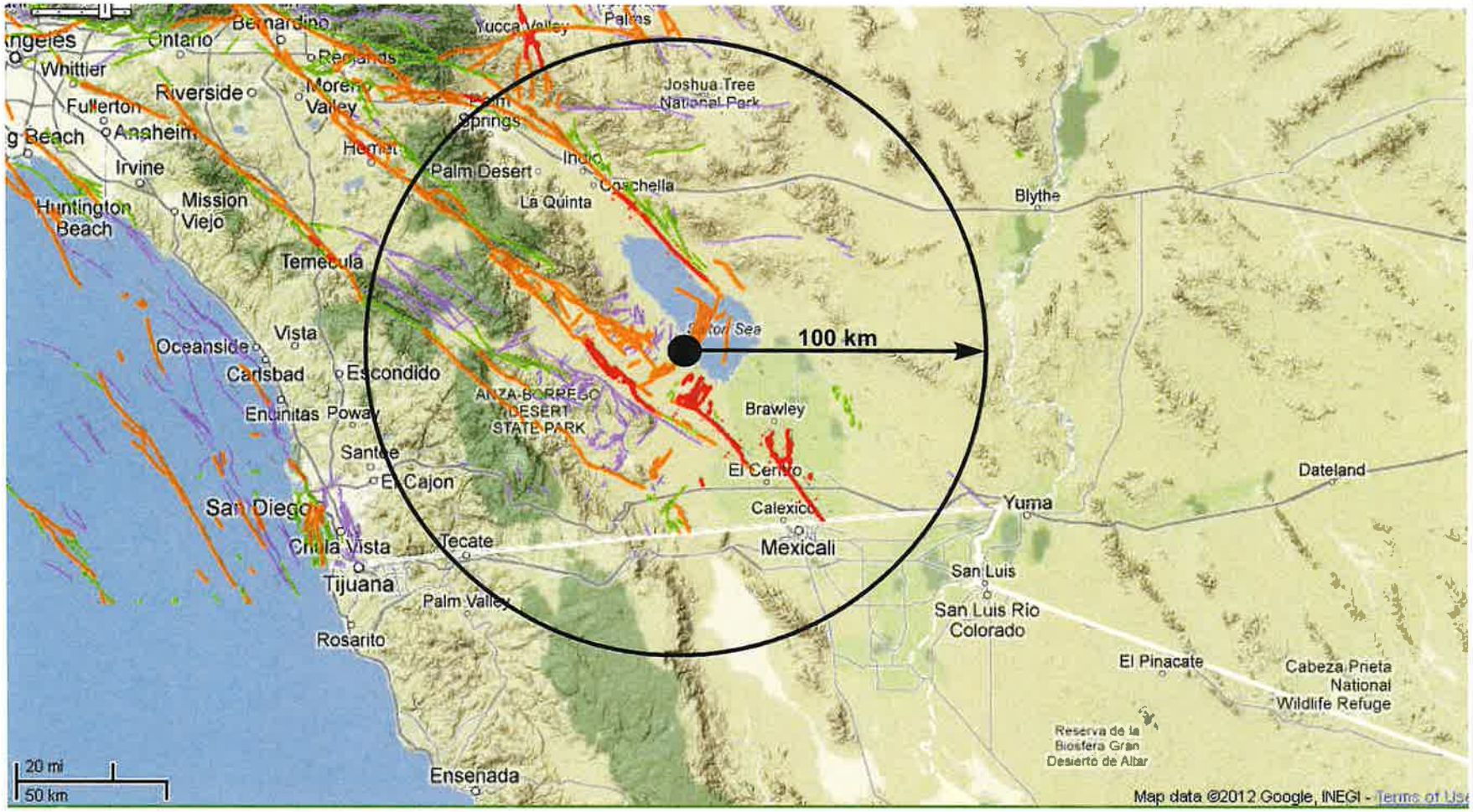

Source: California Geological Survey 2010 Fault Activity Map of California
http://www.quake.ca.gov/gmaps/FAM/faultactivitymap.html#

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Regional Fault Map

Figure 1

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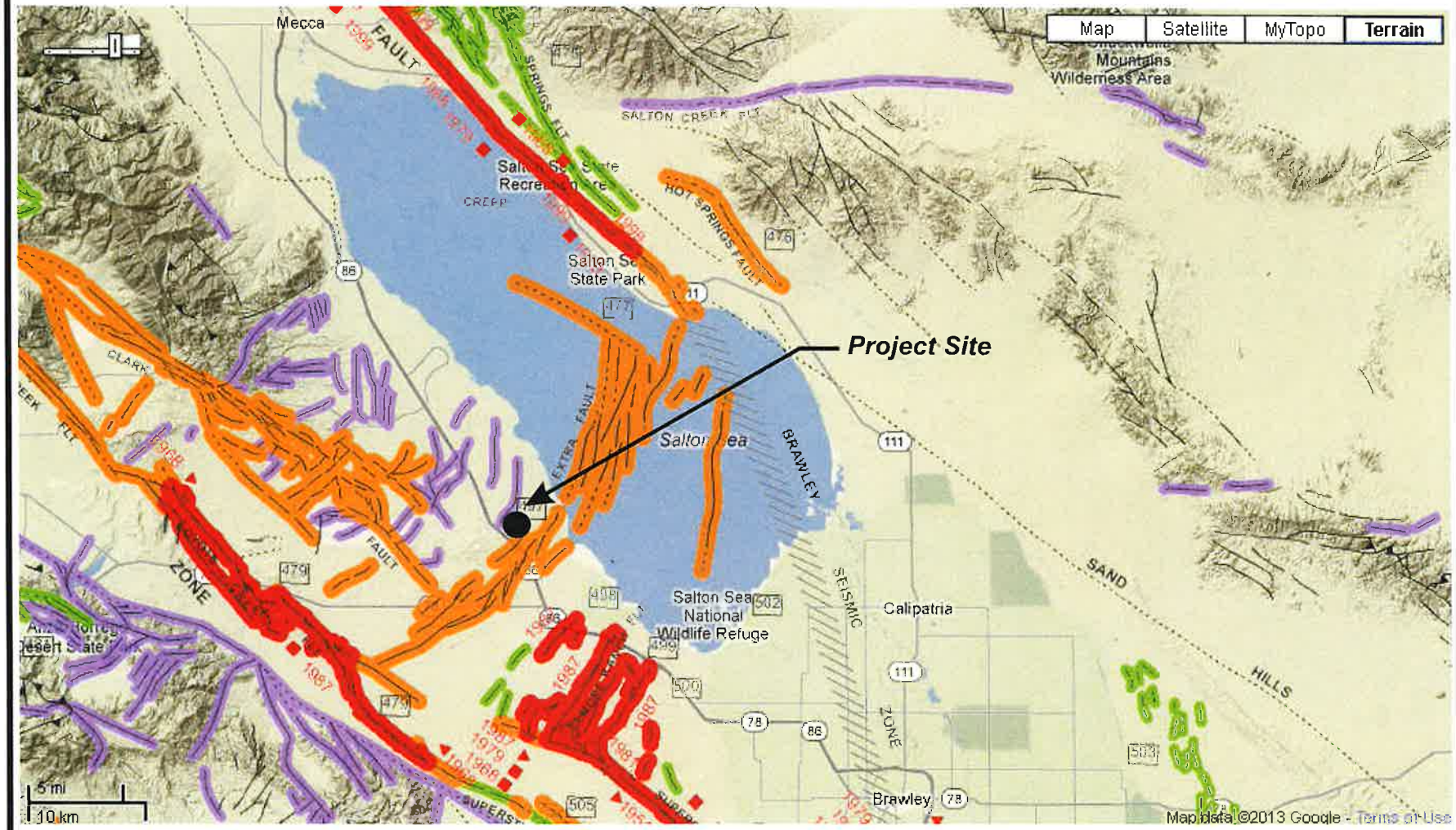

Source: California Geological Survey 2010 Fault Activity Map of California
http://www.quake.ca.gov/gmaps/FAM/faultactivitymap.html#

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Map of Local Faults

Figure 2

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EXPLANATION

Fault traces on land are indicated by solid lines where well located, by dashed lines where approximately located or inferred, and by dotted lines where concealed by younger rocks or by lakes or bays. Fault traces are queried where continuation or existence is uncertain. Concealed faults in the Great Valley are based on maps of selected subsurface horizons, so locations shown are approximate and may indicate structural trend only. All offshore faults based on seismic reflection profile records are shown as solid lines where well defined, dashed where inferred, queried where uncertain.

FAULT CLASSIFICATION COLOR CODE
(Indicating Recency of Movement)

Fault along which historic (last 200 years) displacement has occurred and is associated with one or more of the following:

(a) a recorded earthquake with surface rupture. (Also included are some well-defined surface breaks caused by ground shaking during earthquakes, e.g. extensive ground breakage, not on the White Wolf fault, caused by the Arvin-Tehachapi earthquake of 1952). The date of the associated earthquake is indicated. Where repeated surface ruptures on the same fault have occurred, only the date of the latest movement may be indicated, especially if earlier reports are not well documented as to location of ground breaks.

(b) fault creep slippage - slow ground displacement usually without accompanying earthquakes.

(c) displaced survey lines.

A triangle to the right or left of the date indicates termination point of observed surface displacement. Solid red triangle indicates known location of rupture termination point. Open black triangle indicates uncertain or estimated location of rupture termination point.

Date bracketed by triangles indicates local fault break.

No triangle by date indicates an intermediate point along fault break.

Fault that exhibits fault creep slippage. Hachures indicate linear extent of fault creep. Annotation (creep with leader) indicates representative locations where fault creep has been observed and recorded.

Square on fault indicates where fault creep slippage has occured that has been triggered by an earthquake on some other fault. Date of causative earthquake indicated. Squares to right and left of date indicate terminal points between which triggered creep slippage has occurred (creep either continuous or intermittent between these end points).

Holocene fault displacement (during past 11,700 years) without historic record. Geomorphic evidence for Holocene faulting includes sag ponds, scarps showing little erosion, or the following features in Holocene age deposits: offset stream courses, linear scarps, shutter ridges, and triangular faceted spurs. Recency of faulting offshore is based on the interpreted age of the youngest strata displaced by faulting.

Late Quaternary fault displacement (during past 700,000 years). Geomorphic evidence similar to that described for Holocene faults except features are less distinct. Faulting may be younger, but lack of younger overlying deposits precludes more accurate age classification.

Quaternary fault (age undifferentiated). Most faults of this category show evidence of displacement sometime during the past 1.6 million years; possible exceptions are faults which displace rocks of undifferentiated Plio-Pleistocene age. Unnumbered Quaternary faults were based on Fault Map of California, 1975. See Bulletin 201, Appendix D for source data.

Pre-Quaternary fault (older that 1.6 million years) or fault without recognized Quaternary displacement. Some faults are shown in this category because the source of mapping used was of reconnaissnce nature, or was not done with the object of dating fault displacements. Faults in this category are not necessarily inactive.

ADDITIONAL FAULT SYMBOLS

Bar and ball on downthrown side (relative or apparent).

Arrows along fault indicate relative or apparent direction of lateral movement.

Arrow on fault indicates direction of dip.

Low angle fault (barbs on upper plate). Fault surface generally dips less than 45° but locally may have been subsequently steepened. On offshore faults, barbs simply indicate a reverse fault regardless of steepness of dip.

OTHER SYMBOLS

Numbers refer to annotations listed in the appendices of the accompanying report. Annotations include fault name, age of fault displacement, and pertinent references including Earthquake Fault Zone maps where a fault has been zoned by the Alquist-Priolo Earthquake Fault Zoning Act. This Act requires the State Geologist to delineate zones to encompass faults with Holocene displacement.

Structural discontinuity (offshore) separating differing Neogene structural domains. May indicate discontinuities between basement rocks.

Brawley Seismic Zone, a linear zone of seismicity locally up to 10 km wide associated with the releasing step between the Imperial and San Andreas faults.

Geologic Time Scale			Years Before Present (Approx.)	Fault Symbol	Recency of Movement	DESCRIPTION	
						ON LAND	OFFSHORE
Quaternary	Late Quaternary	Holocene	200			Displacement during historic time (e.g. San Andreas fault 1906) Includes areas of known fault creep.	
			11,700				
	Early Quaternary	Pleistocene	700,000				
			1,600,000*				
Pre-Quaternary						Faults without recognized Quaternary displacement or showing evidence of no displacement during Quaternary time. Not necessarily inactive.	Fault cuts strata of Pliocene or older age.
			4.5 billion (Age of Earth)				

* Quaternary now recognized as extending to 2.6 Ma (Walker and Geissman, 2009). Quaternary faults in this map were established using the previous 1.6 Ma criterion.

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Fault Map Legend

Figure 3

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APPENDIX A

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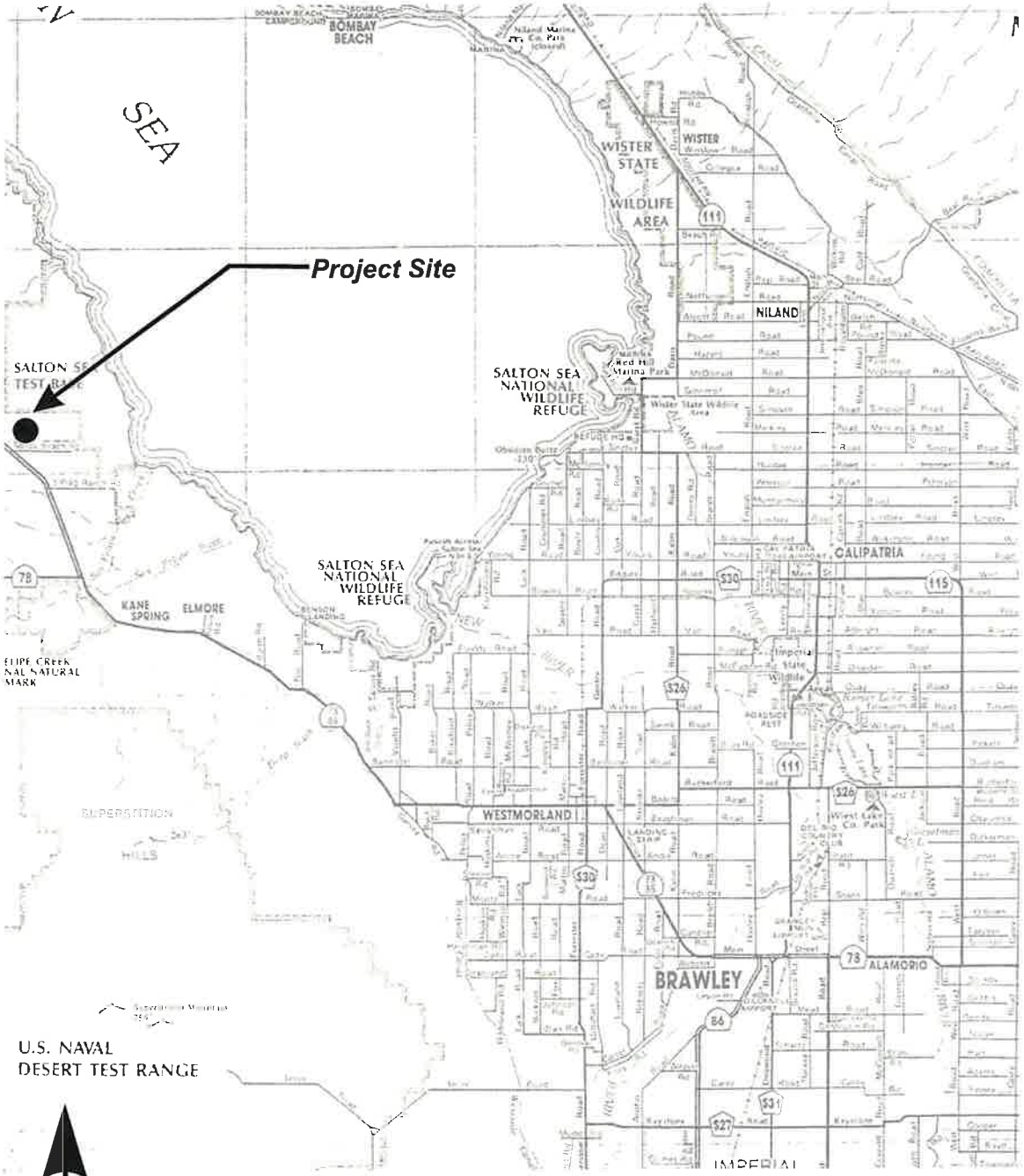

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Vicinity Map

Plate A-1

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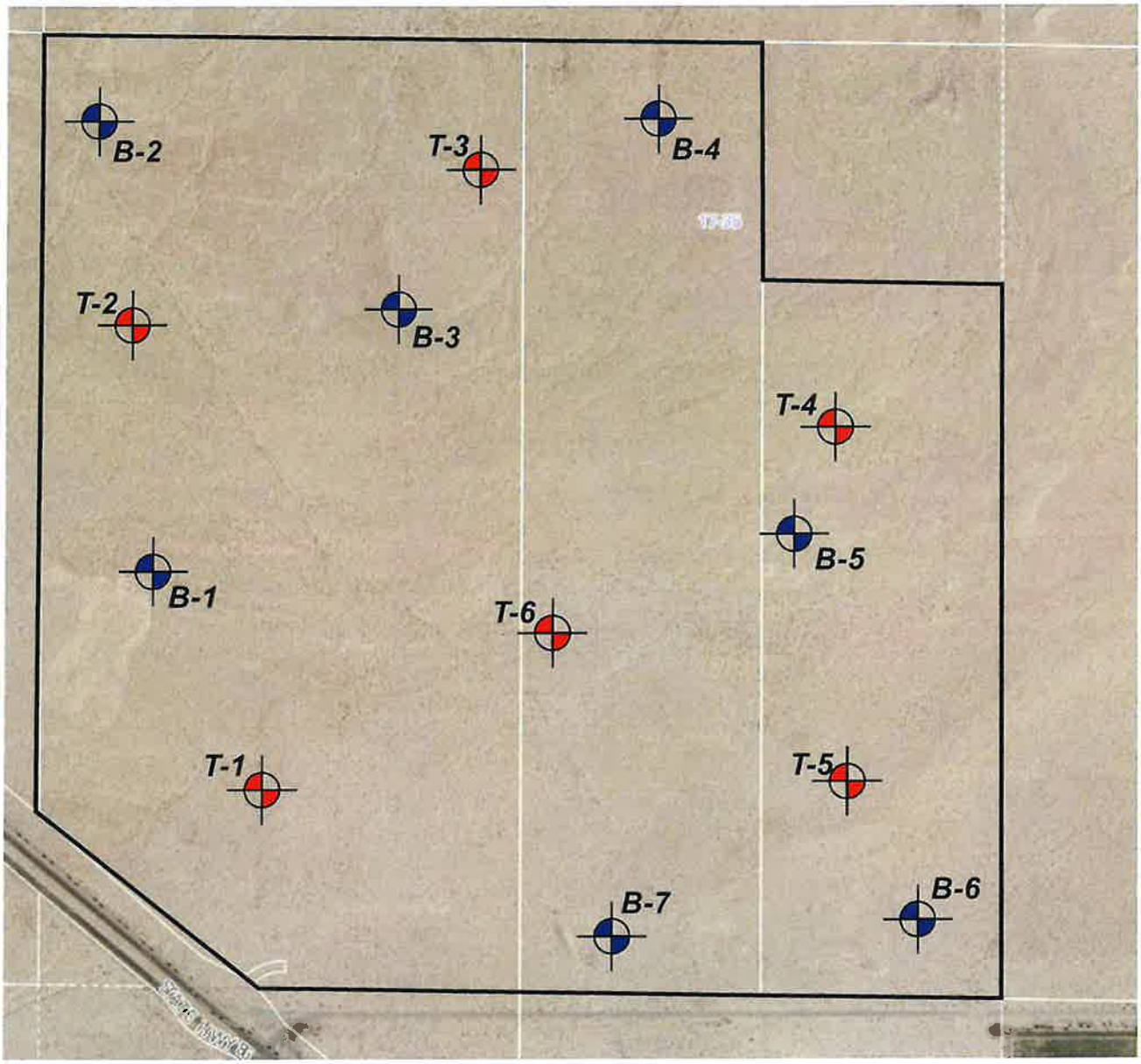

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Site Map

Plate
A-2

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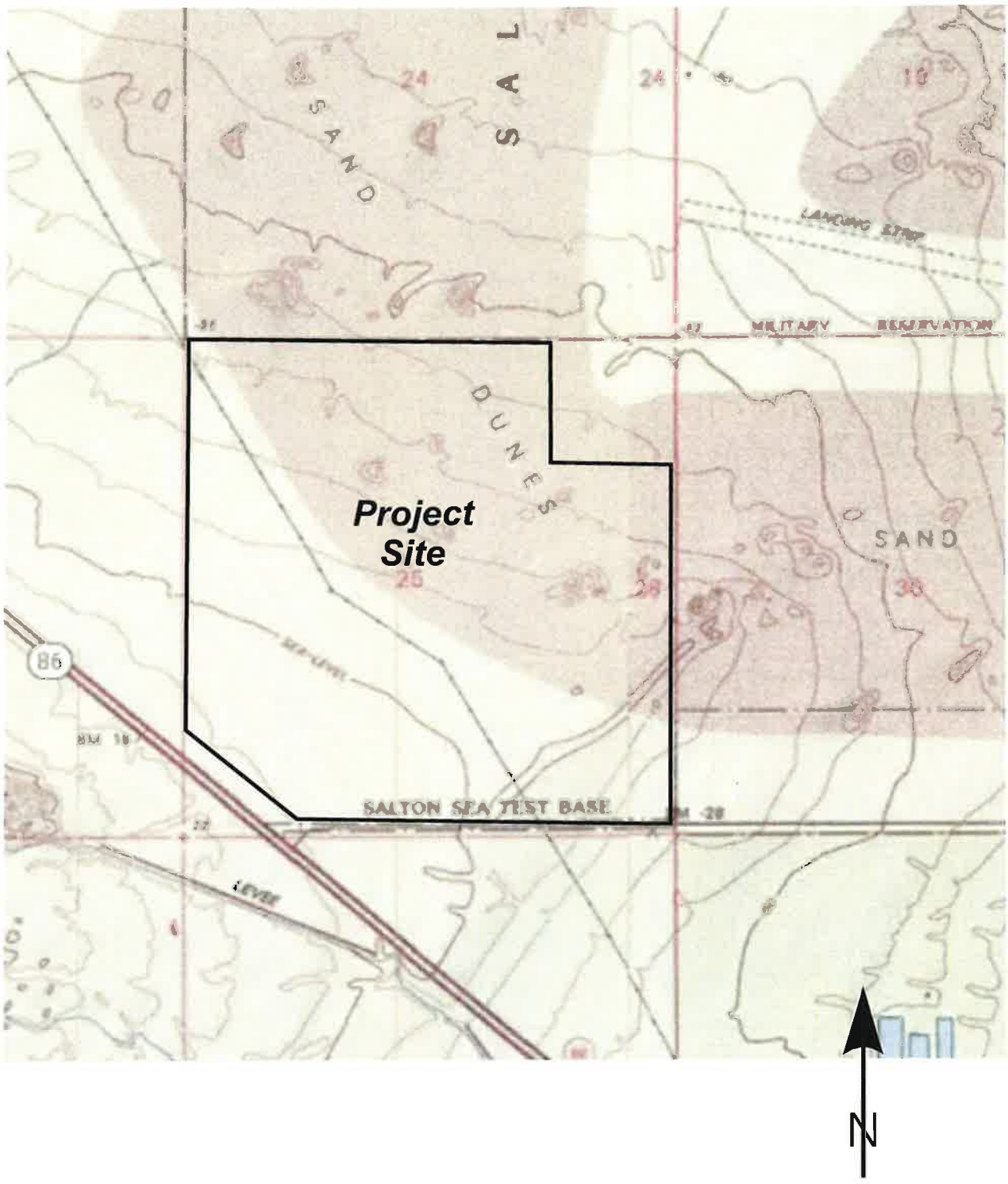
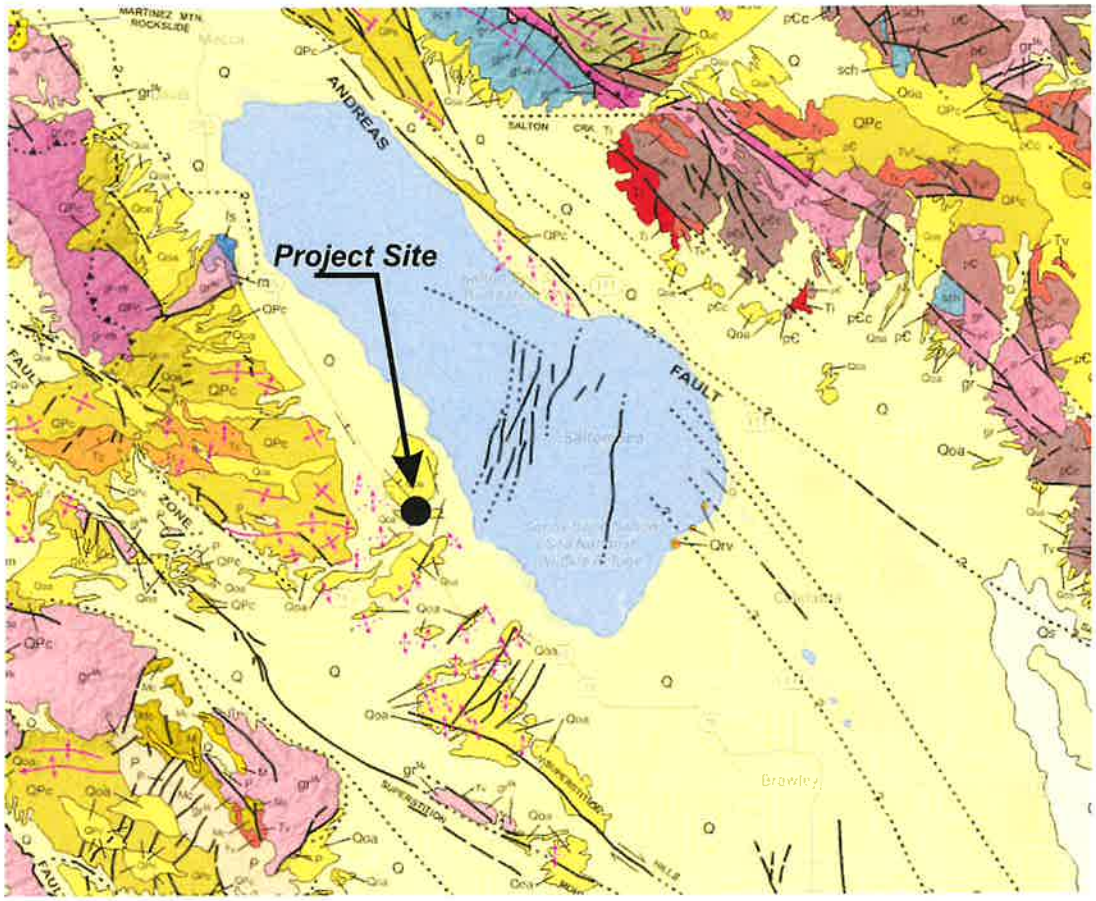


LANDMARK Geo-Engineers and Geologists Project No.: LE22171	Topographic Map	Plate A-3

EEC ORIGINAL PKG



GEOLOGIC LEGEND

Quaternary Deposits

Qs | Q | Qls | Qg | Qoa | QPc

Quaternary Volcanic Rocks

Qrv | Qrv' | Qv | Qv'

Tertiary Sedimentary Rocks

Tc | P | M | Mc | Ql | Ql-c | E | Ec | Ep

Tertiary Volcanic Rocks

Tv | Tv' | Ti

Tertiary Plutonic Rocks

gr'

Mesozoic Sedimentary and Metasedimentary Rocks

TK | K | Ku | K2 | KJf | KJf_ | KJf_ | J | Tr | sch | ls

Mesozoic Mixed Rocks

gr-sh

Mesozoic Metavolcanic Rocks

Mv | mv

Mesozoic Plutonic Rocks

gr' | um | gb | gr

Paleozoic Sedimentary and Metasedimentary Rocks

Pt | Pm | C | D | SO | E

Paleozoic Mixed Rocks

m

Paleozoic Metavolcanic Rocks

Pv

Paleozoic Plutonic Rocks

gr'

Pre-Cambrian Rocks

pC | pCc | gr'

SYMBOLS

Geologic boundary

Fault traces - solid where well located, dashed where approximately located or inferred, dotted where concealed, and queried where continuation or existence is uncertain. Ball and bar on downthrown side (relative or apparent). Arrows indicate direction of lateral movement (relative or apparent).

Thrust fault (barbs on upper plate)

Regional strike and dip of stratified rocks.

Regional strike and dip of stratified rocks (overturned)

Anticlinal fold

Synclinal fold

Monoclinal fold

N

Site Location
Lat N33.2712 Long: W-115.5066

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Regional Geologic Map

Plate A-4

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APPENDIX B

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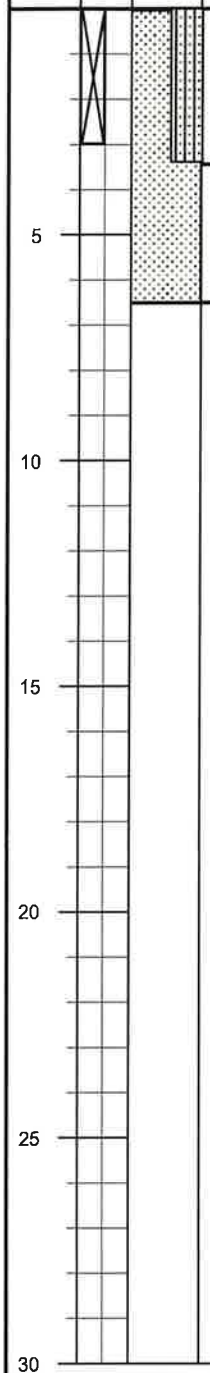
LOG OF BORING NO. TP-1

SHEET 1 OF 1



FIELD				DESCRIPTION OF MATERIAL	LABORATORY		
SAMPLE	USCS CLASS.	BLOW COUNT	POCKET PEN. (tsf)		DRY DENSITY (pcf)	MOISTURE CONTENT (% dry wt.)	OTHER TESTS
				SAND/SILTY SAND (SP-SM): Tan, dry, fine and very fine grained sands with cobbles.	91.4	1.3	% passing #200 = 12%
				SAND (SP): Tan, dry, loose, fine and very fine grained sands.	90.9	2.2	
					96.4	0.7	
				Total Depth = 6.5 ft. No groundwater encountered Backfilled with excavated soil			

DATE DRILLED: 8/29/22 TOTAL DEPTH: 6.5 Feet DEPTH TO WATER: NA

LOGGED BY: P. LaBrucherie TYPE OF BIT: Back-hoe DIAMETER: NA

SURFACE ELEVATION: Approximately 9' HAMMER WT.: N/A DROP: N/A

PROJECT No. LE22171

LANDMARK Geo-Engineers and Geologists

PLATE B-1

EEC ORIGINAL PKG

LOG OF BORING NO. TP-2

SHEET 1 OF 1

DEPTH	FIELD: SAMPLE	FIELD: USCS CLASS.	FIELD: BLOW COUNT	FIELD: POCKET PEN. (tsf)	DESCRIPTION OF MATERIAL	LABORATORY: DRY DENSITY (pcf)	LABORATORY: MOISTURE CONTENT (% dry wt.)	LABORATORY: OTHER TESTS
	X				SILTY SAND/SANDY SILT (ML): Tan, dry, very fine grained sands with hard dry clay lenses.	86.4	3.4	Φ=28° % passing #200 = 81%
					SAND (SP): Tan, dry, loose, fine and very fine grained sands.	85.7	4.9	
5					CLAY (CH): Brown, slight moisture, blocky-fractured, some very fine grained sands.			
					Total Depth = 6.5 ft. No groundwater encountered Backfilled with excavated soil			
10								
15								
20								
25								
30								

DATE DRILLED: 8/29/22 TOTAL DEPTH: 6.5 Feet DEPTH TO WATER: NA

LOGGED BY: P. LaBrucherie TYPE OF BIT: Back-hoe DIAMETER: NA

SURFACE ELEVATION: Approximately -15' HAMMER WT.: N/A DROP: N/A

PROJECT No. LE22171

LANDMARK Geo-Engineers and Geologists

PLATE B-2

EEC ORIGINAL PKG

LOG OF BORING NO. TP-3

SHEET 1 OF 1

DEPTH	FIELD: SAMPLE	FIELD: USCS CLASS.	FIELD: BLOW COUNT	FIELD: POCKET PEN. (tsf)	DESCRIPTION OF MATERIAL	LABORATORY: DRY DENSITY (pcf)	LABORATORY: MOISTURE CONTENT (% dry wt.)	LABORATORY: OTHER TESTS
					SAND (SP): Tan, dry, loose, fine and very fine grained sands.	90.4	3.2	
					CLAY (CH): Brown, slight moisture, blocky-fractured, some very fine grained sands.			
5					SAND (SP): Tan, dry, loose and dense layers, fine and very fine grained sands.	86.0	2.3	
					Total Depth = 6.5 ft. No groundwater encountered Backfilled with excavated soil			
10								
15								
20								
25								
30								

DATE DRILLED: 8/29/22 TOTAL DEPTH: 6.5 Feet DEPTH TO WATER: NA

LOGGED BY: P. LaBrucherie TYPE OF BIT: Back-hoe DIAMETER: NA

SURFACE ELEVATION: Approximately -34' HAMMER WT.: N/A DROP: N/A

PROJECT No. LE22171

LANDMARK Geo-Engineers and Geologists

PLATE B-3

EEC ORIGINAL PKG

LOG OF BORING NO. TP-4

SHEET 1 OF 1

DEPTH	FIELD: SAMPLE	FIELD: USCS CLASS.	FIELD: BLOW COUNT	FIELD: POCKET PEN. (tsf)	DESCRIPTION OF MATERIAL	LABORATORY: DRY DENSITY (pcf)	LABORATORY: MOISTURE CONTENT (% dry wt.)	LABORATORY: OTHER TESTS
					SILTY SAND (SP-SM): Tan to L. brown, dry, fine and very fine grained sands with interbedded medium grain sand layers.	102.6	5.8	
5					SILTY CLAY (CL): Brown, dry to slight moisture, blocky-fractured, hard.	98.2	10.0	
						94.6	7.2	
10					Total Depth = 6.5 ft. No groundwater encountered Backfilled with excavated soil			
15								
20								
25								
30								

DATE DRILLED: 8/29/22 TOTAL DEPTH: 6.5 Feet DEPTH TO WATER: NA

LOGGED BY: P. LaBrucherie TYPE OF BIT: Back-hoe DIAMETER: NA

SURFACE ELEVATION: Approximately -31' HAMMER WT.: N/A DROP: N/A

PROJECT No. LE22171

LANDMARK Geo-Engineers and Geologists

PLATE B-4

EEC ORIGINAL PKG

LOG OF BORING NO. TP-5

SHEET 1 OF 1

DEPTH	FIELD: SAMPLE	FIELD: USCS CLASS.	FIELD: BLOW COUNT	FIELD: POCKET PEN. (tsf)	DESCRIPTION OF MATERIAL	LABORATORY: DRY DENSITY (pcf)	LABORATORY: MOISTURE CONTENT (% dry wt.)	LABORATORY: OTHER TESTS
					CLAYEY SAND (SC): L. brown, dry, hard/dense.			c=0.12 tsf Φ=28° % passing #200 = 25%
					SAND (SP): Tan, dry, fine grained sands.	90.6	3.4	
					CLAYEY SILT/SILTY CLAY (ML-CL): L. brown, dry, low plasticity.	98.9	10.2	
5					SILTY SAND (SM): Tan, dry, fine and very fine grained sands.	105.4	3.7	
					Total Depth = 6.5 ft. No groundwater encountered Backfilled with excavated soil			
10								
15								
20								
25								
30								

DATE DRILLED: 8/29/22 TOTAL DEPTH: 6.5 Feet DEPTH TO WATER: NA

LOGGED BY: P. LaBrucherie TYPE OF BIT: Back-hoe DIAMETER: NA

SURFACE ELEVATION: Approximately -5' HAMMER WT.: N/A DROP: N/A

PROJECT No. LE22171

LANDMARK Geo-Engineers and Geologists

PLATE B-5

EEC ORIGINAL PKG

LOG OF BORING NO. TP-6

SHEET 1 OF 1

DEPTH	FIELD: SAMPLE	FIELD: USCS CLASS.	FIELD: BLOW COUNT	FIELD: POCKET PEN. (tsf)	DESCRIPTION OF MATERIAL	LABORATORY: DRY DENSITY (pcf)	LABORATORY: MOISTURE CONTENT (% dry wt.)	LABORATORY: OTHER TESTS
					3 to 4" SILTY SAND (SM): Tan, dry, very fine grain.			
					SILTY CLAY (CL): Brown, slight moisture, medium to high plasticity.	96.1	NA	LL=43% PI=27%
						90.9	NA	
5					CLAY (CH): Brown, moist, high plasticity.	101.2	16.0	
					Total Depth = 6.5 ft. No groundwater encountered Backfilled with excavated soil			
10								
15								
20								
25								
30								

DATE DRILLED: 8/29/22 TOTAL DEPTH: 6.5 Feet DEPTH TO WATER: NA

LOGGED BY: P. LaBrucherie TYPE OF BIT: Back-hoe DIAMETER: NA

SURFACE ELEVATION: Approximately -5' HAMMER WT.: N/A DROP: N/A

PROJECT No. LE22171

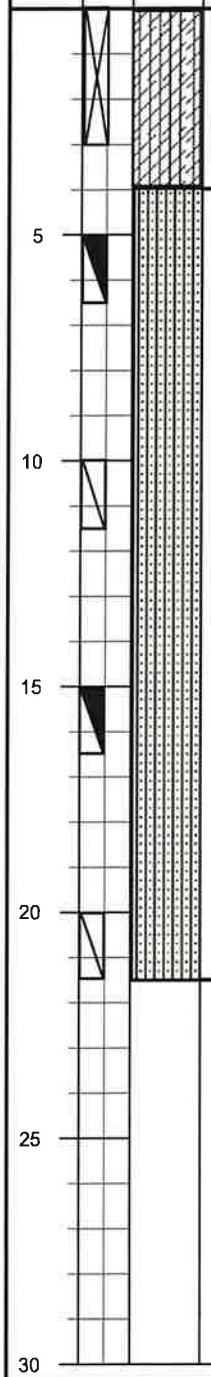
LANDMARK Geo-Engineers and Geologists

PLATE B-6

EEC ORIGINAL PKG

LOG OF BORING NO. B-1

SHEET 1 OF 1



DEPTH	FIELD: SAMPLE	FIELD: USCS CLASS.	FIELD: BLOW COUNT	FIELD: POCKET PEN. (tsf)	DESCRIPTION OF MATERIAL	LABORATORY: DRY DENSITY (pcf)	LABORATORY: MOISTURE CONTENT (% dry wt.)	LABORATORY: OTHER TESTS
					CLAYEY SILT/SILTY CLAY (ML-CL): L. brown, dry, low to medium plasticity.			LL=32% PI=19% % passing #200 = 78% <2μ = 24%
5			88/11"		SILTY SAND (SM): Tan, dry, fine and very fine grain sands, very dense.	99.8	1.3	
10			75					
15			76					
20			54					
25					Total Depth = 21.5 ft. No groundwater encountered Backfilled with excavated soil			
30								

DATE DRILLED: 10/10/22 TOTAL DEPTH: 21.5 Feet DEPTH TO WATER: NA

LOGGED BY: P. Santa Cruz TYPE OF BIT: Hollow Stem Auger DIAMETER: 8 in.

SURFACE ELEVATION: Approximately 6' HAMMER WT.: 140 lbs. DROP: 30 in.

PROJECT No. LE22171

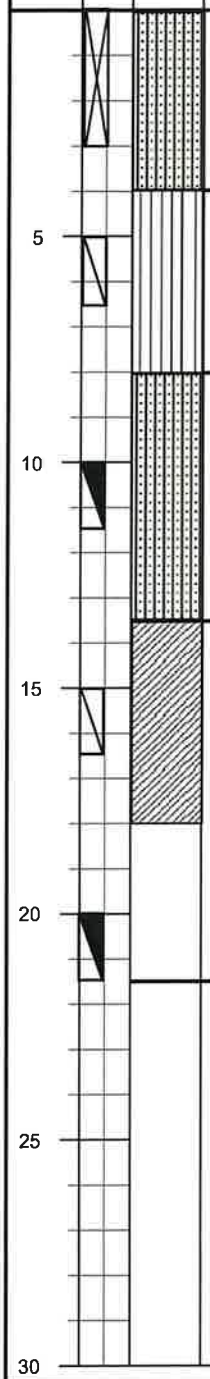
LANDMARK Geo-Engineers and Geologists

PLATE B-7

EEC ORIGINAL PKG

LOG OF BORING NO. B-2

SHEET 1 OF 1



DEPTH	SAMPLE	USCS CLASS.	BLOW COUNT	POCKET PEN. (tsf)	DESCRIPTION OF MATERIAL	LABORATORY: DRY DENSITY (pcf)	LABORATORY: MOISTURE CONTENT (% dry wt.)	LABORATORY: OTHER TESTS
					SILTY SAND (SM): Tan, dry, fine and very fine grain sands.			% passing #200 = 12%
5			51		SILT (ML): L. brown, dry, very stiff/very dense, very low plasticity, with clays and some very fine grain sands.		2.9	% passing #200 = 53%
10			100		SILTY SAND/SANDY SILT (SM-ML): Tan, dry, fine and very fine grain sands.	101.9	2.2	
15			18		SILTY CLAY (CL): Brown, very moist to wet, stiff to very stiff, low to medium plasticity.			
20			50/2"		No Recovery			
25					Total Depth = 21.5 ft. No groundwater encountered Backfilled with excavated soil			
30								

DATE DRILLED: 10/10/22 TOTAL DEPTH: 21.5 Feet DEPTH TO WATER: NA

LOGGED BY: P. Santa Cruz TYPE OF BIT: Hollow Stem Auger DIAMETER: 8 in.

SURFACE ELEVATION: Approximately -31' HAMMER WT.: 140 lbs. DROP: 30 in.

PROJECT No. LE22171

LANDMARK Geo-Engineers and Geologists

PLATE B-8

EEC ORIGINAL PKG

LOG OF BORING NO. B-3

SHEET 1 OF 1

DEPTH	FIELD: SAMPLE	FIELD: USCS CLASS.	FIELD: BLOW COUNT	FIELD: POCKET PEN. (tsf)	DESCRIPTION OF MATERIAL	LABORATORY: DRY DENSITY (pcf)	LABORATORY: MOISTURE CONTENT (% dry wt.)	LABORATORY: OTHER TESTS
					SILTY SAND/SANDY SILT (SM-ML): Tan, dry, fine and very fine grain sands some clays and gravels.			
5			50/11"	4.5	CLAYEY SILT/SILTY CLAY (ML-CL): L. brown, dry, low to medium plasticity, hard.	102.6	3.8	
10			55		SILTY SAND (SM): Tan, dry, fine and very fine grain sands, very dense.			
15			91/10"					
20			40					
25					Total Depth = 21.5 ft. No groundwater encountered Backfilled with excavated soil			
30								

DATE DRILLED:	10/10/22	TOTAL DEPTH:	21.5 Feet	DEPTH TO WATER:	NA
LOGGED BY:	P. Santa Cruz	TYPE OF BIT:	Hollow Stem Auger	DIAMETER:	8 in.
SURFACE ELEVATION:	Approximately -20'	HAMMER WT.:	140 lbs.	DROP:	30 in.

PROJECT No. LE22171

LANDMARK
Geo-Engineers and Geologists

PLATE B-9

EEC ORIGINAL PKG

LOG OF BORING NO. B-4

SHEET 1 OF 1

DEPTH	FIELD: SAMPLE	FIELD: USCS CLASS.	FIELD: BLOW COUNT	FIELD: POCKET PEN. (tsf)	DESCRIPTION OF MATERIAL	LABORATORY: DRY DENSITY (pcf)	LABORATORY: MOISTURE CONTENT (% dry wt.)	LABORATORY: OTHER TESTS
					CLAY (CH): L. brown, dry, trace fine and very fine grain sands.			LL=53% PI=37% % passing #200 = 90% <2μ = 59%
5			30	4.5	CLAYEY SILT (ML): L. brown, moist, very stiff to hard, low plasticity.		12.4	
10			78		SILT (ML): L. brown, dry, hard/very dense, low plasticity with some clays and very fine grain sands.	103.8	2.3	
15			39		CLAYEY SILT (ML): L. brown, dry, hard/very dense, low plasticity.			
20			50/4"		SILT (ML): L. brown, dry, hard/very dense, low plasticity with some clays and very fine grain sands.			
					Total Depth = 21.5 ft. No groundwater encountered Backfilled with excavated soil			
25								
30								

DATE DRILLED: 10/10/22 TOTAL DEPTH: 21.5 Feet DEPTH TO WATER: NA

LOGGED BY: P. Santa Cruz TYPE OF BIT: Hollow Stem Auger DIAMETER: 8 in.

SURFACE ELEVATION: Approximately -50' HAMMER WT.: 140 lbs. DROP: 30 in.

PROJECT No. LE22171

LANDMARK Geo-Engineers and Geologists

PLATE B-10

EEC ORIGINAL PKG

LOG OF BORING NO. B-5

SHEET 1 OF 1

DEPTH	FIELD: SAMPLE	FIELD: USCS CLASS.	FIELD: BLOW COUNT	FIELD: POCKET PEN. (tsf)	DESCRIPTION OF MATERIAL	LABORATORY: DRY DENSITY (pcf)	LABORATORY: MOISTURE CONTENT (% dry wt.)	LABORATORY: OTHER TESTS
					SILTY CLAY (CL): L. brown, dry, some very fine grain sands.			LL=38% PI=24% % passing #200 = 86% <2μ = 31%
5			66		SILTY CLAY (CL): Brown, very moist, hard, medium plasticity.			c=3.92 tsf
10			32	4.5	SILTY CLAY (CL): Brown, moist, hard, medium plasticity.			
15			99/11"		SILTY CLAY (CL): Brown, very moist, hard, medium plasticity.			
20			39		SILTY CLAY (CL): L. brown, moist, hard, low plasticity.			
25					Total Depth = 21.5 ft. No groundwater encountered Backfilled with excavated soil			
30								

DATE DRILLED: 10/10/22 TOTAL DEPTH: 21.5 Feet DEPTH TO WATER: NA

LOGGED BY: P. Santa Cruz TYPE OF BIT: Hollow Stem Auger DIAMETER: 8 in.

SURFACE ELEVATION: Approximately -27' HAMMER WT.: 140 lbs. DROP: 30 in.

PROJECT No. LE22171

LANDMARK Geo-Engineers and Geologists

PLATE B-11

EEC ORIGINAL PKG

LOG OF BORING NO. B-6

SHEET 1 OF 1

DEPTH	FIELD: SAMPLE	FIELD: USCS CLASS.	FIELD: BLOW COUNT	FIELD: POCKET PEN. (tsf)	DESCRIPTION OF MATERIAL	LABORATORY: DRY DENSITY (pcf)	LABORATORY: MOISTURE CONTENT (% dry wt.)	LABORATORY: OTHER TESTS
					SILTY SAND (SM): Tan, dry, fine and very fine grain sands, trace gravels.			% passing #200 = 13%
5			20		No Recovery			
10			64		SAND (SW-SP): Tan, dry, little fines, very dense.	102.7	0.7	% passing #200 = 3.7%
15			31		SAND (SW-SP): Tan, dry, little fines, very dense.			
20			96/10"		SAND (SW-SP): Tan, dry, little fines, very dense.			
					Total Depth = 21.5 ft. No groundwater encountered Backfilled with excavated soil			
25								
30								

DATE DRILLED: 10/10/22 TOTAL DEPTH: 21.5 Feet DEPTH TO WATER: NA

LOGGED BY: P. Santa Cruz TYPE OF BIT: Hollow Stem Auger DIAMETER: 8 in.

SURFACE ELEVATION: Approximately -18' HAMMER WT.: 140 lbs. DROP: 30 in.

PROJECT No. LE22171

LANDMARK Geo-Engineers and Geologists

PLATE B-12

EEC ORIGINAL PKG

LOG OF BORING NO. B-7

SHEET 1 OF 1

DEPTH	FIELD: SAMPLE	FIELD: USCS CLASS.	FIELD: BLOW COUNT	FIELD: POCKET PEN. (tsf)	DESCRIPTION OF MATERIAL	LABORATORY: DRY DENSITY (pcf)	LABORATORY: MOISTURE CONTENT (% dry wt.)	LABORATORY: OTHER TESTS
					SILTY SAND (SM): Tan, dry, fine and very fine grain sands.			
5			31		CLAYEY SILT (ML): L. brown, dry to moist, very stiff, very low plasticity.			% passing #200 = 65%
10			37		SILTY SAND (SM): Tan, dry, fine and very fine grain sands.			% passing #200 = 45%
15			50/5"		SILTY SAND (SM): Tan, dry, fine and very fine grain sands.			
20			34		SILTY CLAY (CL): L. brown, moist, hard, low plasticity.			
25					Total Depth = 21.5 ft. No groundwater encountered Backfilled with excavated soil			
30								

DATE DRILLED: 10/10/22 TOTAL DEPTH: 21.5 Feet DEPTH TO WATER: NA

LOGGED BY: P. Santa Cruz TYPE OF BIT: Hollow Stem Auger DIAMETER: 8 in.

SURFACE ELEVATION: Approximately -1' HAMMER WT.: 140 lbs. DROP: 30 in.

PROJECT No. LE22171

LANDMARK Geo-Engineers and Geologists

PLATE B-13

EEC ORIGINAL PKG

DEFINITION OF TERMS

PRIMARY DIVISIONS			SYMBOLS		SECONDARY DIVISIONS
Coarse grained soils More than half of material is larger that No. 200 sieve	**Gravels** More than half of coarse fraction is larger than No. 4 sieve	Clean gravels (less than 5% fines)		GW	Well graded gravels, gravel-sand mixtures, little or no fines
				GP	Poorly graded gravels, or gravel-sand mixtures, little or no fines
		Gravel with fines		GM	Silty gravels, gravel-sand-silt mixtures, non-plastic fines
				GC	Clayey gravels, gravel-sand-clay mixtures, plastic fines
	Sands More than half of coarse fraction is smaller than No. 4 sieve	Clean sands (less than 5% fines)		SW	Well graded sands, gravelly sands, little or no fines
				SP	Poorly graded sands or gravelly sands, little or no fines
		Sands with fines		SM	Silty sands, sand-silt mixtures, non-plastic fines
				SC	Clayey sands, sand-clay mixtures, plastic fines
Fine grained soils More than half of material is smaller than No. 200 sieve	**Silts and clays** Liquid limit is less than 50%			ML	Inorganic silts, clayey silts with slight plasticity
				CL	Inorganic clays of low to medium plasticity, gravely, sandy, or lean clays
				OL	Organic silts and organic clays of low plasticity
	Silts and clays Liquid limit is more than 50%			MH	Inorganic silts, micaceous or diatomaceous silty soils, elastic silts
				CH	Inorganic clays of high plasticity, fat clays
				OH	Organic clays of medium to high plasticity, organic silts
Highly organic soils				PT	Peat and other highly organic soils

GRAIN SIZES

Silts and Clays	Sand			Gravel		Cobbles	Boulders
	Fine	Medium	Coarse	Fine	Coarse		
200	40	10	4	3/4"	3"	12"	

US Standard Series Sieve — Clear Square Openings

Sands, Gravels, etc.	Blows/ft. *
Very Loose	0-4
Loose	4-10
Medium Dense	10-30
Dense	30-50
Very Dense	Over 50

Clays & Plastic Silts	Strength **	Blows/ft. *
Very Soft	0-0.25	0-2
Soft	0.25-0.5	2-4
Firm	0.5-1.0	4-8
Stiff	1.0-2.0	8-16
Very Stiff	2.0-4.0	16-32
Hard	Over 4.0	Over 32

* Number of blows of 140 lb. hammer falling 30 inches to drive a 2 inch O.D. (1 3/8 in. I.D.) split spoon (ASTM D1586).

** Unconfined compressive strength in tons/s.f. as determined by laboratory testing or approximated by the Standard Penetration Test (ASTM D1586), Pocket Penetrometer, Torvane, or visual observation.

Type of Samples:

Ring Sample — Standard Penetration Test — Shelby Tube — Bulk (Bag) Sample

Drilling Notes:

1. Sampling and Blow Counts
   - Ring Sampler - Number of blows per foot of a 140 lb. hammer falling 30 inches.
   - Standard Penetration Test - Number of blows per foot.
   - Shelby Tube - Three (3) inch nominal diameter tube hydraulically pushed.
2. P. P. = Pocket Penetrometer (tons/s.f.).
3. NR = No recovery.
4. GWT ▽ = Ground Water Table observed @ specified time.

LANDMARK
Geo-Engineers and Geologists

Project No. LE22171

Key to Logs

Plate B-14

EEC ORIGINAL PKG

APPENDIX C

EEC ORIGINAL PKG

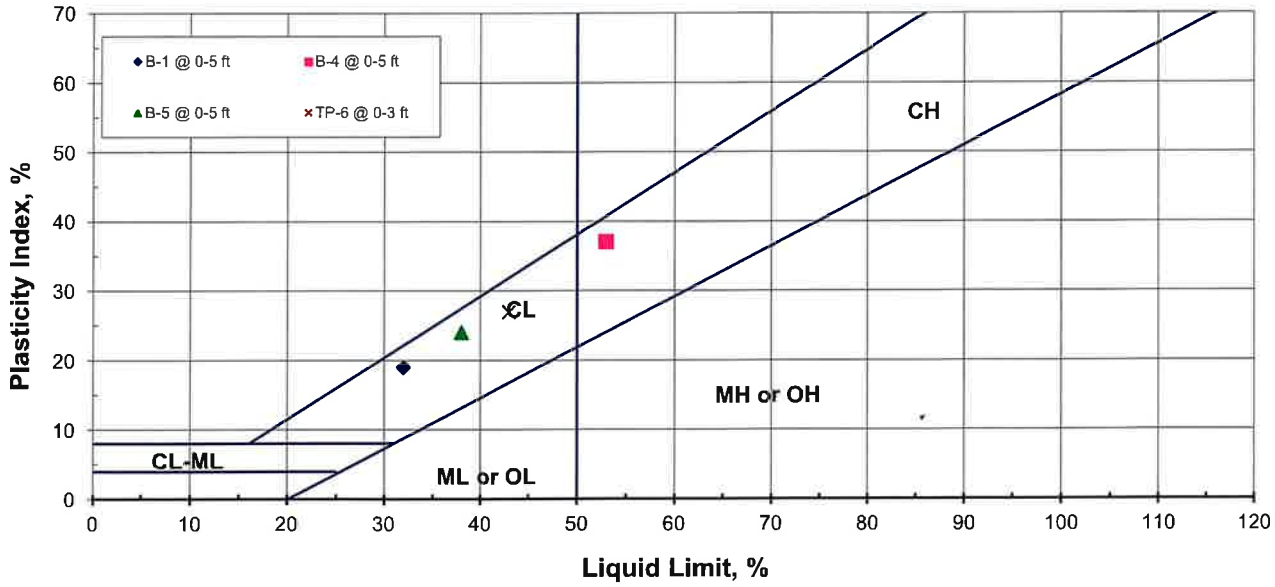
LANDMARK CONSULTANTS, INC.

CLIENT: APEX Energy
PROJECT: Northstar 3 Solar
JOB No.: LE22171
DATE: 10/21/22

ATTERBERG LIMITS (ASTM D4318)

Sample Location	Sample Depth (ft)	Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)	USCS Classification
B-1	0-5	32	13	19	CL
B-4	0-5	53	16	37	CH
B-5	0-5	38	14	24	CL
TP-6	0-3	43	16	27	CL

PLASTICITY CHART



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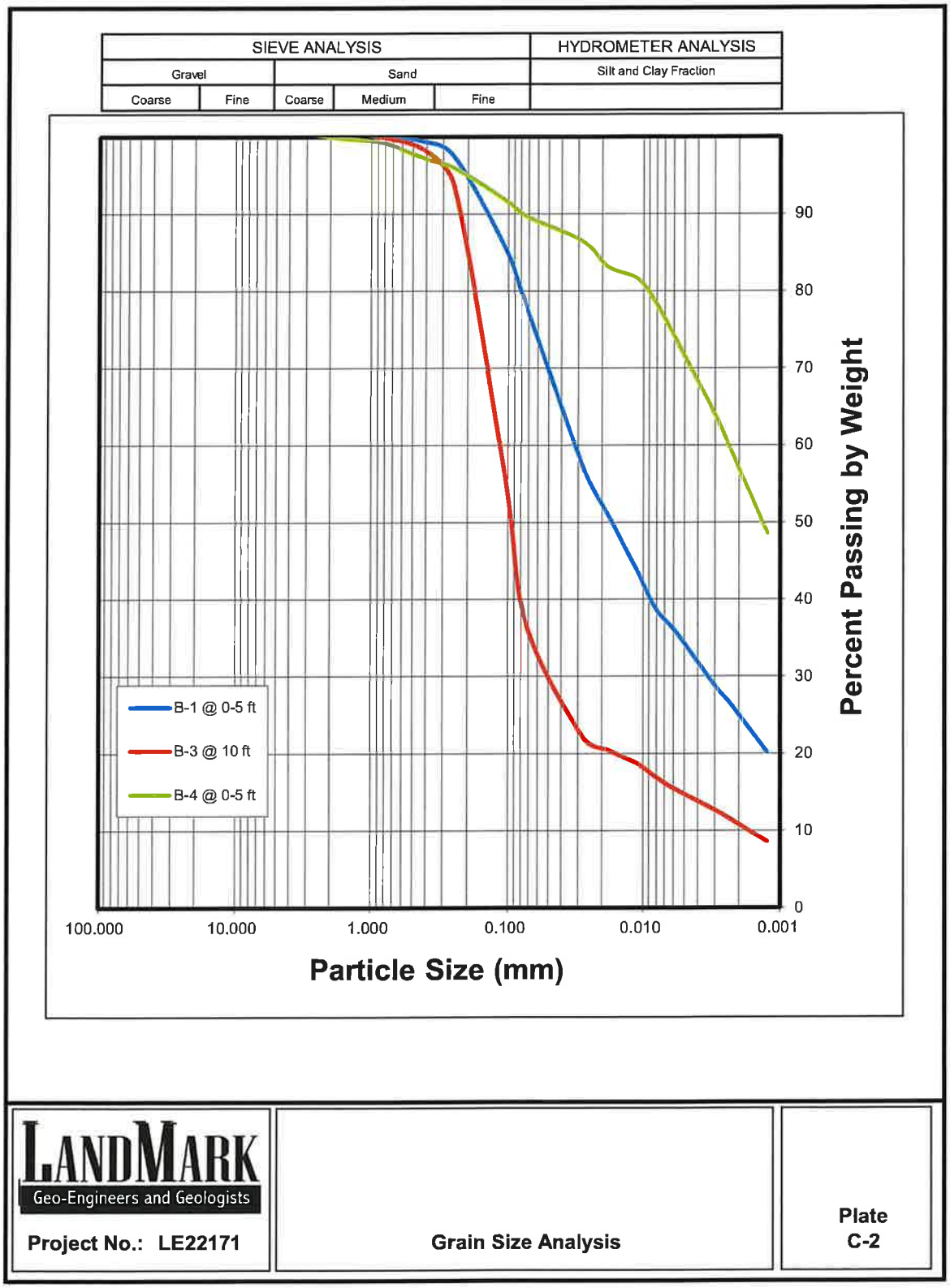
Geo-Engineers and Geologists

Project No.: LE22171

Atterberg Limits Test Results

Plate C-1

EEC ORIGINAL PKG



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Geo-Engineers and Geologists

Project No.: LE22171

Grain Size Analysis

Plate C-2

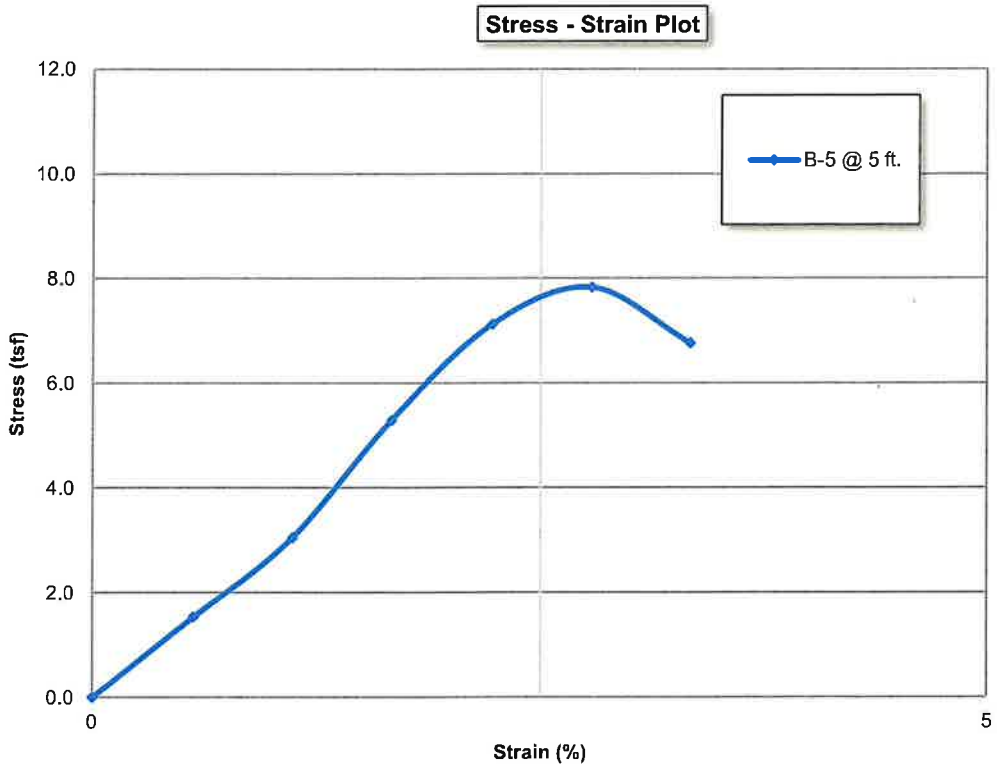
EEC ORIGINAL PKG

LANDMARK CONSULTANTS, INC.

CLIENT: Apex Energy Solutions, LLC
PROJECT: NorthStar 3 Solar Project, Salton City, CA
JOB NO: LE22171
DATE: 10/18/2022

UNCONFINED COMPRESSION TEST (ASTM D2166)

Boring No.	Sample Depth (ft)	Natural Moisture Content (%)	Unit Dry Weight (pcf)	Maximum Compressive Strength (tsf)	Cohesion (tsf)	Failure Strain (%)
B-5	5	19.1	110.3	7.83	3.92	2.8



LANDMARK Geo-Engineers and Geologists

Project No.: LE22171

Unconfined Compression Test Results

Plate C-3

EEC ORIGINAL PKG

LANDMARK CONSULTANTS, INC.

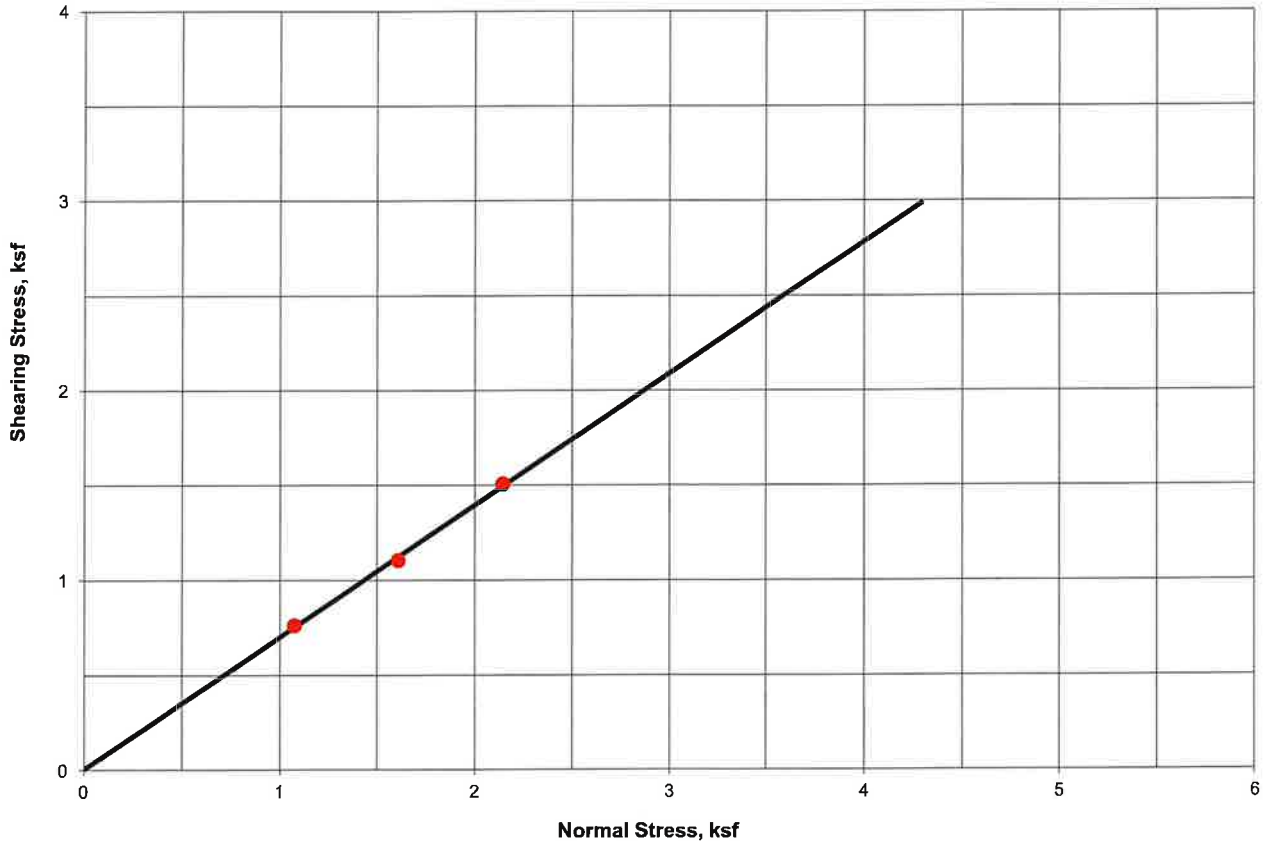
CLIENT: Apex Energy Solutions, LLC
PROJECT: NorthStar 3 Solar Project, Salton City, CA
PROJECT No: LE22171 **DATE:** 10/21/2022

DIRECT SHEAR TEST - INSITU (ASTM D3080)

SAMPLE LOCATION: TP-1 @ 0-3 ft
SAMPLE DESCRIPTION: Silty Sand (SM)

Angle of Internal Friction: 35°
Cohesion: 0.01 ksf
Initial Dry Density: 91.9 pcf
Initial Moisture Content: 2%

DIRECT SHEAR TEST RESULTS



LANDMARK Geo-Engineers and Geologists PROJECT No: LE22171	Direct Shear Test Results	Plate C-4

EEC ORIGINAL PKG

LANDMARK CONSULTANTS, INC.

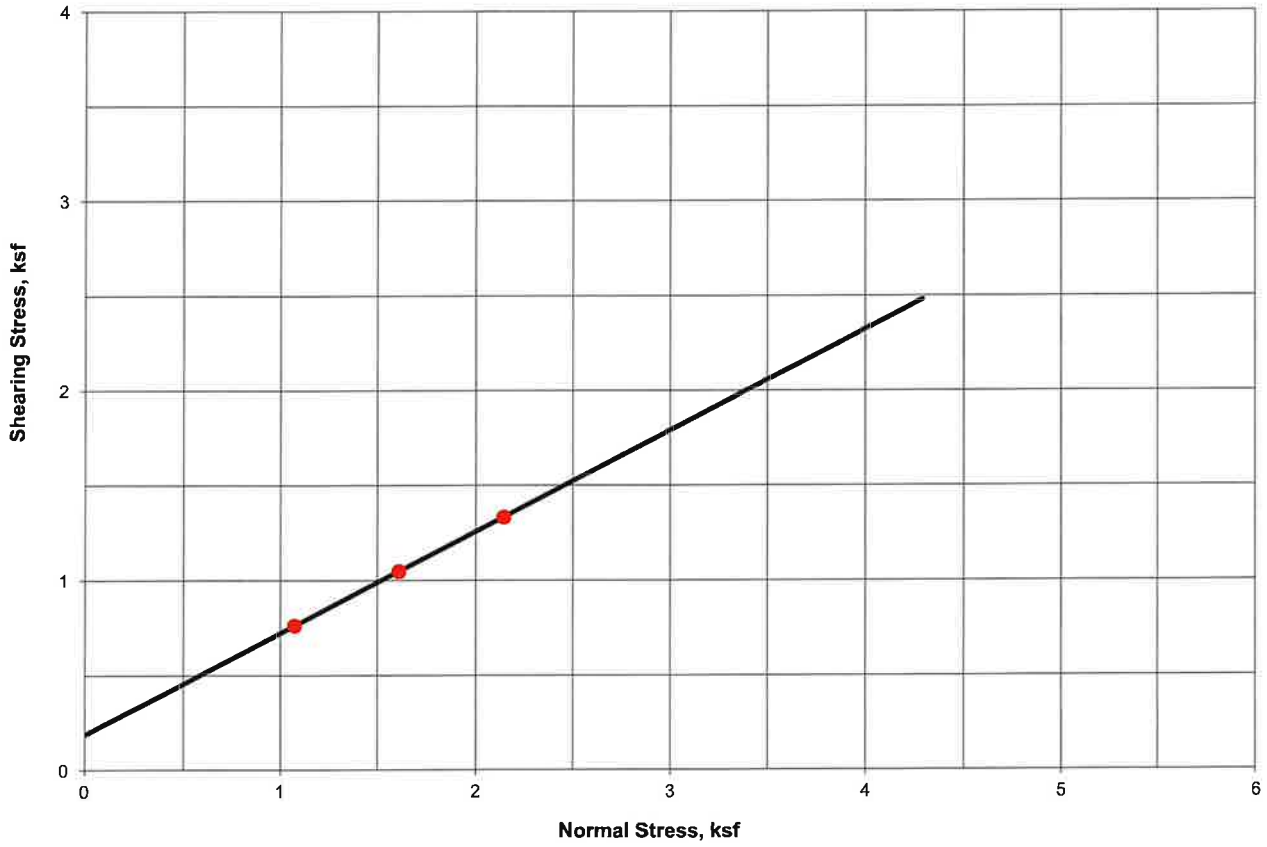
CLIENT: Apex Energy Solutions, LLC
PROJECT: NorthStar 3 Solar Project, Salton City, CA
PROJECT No: LE22171 **DATE:** 10/21/2022

DIRECT SHEAR TEST - INSITU (ASTM D3080)

SAMPLE LOCATION: TP-2 @ 0-3 ft
SAMPLE DESCRIPTION: Silt (ML)

Angle of Internal Friction: 28°
Cohesion: 0.19 ksf
Initial Dry Density: 87.1 pcf
Initial Moisture Content: 4%

DIRECT SHEAR TEST RESULTS



LANDMARK Geo-Engineers and Geologists PROJECT No: LE22171	Direct Shear Test Results	Plate C-5

EEC ORIGINAL PKG

LANDMARK CONSULTANTS, INC.

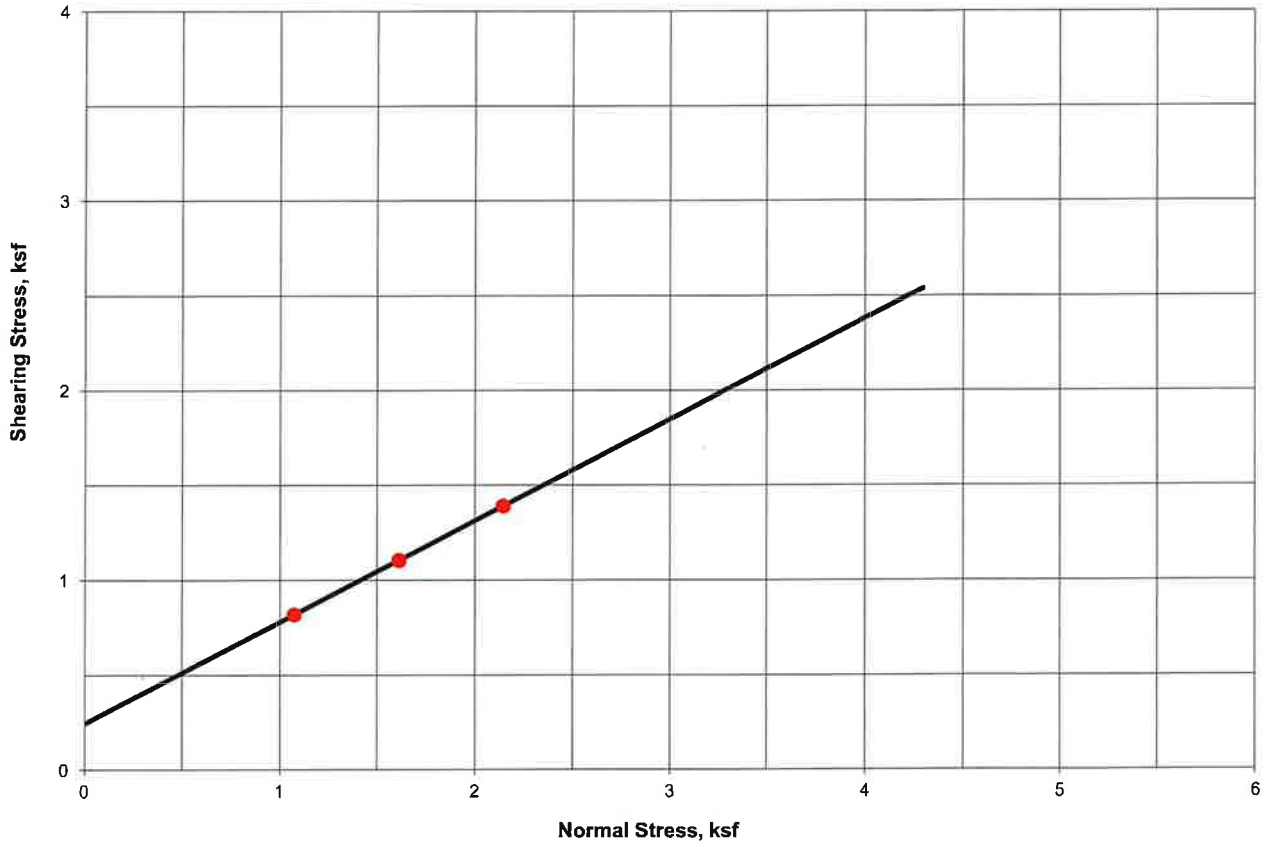
CLIENT: Apex Energy Solutions, LLC
PROJECT: NorthStar 3 Solar Project, Salton City, CA
PROJECT No: LE22171 **DATE:** 10/21/2022

DIRECT SHEAR TEST - INSITU (ASTM D3080)

SAMPLE LOCATION: TP-5 @ 0-3 ft
SAMPLE DESCRIPTION: Clayey Sand (SC)

Angle of Internal Friction: 28°
Cohesion: 0.24 ksf
Initial Dry Density: 91.1 pcf
Initial Moisture Content: 3.4%

DIRECT SHEAR TEST RESULTS



LANDMARK Geo-Engineers and Geologists PROJECT No: LE22171	Direct Shear Test Results	Plate C-6

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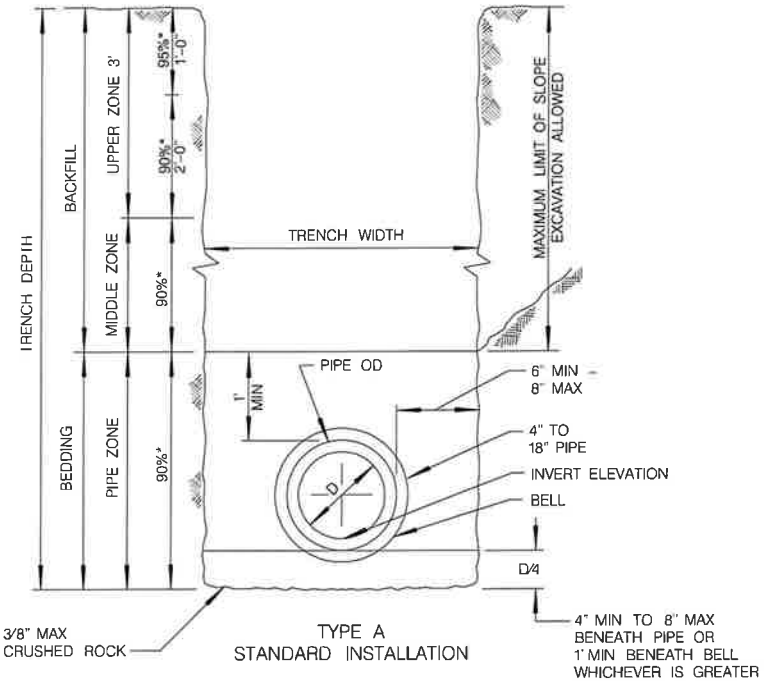
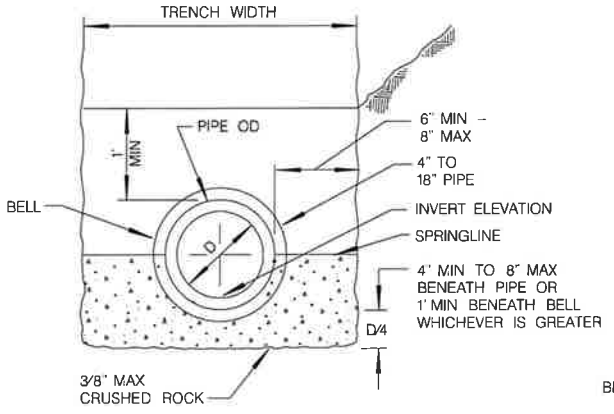
APPENDIX D

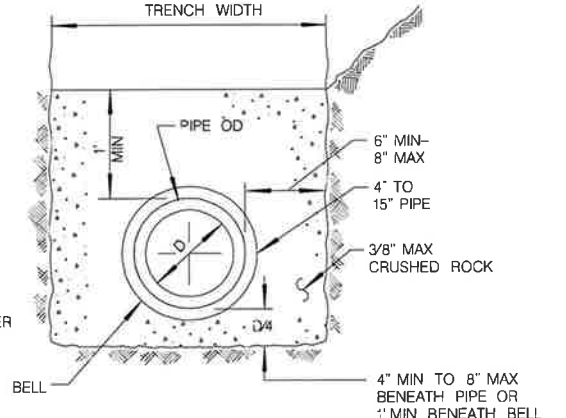
EEC ORIGINAL PKG



TYPE A
STANDARD INSTALLATION



TYPE B
ROCK TO SPRINGLINE



TYPE C
ROCK ENVELOPE

NOTES

1. FOR TRENCH RESURFACING IN IMPROVED STREETS, SEE STANDARD DRAWINGS SDG-107 AND SDG-108.
2. (*) INDICATES MINIMUM RELATIVE COMPACTION.
3. MINIMUM DEPTH OF COVER FROM THE TOP OF PIPE TO FINISH GRADE FOR PVC SDR 35 SEWER MAIN SHALL BE 5'. FOR SHALLOWER DEPTH, SPECIAL DESIGN IS REQUIRED, SEE SDS-101.
4. SEE TYPE A INSTALLATION FOR DETAILS NOT SHOWN FOR TYPES B AND C.
5. FOR PIPE SIZE ENCASEMENT LARGER THAN 15", MAXIMUM SIDE WALL CLEARANCE SHALL BE 12" OR AS SHOWN ON THE PLANS.
6. 6" METAL TAPE SHALL BE INSTALLED ABOVE PIPE 4" BELOW TRENCH CAP AND 12" BELOW FINISH GRADE IN UNIMPROVED STREETS.
7. 1" SAND CUSHION OR A 6" MINIMUM SAND CUSHION WITH 1" NEOPRENE PAD SHALL BE PLACED FOR CROSSINGS UTILITIES WHEN VERTICAL CLEARANCE IS 1' OR LESS. THE NEOPRENE PAD SHALL BE PLACED ON THE MOST FRAGILE UTILITY.

From: City of San Diego Standard Drawing SDS-110 (2016)

LANDMARK Geo-Engineers and Geologists **Project No.: LE22171**	**Pipe Bedding and Trench Backfill Recommendations**	**Plate D-1**

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APPENDIX E

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NORTHSTAR SOLAR – SITE LE22171
SOIL ASSESSMENT SUMMARY REPORT

Presented To:

Landmark Consultants

Prepared by:

R F Yeager
ENGINEERING

Project No. 22136

SEPTEMBER 23, 2022

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INTRODUCTION

RFYeager Engineering has completed an electrical and thermal resistivity assessment at the proposed Site LE22171 of the NorthStar Solar Project near Salton City, California. A chemical analysis of three (3) soil samples provided by Landmark was also conducted. The objective of this study is to determine the thermal and electrical resistivity, as well as to determine the corrosivity of the soil at the project site.

The location and numbering of the assessment sites is shown in Figure 1 at the end of this report. Figure 1 is based upon the site map provided by Landmark.

SCOPE

The electrical resistivity of the soil was determined by using the Wenner 4 pin method in accordance with ASTM G57 standards. Six readings were obtained and recorded for each assessment site based upon pin spacings of 40, 20, 15, 10, 5, and 2.5 feet. Readings were recorded at three locations within the Site LE22171 boundaries. All resistivity readings were recorded utilizing a Soil Resistance Meter (Megger Model DET4T2).

The soil corrosivity was evaluated based on the results of the field soil electrical resistivity assessment and the chemical analyses of the thee soil samples. The soil samples were obtained by Landmark from a depth of approximately 3 feet. The samples were analyzed for pH, soluble salts (chlorides and sulfates) as well as resistivity in the saturated condition.

The thermal resistivity was determined using a Decagon KD2 Pro Portable Thermal Properties Analyzer (KD2 Pro) outfitted with the 100 mm long, 2.4 mm diameter TR-1 sensor. The KD2 Pro works in accordance with ASTM D5334-08 using a transient heat method.

CONCLUSIONS

The following are significant conclusions resulting from this assessment:

1. The results of the field electrical resistivity assessment are provided in Table 1. Resistivity readings ranging from 5,745 ohm-cm to 30,640 ohm-cm. It is noted that the dry, loose soil conditions made it challenging to obtain accurate field data. Large amounts of water had to be poured at each pin location in order to achieve sufficient electrical contact with the earth.

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Table 1 – NorthStar Solar Site LE22171 Soil Electrical Resistivity Data Prepared by: RFYeager Engineering Test Date: 8.29.2022							
		Soil Resistivity (Ohm-cm)					
	Assessment Site	Ave. Soil Depth (feet)					
Test No.	ID	40	20	15	10	5	2.5
1	ER-1	8426	5745	9479	9020	9556	11490
2	ER-2	6358	6090	8330	7660	22980	30640
3	ER-3	7124	6856	7181	6760	13405	15703

1 - See Figure 1 for soil assessment location relative to project site

2. The chemical analysis results were varied (see Table 2). The saturated soil resistivities of the samples from test sites 1 and 3 were 2,200 ohm-cm and 2,300 ohm-cm, respectively. The saturated soil resistivity of the sample from test site 2, located on the northern half of the project boundaries, was much lower at 530 ohm-cm. All three samples contained relatively low concentrations of chlorides (i.e. less than 300 ppm) and sulfates (i.e. less than 1000 ppm). The pH readings for all soil samples are indicative of slightly alkaline soil conditions.

Table 2 – NorthStar Solar Site LE22171 Chemical Analysis Data Prepared by: RFYeager Engineering				
Sample ID[1]	Min. Soil Box Resistivity[2] (ohm-cm)	Chloride Concentration[3] (ppm)	Sulfate Concentration[4] (ppm)	pH[5]
1	2,200	30	50	9.3
2	530	110	270	8.2
3	2,300	70	60	8.7

1 - See Figure 1 for soil sample location. Soil sample taken from a depth of 3 feet
2 - Min. Electrical Resistivity - Miller Soil Box Method, Cal. Test 643
3 - Soluble Soil Chlorides - Cal. Test 422
4 - Soluble Sulfate Content - Cal. Test 417
5 - pH - Cal. Test 643

3. It is noted that the saturated soil box resistivities measured from the three soil samples are lower than the Wenner 4-pin resistivities taken in the field. This is likely due to the relatively

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dry soil conditions at the project site during the field assessment. The dryer the soil, the lesser the impact soluble soil salts have on resistivity. The saturated (minimum) soil box measurements represent the lowest, most corrosive conditions whereby the soils become fully saturated and have the lowest resistivity.

4. The results of the field electrical resistivity assessment and soil sample analysis at the Project's Site LE22171 indicate varying levels of soil corrosivity. However, for all locations, the soil is considered aggressive enough to initiate and support the corrosion of buried metallic utilities. This conclusion is based primarily on the relatively low saturated soil box resistivities. Accordingly, supplemental corrosion control measures are recommended in order to prevent premature failures.

5. The soil thermal resistivity is provided in Table 3 on the following page. The corresponding Time vs. Temperature graphs for each assessment site is provided in Appendix A.

Table 3 – NorthStar Solar Site LE22171
Thermal Resistivity Data
Prepared by: RFYeager Engineering

Sample ID[1]	In-Situ Thermal Resistivity[2] ($m\ ^0CW^{-1}$)
TR1	3.67
TR2	2.08
TR3	3.40

1 - See Figure 1 for sample location relative to project site
2 – ASTM D5334-08.

DISCUSSION

Electrical Resistivity Assessment

Soil electrical resistivity (inverse of conductivity) measures the ability of an electrolyte (soil) to support electrical current flow. The most common method of measuring soil electrical resistivity is the Wenner 4-Pin Method which uses four pins (electrodes) that are driven into the earth and equally spaced apart in a straight line. The Wenner 4-pin Method provides an average resistivity of a hemisphere (essentially) of soil whose diameter is approximately equal to the pin spacing. For example, the electrical resistivity value obtained with the pins spaced at 5 feet apart is the average resistivity of a hemisphere of soil from the surface to a depth of 5 feet. By taking readings

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at different pin spacings (or depths), average soil electrical resistivity conditions can be obtained within areas at, above, and below trench zones.

Corrosion versus Resistivity

Corrosion is an electrochemical process, whereby the reaction rate is largely dependent upon the electrical conductivity of the surrounding electrolyte. Accordingly, the lower the electrical resistivity, then the greater the current flow and the greater the corrosion rate assuming all other factors are equal.

One common relationship between corrosivity and soil electrical resistivity used by corrosion engineers is provided on the following page.

Corrosivity	Electrical Resistivity
Very Corrosive	0-1000 ohm-cm
Corrosive	1001-2000 ohm-cm
Fairly Corrosive	2001-5000 ohm-cm
Moderately Corrosive	5001-12000 ohm-cm
Slightly Corrosive	12001-30000 ohm-cm
Relatively Non-Corrosive	Greater than 30001 ohm-cm

Thermal Resistivity Assessment

Thermal resistivity of the soil was measured at three locations selected by Landmark within the LE22171 Project site. Assessments were conducted within test pits at a depth of approximately 2 feet. At each site, the thermal resistivity was measured three times with the average provided in Table 3. The assessment was conducted in general accordance with the standard method ASTM D5334-08 which calculates thermal resistivity by monitoring the dissipation of heat from a line heat source. The field assessment consists of inserting a thermal sensor into the soil with a known current and voltage applied. The corresponding temperature rise in the soil over a period of time is recorded. The thermal resistivity is obtained from an analysis of the time series temperature data during the heating and cooling cycle of the sensor.

For purposes of this report, the thermal resistivity values are provided as "data only" in order to assist others in the project design.

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Thank you for this opportunity to provide these corrosion engineering services. Please contact me if you have any questions.

REGISTERED PROFESSIONAL ENGINEER
RANDY J. GEVING
Exp. 6/30/24
No. 1060
CORROSION
STATE OF CALIFORNIA

Randy J. Geving, PE
Registered Professional Engineer – Corrosion No.1060
RGeving@RFYeager.com, 760.715.2358

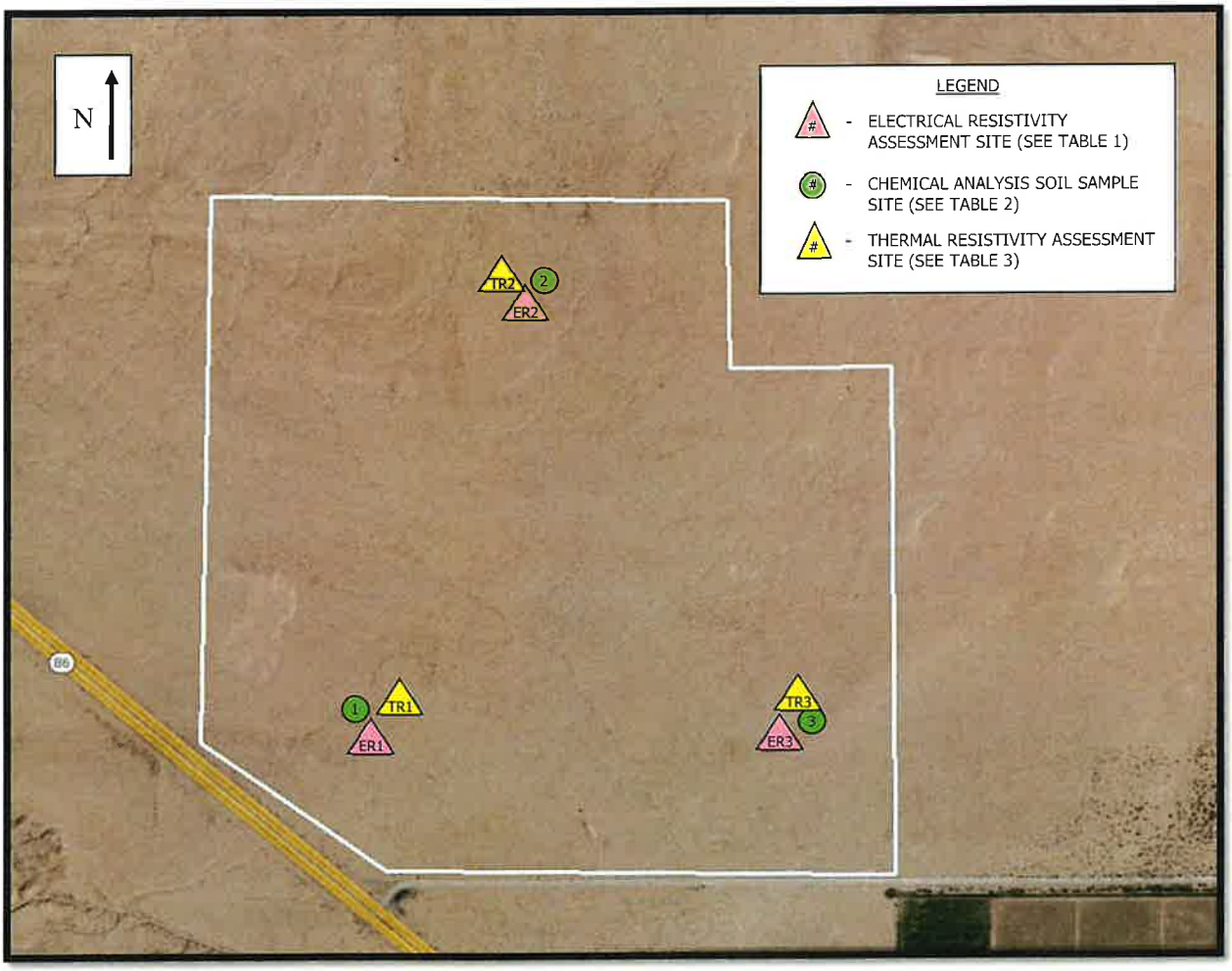

Figure 1 – NorthStar Solar Site LE22171 Assessment Locations

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APPENDIX A
THERMAL RESISTIVITY
TEMPERATURE VS. TIME GRAPHS

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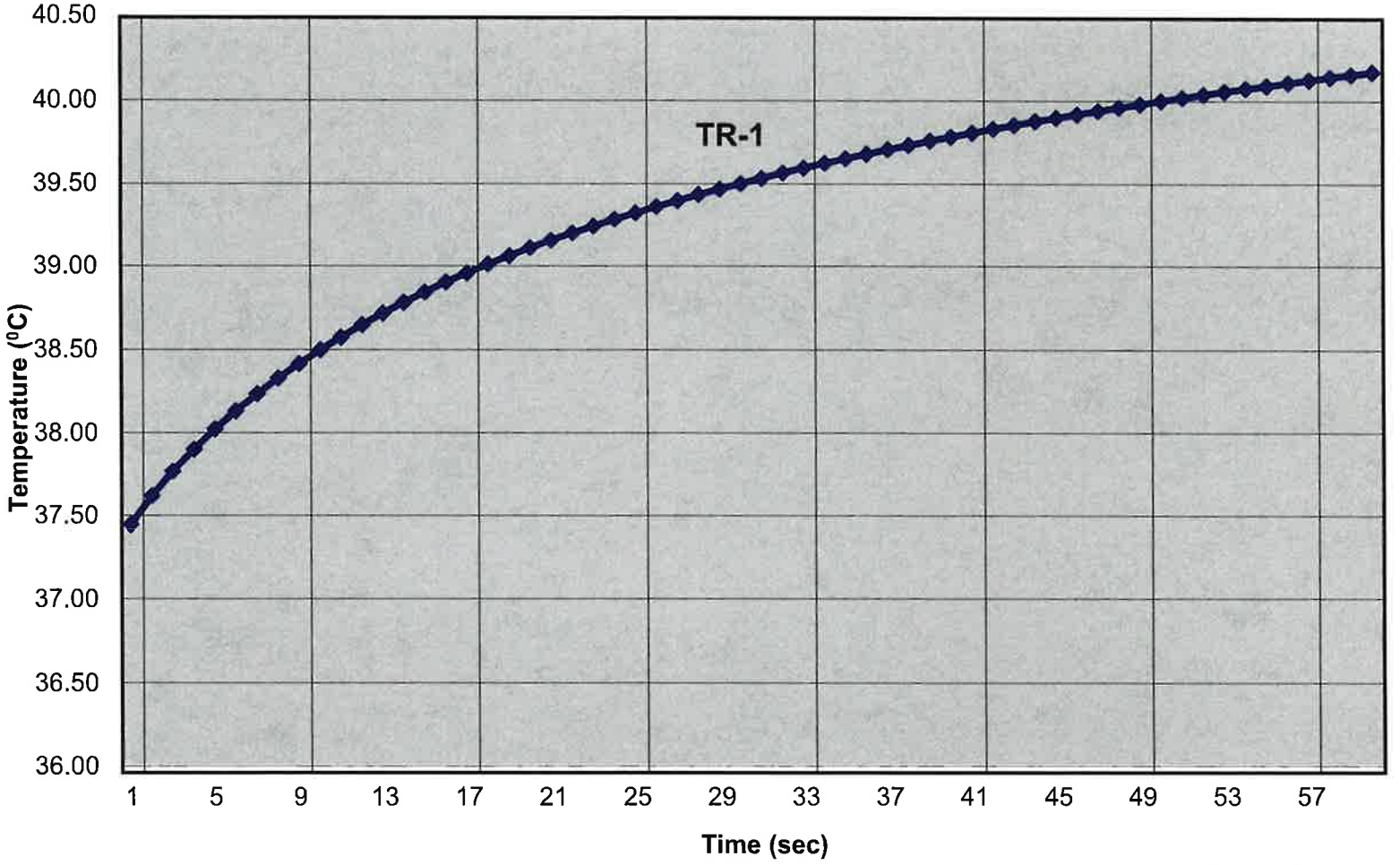
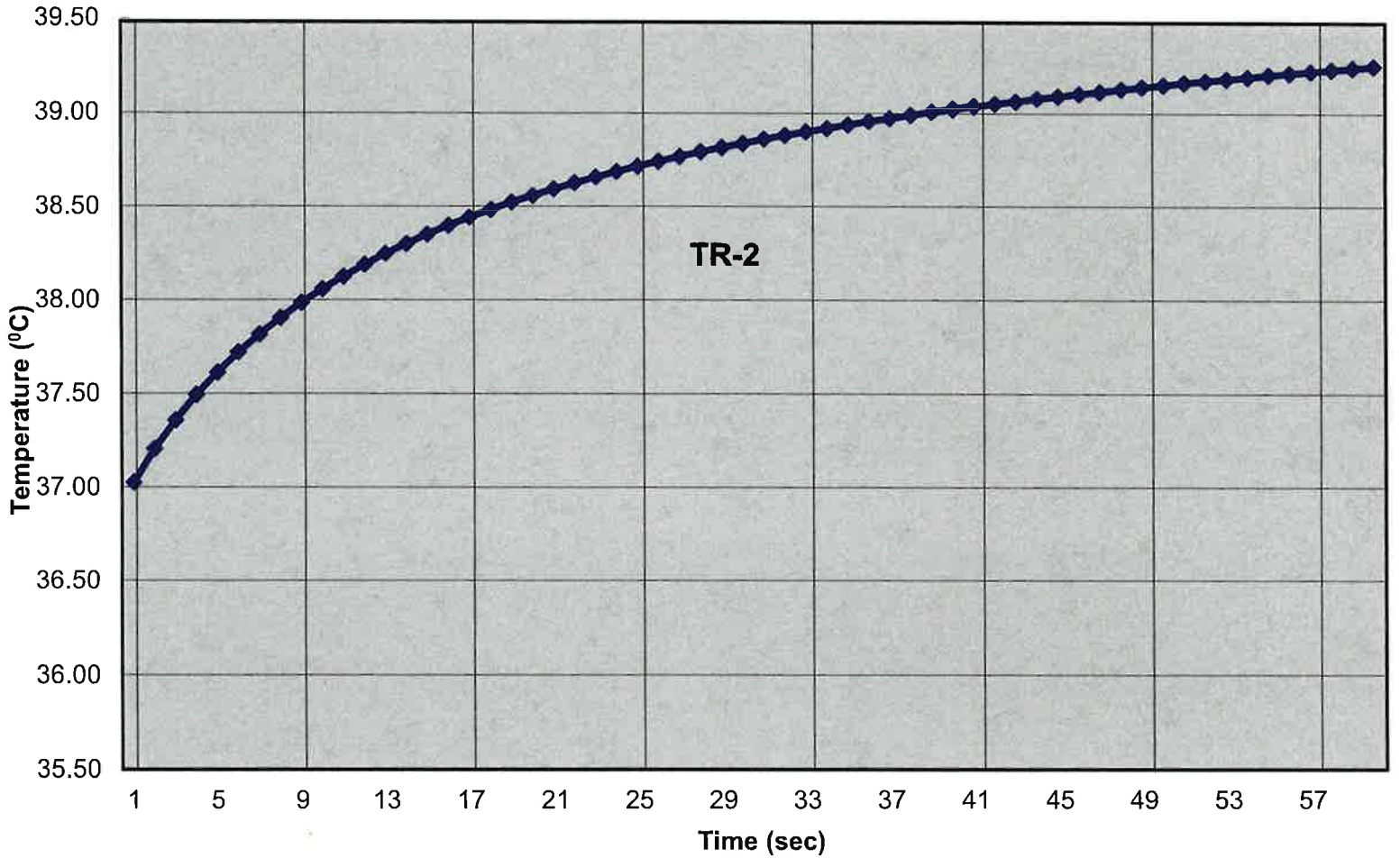
NorthStar Solar - Site LE22171
Thermal Resistivity Temperature vs. Time Graph
Test Date: August 29, 2022



RFYeager Engineering

EEC ORIGINAL PKG

NorthStar Solar - Site LE22171
Thermal Resistivity Temperature vs. Time Graph
Test Date: August 29, 2022



RFYeager Engineering

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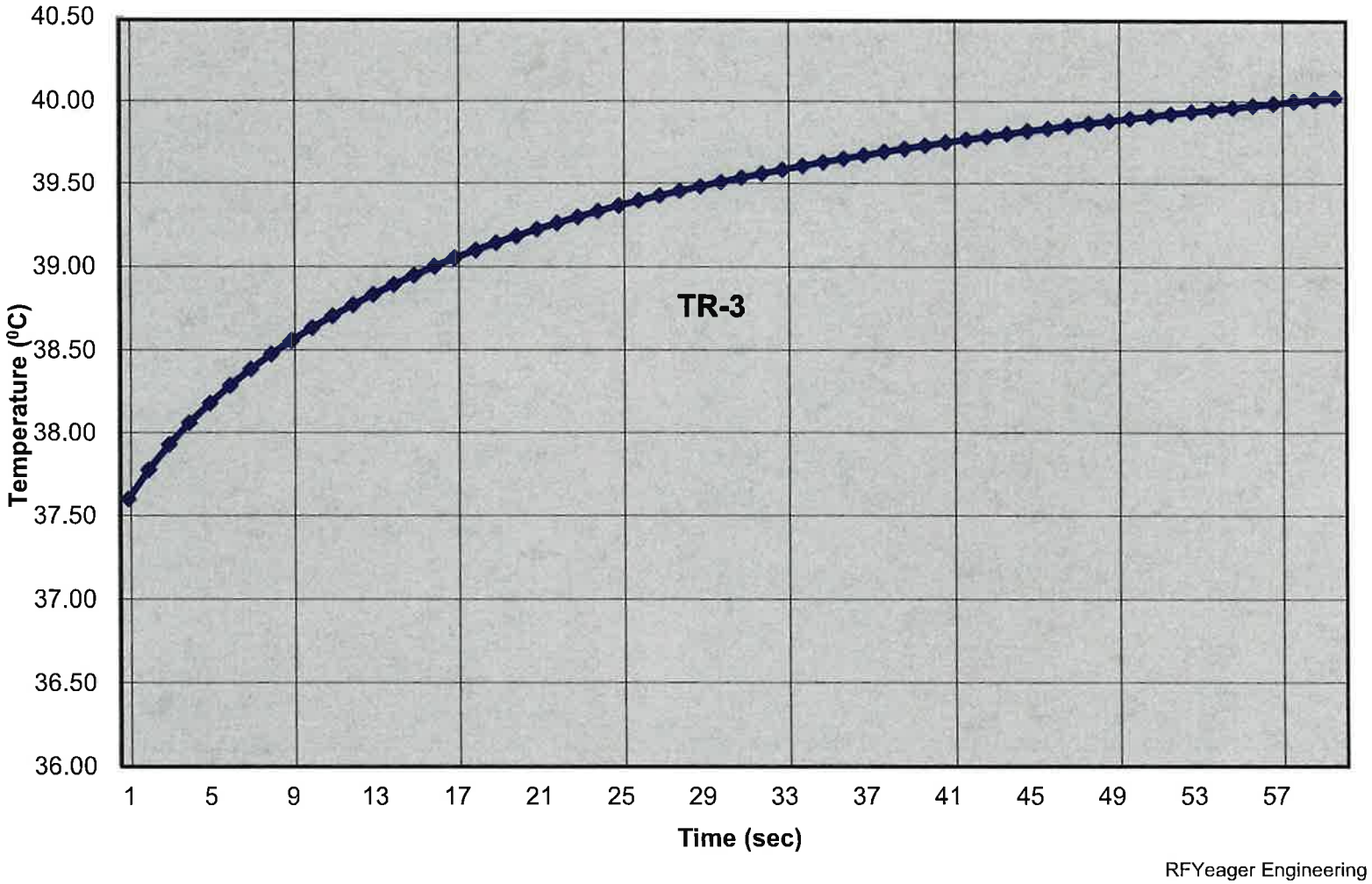
NorthStar Solar - Site LE22171
Thermal Resistivity Temperature vs. Time Graph
Test Date: August 29, 2022



RFYeager Engineering

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APPENDIX F

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CUP for Northstar 3 solar & SES

CONDITIONAL USE PERMIT

I.C. PLANNING & DEVELOPMENT SERVICES DEPT.
801 Main Street, El Centro, CA 92243 (760) 482-4236

- APPLICANT MUST COMPLETE ALL NUMBERED (black) SPACES – Please type or print -

1. PROPERTY OWNER'S NAME Apex Energy Solutions, LLC	EMAIL ADDRESS c/o Jurgheuberger@gmail.com	
2. MAILING ADDRESS (Street / P O Box, City, State) 604 Sutter St., SUite 250, Folsom, Ca	ZIP CODE 95630	PHONE NUMBER 760-996-0313
3. APPLICANT'S NAME Northstar 3 SES (Project Name)	EMAIL ADDRESS NA	
4. MAILING ADDRESS (Street / P O Box, City, State) same	ZIP CODE	PHONE NUMBER
4. ENGINEER'S NAME CA. LICENSE NO. NA	EMAIL ADDRESS	
5. MAILING ADDRESS (Street / P O Box, City, State) NA	ZIP CODE	PHONE NUMBER

6. ASSESSOR'S PARCEL NO. 017-350-031 & 017-350-030 & 017-350-027	SIZE OF PROPERTY (in acres or square foot) 305 Ac and 160 ac and 120 ac	ZONING (existing) S-2
7. PROPERTY (site) ADDRESS pending		
8. GENERAL LOCATION (i.e. city, town, cross street) see attached data (along HWY 86 near Salton City)		
9. LEGAL DESCRIPTION See attached title report		

PLEASE PROVIDE CLEAR & CONCISE INFORMATION (ATTACH SEPARATE SHEET IF NEEDED)

10. DESCRIBE PROPOSED USE OF PROPERTY (list and describe in detail) develop a solar power project with a battery storage system at approximately 100 MW and 200 MW storage	
11. DESCRIBE CURRENT USE OF PROPERTY	vacant
12. DESCRIBE PROPOSED SEWER SYSTEM	NA
13. DESCRIBE PROPOSED WATER SYSTEM	NA
14. DESCRIBE PROPOSED FIRE PROTECTION SYSTEM	meet county fire standards
15. IS PROPOSED USE A BUSINESS? ☐ Yes ☐ No	IF YES, HOW MANY EMPLOYEES WILL BE AT THIS SITE? construction approx. 150, operations about 1-2

I / WE THE LEGAL OWNER (S) OF THE ABOVE PROPERTY CERTIFY THAT THE INFORMATION SHOWN OR STATED HEREIN IS TRUE AND CORRECT.

Ziad Alaywan — Print Name — March 20, 2023 — Date

Signature

Print Name — Date

Signature

REQUIRED SUPPORT DOCUMENTS

A. SITE PLAN
B. FEE
C. OTHER
D. OTHER

APPLICATION RECEIVED BY:		DATE	
APPLICATION DEEMED COMPLETE BY:		DATE	
APPLICATION REJECTED BY:		DATE	
TENTATIVE HEARING BY:		DATE	
FINAL ACTION: ☐ APPROVED ☐ DENIED		DATE	

REVIEW / APPROVAL BY OTHER DEPT'S required.
☐ P. W.
☐ E. H. S.
☐ A. P. C. D.
☐ O. E. S.
☐ _____
☐ _____

CUP # _____

EEC ORIGINAL PKG

CUP for Northstar 3 water well

CONDITIONAL USE PERMIT

I.C. PLANNING & DEVELOPMENT SERVICES DEPT.
801 Main Street, El Centro, CA 92243 (760) 482-4236

- APPLICANT MUST COMPLETE ALL NUMBERED (black) SPACES – Please type or print -

1. PROPERTY OWNER'S NAME Apex Energy Solutions, LLC	EMAIL ADDRESS c/o Jurgheuberger@gmail.com	
2. MAILING ADDRESS (Street / P O Box, City, State) 604 Sutter St., SUite 250, Folsom, Ca	ZIP CODE 95630	PHONE NUMBER 760-996-0313
3. APPLICANT'S NAME Northstar 3 SES (Project Name)	EMAIL ADDRESS NA	
4. MAILING ADDRESS (Street / P O Box, City, State) same	ZIP CODE	PHONE NUMBER
4. ENGINEER'S NAME NA — CA. LICENSE NO.	EMAIL ADDRESS	
5. MAILING ADDRESS (Street / P O Box, City, State) NA	ZIP CODE	PHONE NUMBER

6. ASSESSOR'S PARCEL NO. 017-350-031 & 017-350-030 & 017-350-027	SIZE OF PROPERTY (in acres or square foot) 305 Ac and 160 ac and 120 ac	ZONING (existing) S-2
7. PROPERTY (site) ADDRESS pending		
8. GENERAL LOCATION (i.e. city, town, cross street) see attached data (along HWY 86 near Salton City)		
9. LEGAL DESCRIPTION See attached title report		

PLEASE PROVIDE CLEAR & CONCISE INFORMATION (ATTACH SEPARATE SHEET IF NEEDED)

10. DESCRIBE PROPOSED USE OF PROPERTY (list and describe in detail) develop a water well (1.5 to 5 ac. ft/yr) to develop a solar power project with a battery storage system at approximately 100 MW and 200 MW storage	
11. DESCRIBE CURRENT USE OF PROPERTY	vacant
12. DESCRIBE PROPOSED SEWER SYSTEM	NA
13. DESCRIBE PROPOSED WATER SYSTEM	NA
14. DESCRIBE PROPOSED FIRE PROTECTION SYSTEM	meet county fire standards
15. IS PROPOSED USE A BUSINESS? ☐ Yes ☐ No	IF YES, HOW MANY EMPLOYEES WILL BE AT THIS SITE? construction approx. 150, operations about 1-2

I / WE THE LEGAL OWNER (S) OF THE ABOVE PROPERTY CERTIFY THAT THE INFORMATION SHOWN OR STATED HEREIN IS TRUE AND CORRECT.

Ziad Alaywan — Print Name
Signature
March 20, 2023 — Date

Print Name — Date
Signature

REQUIRED SUPPORT DOCUMENTS

A. SITE PLAN
B. FEE
C. OTHER
D. OTHER

APPLICATION RECEIVED BY: — DATE
APPLICATION DEEMED COMPLETE BY: — DATE
APPLICATION REJECTED BY: — DATE
TENTATIVE HEARING BY: — DATE
FINAL ACTION: ☐ APPROVED ☐ DENIED — DATE

REVIEW / APPROVAL BY OTHER DEPT'S required.
☐ P. W.
☐ E. H. S.
☐ A. P. C. D.
☐ O. E. S.
☐ _____
☐ _____

CUP # _____

EEC ORIGINAL PKG

Ch of Zone for Northstar 3

CHANGE OF ZONE

I.C. PLANNING & DEVELOPMENT SERVICES DEPT.
801 Main Street, El Centro, CA 92243 (760) 482-4236

- APPLICANT MUST COMPLETE ALL NUMBERED (black & blue) SPACES – Please type or print -

1. PROPERTY OWNER'S NAME Apex Energy Solutions, LLC		EMAIL ADDRESS c/o jurgheuberger@gmail.com	
2. MAILING ADDRESS (Street / P O Box, City, State) 604 Sutter St., Suite 250, Folsom, Ca		ZIP CODE 95630	PHONE NUMBER c/o 760-996-0313
3. ENGINEER'S NAME NA	CA. LICENSE NO.	EMAIL ADDRESS	
4. MAILING ADDRESS (Street / P O Box, City, State) NA		ZIP CODE	PHONE NUMBER

5. ASSESSOR'S PARCEL NO. 017-350-031 & 017-350-030 & 017-350-027	ZONING (existing) S-2	ZONING (proposed) S-2 RE
6. PROPERTY (site) ADDRESS pending assignment by ICPDS		SIZE OF PROPERTY (in acres or square foot) 305, 160, & 120
7. GENERAL LOCATION (i.e. city, town, cross street) along HWY 86 near Salton City		
8. LEGAL DESCRIPTION see attached PTR		

8. DESCRIBE CURRENT USE ON / OF PROPERTY (list and describe in detail)
vacant open space/desert

9. PLEASE STATE REASON FOR PROPOSED USE (be specific)
develop a 100 MW solar and 200 MW. Bess project and none of the parcels appear to be in the RE zone

10. DESCRIBE SURROUNDING PROPERTY USES
generally vacant open space

I / WE THE LEGAL OWNER (S) OF THE ABOVE PROPERTY CERTIFY THAT THE INFORMATION SHOWN OR STATED HEREIN IS TRUE AND CORRECT.

Ziad Alaywan — Print Name
3/24/2023 — Date
Signature

REQUIRED SUPPORT DOCUMENTS

A. SITE PLAN
B. PRELIMINARY TITLE REPORT (6 months or newer)
C. FEE
D. OTHER

APPLICATION RECEIVED BY:		DATE	
APPLICATION DEEMED COMPLETE BY:		DATE	
APPLICATION REJECTED BY:		DATE	
TENTATIVE HEARING BY:		DATE	
FINAL ACTION: ☐ APPROVED ☐ DENIED		DATE	

REVIEW / APPROVAL BY OTHER DEPT'S required.
☐ P. W.
☐ E. H. S.
☐ A. P. C. D.
☐ O. E. S.
☐ _____
☐ _____

ZC # _____

EEC ORIGINAL PKG

North Star 3 SES (Apex Energy Solutions)

IMPERIAL COUNTY PLANNING & DEVELOPMENT SERVICES
GENERAL INDEMNIFICATION AGREEMENT

As part of this application, applicant and real party in interest, if different, agree to defend, indemnify, hold harmless, and release the County of Imperial ("County"), its agents, officers, attorneys, and employees (including consultants) from any claim, action, or proceeding brought against any of them, the purpose of which is to attack, set aside, void, or annul the approval of this application or adoption of the environmental document which accompanies it. This indemnification obligation shall include, but not be limited to, damages, costs, expenses, attorney fees, or expert witness fees that may be asserted by any person or entity, including the applicant, arising out of or in connection with the approval of this application, whether or not there is concurrent negligence on the part of the County, its agents, officers, attorneys, or employees (including consultants).

If any claim, action, or proceeding is brought against the County, its agents, officers, attorneys, or employees (including consultants), to attack, set aside, void, or annul the approval of the application or adoption of the environmental document which accompanies it, then the following procedures shall apply:

1. The Planning Director shall promptly notify the County Board of Supervisors of any claim, action or proceeding brought by an applicant challenging the County's action. The County, its agents, attorneys and employees (including consultants) shall fully cooperate in the defense of that action.

2. The County shall have the final determination on how to best defend the case and will consult with applicant regularly regarding status and the plan for defense. The County will also consult and discuss with applicant the counsel to be used by County to defend it, either with in-house counsel, or by retaining outside counsel provided that the County shall have the final decision on the counsel retained to defend it. Applicant shall be fully responsible for all costs incurred. Applicant shell be entitled to provide his or her own counsel to defend the case, and said independent counsel shall work with County Counsel to provide a joint defense.

Executed at Folsom California on March 27, 2023

APPLICANT

Name: Ziad Alaywan

By

Title Managing Member

Mailing Address:

604 Sutter St., Suite 250

Folsom, CA 95630

REAL PARTY IN INTEREST
(If different from Applicant)

Name

By

Title

Mailing Address:

ACCEPTED/RECEIVED BY Date

PROJECT ID NO APN ___ ___ ___-___ ___ ___-___ ___

S:\FORMS _ LISTS\General Indemnification FORM 041516.doc

EEC ORIGINAL PKG

North Star 3 SES (Apex Energy Solutions)

Imperial County Planning & Development Services
Planning / Building / Parks & Recreation

Jim Minnick
DIRECTOR

NOTICE TO APPLICANT

SUBJECT: PAYMENT OF FEES

Dear Applicant:

Pursuant to County Codified Ordinance Division 9, Chapter 1, Section 90901.02, all Land Use Applications must be submitted with their appropriate application fee. Failure to comply will cause application to be rejected.

Please note that once the Department application is received and accepted, a "time track" billing will commence immediately. Therefore, should you decide to cancel or withdraw your project at any time, the amount of time incurred against your project will be billed and deducted from your payment. As a consequence, if you request a refund pursuant to County Ordinance, your refund, if any, will be the actual amount paid minus all costs incurred against the project.

Please note there will be no exceptions to this policy. Thank you for your attention.

Sincerely yours,

Jim Minnick, Director
Planning & Development Services

RECEIVED BY: _____ **DATE:** 3 / 27 / 2023

801 Main St. El Centro, CA 92243 442.265.1736 Fax 442.265.1799 planning@co.imperial.ca.us www.icpds.com

EEC ORIGINAL PKG

A.L.T.A./N.S.P.S. LAND TITLE SURVEY

PORTION OF SECTION 25, TOWNSHIP 11 SOUTH, RANGE 10 EAST, IN AN UNINCORPORATED AREA OF THE COUNTY OF IMPERIAL, STATE OF CALIFORNIA

SCHEDULE B ITEMS FROM PRELIMINARY TITLE REPORT No. 140-2315900-32 DATED MARCH 2, 2022

10. COVENANTS, CONDITIONS AND RESTRICTIONS IN AN INSTRUMENT RECORDED IN BOOK 30 PAGE 235, OF DEEDS, BUT DELETING ANY COVENANT, CONDITION, OR RESTRICTION, IF ANY, INDICATING A PREFERENCE, LIMITATION, OR DISCRIMINATION BASED ON RACE, COLOR, RELIGION, SEX, GENDER, GENDER IDENTITY, GENDER EXPRESSION, SEXUAL ORIENTATION, FAMILIAL STATUS, MARITAL STATUS, DISABILITY, HANDICAP, VETERAN OR MILITARY STATUS, GENETIC INFORMATION, NATIONAL ORIGIN, SOURCE OF INCOME AS DEFINED IN SUBDIVISION (P) OF SECTION 12955, OR ANCESTRY, TO THE EXTENT THAT SUCH COVENANTS, CONDITIONS OR RESTRICTIONS VIOLATE APPLICABLE STATE OR FEDERAL LAWS. EXCEPTIONS: NOTHING HEREIN SHALL BE CONSTRUED AS RESTRICTIONS BASED ON FAMILIAL STATUS.
NOT PLOTTED ON MAP

11. AN EASEMENT FOR PURPOSES HEREIN STATED, AND RIGHTS INCIDENTAL THERETO, AS PROVIDED IN AN INSTRUMENT:
RECORDED: 5/29/1963, IN BK. 2, PG. 341, O.R.
PURPOSE: STATE HIGHWAY AND INCIDENTAL PURPOSES
IN FAVOR OF: STATE OF CALIFORNIA
NOT PLOTTED ON MAP

12. AN EASEMENT FOR PURPOSES HEREIN STATED, AND RIGHTS INCIDENTAL THERETO, AS PROVIDED IN AN INSTRUMENT:
RECORDED: 3/02/1929, IN BK. 226, PG. 1, O.R.
PURPOSE: DITCHES AND LEVEES AND INCIDENTAL PURPOSES
IN FAVOR OF: STATE OF CALIFORNIA
NOT PLOTTED ON MAP

13. AN EASEMENT FOR PURPOSES HEREIN STATED, AND RIGHTS INCIDENTAL THERETO, AS PROVIDED IN AN INSTRUMENT:
RECORDED: 2/27/1936, IN BK. 275, PG. 290, O.R.
PURPOSE: COUNTY ROAD AND INCIDENTAL PURPOSES
IN FAVOR OF: COUNTY OF IMPERIAL, CA.
PLOTTED ON MAP

14. AN EASEMENT FOR PURPOSES HEREIN STATED, AND RIGHTS INCIDENTAL THERETO, AS PROVIDED IN AN INSTRUMENT:
RECORDED: 10/21/1834, IN BK. 426, PG. 273, O.R.
PURPOSE: POWER TRANSMISSION LINES ON A SINGLE LINE OF WOODEN TOWERS AND INCIDENTAL PURPOSES
IN FAVOR OF: IMPERIAL IRRIGATION DISTRICT
PLOTTED ON MAP

15. AN EASEMENT FOR ROADWAY AND APPURTENANCES AS CONDEMNED BY THE UNITED STATES OF AMERICA BY DECREE OF DECLARATION OF TAKING AND RIGHTS INCIDENTAL THERETO, AS SET FORTH IN A DOCUMENT RECORDED MAY 13, 1952 IN BOOK 881 PAGE 491 OF OFFICIAL RECORDS. AFFECTS AS SAID DOCUMENT IS DESCRIBED THEREIN
NOT PLOTTED ON MAP

16. AN EASEMENT FOR RIGHTS INCIDENTAL AND INCIDENTAL PURPOSES AS RESERVED BY WILL WARD, A SINGLE MAN IN THE DEED RECORDED 5/23/1945, IN BOOK 1051 PAGE 174, OF OFFICIAL RECORDS. AFFECTS THE EAST HALF OF SECTION 25, TOWNSHIP 11 SOUTH, RANGE 10 EAST, S.B.&M. AND THAT PORTION OF SECTION 22, TOWNSHIP 9 SOUTH, RANGE 9 EAST, S.B.M., ACCORDING TO THE UNITED STATES GOVERNMENT OFFICIAL PLAT OF SURVEY APPROVED JUNE 4, 1856 AND ON FILE IN THE UNITED STATES LAND OFFICE AT LOS ANGELES, CALIFORNIA
NOT PLOTTED ON MAP

17. AN EASEMENT FOR INGRESS AND EGRESS AND INCIDENTAL PURPOSES AS RESERVED BY J. MAHLON CHANNEL, A SINGLE MAN IN THE DEED RECORDED 12/18/1945, IN BOOK 1120 PAGE 298, OFFICIAL RECORDS. ALONG ALIGNMENT A NON-EXCLUSIVE EASEMENT FOR INGRESS AND EGRESS TO BE USED JOINTLY BY THE GRANTEE AND THE GRANTOR HEREIN AND THEIR SUCCESSORS AND ASSIGNS AND ALL OWNERS WITHIN THE NORTH HALF OF SECTION 27, TOWNSHIP 9 SOUTH, RANGE 9 EAST OVER THE EAST 60 FEET OF SAID LAND AND OVER THE SOUTHERLY 30 FEET OF SAID LAND
PLOTTED ON MAP

18. THE FACT THAT THE OWNERSHIP OF SAID LAND DOES NOT INCLUDE ANY RIGHTS OF ACCESS, OR EGRESS TO OR FROM THE HIGHWAY ADJACENT TO SAID LAND, SAID RIGHTS HAVE BEEN RELINQUISHED IN THE DEED TO THE STATE OF CALIFORNIA RECORDED 4/8/1986, AS INSTRUMENT No 1986-4719, OF OFFICIAL RECORDS.
NOT PLOTTED ON MAP

19. AN EASEMENT FOR PURPOSES HEREIN STATED, AND RIGHTS INCIDENTAL THERETO, AS PROVIDED IN AN INSTRUMENT:
RECORDED: 5/15/1990, INSTRU. No. 1990-8989 OR
PURPOSE: COMMUNICATION FACILITIES, CONSISTING OF CABLES, WIRES, MANHOLES, CONDUITS, MARKERS, HANDHOLES AND ABOVEGROUND MARKERS, PEDESTALS, TERMINALS, TERMINAL EQUIPMENT CABINETS, OTHER ELECTRICAL CONDUCTORS AND FIXTURES AND APPURTENANCES NECESSARY AND INCIDENTAL PURPOSES
IN FAVOR OF: AMERICAN TELEPHONE AND TELEGRAPH COMPANY
PLOTTED ON MAP

20. AN EASEMENT FOR PURPOSES HEREIN STATED, AND RIGHTS INCIDENTAL THERETO, AS PROVIDED IN AN INSTRUMENT:
RECORDED: 5/15/1990, INSTRU. No. 1990-8990 OR
PURPOSE: COMMUNICATION FACILITIES, CONSISTING OF CABLES, WIRES, MANHOLES, CONDUITS, MARKERS, HANDHOLES AND ABOVEGROUND MARKERS, PEDESTALS, TERMINALS, TERMINAL EQUIPMENT CABINETS, OTHER ELECTRICAL CONDUCTORS AND FIXTURES AND APPURTENANCES NECESSARY AND INCIDENTAL PURPOSES
IN FAVOR OF: AMERICAN TELEPHONE AND TELEGRAPH COMPANY
PLOTTED ON MAP

21. AN EASEMENT FOR PURPOSES HEREIN STATED, AND RIGHTS INCIDENTAL THERETO, AS PROVIDED IN AN INSTRUMENT:
RECORDED: 5/23/1995, INSTRU. No. 1995-8225 OR
PURPOSE: COMMUNICATION FACILITIES, CONSISTING OF CABLES, WIRES, MANHOLES, CONDUITS, MARKERS, HANDHOLES AND ABOVEGROUND MARKERS, PEDESTALS, TERMINALS, TERMINAL EQUIPMENT CABINETS, OTHER ELECTRICAL CONDUCTORS AND FIXTURES AND APPURTENANCES NECESSARY AND INCIDENTAL PURPOSES
IN FAVOR OF: AMERICAN TELEPHONE AND TELEGRAPH COMPANY
PLOTTED ON MAP

22. MATTERS, RIGHTS OR BOUNDARY DISCREPANCIES THAT MAY EXIST OR BE DISCLOSED BY A RECORD OF SURVEY MAP FILED IN BOOK 20, PAGE 71, OF RECORDS OF SURVEYS IN THE OFFICE OF THE COUNTY RECORDER OF IMPERIAL COUNTY.
NOT PLOTTED ON MAP

LEGAL DESCRIPTIONS

PARCEL 1 (APN 017-350-030)
THE WEST HALF OF THE EAST HALF OF SECTION 25, TOWNSHIP 11 SOUTH, RANGE 10 EAST, S.B.M. IN THE COUNTY OF IMPERIAL, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT THEREOF.

EXCEPTING THEREFROM AN UNDIVIDED ONE-HALF OF ALL OIL, GAS AND OTHER HYDROCARBON SUBSTANCES AND MINERALS LYING IN AN UNDER ALL OF SAID LANDS OF PREMISES AND SAID PREMISES BUT WITHOUT, HOWEVER, ANY RIGHT TO ENTER UPON THE SURFACE OF SAID LAND AND THE SUBSURFACE THEREOF TO A DEPTH OF 500 FEET, MEASURED FROM SAID SURFACE, AS RESERVED BY WILL WARD BY DEED RECORDED MAY 23, 1980 IN BOOK 1051, PAGE 174 OF OFFICIAL RECORDS

PARCEL 2 (APN 017-350-031)
THE WEST HALF OF SECTION 25 IN TOWNSHIP 11 SOUTH, RANGE 10 EAST, S.B.M. IN THE COUNTY OF IMPERIAL, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT THEREOF.

EXCEPTING THEREFROM THAT PORTION CONVEYED TO THE STATE OF CALIFORNIA BY DEED RECORDED APRIL 8, 1986 IN BOOK 1557, PAGE 284, OFFICIAL RECORDS

ALSO EXCEPTING THEREFROM THAT PORTION CONVEYED TO THE STATE OF CALIFORNIA, DEPARTMENT OF PARKS AND RECREATION BY DEED RECORDED MAY 27, 1989 IN BOOK 1825, PAGE 1015 OF OFFICIAL RECORDS

NOTE: DEED RECORDED MAY 27, 1989 IN BOOK 1825, PAGE 1015 OF OFFICIAL RECORDS, COULD NOT BE GRAPHED THROUGH ORANGE COAST TITLE OR FROM THE OFFICE OF THE IMPERIAL COUNTY RECORDER SAID DEED COULD NOT BE PLOTTED ON MAP

PARCEL 3 (APN 017-350-027)
THE EAST HALF OF THE EAST HALF OF SECTION 25, TOWNSHIP 11 SOUTH, RANGE 10 EAST, S.B.M. IN THE COUNTY OF IMPERIAL, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT THEREOF.

EXCEPT THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SAID SECTION 25.

CORNER DESCRIPTIONS

1. BLUTIP-OF-WAY MONUMENT
FOUND 1" IRON PIPE WITH TAG STAMPED, "DPW HARRIS", DOWN 0.1' IN NATURAL SURFACE. REFER TO RIGHT-OF-WAY MAP NO 730027

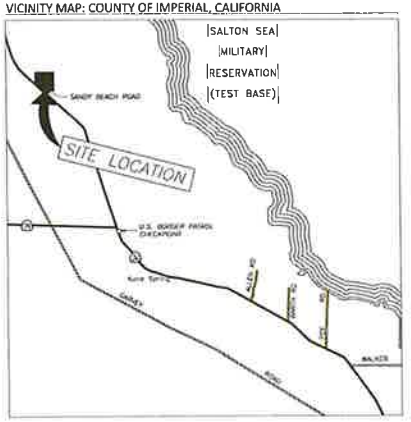
5. SOUTH WEST CORNER SECTION 25
FOUND OLD 1.5" STEEL AXLE, UP 0.7' ABOVE DESERT SURFACE. REFERENCE PDS 4-12

4.16. WEST QUARTER CORNER SECTION 25
FOUND 1" IRON PIPE WITH CONCRETE COVER, NO TAG, FLUSH IN PILE OF ROCKS. REFERENCE PDS 4-12

4.33. NORTHWEST CORNER SECTION 25
FOUND PILE OF ROCKS FOR REFERENCE POINT 4' SOUTH OF NORTHWEST CORNER SECTION 25 AS SHOWN ON LS 8-18.

4.42. SOUTHEAST CORNER SECTION 25
FOUND OLD 1.5" STEEL AXLE, DOWN 0.5' BELOW DESERT SURFACE. REFERENCE LS 8-17.

VICINITY MAP: COUNTY OF IMPERIAL, CALIFORNIA



SURVEYOR'S STATEMENT

THIS IS TO CERTIFY TO J.-GLOBAL, INC. AND ORANGE COAST TITLE COMPANY THAT THIS MAP OR PLAT AND SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH "MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS" JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS IN FEBRUARY 23, 2021, AND PURSUANT TO THE ACCURACY STANDARDS ADOPTED BY ALTA AND NSPS AND IN EFFECT ON THE DATE OF THIS CERTIFICATION. THE UNDERSIGNED HEREBY CERTIFIES THAT THE POSITIONAL UNCERTAINTIES RESULTING FROM THE SURVEY MEASUREMENTS MADE ON THE SURVEY DO NOT EXCEED THE ALLOWABLE POSITIONAL TOLERANCE. THE UNDERSIGNED FURTHER CERTIFIES THAT OPTIONAL ITEM NUMBERS 1, 2, 3, 7(a), 8, 11, 18, AND 19 FROM TABLE A, OPTIONAL SURVEY RESPONSIBILITIES AND SPECIFICATIONS, OF THE MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS ARE INCLUDED IN THIS SURVEY. THE UNDERSIGNED ADDITIONALLY CERTIFIES THAT (a) THIS SURVEY WAS MADE ON THE GROUND UNDER MY SUPERVISION, (b) I HAVE RECEIVED AND EXAMINED A COPY OF THE PRELIMINARY TITLE REPORT DATED AS OF MARCH 02, 2022 BY ORANGE COAST TITLE COMPANY AS WELL AS A COPY OF EACH INSTRUMENT LISTED THEREIN, AND THE SUBJECT LAND AND EACH TRACT OR PARCEL THEREOF DESCRIBED IN THIS SURVEY IS THE SAME LAND AS DESCRIBED IN THE TITLE COMMITMENT; (c) IF THE SUBJECT LAND CONSISTS OF TWO OR MORE TRACTS OR PARCELS HAVING COMMON BOUNDARIES, THOSE TRACTS AND PARCELS ARE CONTIGUOUS ALONG THE COMMON BOUNDARIES; (d) THE SUBJECT LAND AND EACH TRACT OR PARCEL THEREOF HAS A TAX MAP DESIGNATION SEPARATE AND DISTINCT FROM THAT OF ANY OTHER LAND AND THE SUBJECT LAND AND EACH TRACT OR PARCEL THEREOF IS A SEPARATE, LEGALLY SUBDIVIDED PARCEL; (e) THIS SURVEY CORRECTLY SHOWS ALL MATTERS OF RECORD (AND TO THE EXTENT THEY CAN BE LOCATED, THEIR LOCATION AND DIMENSIONS) OF WHICH I HAVE BEEN ADVISED AFFECTING THE SUBJECT LAND ACCORDING TO THE LEGAL DESCRIPTION OF SUCH MATTERS (WITH INSTRUMENT, BOOK AND PAGE NUMBER INDICATED); (f) A PORTION OF THE SUBJECT LAND IS LOCATED IN A 100-YEAR FLOOD PLAIN OR IN AN IDENTIFIED "FLOOD PRONE AREA" AS DEFINED PURSUANT TO THE FLOOD DISASTER PROTECTION ACT OF 1973, AS AMENDED, AS REFLECTED BY FLOOD INSURANCE RATE MAP PANEL No. 06025C0610C DATED SEPTEMBER 26, 2008. SUBJECT PROPERTY IS LOCATED WITHIN ZONE "X"; (g) TO THE BEST OF MY KNOWLEDGE, THIS SURVEY SHOWS THE RELATION OF OTHER IMPROVEMENTS TO EASEMENTS AND SETBACK LINES.

TAYLOR J. PRECEC, P.L.S. NO. 9436

DATE: MAY 17, 2022

PROPERTY ADDRESS

PROPERTY LOCATED IN SECTION 25 IN TOWNSHIP 11 SOUTH, RANGE 10 EAST, S.B.M. IN THE COUNTY OF IMPERIAL, STATE OF CALIFORNIA.

LEGEND

- INDICATES BOUNDARY
- INDICATES SECTION LINE
- INDICATES EASEMENT AS NOTED
- EXISTING BARBED WIRE FENCE
- EXISTING HIGH/WATER RUNOFF CENTERLINE
- EXISTING UNPAVED ROAD/GRAVELED WAY
- INDICATES EXISTING OBSTRUCTIONS
- EXISTING UTILITY POLE
- EXISTING SIGN
- FOUND MONUMENT AS DESCRIBED
- SET 1.5" IRON PIPE WITH TAG STAMPED, "T PRECEC LS 9436
- CORNER DESCRIPTION REFERENCE NUMBER AS DESCRIBED ON THIS SHEET
- SCHEDULE "B" REFERENCE ITEM AS DESCRIBED BELOW ON SHEET 1

TITLE DATA NOTE:

AS TO THE TITLE MATTERS SHOWN AND NOTED HEREIN, PRECISION ENGINEERING & SURVEYING, INC. AND TAYLOR J. PRECEC HAVE RELIED SOLELY UPON INFORMATION PROVIDED BY ORANGE COAST TITLE COMPANY IN PRELIMINARY TITLE REPORT ORDER No. 140-2315900-32 DATED MARCH 2, 2022. OTHER CONDITIONS AFFECTING TITLE SUCH AS THESE DEEDS, TAXES, ETC ARE CONTAINED IN SAID PRELIMINARY TITLE REPORT AND INCORPORATED HEREIN BY REFERENCE. PRECISION ENGINEERING & SURVEYING, INC. MAKES NO STATEMENTS AS TO THE ACCURACY OR COMPLETENESS OF THE SUBJECT PRELIMINARY TITLE REPORTS

INCREMENTAL DISTANCE NOTE:

INCREMENTAL DISTANCES DETERMINED BY PROPORTION AND/OR LINE DIVISION MAY NOT TOTAL OVERALL DISTANCES DUE TO ROUND OFF OF SIGNIFICANT FIGURES

PROFESSIONAL LIABILITY INSURANCE

PROFESSIONAL LIABILITY INSURANCE POLICY OBTAINED BY THE SURVEYOR IN THE MINIMUM AMOUNT OF $1,000,000 TO BE IN EFFECT THROUGHOUT THE CONTRACT TERM. CERTIFICATE OF INSURANCE TO BE FURNISHED UPON REQUEST.

GENERAL NOTE:

IF UNDERGROUND PUBLIC AND/OR PRIVATE UTILITIES, OTHER STRUCTURES OR ZONE AND SETBACK DATA ARE SHOWN HEREIN, IT IS FOR INFORMATION ONLY, HAVING BEEN OBTAINED FROM THE BEST AVAILABLE SOURCES BUT FROM OTHERS NOT CONNECTED WITH THIS COMPANY. THEREFORE, NO GUARANTEE IS MADE AS TO THE ACCURACY OR THOROUGHNESS OF SAID INFORMATION

PROPERTY NOTE:

NO RECENT EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS OBSERVED.

ZONING:

APN: 017-350-027 IS SUBJECT TO ZONE S-2
APN: 017-350-030 IS SUBJECT TO ZONE S-2
APN: 017-350-031 IS SUBJECT TO ZONE S-2

CURRENT VESTED IN:

PAZ RANCH, LLC, A LIMITED LIABILITY COMPANY

NOTE:

A RECORD OF SURVEY HAS BEEN PREPARED FOR THIS SITE AND SUBMITTED TO IMPERIAL COUNTY PUBLIC WORKS. THE BOUNDARIES SHOWN HEREIN ARE SUBJECT TO REVIEW AND APPROVAL OF THE RECORD OF SURVEY BY THE COUNTY SURVEYOR.

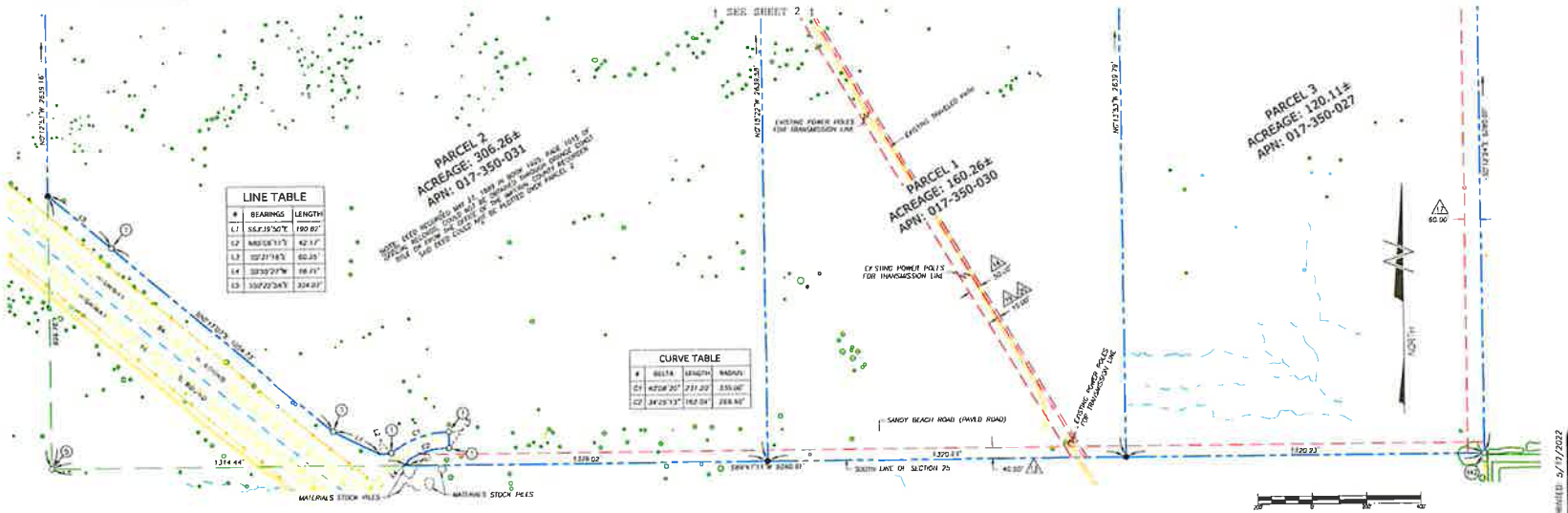
BASIS OF BEARINGS

THE BASIS OF BEARINGS IS NORTH 57°47'07" WEST 8918.08' WHICH IS THE BEARING BETWEEN MONUMENT No. 442 WHICH IS THE SOUTHEAST CORNER OF SECTION 25 IN T.11S. R.10E. S.B.M. AND CALIFORNIA REAL TIME NETWORK (CRTN) STATION, SUPER NRN CS2500/1983

SURVEY WITH CS2007/1983
N: 1960662.49 E: 6752153.83

S.E. CORNER SECTION 25
N: 2008696.21 E: 6678595.78

CALIFORNIA NAD83 COORDINATE SYSTEM, ZONE 6

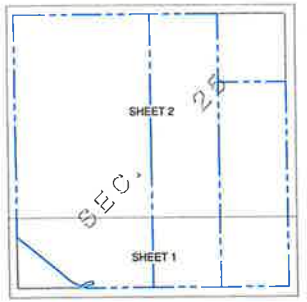


LINE TABLE

#	BEARINGS	LENGTH
L1	S57°19'50"E	190.82'
L2	N62°08'11"E	42.17'
L3	S22°21'16"E	60.25'
L4	S39°29'19"W	98.11'
L5	S39°29'19"W	324.03'

CURVE TABLE

#	DELTA	LENGTH	RADIUS
C1	42°08'20"	731.20'	1330.00'
C2	24°25'13"	162.04'	380.00'



SHEET INDEX

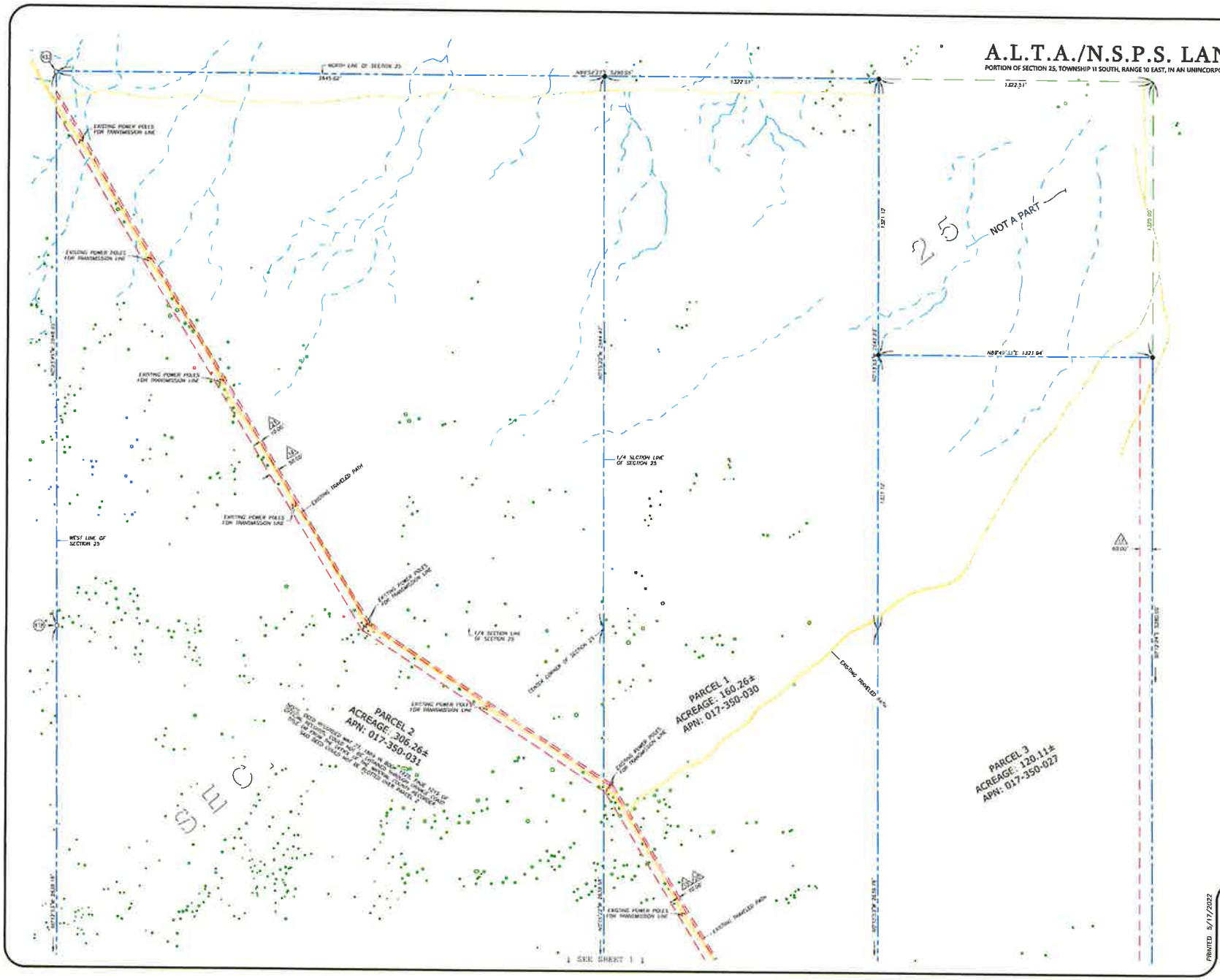
ALTA/N.S.P.S. SECTION 25		SHEET No. 1 OF 2 SHEETS
SHEET TITLE: TITLE SHEET & MAP SHEET		
LOCATION: SECTION 25 T.11S.,R.10E. S.B.M.		
CLIENT: J-GLOBAL, INC.		
Precision Engineering & Surveying, Inc.	Telephone: (760) 353-2884	DRAWN BY: A.D.
P.O. Box 2218, El Centro, CA 92244	Fax: (760) 353-2886	DATE: 04/22/2022
790 E. Main Avenue, El Centro, CA 92243		REVISED:
		JOB No. 22-127

REVISED: 5/17/2022

EEC ORIGINAL PKG

A.L.T.A./N.S.P.S. LAND TITLE SURVEY

PORTION OF SECTION 25, TOWNSHIP 11 SOUTH, RANGE 10 EAST, IN AN UNINCORPORATED AREA OF THE COUNTY OF IMPERIAL, STATE OF CALIFORNIA

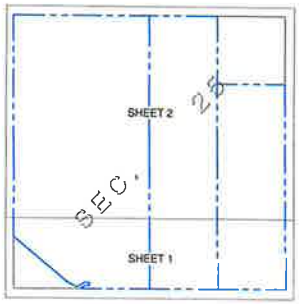


LEGEND

- INDICATES BOUNDARY
- INDICATES SECTION LINE
- INDICATES EASEMENT AS NOTED
- EXISTING WASH/WATER RUNOFF CENTERLINE
- EXISTING UNPAVED ROAD/TRAVELED WAY
- INDICATES EXISTING BRUSH/TREES
- EXISTING UTILITY POLE
- EXISTING SIGN
- FOUND MONUMENT AS DESCRIBED
- SET 1.5" IRON PIPE WITH TAG STAMPED, "T PRECCE LS 9436
- CORNER DESCRIPTION REFERENCE NUMBER AS DESCRIBED ON SHEET 1
- SCHEDULE "B" REFERENCE ITEM AS DESCRIBED ON SHEET 1

NORTH

SCALE 1"=200'



SHEET INDEX

PRINTED 5/17/2022

A.L.T.A./N.S.P.S. SECTION 25

SHEET TITLE: MAP SHEET
LOCATION: SECTION 25 T 11S.,R 10E. S.B.M
CLIENT: Z-GLOBAL, INC

Precision Engineering & Surveying, Inc.
P.O. Box 2219
El Centro, CA 92244
Telephone: (760) 353-2684
Fax: (760) 353-2686

SHEET No. 2 OF 2 SHEETS

DRAWN BY: A.G.
DATE: 04/22/2022
REVISED:
JOB No. 22-177

EEC ORIGINAL PKG

Biological Technical Report
for the
North Star 3 Project

Imperial County, California

Prepared for:

ZGlobal, Inc.
604 Sutter Street, Suite 250
Folsom, California 95630

Submitted by:

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS
2525 Warren Drive
Rocklin, California 95677

March 2023

EEC ORIGINAL PKG

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Appendix E – Special-Status Wildlife Species with Potential to Occur within the Project Site

LIST OF ACRONYMS AND ABBREVIATIONS

Term	Definition
ACE	Areas of Conservation Emphasis
ACEC	Areas of Critical Environmental Concern
Audubon	National Audubon Society
BBCS	Bird and Bat Conservation Strategy
BESS	Battery Electric Storage System
BIOS	Biogeographic Information and Observation System
BLM	United States Bureau of Land Management
CCR	California Code of Regulations
CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFWO	Carlsbad Fish and Wildlife Office Species Occurrence Data
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Data Base
CNPS	California Native Plant Society
CNPSEI	CNPS Electronic Inventory
CRPR	California Rare Plant Rank
CWA	Clean Water Act
DRECP	Desert Renewable Energy Conservation Plan
END	Endangered
ESA	Endangered Species Act
GPS	Global Positioning System
GIS	Geographic Information System
HCP	Habitat Conservation Plan
IBA	Important Bird Area
IID	Imperial Irrigation District
MBTA	Migratory Bird Treaty Act
MW	Megawatt
msl	Mean Sea Level
NPPA	Native Plant Protection Act
NRCS	Natural Resources Conservation Service
OHV	Off-Highway Vehicle
Procedures	State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State
Project	North Star 3 Project

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Term	Definition
RWQCB	Regional Water Quality Control Board (Colorado River Basin)
SAA	Streambed Alteration Agreement
SR	State Route
SSC	Species of Special Concern
sUAS	Small unmanned aircraft system
THR	Threatened
USACE	U.S. Army Corps of Engineers
USC	U.S. Code
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WEAP	Worker Environmental Awareness Program

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1.0 INTRODUCTION

The North Star 3 Project (Project) is a 100-megawatt (MW) (AC) solar field, consisting of 226,800 tracker modules, 7,560 strings and associated collector and inverter facilities, and a 100-MW Battery Electric Storage System (BESS). The Project Site is located on 596.53 acres of undeveloped land in Imperial County, California (Figure 1). ECORP Consulting, Inc. conducted a literature review, vegetation mapping, and a biological resource assessment of the Survey Area, which includes the Project Site plus a 500-foot buffer, to document the existing biological conditions and resources, to assess the habitat for its potential to support sensitive plant and wildlife species, as required under the California Environmental Quality Act (CEQA), and to determine if Project-related impacts may occur to sensitive biological resources.

1.1 Purpose of the Report

ECORP prepared this report to describe biological resources in the Survey Area and to support Project review under CEQA. Assessment of potential occurrences of special-status plants and wildlife is based on habitat, geographic and elevational range, and data collected from field surveys conducted by ECORP in 2022.

1.2 Terms

The following terms will be used throughout this document and are defined as follows:

- *Project Site:* the approximately 596.53 acres subject to the general assessment during the biological survey; includes the solar field.
- *Survey Area:* includes the Project Site and a 500-foot buffer around the Project Site; these areas are potentially subject to temporary impacts.

1.3 Project Location and Description

The Proposed Project includes a solar field with a BESS located on approximately 585 acres of vacant desert land on three parcels in Imperial County, California. The Project Site includes Assessor's Parcel Numbers 017-350-031 (305 acres), 017-350-030 (160 acres), and 017-350-027 (120 acres). The Project proposes to construct a 100-MW alternating current solar field, consisting of 226,800 tracker modules in 7,560 strings and associated collector and inverter facilities, and a 100 MW BESS, on approximately 585 acres of vacant land. The Project would connect to the grid to the onsite 161 kilovolt L transmission line. The Survey Area is approximately 14 miles east of the community of Ocotillo Wells and just west of the south shore of the Salton Sea along State Route (SR-) 86 in Imperial County, California. (Figure 2). A complete summary of geographic information for the Survey Area is provided in Table 1.

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Location: N:\2022\2022-104 NorthStar 3\MAPS\Location_Vicinity\Northstar3_LnV.aprx - N53_Vicinity (trotellini - 1/4/2023)

Map Date: 1/4/2023
Sources: Esri

Figure 1. Project Vicinity

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

2022-104 North Star 3

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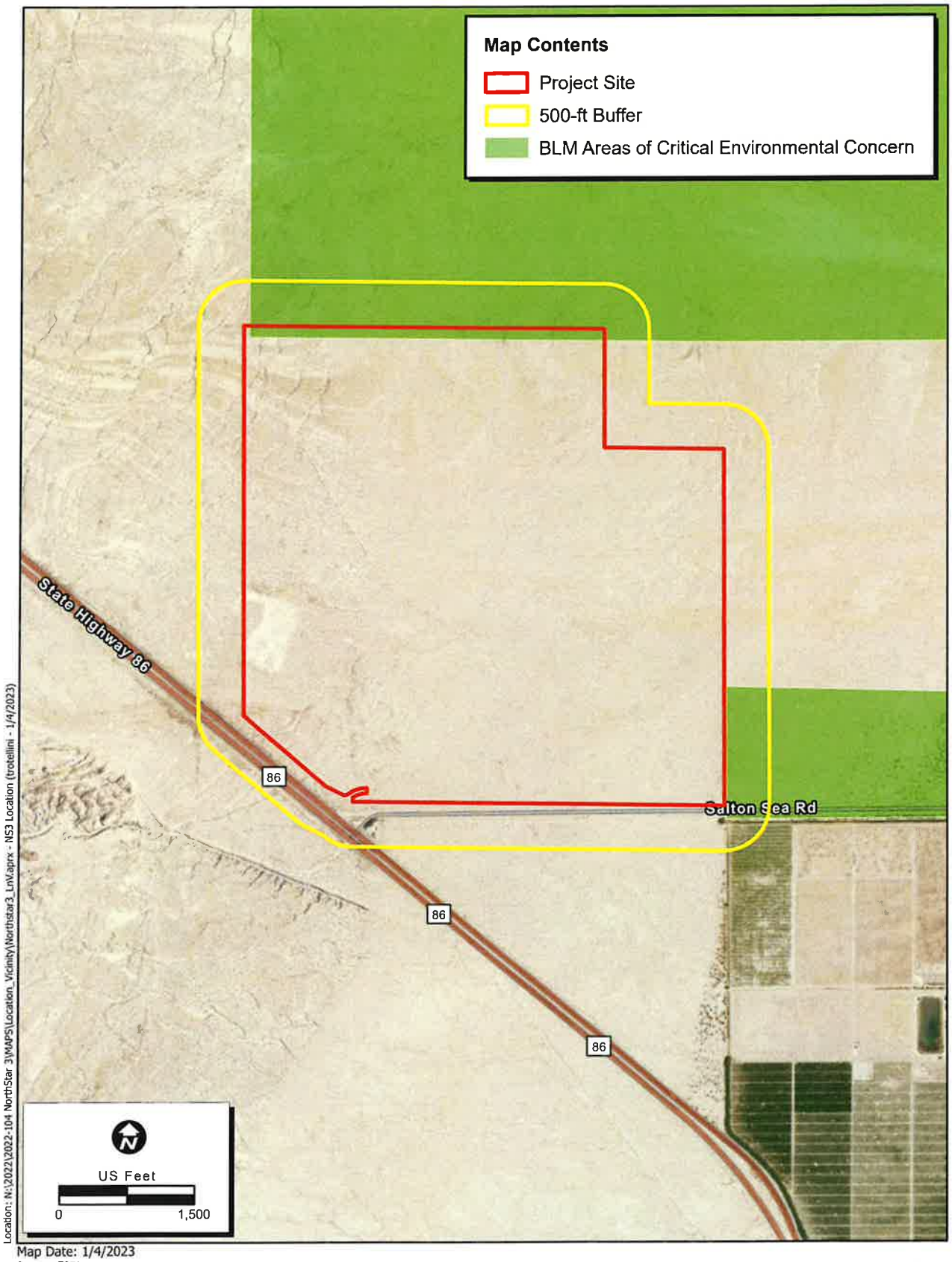

Figure 2. Project Location

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Table 1. U.S. Geological Survey (USGS) Quadrangle Information				
USGS 7.5-Minute Quad Map Names	**Township**	**Range**	**Section**	**Approximate Center of Survey Area**
Kane Spring NW Kane Spring NE	11S	10E	25	33.184074°, -115.882661°

Topography is relatively flat throughout the Project Site, with elevations ranging between -60 below mean sea level (msl) and 24 feet above msl. The Project is surrounded by Bureau of Land Management (BLM) land to the west, north, and southern portion of the eastern boundary. The Project Site is bound by SR-86 to the southwest. Adjacent land use includes agricultural land to the southeast and undeveloped land in all directions. The Project Site is located approximately 2.4 miles west of the Salton Sea.

ECORP conducted the biological reconnaissance survey to identify potential constraints and to ensure compliance with state and federal regulations regarding listed, protected, and sensitive species. The following section details relevant regulations.

2.0 REGULATORY CONSIDERATIONS

2.1 Federal Regulations

2.1.1 Endangered Species Act

The federal Endangered Species Act (ESA) protects plants and wildlife that are listed as endangered or threatened by the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service. Section 9 of the ESA prohibits the taking of endangered wildlife, where taking is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct" (50 Code of Federal Regulations [CFR] 17.3). For plants, this statute governs removing, possessing, maliciously damaging, or destroying any endangered plant on federal land and removing, cutting, digging up, damaging, or destroying any endangered plant on non-federal land in knowing violation of state law (16 U.S. Code [USC] 1538). Under Section 7 of the ESA, federal agencies are required to consult with the USFWS if their actions, including permit approvals or funding, could adversely affect a listed (or proposed) species (including plants) or its critical habitat. Through consultation and the issuance of a biological opinion, the USFWS may issue an incidental take statement allowing take of the species that is incidental to an otherwise authorized activity provided the activity will not jeopardize the continued existence of the species. Section 10 of the ESA provides for issuance of incidental take permits where no other federal actions are necessary provided a Habitat Conservation Plan (HCP) is developed.

2.1.2 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) implements international treaties between the U.S. and other nations devised to protect migratory birds, any of their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. As authorized by the MBTA, the USFWS issues permits to qualified applicants for the

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following types of activities: falconry, raptor propagation, scientific collecting, special purposes (rehabilitation, education, migratory game bird propagation, and salvage), take of depredating birds, taxidermy, and waterfowl sale and disposal. The regulations governing migratory bird permits can be found in 50 CFR Part 13 General Permit Procedures and 50 CFR Part 21 Migratory Bird Permits. The State of California has incorporated the protection of birds of prey in Sections 3800, 3513, and 3503.5 of the California Fish and Game Code.

2.1.3 Clean Water Act

The U.S. Army Corps of Engineers (USACE) regulates discharge of dredged or fill material into Waters of the U.S. under Section 404 of the federal Clean Water Act (CWA). *Discharges of fill material* is defined as the addition of fill material into Waters of the U.S., including, but not limited to the following: placement of fill necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for its construction; site development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; and fill for intake and outfall pipes, and subaqueous utility lines [33 CFR Section 328.2(f)]. In addition, Section 401 of the CWA (33 USC 1341) requires any applicant for a federal license or permit to conduct any activity that may result in a discharge of a pollutant into Waters of the U.S. to obtain a certification that the discharge will comply with the applicable effluent limitations and water quality standards. Section 401 Certification, "gives states and authorized tribes the authority to grant or waive certification of proposed federal licenses or permits that may discharge into waters of the US" (33 USC 1251).

The U.S. Environmental Protection Agency (USEPA) and the Department of the Army published a proposed rule to revise the definition of *Waters of the United States* in August 2021. The proposed rule was open for public comment until February 7, 2022. A final rule has not yet been published. In the rule, which follows previous USACE/USEPA CWA regulations (33 CFR 328.3[a]), the term *Waters of the U.S.* is defined as follows:

1. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
2. All interstate waters including interstate wetlands;
3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters: (i) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or (ii) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or (iii) Which are used or could be used for industrial purpose by industries in interstate commerce;
4. All impoundments of waters otherwise defined as waters of the U.S. under the definition;
5. Tributaries of waters identified in paragraphs (a)(1)-(4) of this section;

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6. The territorial seas;

7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in 1-6 above.

2.2 State and Local Regulations

2.2.1 California Endangered Species Act

The California ESA generally parallels the main provisions of the ESA but, unlike its federal counterpart, the California ESA applies the take prohibitions to species proposed for listing (called *candidates* by the State). Section 2080 of the California Fish and Game Code prohibits the taking, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit or in the regulations. Take is defined in Section 86 of the California Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." The California ESA allows for take incidental to otherwise lawful development projects. State lead agencies are required to consult with California Department of Fish and Wildlife (CDFW) to ensure that any action they undertake is not likely to jeopardize the continued existence of any endangered or threatened species or result in destruction or adverse modification of essential habitat.

2.2.2 Fully Protected Species

The State of California first began to designate species as *fully protected* prior to the creation of the federal and California ESAs. Lists of fully protected species were initially developed to provide protection to those animals that were rare or faced possible extinction, and included fish, amphibians and reptiles, birds, and mammals. Most fully protected species have since been listed as threatened or endangered under federal and/or California ESAs. The regulations that implement the Fully Protected Species Statute (California Fish and Game Code Section 4700) provide that fully protected species may not be taken or possessed at any time. Furthermore, CDFW prohibits any state agency from issuing incidental take permits for fully protected species, except for necessary scientific research.

2.2.3 Native Plant Protection Act

The Native Plant Protection Act (NPPA) of 1977 (California Fish and Game Code Sections 1900-1913) was created with the intent to "preserve, protect and enhance rare and endangered plants in this State." The NPPA is administered by CDFW. The Fish and Wildlife Commission has the authority to designate native plants as *endangered* or *rare* and to protect endangered and rare plants from take. The California ESA of 1984 (California Fish and Game Code Sections 2050-2116) provided further protection for rare and endangered plant species, but the NPPA remains part of the California Fish and Game Code.

2.2.4 Porter Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act requires "any person discharging waste, or proposing to discharge waste, within any region that could affect the waters of the State to file a report of discharge" with the Regional Water Quality Control Board (RWQCB) through State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (Procedures) (California Code

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of Regulations [CCR], Title 23, and 3855) (State Water Resources Control Board 2021). *Waters of the State* is defined as any surface water or groundwater, including saline waters, within the boundaries of the state (California Water Code Section 13050[e]). Pollution is defined as an alteration of the quality of the Waters of the State by waste to a degree that unreasonably affects its beneficial uses (California Water Code Section 13050) and includes filling in Waters of the State. Note that CCR Title 23 Section 3855 applies only to individual water quality certifications, but the new Procedures extend the application of Section 3855 to individual waste discharge requirements for discharges of dredged or fill material to Waters of the State and waivers thereof.

A permit for impacts to Waters of the State would likely be required under the CWA and/or Porter-Cologne Water Quality Control Act. The RWQCB considers whether project activities could impact the quality of Waters of the State to determine if a project should be regulated pursuant to the Porter-Cologne Water Quality Control Act.

2.2.5 California Fish and Game Code

2.2.5.1 Streambed Alteration Agreement

Section 1602 of the California Fish and Game Code requires that a Notification of Lake or Streambed Alteration be submitted to CDFW for "any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake." The CDFW reviews the proposed actions and, if necessary, submits to the Applicant a proposal for measures to protect affected fish and wildlife resources. The Streambed Alteration Agreement (SAA) is the final proposal mutually agreed upon by CDFW and the applicant. Often, projects that require an SAA also require a permit from the USACE under Section 404 of the CWA. The conditions of the Section 404 permit and the SAA may overlap in these instances.

2.2.5.2 Migratory Birds

The CDFW enforces the protection of nongame native birds in Sections 3503, 3503.5, and 3800 of the California Fish and Game Code. Section 3513 of the California Fish and Game Code prohibits the possession or take of birds listed under the MBTA. These sections mandate the protection of California nongame native birds' nests and also make it unlawful to take these birds. All raptor species are protected from *take* pursuant to California Fish and Game Code Section 3503.5 and are also protected at the federal level by the MBTA of 1918 (USFWS 1918).

2.2.6 Desert Renewable Energy Conservation Plan Use Plan

The Desert Renewable Energy Conservation Plan (DRECP) is designed to provide effective protection and conservation of desert ecosystems while allowing for the appropriate development of renewable energy projects. The DRECP Area contains both federal and non-federal California desert land. Some of these lands are designated as California Desert Conservation Areas. The federal portion of the plan area was released by BLM as a Land Use Plan Amendment. The DRECP Land Use Plan Amendment supports the conservation goals of the DRECP and organizes land into ecoregions and subregions with specific

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management goals, objectives, allowable uses, and management actions for biological and cultural resources. The BLM designates Areas of Critical Environmental Concern (ACEC) where special management attention is needed to protect important historical, cultural, and scenic values, or fish and wildlife or other natural resources. The BLM also designates Renewable Energy Development Focus Areas, which are on BLM-administered lands within which solar, wind, and geothermal renewable energy development and associated activities are allowable uses and that have been determined to be of low or lower resource conflict. The intent is to incentivize and streamline such development in these areas. The Project Site is located within a DRECP Area and within California Desert National Conserved Lands (Conservation Biology Institute 2023 and DRECP 2016). The Project Site is partially located within the BLM Salton Sea Hazardous ACEC unit along the northern boundary and adjacent to the ACEC unit on the southern portion of the eastern boundary (Conservation Biology Institute 2023; Figure 2).

2.2.7 Conservation and Open Space Element

Imperial County created the Conservation and Open Space Element adopted by the Imperial County Board of Supervisors in March 2016. It provides details and measures for management and preservation of biological resources as well as various other resources (i.e., cultural, soils, minerals). This plan focuses on protecting scarce resources and preventing wasteful exploitation, neglect, and destruction of California's natural resources. The plan outlines areas with sensitive habitat and sensitive species, also labelled *Resource Areas*. Open space easements and protection of riparian habitat, rock outcrops, California fan palm oases, desert dunes, and wildlife corridors are also discussed in the plan. As it currently stands, the open space element follows CEQA guidelines with special focus on its scarce resources. Per the Conservation and Open Space Element, the Project Site is located within and adjacent to several resources including but not limited to active and stabilized/partially stabilized desert dunes and flat-tailed horned lizard (*Phrynosoma mcallii*) distribution model habitat (County of Imperial Planning and Development Services Department 2016).

2.2.8 Imperial Irrigation District Water Conservation and Transfer Project and Draft Habitat Conservation Plan Draft Environmental Impact Report/Environmental Impact Statement

The Imperial Irrigation District (IID) HCP will be under a 75-year agreement between IID, CDFW, and USFWS. It is currently in preparation and will be in effect when finalized and approved. The IID HCP will provide measures for the conservation and management of natural biological diversity while also providing legal protection to activities covered under the plan and provide basis for permits necessary to lawfully take species covered under the IID HCP, referred to as *Covered Species*. The draft IID HCP, published in June 2022, identified 96 Covered Species for which the plan area provides habitat, including the California Species of Special Concern (SSC) such as loggerhead shrike (*Lanius ludovicianus*), burrowing owl (*Athene cunicularia*), and flat-tailed horned lizard. The IID HCP covers approximately 500,000 acres in Imperial County as well as a small portion of Riverside County. The Planning Area includes the rights-of-way along the All-American Canal from the Imperial Dam on the Colorado River to its terminus near Calexico, and the IID service area from the United States-Mexico border to the Salton Sea (including the

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rights-of-way along its canals). The Planning Agreement for the IID HCP was signed by IID, CDFW, and USFWS in 2006 (Imperial Valley Planning Agreement 2006a).

The IID HCP is intended by the Planning Agreement signatories to serve as the basis for *take* authorizations, during *Covered Activities*, for current or future protected species, pursuant to Section 10(a) of the federal ESA and Section 2081 of the California ESA. During the preparation of the IID HCP, take of Covered Species may be authorized during Covered Activities pursuant to CEQA for state-listed species and take of species listed under the ESA may be authorized by individual permits issued under section 10(a)(1)(B), or consultations under section 7 of the ESA. Upon the approval of the IID HCP, CDFW may permit the take of Covered Species pursuant to the Natural Community Conservation Plan Act [Fish and Game Code section 2800, et seq.] and USFWS may permit take of Covered Species if the HCP and permit application satisfy requirements of 10(a)(2)(A) and (B) of the ESA.

Under the IID HCP, Covered Activities will include IID Water Department operations, and "...all water conservation projects and mitigation measures, whether undertaken by IID or by farmers, tenants, or landowners, in connection with both the conservation and transfer..." of Colorado River water (IID 2023). Covered Activities included under the draft IID HCP and pulled directly from the Planning Agreement are stated below:

- Water conservation and irrigation and drainage of lands to which IID delivers water;
- water conservation activities undertaken by IID;
- activities of IID in connection with diversion, conveyance, and delivery of Colorado River water to users within IID's service area;
- activities of IID in connection with the collection of unused irrigation or drainage waters within its service area and conveyance to the Salton Sea; and
- implementation of the Plan

The Project Site is neither located within the IID division boundaries, nor within the plan area of the IID HCP (CDFW 2023a and CH2M HILL 2022).

2.2.9 Flat-tailed Horned Lizard Range-wide Management Strategy

The *Flat-tailed Horned Lizard Range-Wide Management Strategy* is a document created by the Flat-tailed Horned Lizard Working Group that provides guidance to help conserve and manage flat-tailed horned lizard habitat throughout its range. The document was created per a conservation agreement signed in 1997 amongst a group of multiple state and federal agencies known as the Flat-tailed Horned Lizard Working Group and includes CDFW, California Department of Parks and Recreation, Arizona Department of Game and Fish, and multiple U.S. Department of Interior and Department of Defense agencies. The Range-Wide Management Strategy contains five management areas that limit ground disturbing activities. The Range-Wide Management Strategy provides mitigation and compensation measures to help maintain sufficient habitat and a viable population of flat-tailed horned lizards for areas that are within flat-tailed horned lizard range but not within a management area, (Foreman 1997). The Project Site

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is not located within the any of the management areas or proposed research areas identified in the Flat-tailed Horned Lizard Range-Wide Management Strategy.

2.2.10 California Environmental Quality Act Significance Criteria

Section 15064.7 of the CEQA Guidelines encourages local agencies to develop and publish the thresholds the agency uses in determining the significance of environmental effects caused by projects under its review. However, agencies may also rely upon the guidance provided by the expanded Initial Study checklist contained in Appendix G of the CEQA Guidelines. Appendix G provides examples of impacts that would normally be considered significant. Based on these examples, impacts to biological resources would normally be considered significant if the Project would:

- 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 CDFW or USFWS;
- have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by CDFW or USFWS;
- have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, and coastal) through direct removal, filling, hydrological interruption, or other means;
- interfere substantially with the movement of any native 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;
- conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; and
- conflict with the provisions of an adopted HCP, Natural Community Conservation Plan, or other approved local, regional, or state HCP.

An evaluation of whether an impact on biological resources would be substantial must consider both the resource itself and how that resource fits into a regional or local context. Substantial impacts would be those that would diminish, or result in the loss of, an important biological resource, or those that would obviously conflict with local, state, or federal resource conservation plans, goals, or regulations. Impacts are sometimes locally important but not significant according to CEQA because although the impacts would result in an adverse alteration of existing conditions, they would not substantially diminish, or result in the permanent loss of an important resource on a population-wide or region-wide basis.

3.0 METHODS

3.1 Literature Review

ECORP biologists performed a literature review prior to conducting the biological reconnaissance survey using the CDFW's California Natural Diversity Data Base (CNDDB; CDFW 2023b), the California Native

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Plant Society's (CNPS) Electronic Inventory (CNPSEI; CNPS 2023), and the USFWS Carlsbad Fish and Wildlife Office Species Occurrence Data (CFWO; USFWS 2022) to determine the special-status plant and wildlife species that have been documented in the vicinity of the Project Site. ECORP searched CNDDB, CNPSEI, and USFWS records within the Project Site boundaries as depicted on the two U.S. Geological Survey (USGS) 7.5-minute "Kane Spring NW and Kane Spring NE, California" topographic quadrangles, and the surrounding 10 topographic quadrangles: Harpers Well, Borrego Mountain SE, Shell Reef, Seventeen Palms, Truckhaven, Durmid SE, Frink, Obsidian Butte, Calipatria SW, and Kane Spring. The CNDDB, CNPSEI, and USFWS Species Occurrence data all contain records of reported occurrences of federal- or state-listed endangered, threatened, proposed endangered or threatened species, California SSC, or other special-status species or habitats that may occur within or in the vicinity of the Project Site. Additional information was gathered from the following sources and includes, but is not limited to:

- USFWS Information for Planning and Consultation (IPaC) (USFWS 2023b);
- CDFW's Spotted Owl Observations Database (CDFW 2022c);
- U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS) Web Soil Survey (NRCS 2023);
- Special Animals List (CDFW 2023c);
- State and Federally Listed Endangered and Threatened Animals of California (CDFW 2023d);
- USFWS designated critical habitat (USFWS 2023a).
- *The Jepson Manual: Vascular Plants of California* (Baldwin et al. 2012);
- *The Manual of California Vegetation, 2nd Edition* (Sawyer et al. 2009);
- Pertinent maps, scientific literature, websites, and regional flora and fauna field guides; and
- various online websites (e.g., CalFlora 2023, CaliforniaHerps 2023).

3.1.1 Special Status Species

ECORP generated a list of special-status plant and wildlife species that have potential to occur within the vicinity of the Project Site using this information and field observations. For the purposes of this assessment, special-status species are defined as plants or animals that:

- have been designated as either rare, threatened, or endangered by CDFW, CNPS, or the USFWS, or are protected under either the federal or California ESAs;
- are candidate species being considered or proposed for listing under these same acts;
- are fully protected by the California Fish and Game Code, Sections 3511, 4700, 5050, or 5515;
- are of expressed concern to resource and regulatory agencies or local jurisdictions;
- are identified as sensitive, unique or rare, by the USFWS, CDFW, U.S. Forest Service, and/or the BLM; or

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- any plants that meet the definition of rare or endangered under CEQA Section15380(b) and (d).

Species that may meet the definition of rare or endangered include the following:

- Species considered by CNPS and CDFW to be "rare, threatened or endangered in California" (California Rare Plant Rank [CRPR] 1A, 1B and 2; CNPS 2023b). A majority of the CRPR 3 and CRPR 4 plant species generally do not qualify for protection under the California ESA and NPPA.
- Species that may warrant consideration on the basis of local significance or recent biological information.
- Some species included on the CDFW Special Vascular Plants, Bryophytes, and Lichens List (CDFW 2022b).

Plant and wildlife species with a watch list status (i.e., CDFW *watchlist* or 4.3 CNPS rank) were eliminated from the analysis because these rankings are considered a review list. The literature review provided a baseline from which to inventory the biological resources potentially occurring within the Project Site, as well as the surrounding area. Although the inventory list of special status wildlife species was not exhaustive of all species that might be of concern for the property, it provided a wide range of species representative of the wildland habitats in the area. Species occurrence and distribution information is often based on documented occurrences where opportunistic surveys have taken place; therefore, a lack of records does not necessarily indicate that a given species is absent from the Project Site.

3.1.2 Sensitive Plant Communities

Sensitive plant communities (sensitive habitats) as defined below, are of limited distribution statewide or within a county or region and are often vulnerable to environmental effects of projects. Sensitive habitats are often threatened with local extirpation and are therefore considered as valuable biological resources. Plant communities are considered *sensitive* by the CNPS and CDFW if they meet any of the following criteria:

- The habitat is recognized and considered sensitive by CDFW, USFWS, and/or special interest groups such as CNPS.
- The habitat is under the jurisdiction of the USACE pursuant to Section 404 of the CWA.
- The habitat is under the jurisdiction of the CDFW pursuant to Sections 1600 through 1612 of the California Fish and Game Code.
- The habitat is known or believed to be of high priority for inventory in the CNDDB.
- The habitat is considered regionally rare.
- The habitat has undergone a large-scale reduction due to increased encroachment and development.
- The habitat supports special status plant and/or wildlife species (defined below).
- The habitat functions as an important corridor for wildlife movement.

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The most current version of CDFW's List of California Sensitive Natural Communities indicates which natural communities are sensitive given the current state of the California classification (CDFW 2022a).

3.2 Field Survey

3.2.1 Small Unmanned Aircraft System Survey and Vegetation Mapping

An initial survey utilizing a small unmanned aircraft system (sUAS) survey was conducted to quickly assess current solar field site conditions and gather high-resolution imagery due to the size of the area and limited road access. Upon arrival at the site, the drone pilot conducted an initial field reconnaissance to obtain an understanding of the site topography, access, vegetation densities, and staging areas for controlling the aerial flights. The drone was programmed to perform a systematic flight over the property to collect high-resolution aerial photographs of the entire property. The photos collected were then combined into a single orthomosaic image that was incorporated into mapping files in a Geographic Information System (GIS).

The resulting information gathered from the sUAS/drone survey were then used to assist the biologists with accurate mapping of the vegetation communities. A botanist utilized the high-resolution drone imagery to map vegetation communities. Vegetation classifications were in accordance with *A Manual of California Vegetation* (Sawyer et al. 2009). Vegetation communities that did not fit within the Sawyer classification system were described following Holland (1986) or Cowardin (alternative methods). Areas of the site that had already been graded, developed, and/or disturbed were mapped as such. Acreages of each vegetation community were calculated based on GIS data collected during the sUAS survey.

3.2.2 Biological Reconnaissance Survey

ECORP biologists conducted a biological reconnaissance survey by driving existing roads and walking throughout the Survey Area to identify the vegetation communities and wildlife habitats. The biologists documented plant and wildlife species present within the Survey Area and assessed the location and condition of the Project Site for the potential to provide habitat for special-status plant and wildlife species. ECORP biologists recorded data on a Global Positioning System (GPS) unit, datasheets, and/or maps. The biologists took photographs during the survey to provide visual representation of general site conditions and the various vegetation communities within the Survey Area. The biologists also examined the Survey Area to assess its potential to facilitate wildlife movement or function as a movement corridor for wildlife moving throughout the region and mapped the vegetation communities present within the Survey Area.

ECORP biologists recorded plant and wildlife species, including any special-status species observed during the survey. Plant nomenclature follows that of *The Jepson Manual: Vascular Plants of California* (Baldwin et al. 2012). Wildlife nomenclature follows Society for the Study of Amphibians and Reptiles (2017), *Check-list of North American Birds* (Chesser et al. 2023), and the *Revised Checklist of North American Mammals North of Mexico* (Bradley et al. 2014).

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3.2.2.1 Vegetation Mapping

ECORP used information gathered from the literature review and biological reconnaissance survey to assist with accurate mapping of the vegetation communities. A botanist utilized aerial imagery as well as performed ground truthing in the field during the biological reconnaissance survey to map vegetation communities. Vegetation classifications were in accordance with *A Manual of California Vegetation* (Sawyer et al. 2009). Vegetation communities that did not fit within the Sawyer classification system were described following Holland (1986) or Oberbauer et al. (2008). ECORP mapped areas of the site that had already been graded, developed, and/or disturbed. Acreages of each vegetation community were calculated using GIS data collected during the surveys.

3.2.3 Aquatic Resources Delineation

An aquatic resources delineation was conducted by Hernandez Environmental Services. The results are presented under separate cover.

3.3 Potential for Occurrence Determinations

ECORP generated a list of special-status plant and wildlife species that have potential to occur within the Survey Area using information from the literature review and observations in the field,. For the purposes of this assessment, special-status species are defined in Section 3.1.1. The biologists assessed special-status species reported for the region in the literature review or for which suitable habitat occurs in the Survey Area for their potential to occur within the Survey Area based on the following guidelines:

- **Present:** The species was observed on site during a site visit or focused survey.
- **High:** Habitat (including soils and elevation factors) for the species occurs within the Survey Area and a known occurrence has recently been recorded (within the last 20 years) within 5 miles of the area.
- **Moderate:** Habitat (including soils and elevation factors) for the species occurs within the Survey Area and a documented observation occurs within the database search, but not within 5 miles of the area; a historic documented observation (more than 20 years old) was recorded within five miles of the Survey Area; or a recently documented observation occurs within 5 miles of the area and marginal or limited amounts of habitat occurs in the Survey Area.
- **Low:** Limited or marginal habitat for the species occurs within the Survey Area and a recently documented observation occurs within the database search, but not within 5 miles of the area; a historic documented observation (more than 20 years old) was recorded within 5 miles of the Survey Area; or suitable habitat strongly associated with the species occurs on site, but no records or only historic records were found within the database search. Habitat does not exist in the Survey Area; however, strongly associated with aerial species is present adjacent to or in proximity to the Survey Area.
- **Presumed Absent:** Species was not observed during a site visit or focused surveys conducted in accordance with protocol guidelines at an appropriate time for identification; habitat (including

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soils and elevation factors) does not exist in the Survey Area; or the known geographic range of the species does not include the Survey Area.

- **Note:** Location information on some special-status species may be of questionable accuracy or unavailable. Therefore, for survey purposes, the environmental factors associated with a species' occurrence requirements may be considered sufficient reason to give a species a positive potential for occurrence. In addition, just because a record of a species does not exist in the databases does not mean it does not occur. In many cases, records may not be present in the databases because an area has not been surveyed for that particular species.

4.0 RESULTS

The following sections summarize the results of the literature review and field surveys, including site characteristics, vegetation communities, wildlife, special-status species, and special-status habitats (including any potential wildlife corridors).

4.1 Literature Review

4.1.1 Special-Status Plants and Wildlife

ECORP biologists conducted the CNDDB, CNPSEI, and USFWS Species Occurrence data searches on August 12 and 18 and October 17, 2022. Due to the expiration date on the literature review conducted in August 2022, the CNDDB and CNPSEI searches were conducted again on January 4, 2023. BLM Sensitive species, identified by the El Centro Field Office, were also included in the literature review. The literature review identified 13 special-status plant species and 45 special-status wildlife species that could occur on or near the Project Site. The biologists generated a list from the results of the literature review and evaluated the Survey Area for suitable habitat that could support any of the special-status plant or wildlife species on the list.

4.1.2 U.S. Fish and Wildlife Service Designated Critical Habitat

The Project Site is not located within any USFWS-designated critical habitat. The closest USFWS-designated critical habitat is for desert pupfish (*Cyprinodon macularius*) located approximately 3.6 miles south of the Project Site, in San Felipe Creek located south of SR-78 and SR-86.

4.2 Biological Reconnaissance Survey

ECORP biologists Taylor Dee and Alexandra Dorough conducted the biological reconnaissance survey for the Survey Area on October 25 and 26, 2022. The results of the biological reconnaissance survey, including site characteristics, plants and plant communities, wildlife, special-status species, and special-status habitats (including any potential wildlife corridors) are summarized below. Table 2 shows the weather conditions during the surveys.

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Table 2. Weather Conditions During the Survey

Date	Time		Temperature (°F)		Cloud Cover (%)		Wind Speed (mph)	
	Start	End	Start	End	Start	End	Start	End
10/25/2022	0915	1330	71.6	76.8	0	0	1-3	0-2
10/26/2022	0800	1300	67.8	78.0	0	5	0-1	0-2

4.2.1 Property Characteristics

The Survey Area consists of undeveloped land within desert scrub habitat. Terrain in the Survey Area was generally flat with small variations along the slopes and banks of ephemeral drainages and erosional features, at micro sandy dunes at the base of shrubs throughout the Survey Area, and at two large sand dunes with one located on the western boundary of the Project Site and in the adjacent buffer and the other located in the buffer north of the Project Site. The Survey Area consisted of primarily of native vegetation including creosote bush (*Larrea tridentata*) scrub with a small area of white bursage (*Ambrosia dumosa*) scrub in the southeast portion of the Project Site and adjacent buffer. Vegetation cover in the Survey Area mainly consisted of herbaceous vegetation and shrubs with sparse foliage and of medium to short height, typical of desert scrub habitats. The biologists observed minimal tree cover during the survey. ECORP observed one saltcedar tree with very sparse foliage near the middle of the eastern half of the Project Site. A stand of saltcedar with large, over 10 feet tall, trees with dense foliage was located in the buffer south of the Project Site and in southeast corner of the Survey Area. At the time of the survey biologists observed no standing water or evidence of aquatic habitat within the Survey Area. The site is primarily undeveloped with the exception of a distribution power line and adjacent dirt access road that extends northwest to southeast through the center of the Survey Area. Biologists observed no vehicle traffic on the road or evidence of high use on the dirt access road at the time of the survey. The Project Site is largely surrounded by undeveloped land with open desert habitat to the north, west, east, and south; agricultural fields to the southeast; SR-86 to the southwest; and in the eastern vicinity is the Salton Sea.

The biologists observed anthropogenic structures and evidence of anthropogenic disturbances within the Survey Area, including Off-Highway Vehicle (OHV) tracks, existing paved and dirt roads, power lines, fences, stockpiles of sediment, and trash. ECORP observed OHV tracks throughout the Project Site and Survey Area but mainly in proximity to SR-86. There were paved roads outside the Project Site but within the survey buffer and included Salton Sea Road located south of the Project Site and extending parallel to the southern boundary, and SR-86, located across the southwestern corner of the Survey Area. One dirt access road and associated distribution power lines were extended from beyond the northwest corner across the Project Site and Survey Area and through the southern boundary of the Survey Area. There was a barbed wire fence delineating the right-of-way along SR-86 within the survey buffer near the Project Site's southwestern boundary. Biologists observed stockpiles of sediment, presumably from past construction, in the corner between SR-86 and Salton Sea Road located in the survey buffer as well as one stockpile, large enough to drive on, located in the Project Site north of the southern boundary. There was

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evidence of trash, including plastic bottles, beer cans, and beer bottles scattered around the Survey Area, especially areas closest to existing roads and on a dune located in the survey buffer east of the Project Site. Representative site photographs are included in Appendix A.

The Survey Area primarily consisted of friable soil with variable amounts of sand and rock content. Small mammal burrows were observed throughout the Survey Area including in the Project Site. There were areas with very fine sand generally in the eastern portion of the Survey Area, where large dunes were present and in micro dunes at the bases of some shrubs throughout the site. Other areas had rocks ranging from approximately 1 inch to 2 feet scattered across the surface of the Survey Area. ECORP conducted a soils analysis search using NRCS soil survey data (NRCS 2023). No soil data was available for the majority of the Survey Area, including the entire Project Site (Figure 3). Three soil series occur within the buffer of the Survey Area including the following soil types:

- 119 – Indio-Vint complex
- 124 – Niland gravelly sand
- 132 – Rositas fine sand, 0 to 2 percent slopes

4.2.2 Vegetation Communities and Land Cover

The Survey Area comprises primarily creosote bush scrub (*Larrea tridentata* Shrubland Alliance). Other vegetation communities observed in the Survey Area included white bursage scrub (*Ambrosia dumosa* Shrubland Alliance) and Mojave-Sonoran Desert dunes (*Dicoria canescens - Abronia villosa – Panicum urvilleanum* Sparsely Vegetated Alliance). Biologists observed several land covers, including developed/disturbed and active agricultural in the Survey Area. There was one land cover type, active agriculture, observed within the survey buffer, but not within the Project Site. The location of each vegetation community and land cover type documented in the Survey Area are described in detail below and presented on Figure 4. Acreages of each habitat and vegetation community and land cover type observed in the Project Site are shown in Table 3. Representative photographs of the habitats within the Survey Area are included in Appendix A and a full list of plant species observed on or immediately adjacent to the Survey Area is included in Appendix B.

Table 3. Vegetation Communities and Land Covers in the Project Site

Vegetation Communities and Land Covers	Acres in Project Site	Acres in adjacent 500-ft Buffer
Creosote bush scrub	580.52	230.07
White bursage scrub	13.39	1.78
Mojave-Sonoran Desert dunes	0.18	5.62
Active Agriculture	0	3.69
Developed/Disturbed	2.44	13.38
Total	**596.53**	**254.54**

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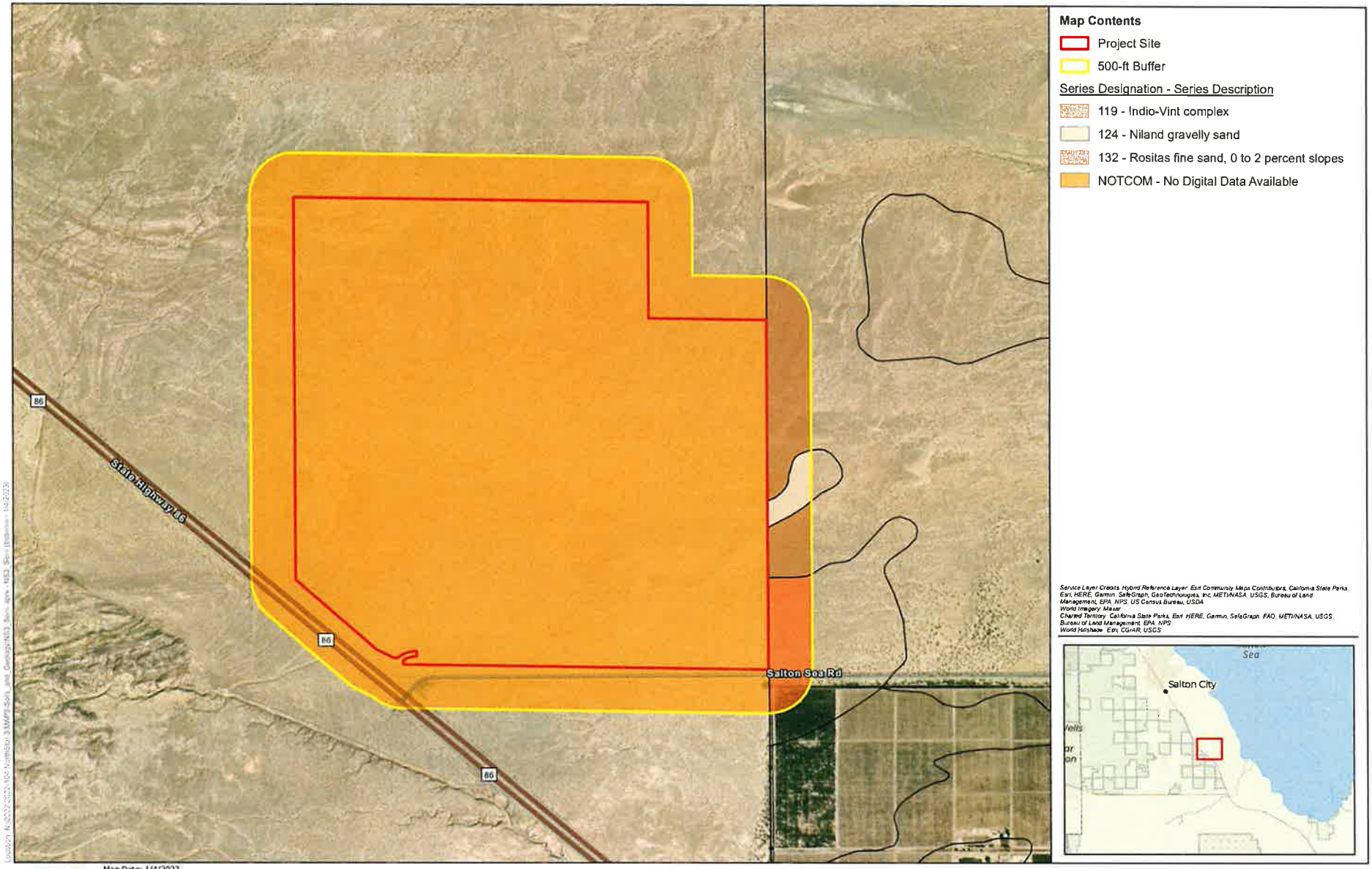

Figure 3. Natural Resources Conservation Service Soil Types

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2021-104 North Star 3

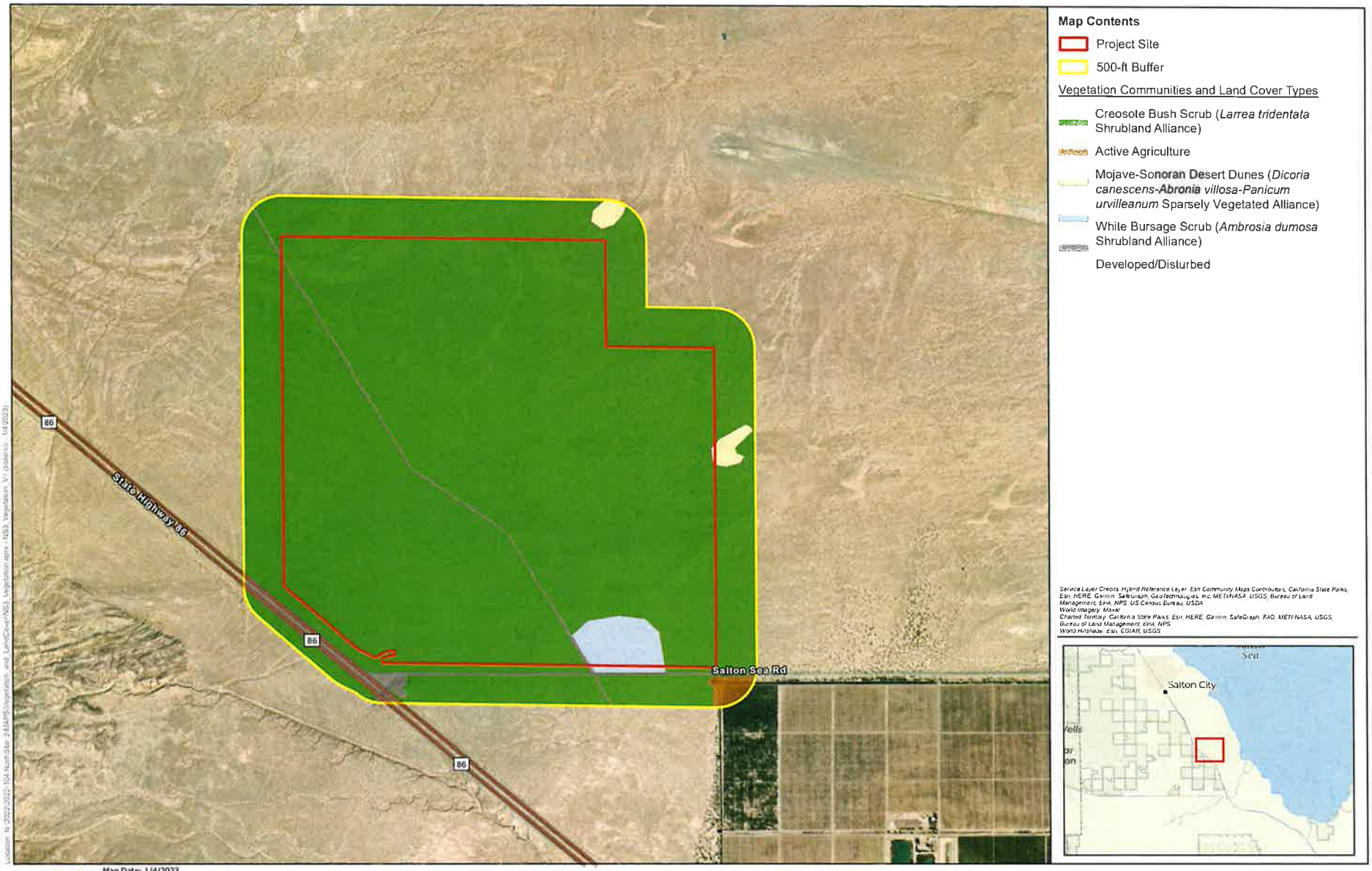

Figure 4. Vegetation Communities and Land Cover Types

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4.2.2.1 Creosote Bush Scrub (Larrea tridentata Shrubland Alliance)

Creosote bush scrub is dominated by creosote bush within the shrub canopy or creosote bush is co-dominant with other native species such as rayless goldenhead (*Acamptopappus sphaerocephalus*), white bursage (*Ambrosia dumosa*), cheesebush (*Ambrosia salsola*), allscale (*Atriplex polycarpa*), and species of ephedra (*Ephedra* spp.). This community typically occurs in well-drained soils with an intermittent to open shrub canopy and a variable herbaceous layer of seasonal annuals or perennial grasses (Sawyer et al. 2009). This community has a State Rarity Rank of S5, meaning it is demonstrably secure and abundant statewide. This community was observed throughout the majority of the Survey Area (Figure 4). Species observed in this community within the Survey Area included creosote bush, white bursage, Spanish needle (*Palafoxia arida*), Palmer's crinklemat (*Tiquilia palmeri*) and longleaf jointfir (*Ephedra trifurca*). Disturbances within the creosote bush scrub in the Project Site were relatively minor and included OHV activity (i.e., tracks and jumps), trash, and nonnative species. ECORP mapped approximately 580.52 acres of creosote bush scrub within the Project Site and approximately 230.07 acres within the buffer.

4.2.2.2 White Bursage Scrub (Ambrosia dumosa Shrubland Alliance)

White bursage scrub is dominated by white bursage and occurs with other native species including rayless goldenhead, fourwing saltbush (*Atriplex canescens*), creosote bush, and big galleta (*Hilaria rigida*). This community is typically found in sandy, clay-rich, or calcareous soils with an open to intermittent canopy of short shrubs and an open to intermittent herbaceous layer of seasonal annuals (Sawyer et al. 2009). This community has a State Rarity Rank of S5, meaning it is demonstrably secure and abundant statewide. This community was observed in a small patch in the southeastern portion of the Survey Area (Figure 4). Species observed in this community within the Survey Area included white bursage, creosote bush, and six weeks grama (*Bouteloua barbata* var. *barbata*). Disturbances within the white bursage scrub in the Project Site were relatively minor and included OHV activity (i.e., tracks), trash, and nonnative species. ECORP mapped approximately 13.39 acres of white bursage scrub within the Project Site and approximately 1.78 acres within the buffer.

4.2.2.3 Mojave-Sonoran Desert Dunes (Dicoria canescens – Abronia villosa – Panicum urvilleanum Sparsely Vegetated Alliance)

Mojave-Sonoran Desert dunes is considered a sparsely vegetated alliance, largely characterized by the presence of stabilized sand sheets and sand dunes rather than presence of a dominant set of species (Sawyer et al. 2009). Vegetation cover is sparse to intermittent with seasonal annuals and scattered perennials less than 3 feet in height and includes species such as desert dicoria (*Dicoria canescens*), desert sand verbena (*Abronia villosa*), and desert panicgrass (*Panicum urvilleanum*) characteristically present in the herb and subshrub layer (Sawyer et al. 2009). Mojave-Sonoran Desert dunes has a State Rarity Rank of S3, meaning it is vulnerable statewide. Similar alliance designations characterized by Holland (1986) include active desert dunes, which have a State Rarity Rank of S2, and stabilized and partially stabilized dunes, which have a State Rarity Rank of S3. This community was largely unvegetated Within the Survey area and included two large sand dunes present in the eastern and northeastern survey buffer (Figure 4). A small segment of this land cover type is present in the Project Site, associated with the large sand dune

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in the eastern survey buffer,. Over time, the influence of the adjacent sand dune may increase the size of dune habitat in the Project Site. Many special-status and endemic plant species are known to occur in sandy dune habitats. ECORP observed approximately 0.18 acre of Mojave-Sonoran Desert dunes within the Project Site and approximately 5.62 acres within the buffer.

4.2.2.4 Active Agriculture

Active agriculture is not a vegetation community but a land cover type and includes planted, typically monotypic, rows of crops of annual and perennial species with open space between rows. Species composition frequently changes by season and year. Active agriculture often occurs in upland areas with high soil quality, or floodplains and are almost always artificially irrigated. Biologists observed this land cover type in the southeastern corner of the Survey Area and only within the survey buffer, outside of the Project Site (Figure 4). Species observed within the Survey Area among this land cover type included creosote bush, saltcedar, and Sonoran sandmat (*Euphorbia micromera*). Active agriculture in the Survey Area primarily consisted of a fruit orchard with scattered creosote bush shrubs along the outer orchard boundary. The northwest corner of this land cover type included a tall saltcedar tree with a wide tree diameter and dense foliage. ECORP biologists mapped approximately 3.69 acres of active agriculture within the survey buffer.

4.2.2.5 Developed/Disturbed

Developed/disturbed areas do not constitute a vegetation classification, but rather a land cover type. Areas mapped as developed have been constructed upon or otherwise physically altered to an extent that natural vegetation communities are no longer supported. There may be irrigated, landscaped ornamental species present between the hardscape. Within the Survey Area, this land cover type included the powerline and associated road that bisects the Project Site, the southern survey buffer where Salton Sea Road crosses the landscape, and the southwestern survey buffer where SR-86 is located. Areas mapped as developed/disturbed were mostly paved and lacked vegetation. ECORP biologists observed nonnative vegetation was at a higher concentration adjacent to developed/disturbed lands and included species such as Bermuda grass (*Cynodon dactylon*) and puncture vine (*Tribulus terrestris*). ECORP mapped approximately 2.44 acres of developed/disturbed areas within the Project Site and approximately 13.38 acres within the buffer.

4.2.3 Plants Observed

ECORP observed the following native plant species during the survey: creosote bush, dyebush (*Psorothamnus emoryi*), desert plantain (*Plantago ovata* var. *fastigiata*), desert sand verbena (*Abronia villosa* var. *villosa*), and birdcage evening primrose (*Oenothera deltoides*). The biologists observed nonnative plant species, including saltcedar, common purslane (*Portulaca oleracea*), puncture vine, and Bermuda grass. A full list of plant species observed on or immediately adjacent to the Survey Area is included in Appendix B.

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4.2.4 Wildlife Observed

ECORP biologists observed the following wildlife species during the survey: Cooper's hawk (*Accipiter cooperii*), California horned lark (*Eremophila alpestris actia*), American crow (*Corvus brachyrhynchos*), greater roadrunner (*Geococcyx californianus*), prairie falcon (*Falco mexicanus*), yellow-rumped warbler (*Setophaga coronata*), black phoebe (*Sayornis nigricans*), and signs of coyote (*Canis latrans*), and kangaroo rat (*Dipodomys* sp.). A full list of wildlife species observed on or immediately adjacent to the Survey Area is included in Appendix C.

4.3 Special-Status Species Assessment

The literature review resulted in 13 special-status plant and 45 special-status wildlife species that have recently and historically been recorded in the vicinity of the Project Site or that are highly associated with habitat that occurs within the Survey Area. ECORP biologists observed no special-status plant or wildlife species from the literature review in the Survey Area during the survey. Biologists evaluated special-status plants for their potential to occur within the Project Site where impacts could occur (Appendix D); they evaluated special-status wildlife for their potential to occur within the Survey Area, a broader area that includes the Project Site and buffer, where direct or indirect impacts could occur (Appendix E).

4.3.1 Plants

ECORP's literature review revealed 13 special-status plant species that have historically been recorded in the vicinity of the Project Site or that are highly associated with habitat that occurs within the Project Site. Of these 13 special-status species, 10 were found to have potential to occur in or adjacent to the Project Site. A brief natural history and discussion of the special-status plant species found to have a high or moderate potential to occur on the Project Site are provided below. Appendix D provides the results of the literature review outlining each species and their designations. For the purposes of this study, plants with CNPS designation of 4.3 were not included in this analysis, as this ranking is considered a review list/watch list and is defined as "not very endangered in California (<20% of occurrences threatened or no current threats known)" (CNPS 2023). Additionally, Wiggins' cholla (*Opuntia wigginsii* in CNDDB, or *Cylindropuntia echinocarpa*) was not included in the analysis as it is a hybrid of silver cholla (*Cylindropuntia echinocarpa*), which is not considered a special-status species and does not have a CNPS rare plant rank. Table 4 provides descriptions of the CNPS designations, also known as CRPR are found in.

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Table 4. CNPS Status Designations	
List Designation	**Meaning**
1A	Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere
1B	Plants Rare, Threatened, or Endangered in California and Elsewhere
2A	Plants Presumed Extirpated in California, But Common Elsewhere
2B	Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
3	Plants about which we need more information; a review list
4	Plants of limited distribution; a watch list
List 1B, 2, and 4 extension meanings:	
.1	Seriously threatened in California (over 80 percent of occurrences threatened/high degree and immediacy of threat)
.2	Moderately threatened in California (20 to 80 percent occurrences threatened\/moderate degree and immediacy of threat)
.3	Not very threatened in California (less than 20 percent of occurrences threatened/low degree and immediacy of threat or no current threats known)

Note: According to CNPS (Skinner and Pavlik 1994), plants on Lists 1B and 2 meet definitions for listing as threatened or endangered under Section 1901, Chapter 10 of the California Fish and Game Code (California Department of Fish and Game [CDFG] 1984). This interpretation is inconsistent with other definitions.

4.3.1.1 Plant Species with a High Potential to Occur

ECORP biologists determined the following species to have a high potential to occur due to the presence of suitable habitat and several known recent occurrences within 5 miles of the Project Site:

- Orcutt's woody-aster (*Xylorhiza orcuttii*) is a CRPR 1B.2 and BLM Sensitive plant species. This species is known to occur at elevations between sea level and 365 meters (sea level and 1,200 feet) and blooms from March to April. Orcutt's woody-aster is a perennial herb known to occur in creosote bush scrub of the Sonoran Desert, and is often found in arid canyons and barren slopes. One recent Calflora record and one recent CNDDB record, both observed in 2011, were identified within 5 miles of the Project Site. An additional historic Calflora record was identified within 5 miles of the Project Site. Suitable habitat to support this species occurs in the Project Site among the sandy soils of the creosote bush scrub and white bursage scrub.

4.3.1.2 Plant Species with a Moderate Potential to Occur

Due to the presence of suitable habitat and several known occurrences within 5 miles of the Project Site, the following species was determined to have a moderate potential to occur:

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- Harwood's milkvetch (*Astragalus insularis* var. *harwoodii*) is a CRPR 2B.2 plant species. This species is known to occur at elevations between sea level and 710 meters (sea level and 2,330 feet) and blooms from January to May. Harwood's milkvetch is an annual herb known to occur in sand dune habitats and sandy soils of creosote bush scrub in the Mojave and Sonoran deserts. One historic Calflora record and one historic CNDDB record were identified within 5 miles of the Project Site. Suitable habitat to support this species occurs in the Project Site among the sandy soils of the creosote bush scrub and white bursage scrub, and marginal dune habitat is present along the eastern Project boundary adjacent to the large sand dune in the eastern survey buffer.
- Gravel milkvetch (*Astragalus sabulonum*) is a CRPR 2B.2 plant species. This species is known to occur at elevations between -60 and 930 meters (-195 and 3,050 feet) and blooms from February to June. Gravel milkvetch is an annual herb known to occur in desert dune habitats and creosote bush scrub in the Mojave and Sonoran deserts, and is often found in sandy soils of flats, roadsides, and washes. Two historic CNDDB records were identified within 5 miles of the Project Site. Suitable habitat to support this species occurs in the Project Site among the sandy soils of the creosote bush scrub and white bursage scrub, and marginal dune habitat is present along the eastern Project boundary adjacent to the large sand dune in the eastern survey buffer.
- Abrams' spurge (*Euphorbia abramsiana*) is a CRPR 2B.2 plant species. This species is known to occur at elevations between -5 and 1,310 meters (-15 and 4,300 feet) and generally blooms from September to November. Abrams' spurge is an annual herb known to occur in creosote bush scrub habitat of the Mojave and Sonoran deserts within sandy flats of playas, fields, disturbed areas, and washes. One recent CNDDB record was observed in 2012 approximately 5 miles from the Project Site. Suitable habitat to support this species occurs in the Project Site among the sandy soils of the creosote bush scrub and white bursage scrub.
- Torrey's boxthorn (*Lycium torreyi*) is a CRPR 4.2 plant species. This species is known to occur at elevations between -50 and 1,220 meters (-165 and 4,005 feet) and generally blooms from March to June. Torrey's boxthorn is a perennial shrub known to occur in creosote bush scrub habitat of the Mojave and Sonoran deserts, often in desert valleys and in rocky, sandy soils of streambanks and washes. One recent Calflora record observed in 2013 was identified within 5 miles of the Project Site. Suitable habitat to support this species occurs in the Project Site among the sandy soils of the creosote bush scrub and white bursage scrub.

4.3.1.3 Plant Species with Low Potential to Occur

The following species were found to have a low potential to occur within the Project Site because of limited habitat for the species on the site and a known occurrence has been reported in the database, but not within 5 miles of the Project Site, or suitable habitat strongly associated with the species occurs within the Project Site, but no records were found in the database search:

- Peirson's pincushion (*Chaenactis carphoclinia* var. *peirsonii*), CRPR 1B.3 and BLM Sensitive species
- Brown turbans (*Malperia tenuis*), CRPR 2B.3

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- Hairy stickleaf (*Mentzelia hirsutissima*), CRPR 2B.3
- Sand food (*Pholisma sonorae*), CRPR 1B.2 and BLM Sensitive species
- Orocopia sage (*Salvia greatae*), CRPR 1B.3 and BLM Sensitive species

4.3.1.4 Plant Species Presumed Absent

The following species were presumed to be absent from the Project Site because the Project Site lies outside of the known elevational range of the species and/or lacks habitat to support the species:

- Little-leaf elephant tree (*Bursera microphylla*), CRPR 2B.3
- Harwood's eriastrum (*Eriastrum harwoodii*), CRPR 1B.2 and BLM Sensitive
- Parish's desert thorn (*Lycium parishii*), CRPR 2B.3

4.3.2 Wildlife

The literature search identified 45 special-status wildlife species with potential to occur in the vicinity of the Survey Area, but only 21 species had records in the CNDDB in the vicinity of the Survey Area. No CFWO records were identified in the vicinity of the Survey Area except for desert pupfish (*Cyprinodon macularius*). Of the 45 special-status wildlife species identified in the literature review, three were found to have a high potential to occur in the Survey Area, three were found to have a moderate potential to occur and 15 were found to have a low potential to occur; the remaining 24 species are presumed absent from the Project Site. A brief natural history and discussion of the special-status wildlife species found to have a high or moderate potential to occur on the Proposed Project Site are provided below. Results of the literature review for all special-status wildlife species assessed for potential for occurrence are summarized in Appendix E. For the purposes of this study, CDFW Watch List species were not included in this analysis, as additional information is needed to clarify the conservation status of species with this designation (CDFW 2023c). Additionally, LeConte's thrasher (*Toxostoma lecontei*) was not included in this analysis as the species is not considered a special-status species in the vicinity of the Survey Area. LeConte's thrasher are only considered to be a special-status species (i.e., CDFW SSC and BLM Sensitive species) in the San Joaquin Valley (BLM 2014 and CDFW 2023c). Table 5 provides descriptions of the federal and state wildlife designations, and a brief natural history and discussion of the special-status wildlife species found onsite and species that have a high or moderate potential to occur within the Survey Area are provided below.

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Table 5. Wildlife Status Designations	
List Designation	**Meaning**
Federal Designation	**Jurisdiction under United States Fish and Wildlife Service (USFWS)**
END	Federally listed as Endangered
THR	Federally listed as Threatened
CAN	Federal Candidate Species
FSC	Federal Species of Concern
FPD	Federal Proposed for Delisting
BCC	Bird of Conservation Concern
State Designation	**Jurisdiction under California Fish and Wildlife Service (CDFW)**
END	State listed as Endangered
THR	State listed as Threatened
SSC	California Species of Special Concern
FP	Fully Protected Species
BLM Designation	**Jurisdiction under Bureau of Land Management (BLM)**
S	Sensitive

4.3.2.1 Special-Status Wildlife Species with a High Potential to Occur

Three species were found to have high potential to occur within the Survey Area due to the presence of suitable habitat for the species on the site and because a known occurrence has been recorded within 5 miles of the Survey Area:

- Flat-tailed horned lizard is a CDFW SSC and BLM Sensitive species. This species is most commonly found on sandy flats and valleys within desert scrub habitat with little or no windblown sand. They can also be found on salt flats and gravelly soils. It feeds almost exclusively on harvester ants but may also eat other insects. The creosote bush scrub and white bursage scrub in the Survey Area provides suitable habitat for the flat-tailed horned lizard.
- Burrowing owl (*Athene cunicularia*) is a CDFW SSC and a BLM Sensitive species. This species is typically found in dry open areas with few trees and short grasses; it is also found in vacant lots near human habitation. It uses uninhabited mammal burrows for roosts and nests, often in close proximity to California ground squirrel (*Otospermophilus beecheyi*) colonies. It primarily feeds on large insects and small mammals but will also eat birds and amphibians. Suitable burrowing owl

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habitat is present through the Survey Area in creosote bush scrub and white bursage scrub. One burrow was observed within the southeastern portion of the Project Site during the October 2022 biological reconnaissance survey (Figure 5). The burrow was determined to be a potential burrowing owl burrow, meaning it was suitable for use by burrowing owl based on its size and other characteristics (e.g., open habitat and lack of thick vegetation); however, it lacked evidence indicating current or past occupation of use by burrowing owl (i.e., live owl, whitewash, or pellets).

- Desert kit fox (*Vulpes macrotis arsipus*) is a fur-bearing mammal that is protected under the CCR Title 14, Chapter 5, Section 460, which prohibits take of the species at any time. Therefore, CDFW does not have a mechanism for take of the species by development projects. The desert kit fox is found in desert habitats that include vegetation communities in the Survey Area such as creosote bush scrub. Suitable habitat for desert kit fox is present throughout the Survey Area in creosote bush scrub and white bursage scrub.

4.3.2.2 Special-Status Wildlife Species with a Moderate Potential to Occur

Three species were found to have moderate potential to occur within the Survey Area because habitat (including soils and elevation factors) for the species occurs in the Survey Area and a known occurrence exists within the database search, but not within 5 miles of the Survey Area or a known occurrence exists within 5 miles of the Survey Area and marginal or limited amounts of habitat occurs within the Survey Area:

- Colorado Desert fringe-toed lizard (*Uma notata*) is a CDFW SSC and BLM Sensitive species. This species is commonly found in sparsely vegetated areas with fine sand including flats, riverbanks, dunes, and washes. This species burrows in fine loose sand. Suitable habitat for Colorado Desert fringe-toed lizard is present within the Survey Area, especially in areas mapped as Mojave-Sonoran Desert dunes and in portions of the creosote bush scrub, primarily east of the access road, where loose, sandy soils were present.
- Palm Springs pocket mouse (*Perognathus longimembris bangsi*) is a CDFW SSC and a BLM Sensitive species. This species occurs in sparsely vegetated creosote bush scrub, desert scrub, and grassland habitats with flat or gently sloping terrain and loose, sandy soils. Suitable creosote bush scrub and white-bursage scrub is present in the Survey Area.
- American badger (*Taxidea taxus*) is a CDFW SSC. American badgers are found in a wide variety of open habitats with friable soils including desert scrub and woodland habitats. Suitable habitat for this species is present throughout the Survey Area in creosote bush scrub and white bursage scrub.

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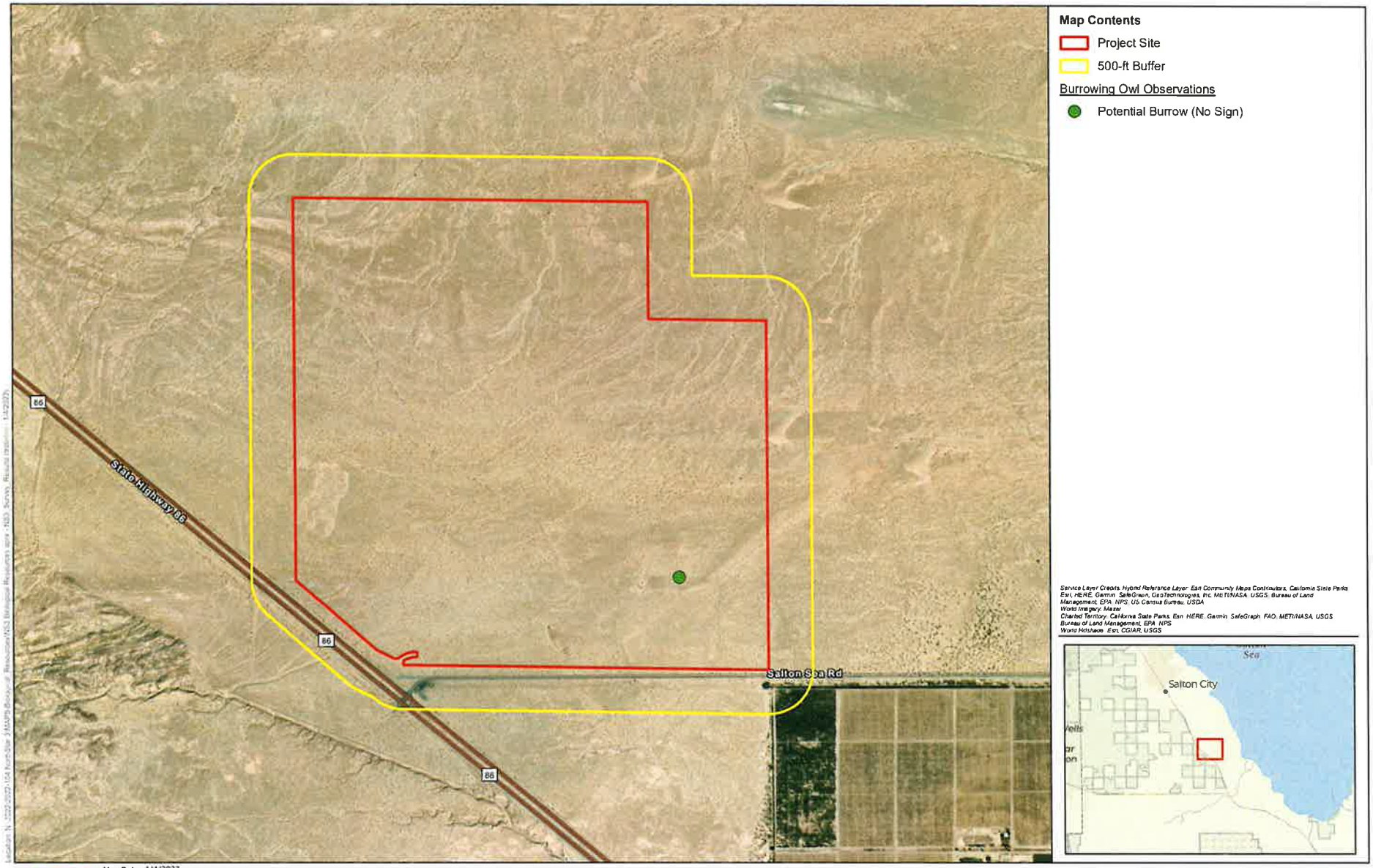

Map Date: 1/4/2023

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Scale in Feet
0 500 1,000

Figure 5. Biological Survey Results

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2022-104 North Star 3

4.3.2.3 Wildlife Species with Low Potential to Occur

ECORP found 15 species to have a low potential to occur within the Survey Area. Two of the 15 were determined to have a low potential to occur because there is limited habitat for the species in the Survey Area and a known occurrence has been reported in the database, but not within 5 miles of the Survey Area, or suitable habitat strongly associated with the species occurs in the Survey Area, but no records were found in the database search:

- Short-eared owl (*Asio flammeus*), CDFW SSC; and
- Loggerhead shrike (*Lanius ludovicianus*) is a CDFW SSC.

ECORP biologists determined 13 of the 15 species, eight bat and five bird species, were determined to have low potential to occur in the Survey Area, despite the lack of suitable roosting, wintering, and nesting habitat, due to their potential to occur as flyovers during foraging activities (bats) or enroute to the Salton Sea (birds):

- Mountain plover (*Charadrius montanus*), USFWS BCC, CDFW SSC, and BLM Sensitive species;
- Western snowy plover (*Charadrius nivosus nivosus*), USFWS THR, CDFW SSC, and BLM Sensitive species;
- Gull-billed tern (*Gelochelidon nilotica*), CDFW SSC;
- California brown pelican (*Pelecanus occidentalis californicus*), CDFW FP and BLM Sensitive species;
- Black skimmer (*Rynchops niger*), CDFW SSC;
- Pallid bat (*Antrozous pallidus*), CDFW SSC and BLM Sensitive species;
- Western mastiff bat (*Eumops perotis californicus*), CDFW SSC and BLM Sensitive species;
- California leaf-nosed bat (*Macrotus californicus*), CDFW SSC and BLM Sensitive species;
- Small-footed myotis (*Myotis ciliolabrum*), BLM Sensitive species;
- Fringed myotis (*Myotis thysanodes*), BLM Sensitive species;
- Cave myotis (*Myotis velifer*), CDFW SSC and BLM Sensitive species;
- Yuma myotis (*Myotis yumanensis*), BLM Sensitive species; and
- Pocketed free-tailed bat (*Nyctinomops femorosaccus*), CDFW SSC.

4.3.2.4 Wildlife Species Presumed Absent

The following 24 species are presumed absent from the Survey Area due to the lack of suitable habitat on the site. The majority of these species were identified during the literature review due to their presence on the BLM Sensitive Species List for the El Centro Field Office (BLM 2014). This list includes sensitive species from a variety of habitats and elevations in both San Diego and Imperial counties very dissimilar to those

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of the Survey Area (i.e., Peninsular Mountain Range, Anza Borrego State Park, Algodones Dunes, and the Lower Colorado River Valley).

- Desert pupfish, USFWS Endangered (END) and CDFW END;
- Razorback sucker (*Xyrauchen texanus*), USFWS END, CDFW END and Fully Protected Species (FP);
- Lowland leopard frog (*Lithobates yavapaiensis*), CDFW SSC and BLM Sensitive species;
- Crouch's spadefoot (*Scaphiopus couchi*), CDFW SSC and BLM Sensitive species;
- Southwestern pond turtle (*Actinemys pallida*), CDFW SSC and BLM Sensitive species;
- Barefoot banded gecko (*Coleonyx switaki*), CDFW Threatened (THR) and BLM Sensitive species;
- Blainville's horned lizard (*Phrynosoma blainvillii*), CDFW SSC and BLM Sensitive species;
- Two-striped garter snake (*Thamnophis hammondii*), CDFW SSC and BLM Sensitive species;
- Tricolored blackbird (*Agelaius tricolor*), CDFW THR and SSC, and BLM Sensitive species;
- Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), USFWS THR, CDFW END, and BLM Sensitive species;
- Gilded flicker (*Colaptes chrysoides*), CDFW END and BLM Sensitive species;
- Yellow-breasted chat (*Icteria virens*), CDFW SSC;
- California black rail (*Laterallus jamaicensis coturniculus*), CDFW THR and FP, and BLM Sensitive species;
- Gila woodpecker (*Melanerpes uropygialis*), CDFW END and BLM Sensitive species;
- Elf owl (*Micrathene whitneyi*), CDFW END and BLM Sensitive species;
- Lucy's warbler (*Oreothlypis luciae*), CDFW SSC and BLM Sensitive species;
- Yuma Ridgway's rail (*Rallus obsoletus* ssp. *yumanensis*), USFWS END and CDFW THR and FP;
- California spotted owl (*Strix occidentalis occidentalis*), CDFW SSC and BLM Sensitive species;
- Crissal thrasher (*Toxostoma crissale*), CDFW SSC and BLM Sensitive species;
- Arizona Bell's vireo (Vireo bellii arizonae), CDFW END and BLM Sensitive species;
- Western yellow bat (*Lasiurus xanthinus*) is a CDFW SSC;
- Long-eared myotis (*Myotis evotis*), BLM Sensitive species;
- Desert bighorn sheep (*Ovis canadensis nelson*), CDFW FP and BLM Sensitive species; and
- Yuma hispid cotton rat (*Sigmodon hispidus eremicus*) is a CDFW SSC.

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4.4 Jurisdictional Aquatic Resources Assessment

Hernandez Environmental Services conducted an aquatic resources delineation; the results of this delineation are presented under separate cover.

4.5 Raptors and Migratory Birds

There was Potential nesting habitat for migratory birds and raptors protected by the MBTA and California Fish and Game Code on and adjacent to the Project Site. There was also potential nesting habitat for migratory birds within vegetation throughout the Project Site, including creosote bushes and on structures (i.e., power line poles) along the dirt access road. Areas adjacent to the Project Site, including vegetation in the agricultural land, also provided nesting habitat for migratory birds and raptors. Disturbed and developed lands generally do not provide suitable habitat due to the lack of vegetation; however, some disturbed and developed lands may provide suitable nesting substrates for common species such as house finch (*Haemorhous mexicanus*) and mourning dove (*Zenaida macroura*). Raptors typically breed between February and August, and songbirds and other passerines generally nest between March and August. Biologists observed potential foraging habitat for migratory birds and raptors throughout and adjacent to the Project Site. ECORP observed a prairie falcon foraging and perching on a power line pole in the Project Site during the survey, and a Cooper's hawk was perched in saltcedar in the active agriculture in the survey buffer before flying over the Project Site. It should be noted that due to the Project Site's proximity to the Salton Sea and agriculture in the Imperial Valley, a diversity of migratory birds could occur above the Project Site enroute to migratory stopover points, nesting habitat, or wintering habitat.

The Survey Area is located within the Pacific Flyway, a major north-to-south migration pathway for birds migrating between nesting and wintering areas (CDFW n.d. and USFWS n.d.). Additionally, the Survey Area is located in proximity to two globally significant Important Bird Areas (IBA): Salton Sea and Imperial Valley (National Audubon Society [Audubon] n.d.) IBAs are recognized through an international program by BirdLife International and by Audubon to identify, conserve, and monitor essential habitat for bird species. IBAs are selected according to strict criteria:

- support over 1 percent of the global or 10 percent of the state population of one or more sensitive species,
- support more than nine sensitive bird species,
- 10,000 or more observable shorebirds in one day, and
- 5,000 or more observable waterfowl in one day (Audubon n.d.).

The Salton Sea IBA encompasses the primary water body composing the Salton Sea and is located approximately 2 miles east of the Survey Area. It provides nesting, wintering, and migratory stopover habitats for more than 400 species of birds (Audubon n.d.). The Imperial Valley IBA is approximately 3 miles southeast of the Survey Area. The Imperial Valley IBA envelopes the agricultural land around the southern shores of the Salton Sea, including but not limited to the cities of Westmorland, Niland, Brawley, El Centro, and Calexico, and extends south until the United States-Mexico border. The largest California

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populations of mountain plover, Gila woodpecker, and burrowing owls occur in the Imperial Valley IBA (Audubon n.d.). Due to the Survey Area's location in the Pacific Flyway combined with its proximity to two globally significant IBAs, multiple species of migrating and transient birds can be expected to fly over and occur in vicinity to the Project Site.

4.6 Wildlife Movement Corridors, Linkages, and Significant Ecological Areas

The concept of habitat corridors addresses the linkage between large blocks of habitat that allow the safe movement of mammals and other wildlife species from one habitat area to another. The definition of a corridor is varied, but corridors may include such areas as greenbelts, refuge systems, underpasses, and biogeographic land bridges. In general, a corridor is described as a linear habitat, embedded in a dissimilar matrix, which connects two or more large blocks of habitat. Wildlife movement corridors are critical for the survivorship of ecological systems for several reasons. Corridors can connect water, food, and cover sources, spatially linking these three resources with wildlife in different areas. In addition, wildlife movement between habitat areas provides for the potential of genetic exchange between wildlife species populations, thereby maintaining genetic variability and adaptability to maximize the success of wildlife responses to changing environmental conditions. This is especially critical for small populations subject to loss of variability from genetic drift and effects of inbreeding. Naturally, the nature of corridor use and wildlife movement patterns varies greatly among species.

The Survey Area was assessed for its ability to function as a wildlife corridor. A review of California Essential Habitat Connectivity Project in CNDDB's Biogeographic Information and Observation System (BIOS) viewer determined that the Survey Area is not located within or adjacent to any areas designated as Natural Landscape Blocks or in any Essential Connectivity Areas (CDFW 2014, 2017). A review of the Terrestrial Connectivity, Areas of Conservation Emphasis (ACE) in the CNDDB's BIOS viewer determined that the Survey Area is located in two different ACE designations. The northwestern half of the Survey Area is ranked as *Limited Connectivity Opportunity* (Rank 1, CDFW 2019a). This ranking includes "areas where land use may limit options for providing connectivity (e.g., agriculture, urban) or no connectivity importance has been identified in models" (CDFW 2019b). The southeastern half of the Survey Area is ranked as *Connections with Implementation Flexibility* (Rank 3, CDFW 2019a). The Connections with Implementation Flexibility ranking includes "areas that have been Identified as having connectivity importance but are not channelized areas, species corridors, or habitat linkages" (CDFW 2019b). Additionally, the Project Site is located within an area identified as *moderately low* for *current terrestrial landscape intactness* per the DRECP. Terrestrial intactness quantifies human impact on the landscape and is considered low if development is high, vegetation quality is low, and fragmentation is high (Conservation Biology Institute 2023).

The Project Site is situated in mostly undeveloped desert habitat located between SR-86 to the west and the Salton Sea to the east. Agriculture associated with the Imperial Valley is present in the southeastern vicinity of the Survey Area and open desert extends between SR-86 and the Salton Sea for approximately 7 miles until it reaches the community of Salton City. The Project Site is bounded by SR-86 to the southwest, Salton Sea Road (i.e., infrequently used paved road) to the south, and active agriculture

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including fruit orchards at the southeast corner but is otherwise surrounded by undeveloped land with scattered desert washes. Beyond SR-86 to the west lies the Ocotillo State Vehicle Recreation Area, which encompasses more than 85,000 acres of desert open to OHV recreation activities and located in an area north of SR-76, west of SR-86, east Anza Borrego State Park, and extends approximately 4 miles north of Borrego Salton Sea Way. Approximately 2 miles of mostly undeveloped desert separate the Survey Area from the Salton Sea and the Naval Auxiliary Air Station, along the Salton Sea's western shoreline. Throughout the Survey Area, the terrain is primarily flat other than desert washes and the vegetation was mainly consisted of creosote bush scrub. Vegetation in the Survey Area could provide habitat for migrating and nesting birds and permanent or temporary shelter for other wildlife such mammals (e.g., jackrabbits, rodents) and various lizards. It could also provide foraging habitat for raptors and various mammals such as rodents, lagomorphs, and canids. Shrub cover and the desert washes located throughout the Project Site are likely utilized by wildlife moving through the area and these features and associated habitats may be considered linkages between conserved natural habitat areas or critical areas for wildlife movement because of the nearby direct connectivity to open spaces to the north and east. Additionally, the dirt access road spanning northwest to southeast across the center of the Survey Area likely serves as a mechanism for local wildlife movement in the area based on the numerous canid tracks observed during the survey.

Although the Project Site is directly connected to open desert habitats immediately to the north and east and agriculture to the southeast, movement of terrestrial wildlife is limited in the region due to SR-86 to the west, the Salton Sea to the east, and development consisting of Salton City in the north. As such, the Survey Area may serve as an area for movement opportunities of local wildlife including lizards, mammals, and some nesting and migrating birds but would likely not be considered a wildlife movement corridor that would need to be preserved to allow wildlife to move between important natural habitat.

5.0 PROJECT IMPACTS

Project Implementation has potential to impact creosote bush scrub, white bursage scrub, and Mojave-Sonoran Desert dunes. These communities may provide suitable raptor foraging habitat, rare plant habitat, and suitable nesting, burrowing, denning, and foraging habitat for a variety of sensitive species, including flat-tailed horned lizard, Colorado Desert fringe-toed lizard, burrowing owl, and desert kit fox. These communities provide suitable foraging habitat, but no roosting habitat, for multiple special-status bat species. Additionally, the proximity of the Project Site to the Salton Sea provides potential for multiple migratory birds, including multiple special-status bird species, to fly over the Project Site enroute to nesting, wintering, and migration stopover habitat at the Salton Sea.

Conceptual design of the Project has not been finalized; therefore, impacts and minimization measures cannot be confirmed at this time. The following recommendations would be required to determine if the Project would result in significant impacts to vegetation communities, special-status plant and wildlife species, jurisdictional waters, and wildlife movement corridors.

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5.1.1 Special-Status Species

5.1.1.1 Special-Status Plants

The literature review identified 10 special-status plant species that have the potential to occur within the Project Site. There is high potential for one special-status plant species, Orcutt's woody-aster (CRPR 1B.2, BLM Sensitive), to be present within the Project Site; and moderate potential for four additional special-status plant species, Harwood's milkvetch (CRPR 2B.2), gravel milkvetch (CRPR 2B.2), Abram's spurge (CRPR 2B.2), and Torrey's boxthorn (CRPR 4.2), to be present within the Project Site. There is suitable habitat to support these species in the Project Site among the sandy soils of the creosote bush scrub and white bursage scrub, and within the marginal dune habitat present along the eastern Project boundary (Figure 4). Impacts that may occur to these species include loss of individuals, habitat, and seedbank. Depending on the size of the population, this impact may be significant. ECORP recommends implementation of BIO-1, BIO-2, BIO-3, and BIO-6 to reduce impacts to a less than significant level.

Five special-status plant species have a low potential to occur in the Project Site. There is habitat for these species in the Project Site, but the literature review identified no recent or historic occurrence records in or near the Project Site. These species include Peirson's pincushion (CRPR 1B.3, BLM Sensitive), brown turbans (CRPR 2B.3), hairy stickleaf (CRPR 2B.3), sand food (CRPR 1B.2, BLM Sensitive), and Orocopia sage (CRPR 1B.3, BLM Sensitive). Impacts to these species resulting from Project activities are not expected to occur.

5.1.1.2 Special-Status Wildlife

The literature review identified 45 special-status wildlife species that have the potential to occur within the Survey Area. However, 24 of these species have no potential to occur due to the lack of suitable habitat within the Survey Area and/or the Project occurs outside the known range of these species. Wildlife species that are presumed absent from the Survey Area are listed in Section 4.3.2.4. Construction of the Project will not contribute to the overall decline of any of these species and no impacts to these species are anticipated to result from this Project.

The habitat assessment detected no special-status wildlife species onsite. Three special-status wildlife species were found to have a high potential to occur within the Survey Area: flat-tailed horned lizard, burrowing owl, and desert kit fox. Three special-status wildlife species were found to have a moderate potential to occur within the Survey Area: Colorado Desert fringe-toed lizard, Palm Springs pocket mouse, and American badger. Direct impacts to these species that could occur include injury, mortality, loss of nests or young, and destruction of habitat. Indirect impacts include loss of nesting, roosting, and foraging habitat, loss of shelter sites, and increase in anthropogenic effects (i.e., noise levels, introduction and/or spread of invasive/nonnative species, human and vehicular activity, dust, nighttime lighting). Impacts to Palm Springs pocket mouse, flat-tailed horned lizard, and Colorado Desert fringe-toed lizard are not anticipated to rise to a level of significant impact due to the proximity of the Project Site to anthropogenic disturbances (i.e., SR-86, active agriculture) and the presence of existing suitable habitat in the region. Additionally potential impacts to these species will be minimized with the implementation of BIO-1, BIO-3, and BIO-6. Impacts to burrowing owl, desert kit fox, and American badger could be considered

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significant; therefore, implementation of BIO-1, BIO-3, BIO-4, BIO-5, and BIO-6 is recommended to avoid and minimize potential impacts. Although no roosting habitat for bats was present on the Project Site, foraging habitat for a number of special-status bat species occur throughout the Project Site and in proximity to the Project Site at the Salton Sea. Bat species in California are protected by Section 4150 (protection of non-game mammals from take) of the California Fish and Game Code. Section 4150 of the California Fish and Game Code prohibits the take of any naturally occurring mammals in California that are nongame mammals, which includes all species of the Order Chiroptera (bats). Direct impacts to special-status bat species that could occur include injury and mortality due to collision with solar panels or other structures. Indirect impacts include loss of foraging habitat, and increase in anthropogenic effects (i.e., noise levels, increase in human activity, increase in dust) that may result in altered bat behavior that could lead to lower fitness due to decreased foraging activities. Loss of foraging bat habitat on the Project Site is not considered significant due to the presence of open dessert habitat, suitable for foraging bats, in the region where the Project Site is located including surrounding the Project Site. Sensitive Natural Communities Mortality or injury of individual special-status bats as a result of the Project may be a significant impact; therefore, implementation of BIO-7 is recommended to avoid and minimize potential impacts.

5.1.2 Sensitive Natural Communities

The 596.53-acre Project Site comprises creosote bush scrub, white bursage scrub, developed/disturbed land, and a small segment of Mojave-Sonoran Desert dunes, which would be directly impacted by the Project. Creosote bush scrub, Mojave-Sonoran Desert dunes (including two large sand dunes), developed/disturbed land, and active agriculture occur adjacent to Project Site within the survey buffer. Mojave-Sonoran Desert dunes has a state rarity ranking of S3.2, indicating it is vulnerable in California due to "a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation from the state" (CNPS 2023b). Biologists observed approximately 0.18 acre of Mojave-Sonoran Desert dunes within the Project Site and mapped approximately 5.62 acres within the buffer (Figure 4). The amount of sensitive natural communities that may be permanently removed is minor (0.18 acre in total) and the Project is not anticipated to have a significant impact on sensitive natural communities within the Project. ECORP recommends that Project activities are avoided in this area if possible; however, if Project activities occur in this area, implementation of BIO-1, BIO-3 and BIO-8 is recommended to reduce potential impacts to sensitive natural communities.

5.1.3 State- and/or Federally Protected Wetlands and Waters

The results of the Draft Aquatic Resources Delineation Report and discussion of potential impacts on state or federally protected wetlands or Waters of the U.S. are discussed in the Draft Aquatic Resources Delineation Report, prepared under separate cover by Hernandez Environmental Services.

5.1.4 Raptors and Migratory Birds

There is potential nesting and foraging habitat for migratory birds and raptors protected by the MBTA and the California Fish and Game Code throughout and adjacent to the Project Site. The Project Site

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provides nesting habitat for ground-nesting species as well as species such as osprey (*Pandion haliaetus*) and common ravens (*Corvus corax*) that nest in desert scrub habitat or on power line poles. Construction of the Project could directly or indirectly affect nesting birds within and adjacent to the Project Site if activities occur during the nesting bird season. Direct impacts to nesting avian species include injury, mortality, loss of young, and nest failure. Indirect impacts include loss of foraging and nesting habitat for passerine and raptors species, increase in noise and human activities, and potential introduction of invasive/nonnative species. Implementation of BIO-1, BIO-3, BIO-4, and BIO-5 is recommended to mitigate for potential impacts.

The Project Site is located within the Pacific Flyway, a major corridor for migratory birds, and it is in proximity to the Salton Sea and Imperial Valley agricultural habitat. The Salton Sea and Imperial Valley agricultural habitat are recognized for providing breeding, wintering, and migratory stopover habitats for a variety of bird species including special-status species such as Western snowy plover, mountain plover, and California brown pelican. Direct impacts to raptors and migratory birds may include project-related injury or mortality due to collision with buildings, transmission and distribution lines, chain link fence, and other similar structures. No impacts due to bird collisions with the distribution line are anticipated since the Proposed Project is anticipated to tie into the existing distribution line unless existing structures are modified or new structures are built as a result of the Project. Additionally, flat reflective surfaces (e.g. photovoltaic panels) polarize light and researchers hypothesize that birds may mistake these reflective surfaces for bodies of water, a phenomenon referred to as the lake effect. Mortality or injury of individual birds and raptors as a result of the Project may be a significant impact. Implementation of BIO-7 is recommended to avoid and reduce potential impacts to a less than significant level.

5.1.5 Wildlife Corridors and Nursery Sites

The Project Site provides wildlife movement opportunities because majority of the Project Site contains suitable vegetation and/or cover to support some terrestrial wildlife movement and it consists of open and relatively unimpeded land. However, the Project Site is not located within a recognized terrestrial species corridor or major habitat linkage. Additionally, the Project Site would not be considered a wildlife movement corridor that would need to be preserved to allow wildlife to move between important natural habitat areas due to the absence of conserved natural lands in the vicinity and the Project Site's proximity to areas containing existing disturbances (i.e., paved highway, roads, and active agricultural land). The Project Site is also mostly surrounded by open unimpeded desert land, functioning as a single contiguous block of habitat rather than a corridor. The Project Site is exposed and contains no major features that would be considered critical movement corridors for wildlife. Although the dirt roads and desert washes located within the Project boundaries are likely utilized by wildlife moving through the area, these features would not be considered necessary linkages between conserved natural habitat areas or critical for wildlife movement because of the nearby open space surrounding the Project. Construction of the Project would not impede or significantly affect any existing terrestrial wildlife corridor. Although the Project Site does not generally provide nursery site habitat, it provides nesting habitat for birds protected under the MBTA. Potential impacts related to nesting birds are discussed in Section 5.1.4.

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5.1.6 Habitat Conservation Plans and Natural Community Conservation Plans

The Project Site is located within the DRECP Area with a conservation designation of California Desert National Conserved Lands and falls within the BLM Salton Sea Hazardous ACEC unit (Conservation Biology Institute 2023 and DRECP 2016). The Project Site is located in BLM Renewable Energy Development Focus Areas (Conservation Biology Institute 2023). Implementation of BIO-9 is recommended to minimize potentially significant impacts if habitat within the California Desert National Conserved Lands area of the Project is to be impacted. The Project will follow the guidelines in Imperial County's Conservation and Open Space Element and meet the requirements outlined in the plan. Consultation with BLM, County of Imperial Department of Planning and Development, USFWS, and CDFW would be required should listed plant or wildlife species be found to occur.

The Project Site contains suitable habitat for flat-tailed horned lizard. Although the Project Site is not located within a Flat-tailed Horned Lizard Management Area (Foreman 1997), ECORP recommends the Project follow the guidelines listed in Appendix 3 of the Flat-tailed Horned Lizard Range-Wide Management Strategy document to the greatest extent feasible as implementation of these guidelines is recommended to minimize potentially significant impacts to flat-tailed horned lizard.

6.0 RECOMMENDATIONS AND MITIGATION MEASURES

ECORP developed the following recommendations in accordance with the CEQA impacts analysis for the Project (Section 5) but should not be considered mitigation measures at this point in the Project planning process. These actions are recommended prior to Project implementation:

BIO-1: **Worker Environmental Awareness Program:** Prior to the start of construction, a Worker Environmental Awareness Program (WEAP) should be developed. A qualified biologist with experience with the sensitive biological resources in the region will provide WEAP training to all personnel working on the Project Site (either temporarily or permanently) prior to the start of Project activities. The WEAP may be video recorded and used to train newly hired workers or those not present for the initial WEAP. The WEAP would include, but will not be limited to, discussions of the sensitive biological resources associated with the Project with a specific focus on special-status plant and wildlife species with potential to occur within the Project Site. Project-specific measures to avoid or eliminate impacts to these resources, consequences for not complying with Project permits and agreements, and contact information for the lead biologist should be included in the WEAP. Logs of personnel who have taken the training will be kept on the site at the construction trailer or Project office.

BIO-2: **Rare Plant Surveys:** Rare plant surveys should be conducted within suitable habitat within the Project Site during the appropriate blooming period for Orcutt's woody-aster (March through April), Harwood's milkvetch (January through May), gravel milkvetch (February through June), Abrams' spurge (August through November), and Torrey's boxthorn (approximately March through June). Spring and Fall surveys may be necessary to detect all species during their blooming period. The surveys should be conducted by a botanist or qualified biologist in accordance with the USFWS Guidelines for Conducting and Reporting

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Botanical Inventories for Federally Listed, Proposed, and Candidate Plants (USFWS 1996); the CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW 2018); and the CNPS Botanical Survey Guidelines (CNPS 2001). If any special-status species are observed during the rare plant surveys, the location of the individual plant or population will be recorded with a submeter GPS device for mapping purposes. If Project-related impacts to rare plants within the Project Site are unavoidable, then consultation with CDFW may be required to develop a mitigation plan or additional avoidance and minimization measures. Mitigation measures that may be implemented if the species is observed include establishing a no-disturbance buffer around locations of individuals or a population, salvage or seed collection, and additional monitoring requirements.

BIO-3: **Biological Monitoring:** A qualified biologist knowledgeable of the plant and wildlife species occurring in the region and experienced in surveying for and identifying the common and special-status plants and wildlife species with potential to occur, should be present to monitor all ground-disturbing and vegetation-clearing activities conducted for the Project. The biological monitor should perform clearance survey *sweeps* at the start of each work day to ensure vegetation clearing takes place to minimize impacts on special-status species with potential to occur (including, but not limited to, special-status and/or nesting bird species, desert kit fox, flat-tailed horned lizard). The monitor will be responsible for ensuring that impacts to special-status species, nesting birds, and active nests will be avoided to the greatest extent possible. Biological monitoring should take place until the Project Site has been completely cleared of any vegetation or at the discretion of the qualified biologist if special-status species are still present in the Project Site. If an active nest is identified, the biological monitor should establish an appropriate disturbance limit buffer around the nest using flagging or staking. Construction activities should not occur within any disturbance limit buffer zones until the nest is deemed no longer active by the biologist. Consultation with the USFWS and/or CDFW should be conducted and a mitigation plan should be developed to avoid and offset impacts to special-status wildlife species detected during biological monitoring activities. Mitigation measures may consist of work restrictions or additional biological monitoring activities after ground-disturbing activities are complete.

BIO-4: **Burrowing Owl Surveys:** Suitable habitat for burrowing owl was identified throughout the Survey Area. Focused burrowing owl surveys and preconstruction burrowing owl surveys are recommended. The focused burrowing owl surveys should follow the methods described in the CDFW's *Staff Report on Burrowing Owl Mitigation* (CDFG 2012). Four surveys should be conducted between February 15 and July 15, with at least one visit occurring before April 15 and one visit occurring after June 15. Pre-construction surveys for burrowing owl should be conducted within the Project Site and adjacent areas prior to the start of ground-disturbing activities. The surveys should follow the methods described in the CDFW's *Staff Report on Burrowing Owl Mitigation* (CDFG 2012). Two surveys should be conducted, with the first survey being conducted between 30 and 14 days before initial ground disturbance (e.g., grading, grubbing, and construction), and the second survey being conducted no more than

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24 hours prior to initial ground disturbance. If burrowing owls and/or suitable burrowing owl burrows with sign (e.g., whitewash, pellets, feathers, prey remains) are identified within the Survey Area during the survey and impacts to those features are unavoidable, consultation with the CDFW should be conducted and the methods described in the CDFW's *Staff Report on Burrowing Owl Mitigation* (CDFG 2012) for avoidance and/or passive relocation should be followed.

BIO-5: **Pre-Construction Nesting Bird Survey:** If construction or other Project activities are scheduled to occur during the bird breeding season (typically February 1 through August 31 for raptors and March 15 through August 31 for the majority of migratory bird species), a qualified avian biologist should conduct a pre-construction nesting-bird survey to ensure that active bird nests will not be disturbed or destroyed. The survey should be completed no more than 3 days prior to initial ground disturbance. The nesting-bird survey should include the Project Site and adjacent areas where Project activities have the potential to affect active nests, either directly or indirectly due to construction activity or noise. If an active nest is identified, the biologist should establish an appropriately sized disturbance-limit buffer around the nest using flagging or staking. Construction activities should not occur within any disturbance-limit buffer zones until the nest is deemed inactive by the qualified biologist. If construction activities cease for a period of greater than 3 days during the bird breeding season, a pre-construction nesting bird survey should be conducted prior to the commencement of activities.

BIO-6: **Pre-Construction Survey for Special-Status Species:** A pre-construction survey should be conducted for special-status plant and wildlife species within all areas of potential permanent and temporary disturbance. The pre-construction survey should take place no more than 14 days prior to the start of ground-disturbing activities. The pre-construction surveys should take place regardless of breeding season timing and should focus on identifying the presence of special-status plant and wildlife species identified as having high/moderate potential to occur within the Project Site. These species include, but are not limited to, Orcutt's woody-aster, flat-tailed horned lizard, Colorado Desert fringe-toed lizard, burrowing owl, desert kit fox, American badger. Should any special-status species be identified during the pre-construction survey, consultation to develop suitable avoidance and minimization measures with the appropriate agency (USFWS, CDFW) may need to be undertaken.

BIO-7: **Bird and Bat Conservation Strategy:** Prior to the start of construction activities, a Bird and Bat Conservation Strategy (BBCS) will be developed in consultation between the Applicant, CDFW, and USFWS and will be subject to the approval of CDFW and USFWS. The BBCS will include measures to be implemented to minimize bird and bat fatalities at the Proposed Project Site. The BBCS could include but may not be limited to: bird and bat inventory studies (e.g., seasonal bird point count surveys, night bat surveys), pre-construction clearance survey methods and timing, buffer distances based on construction activity and sensitivity of nests/birds, measures for avoidance of impact during bird nesting season (e.g.,

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seasonal work restrictions), implementation of construction noise and dust minimization measures, implementation of trash abatement, biological monitoring, bat acoustic deterrents, nest deterrents (i.e., netting/covering equipment, supplies, or perches), implementing anti-perching devices and avian visual deterrents, and using emerging technologies such as antireflective film overlays on the panels and/or chemosensory and sonic deterrents. The BBCS will be in compliance with the MBTA and California Fish and Game Code Sections 3503, 3503.5, 3513, and 4150.

BIO-8: **Sensitive Habitat Avoidance:** To the greatest extent possible, plans should avoid impacts to Mojave-Sonoran Desert dunes to minimize potential impacts to special-status species. Excluding these habitats from the Project should also minimize mitigation and permitting requirements to meet the less than significance threshold.

BIO-9: **Minimization of Impacts to Sensitive Species on BLM Land:** All vehicles should stay on designated roads within BLM land to minimize impacts to habitat. Coordination with a qualified biologist should occur prior to the staging of equipment and placement of temporary or permanent structures within BLM land. Additionally, a biologist should demarcate temporary and permanent work spaces in the field prior to the commencement of construction-related activities. Construction plans should incorporate measures to minimize and avoid impacts to habitats within this area. Tires should be cleaned prior to entering BLM lands to control introduction of invasive plant species.

The following best management practices are not mitigation measures pursuant to CEQA but are recommended to further reduce impacts to special-status species that have potential to occur on the property:

- Confine all work activities to a pre-determined work area.
- To prevent inadvertent entrapment of wildlife during the construction phase of the Project, all excavated, steep-walled holes or trenches more than 2 feet deep should be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps constructed of earthen fill or wooden planks should be installed. Before such holes or trenches are filled, they should be thoroughly inspected for trapped wildlife, including but not limited to flat-tailed horned lizard.
- Wildlife are often attracted to burrow- or den-like structures such as pipes, and may enter stored pipes and become trapped or injured. To prevent wildlife use of these structures, all construction pipes, culverts, or similar structures with a diameter of 4 inches or greater should be capped while stored onsite.
- All food-related trash items such as wrappers, cans, bottles, and food scraps should be disposed of in securely closed containers and removed at least once a week from a construction or Project Site.
- Use of rodenticides and herbicides within the Project Site should be restricted. This is necessary to prevent primary or secondary poisoning of wildlife, including burrowing owl and the depletion of

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prey populations on which they depend. All uses of such compounds should observe label and other restrictions mandated by the USEPA, California Department of Food and Agriculture, and other state and federal legislation. If rodent control must be conducted, zinc phosphide should be used because of a proven lower risk to burrowing owl.

- Follow the guidelines listed in Appendix 3 of the Flat-tailed Horned Lizard Range-wide Management Strategy to the greatest extent feasible as implementation of these guidelines is recommended to minimize potentially significant impacts to flat-tailed horned lizard.

7.0 CERTIFICATION

I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief. Field work conducted for this assessment was performed by me or under my direct supervision. I certify that I have not signed a non-disclosure or consultant confidentiality agreement with the project applicant or the applicant's representative and that I have no financial interest in the project.

Signed: _____ Date: _____

Taylor Dee
Staff Biologist

Signed: _____ Date: _____

Alexandra Dorough
Associate Biologist

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LIST OF APPENDICES

Appendix A – Representative Site Photographs

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Appendix D – Special-Status Plant Potential For Occurrence

Appendix E – Special-Status Wildlife Potential For Occurrence

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APPENDIX A

Representative Site Photographs

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Photo 1: Creosote bush scrub habitat with sandy and rocky soil in Project Site.



Photo 2: Creosote bush scrub habitat with sandy and gravelly soils in Project Site.

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Photo 3: Mojave-Sonoran desert dunes habitat in Survey Area east of Project Site.



Photo 4: White bursage scrub habitat within Project Site.

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Photo 5: Creosote bush scrub habitat with micro dunes and sand hammocks at the base of shrubs west of distribution line.



Photo 6: Active agriculture consisting of fruit orchard southwest of the Project Site.

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Photo 7: Rocky outcrop and area with minor cracking in soil.



Photo 8: Gravelly soil north of soft sand.

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Photo 9: Off-highway vehicle (OHV) disturbance and trash in Survey Area.



Photo 10: Potential burrowing owl burrow (no live owl or sign) observed in Project Site.

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Photo 11: Small mammal burrows observed in creosote bush scrub habitat in Project Site.



Photo 12: Small mammal burrow and sandy soils in creosote bush scrub within Project Site.

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Photo 13: Rock outcrop in creosote bush scrub within Project Site.



Photo 14: Stand of tamarisk trees in northwest corner of active agriculture in survey buffer.

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APPENDIX B

Plant Species Observed

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Scientific Name	Common Name
VASCULAR PLANTS	
GYMNOSPERMS	
EPHEDRACEAE	EPHEDRA FAMILY
Ephedra trifurca	Longleaf ephedra
ANGIOSPERMS (EUDICOTS)	
AMARANTHACEAE	AMARANTH FAMILY
Amaranthus sp.	Amaranth
ASTERACEAE	SUNFLOWER FAMILY
Ambrosia dumosa	White bursage
Geraea canescens	Desert sunflower
Palafoxia arida	Desert palafox
Pectis papposa	Chinch weed
ETHRETIACEAE	ETHRETIA FAMILY
Tiquilia palmeri	Palmer's tiquilia
Tiquilia plicata	Fan-leaved tiquilia
EUPHORBIACEAE	SPURGE FAMILY
Croton californicus	California croton
Euphorbia micromera	Sonoran sandmat
FABACEAE	LEGUME FAMILY
Psorothamnus emoryi	Dyebush
MALVACEAE	MALLOW FAMILY
Sphaeralcea ambigua	Apricot mallow
NYCTAGINACEAE	FOUR O'CLOCK FAMILY
Abronia villosa var. *villosa*	Desert sand verbena
ONAGRACEAE	EVENING-PRIMROSE FAMILY
Oenothera deltoides	Birdcage evening primrose
PLANTAGINACEAE	PLANTAIN FAMILY
Plantago ovata var. *fastigiata*	Desert plantain
POLYGONACEAE	BUCKWHEAT FAMILY
Eriogonum deserticola	Colorado desert buckwheat
PORTULACACEAE	PURSLANE FAMILY
*Portulaca oleracea**	Common purslane
TAMARICACEAE	TAMARISK FAMILY
*Tamarix ramosissima**	Tamarisk
ZYGOPHYLLACEAE	CALTROP FAMILY
Larrea tridentata	Creosote bush
*Tribulus terrestris**	Puncture vine

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Scientific Name	Common Name
ANGIOSPERMS (MONOCOTS)	
AGAVACEAE	CENTURY PLANT FAMILY
Hesperocallis undulata	Desert lily
POACEAE	GRASS FAMILY
Aristida adscensionis	Sixweeks three-awn
Bouteloua barbata var. *barbata*	Sixweeks grama
*Cynodon dactylon**	Bermuda grass

* Not native to California.

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APPENDIX C

Wildlife Species Observed

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Scientific Name	Common Name
INVERTEBRATES	
Formicidae	Ants
Pogonomyrmex californicus	California harvester ant
Tenebrionidae	Darkling Beetles
Eleodes sp.	Desert stink beetle
Theraphosidae	Tarantulas
Aphonopelma sp.	North American tarantula
BIRDS	
Accipitridae	Hawks, Kites, & Eagles
Accipiter cooperii	Cooper's hawk
Alaudidae	Larks
Eremophila alpestris actia	California horned lark
Corvidae	Jays and Crows
Corvus brachyrhynchos	American crow
Cuculidae	Cuckoos
Geococcyx californianus	Greater roadrunner
Falconidae	Falcons and Caracaras
Falco mexicanus	Prairie falcon
Parulidae	Wood Warblers
Setophaga coronata	Yellow-rumped warbler
Tyrannidae	Tyrant Flycatchers
Sayornis nigricans	Black phoebe
MAMMALS	
Canidae	Dogs
Canis latrans	Coyote (tracks)
Heteromyidae	Kangaroo Rats and Pocket Mice
Dipodomys sp.	Kangaroo rat (tracks)

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APPENDIX D

Special-Status Plant Potential For Occurrence

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Special-Status Plant Species with Potential to Occur within the Project Site				
Scientific Name **Common Name**	**Status**	**Blooming Period/ Elevation Range (meters)**	**Habitat**	**Potential to Occur within the Project Site**
Astragalus insularis var. ***harwoodii*** Harwood's milkvetch	USFWS: None CDFW: None CRPR: 2B.2 BLM: None	Jan-May (0-710)	Occurs in desert dunes and Mojavean desert scrub. Sometimes found in sandy or gravelly soils.	**Moderate.** While no significant dune habitat occurs on the Project Site, desert scrub with sandy soils is present on site among the creosote bush and white bursage scrub, and desert dune habitat occurs adjacent to the Project Site to the east. Additionally, one historic Calflora record (ID cn82; exact date unknown) and one historic CNDDB record (Occ. #7; exact date unknown) were identified within five miles of the site (Calflora 2023; CDFW 2023a).
Astragalus sabulonum gravel milkvetch	USFWS: None CDFW: None CRPR: 2B.2 BLM: None	Feb-Jun (-60-930)	Occurs in desert dunes, Mojavean desert scrub, and Sonoran Desert scrub. Often found in sandy soils of flats, roadsides, and washes. Sometimes found in gravelly soils.	**Moderate.** Sonoran Desert scrub with sandy soils occurs on and adjacent to the Project Site among the creosote bush scrub and white bursage scrub, and desert dune habitat occurs adjacent to the Project Site to the east. Additionally, the database search revealed two historic records (Occ. #5 and #6) within five miles of the site (CDFW 2023a).
Bursera microphylla little-leaf elephant tree	USFWS: None CDFW: None CRPR: 2B.3 BLM: None	Jun-Jul (200-700)	Occurs in Sonoran Desert scrub in rocky soils. Known in California from fewer than twenty occurrences.	**Presumed Absent.** Although Sonoran Desert scrub is present on and adjacent to Project Site, the site is out of the elevational range of the species.
Chaenactis carphoclinia var. ***peirsonii***	USFWS: None CDFW: None CRPR: 1B.3 BLM: S	Mar-Apr (3-500)	Occurs in Sonoran Desert scrub in sandy soils. Known only from the eastern Santa Rosa	**Low.** Sonoran Desert scrub with sandy soils occurs on and adjacent to the Project Site among the creosote bush scrub and white bursage scrub. The database search

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Special-Status Plant Species with Potential to Occur within the Project Site				
Scientific Name **Common Name**	**Status**	**Blooming Period/ Elevation Range (meters)**	**Habitat**	**Potential to Occur within the Project Site**
Peirson's pincushion			Mountains.	revealed no records within five miles of the Project Site, and the great distance from the Santa Rosa Mountains decreases the likelihood that the population there would influence presence of this species on the Project Site.
Eriastrum harwoodii Harwood's eriastrum	USFWS: None CDFW: None CRPR: 1B.2 BLM: S	Mar-Jun (125-915)	Occurs in desert dunes. Often found in sand dunes in creosote bush scrub in the Mojave and Sonoran desert.	**Presumed Absent.** Although desert scrub with sandy soils is present on and adjacent to the Project Site among the creosote bush and white bursage scrub, and desert dune habitat occurs adjacent to the Project Site to the east, the site is out of the elevational range of the species.
Euphorbia abramsiana Abrams' spurge	USFWS: None CDFW: None CRPR: 2B.2 BLM: None	Aug-Nov (-5-1,310)	Occurs in Mojavean and Sonoran Desert scrub. Often found in sandy soils.	**Moderate.** Sonoran Desert scrub with sandy soils occurs on and adjacent to the Project Site among the creosote bush scrub and white bursage scrub. The database search revealed one recent record (Occ. #29) observed in 2012 approximately five miles from the Project Site (CDFW 2023a).
Lycium parishii Parish's desert thorn	USFWS: None CDFW: None CRPR: 2B.3 BLM: None	Mar-Apr (135-1,000)	Occurs in coastal scrub and Sonoran desert scrub.	**Presumed Absent.** Although Sonoran desert scrub is present on and adjacent to Project Site, the Site is out of the elevational range of the species.
Lycium torreyi Torrey's boxthorn	USFWS: None CDFW: None CRPR: 4.2 BLM: None	(Jan-Feb)Mar-Jun(Sep-Nov) (-50 – 1,220)	Occurs in Mojavean desert scrub and Sonoran desert scrub. Often found in desert valleys, in rocky, sandy	**Moderate.** Sonoran Desert scrub with sandy soils occurs on and adjacent to the Project Site among the creosote bush scrub and white bursage scrub. The database search

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Special-Status Plant Species with Potential to Occur within the Project Site				
Scientific Name **Common Name**	**Status**	**Blooming Period/ Elevation Range (meters)**	**Habitat**	**Potential to Occur within the Project Site**
			soils of streambanks and washes.	revealed one recent Calflora record (ID RSA0042075) observed in 2013 within five miles from the Project Site (Calflora 2023).
Malperia tenuis brown turbans	USFWS: None CDFW: None CRPR: 2B.3 BLM: None	Feb-Apr (15-335)	Occurs in Sonoran Desert scrub in sandy, gravelly soils.	**Low.** Sonoran Desert scrub with sandy soils occurs on and adjacent to the Project Site among the creosote bush scrub and white bursage scrub. The database search revealed no records within five miles of the Project Site.
Mentzelia hirsutissima hairy stickleaf	USFWS: None CDFW: None CRPR: 2B.3 BLM: None	Mar-May (0-700)	Occurs in Sonoran Desert scrub in rocky soils. Often found in washes, fans, and slopes of creosote bush scrub.	**Low.** While Sonoran Desert scrub occurs on and adjacent to the Project Site among the creosote bush scrub and white bursage scrub, soil conditions on site are more sandy than rocky. Additionally, the database search revealed no records within five miles of the site.
Pholisma sonorae sand food	USFWS: None CDFW: None CRPR: 1B.2 BLM: S	Apr-Jun (0-200)	Occurs in desert dunes and in sandy soils of Sonoran Desert scrub.	**Low.** While no significant dune habitat occurs in the Project Site, desert scrub with sandy soils are present on site among the creosote bush and white bursage scrub, and desert dune habitat occurs adjacent to the Project Site to the east. The database search revealed no records within five miles of the Site.
Salvia greatae Orocopia sage	USFWS: None CDFW: None CRPR: 1B.3 BLM: S	Mar-Apr (-40-825)	Occurs in Mojavean desert scrub and Sonoran Desert scrub.	**Low.** Sonoran Desert scrub occurs on and adjacent to the Project Site among the creosote bush scrub and white bursage scrub. The database search revealed no records within five miles of the Project Site.

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Special-Status Plant Species with Potential to Occur within the Project Site

Scientific Name **Common Name**	**Status**	**Blooming Period/ Elevation Range (meters)**	**Habitat**	**Potential to Occur within the Project Site**
Xylorhiza orcuttii Orcutt's woody-aster	USFWS: None CDFW: None CRPR: 1B.2 BLM: S	Mar-Apr (0-365)	Occurs in Sonoran Desert scrub. Often found in arid canyons and barren slopes in creosote bush scrub.	**High.** Sonoran Desert scrub occurs on and adjacent to the Project Site among the creosote bush scrub and white bursage scrub. One recent Calflora record (ID 1240780) observed in 2011 and one historic Calflora record were identified within five miles of the site (Calflora 2023). Additionally, one recent CNDDB record (Occ #31) was identified in 2011 within five miles of the site (CDFW 2023a).

Federal Designations:
(Federal Endangered Species Act, USFWS)

END: Federally-listed, Endangered
THR: Federally-listed, Threatened

State designations:
(California Endangered Species Act, CDFW)

END: State-listed, Endangered
THR: State-listed, Threatened
RAR: State-listed, Rare

California Native Plant Society (CNPS) Designations:

1A: Plants presumed extinct in California.
1B: Plants rare and endangered in CA and throughout their range.
2: Plants rare, threatened, or endangered in CA but more common elsewhere in their range.
3: Plants about which need more information; a review list.
4: Plants of limited distribution; a watch list.

Plants 1B, 2, and 4 extension meanings:
0.1 Seriously endangered in CA (over 80% of occurrences threatened / high degree and immediacy of threat)
0.2 Fairly endangered in California (20-80% occurrences threatened)
0.3 Not very endangered in CA (<20% of occurrences threatened or no current threats known)

*Note: according to CNPS [Skinner and Pavlik 1994], plants on Lists 1B and 2 meet definitions for listing as threatened or endangered under Section 1901, Chapter 10 of the California Fish and Game Code (CDFG 2010b). This interpretation is inconsistent with other

Other Designations
S: Bureau of Land Management Sensitive Species

Sources:
California Natural Diversity Data Base (CNDDB) (CDFW 2023a)
CNPS Rare and Endangered Plant Inventory (CNPS 2023)
Calflora Information on California Plants (Calflora 2023)
IPaC (USFWS 2023b)

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APPENDIX E

Special-Status Wildlife Potential For Occurrence

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Special-Status Wildlife Species with Potential to Occur within the Project Site				
Scientific Name **Common Name**	**Status**		**Habitat Requirements**	**Potential for Occurrence**
FISH				
Cyprinodon macularius Desert pupfish	Fed: Ca: BLM:	**END** **END** none	Shallow (≤3.3 feet) and slow-moving water features with sand or silt bottoms and aquatic plants. May include desert springs, marshes, lakes, and saline or stream pools. Known to occur in the Salton Sea's shoreline pools and irrigation drains.	**Presumed Absent.** Although recent CNDDB and CFWO records were present within 5 miles, no aquatic habitat is present in the Survey Area. The nearest record (CNDDB, Occ #89) was from 1995 and located 2.7 miles east of the Survey Area and located in San Felipe Creek, a drainage of the Salton Sea. CFWO records correlated with the CNDDB records. The closest CFWO record was reported by M. Saiki in 2006 for the IID along the Triofolum 23 Drain.
Xyrauchen texanus Razorback sucker	Fed: Ca: BLM:	**END** **END**/FP none	Rivers with backwaters, deep runs, flooded off-channels in the spring. Shallow runs and pools in summer. Slow flowing runs and eddies in winter.	**Presumed Absent.** No aquatic habitat was observed in the Survey Area. Only 1 record (Occ #32) from CNDDB search. Record is historic (i.e., from 1956) and located approximately 13.7 miles northeast of the Survey Area.
AMPHIBIANS				
Lithobates yavapaiensis Lowland leopard frog	Fed: Ca: BLM:	none SSC S	Rocky streams in canyons adjacent to conifer forests or in ponds and stream pools in desert scrub. Aquatic habitats dominated by cattails, bulrushes, grasses often with an cottonwood-willow canopy.	**Presumed Absent.** No aquatic habitat was observed in the Survey Area. Only CNDDB records identified during the database search were 2 historic CNDDB records (Occ # 1 and 2) located more than 5 miles from the Survey Area. According to the CNDDB, this population to be considered possibly extirpated from the area.
Scaphiopus couchi Couch's spadefoot	Fed: Ca: BLM:	none SSC S	Underground in arid and desert regions of creosote bush, grassland, thorn forest, and sandy washes. Surfaces during rain events. In California, occurs along washes in creosote bush scrub. Range in California is east of Algodones Dunes.	**Presumed Absent.** Although creosote bush scrub was observed in the Survey Area, it is located outside the known range for the species. No CNDDB records identified during database search.

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Special-Status Wildlife Species with Potential to Occur within the Project Site				
Scientific Name **Common Name**	**Status**		**Habitat Requirements**	**Potential for Occurrence**
REPTILES				
Actinemys pallida Southwestern pond turtle	Fed: Ca: BLM:	none SSC S	Ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches, with abundant vegetation, and either rocky or muddy bottoms, in woodland, forest, and grassland. In streams, prefers pools to shallower areas. Logs, rocks, cattail mats, and exposed banks are required for basking. May enter brackish water and even seawater.	**Presumed Absent.** No aquatic habitat is present in the Survey Area. No CNDDB records identified during database search.
Coleonyx switaki Barefoot banded gecko	Fed: Ca: BLM:	none **THR** S	Rocky desert foothills, canyons, and arroyos, usually near large boulders or rocky outcrops with sparce vegetation.	**Presumed Absent.** No foothill, canyon, or arroyo habitat is present in the Survey Area. One CNDDB record (Occ # 17) from 2019 approximately 7 miles southwest of the Survey Area.
Phrynosoma blainvillii Blainville's horned lizard	Fed: Ca: BLM:	none SSC S	Inhabits open areas of sandy soil and low vegetation in valleys, foothills and semiarid mountains. Found in grasslands, coniferous forests, woodlands, and chaparral, with open areas and patches of loose soil. Often found in lowlands along sandy washes with scattered shrubs and along dirt roads. Occurs along Pacific Coast and west of deserts. Feeds on harvester ants.	**Presumed Absent.** No suitable grassland, coniferous forest, woodland, or chaparral habitat is present within the Survey Area. Additionally, the Survey Area is outside of the known range of the species. No CNDDB records identified during database search.

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Special-Status Wildlife Species with Potential to Occur within the Project Site				
Scientific Name **Common Name**	**Status**		**Habitat Requirements**	**Potential for Occurrence**
Phrynosoma mcallii Flat-tailed horned lizard	Fed: Ca: BLM:	none SSC S	Sandy flats, gravelly flats, desert scrub with sparse vegetation and sandy hammocks. Rarely occurs on dunes. Main prey item is harvester ants but also includes other insects. In California its range is limited to southeastern California desert extending from Thousand Palms in Riverside County to the Mexican border in Imperial County.	**High.** 50 CNDDB records (35 recent and 15 historic) within 5 miles of the Project Site. The closest record (Occ # 179) included an observation of 1 adult observed in the Ocotillo Wells State Vehicle Recreation Area southwest of SR-86 in 2006 and located 0.14 mile southwest of the Survey Area. The most recent records were recorded in May 2017 and documented 3 adults (Occ # 395) 4.6 miles south of the Survey Area and 1 adult (Occ # 396) 4.8 miles south of the Survey Area. Most CNDDB records were documented west of SR-86 with the exception of several historic records, including one (Occ # 203) observed in 2001 approximately 0.8 mile east of the Survey Area along Salton Sea Road.
Thamnophis hammondii Two-striped garter snake	Fed: Ca: BLM:	none SSC S	Found near water sources - pools, creeks, cattle tanks, and others, often in rocky areas. Associated vegetation: oak woodland, willow, coastal sage scrub, scrub oak, sparse pine, chaparral, and brushland. Occurs along the Pacific coast near Salinas south into Baja California, and occurs through the Transverse Ranges and Peninsular Ranges.	**Presumed Absent.** No aquatic habitat is present within the Survey Area. Additionally, the Survey Area is outside of the known range of the species. No CNDDB records identified during database search.

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Special-Status Wildlife Species with Potential to Occur within the Project Site				
Scientific Name **Common Name**	**Status**		**Habitat Requirements**	**Potential for Occurrence**
Uma notata Colorado Desert fringe-toed lizard	Fed: Ca: BLM:	none SSC S	Restricted to areas of fine (no coarser than 0.04 in) and loose sand used for burrowing. Found in sparsely vegetated areas with fine sand including flats, riverbanks, dunes, and washes. Occurs in the Colorado Desert in the vicinity of the Salton Sea and Imperial Sand Hills.	**Moderate.** Limited amounts of suitable fine and loose sand in the sand hammocks at the base of shrubs and washes throughout the Survey Area and the dune habitat located along the eastern Project Site boundary and in the survey buffer. The CDDNB search revealed 3 records (2 recent and 1 historic) all of which were within the Ocotillo Wells State Vehicle Recreation Area; however, only 1 was within 5 miles of the Survey Area. The closest record (Occ # 10) was observed in 2008 approximately 4.2 miles west of the Survey Area. According to the CNDDB record, 6 adults were captured and released between 2005 and 2008.
BIRDS				
Agelaius tricolor Tricolored blackbird (nesting colony)	Fed: Ca: BLM:	none **THR**/SSC S	Nests in wetlands with cattails, bulrushes, and willows, or in agricultural fields. Foraging habitats include cultivated fields, feedlots associated with dairy farms, and wetlands.	**Presumed Absent.** No wetland or suitable agricultural field habitat for breeding or foraging was observed within the Survey Area. No CNDDB records identified during database search.
Asio flammeus Short-eared owl (nesting)	Fed: Ca: BLM:	none SSC none	Large, open areas with low vegetation, including prairie and coastal grasslands, heathlands, meadows, shrub steppe, savanna, tundra, marshes, dunes, and agricultural areas. Considered very scarce as an irregular transient and winter visitor throughout southeastern deserts to lower Colorado River. Typically nests are placed on ground and where vegetation conceals incubation.	**Low.** Creosote bush scrub and white bursage scrub habitats within the Survey Area provide open habitat with low vegetation suitable for foraging for winter visitors and transients. Additionally, the vegetation in the Survey Area does not provides sufficient cover for nesting habitat typically used by the species. One historic CNDDB record (Occ # 2) was documented in 1956, in Westmorland, approximately 16.7 miles southeast of the Survey Area.

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Special-Status Wildlife Species with Potential to Occur within the Project Site				
Scientific Name **Common Name**	**Status**		**Habitat Requirements**	**Potential for Occurrence**
Athene cunicularia Burrowing owl	Fed: Ca: BLM:	none SSC S	Open, treeless areas with low, sparse vegetation. Generally associated with gentle, sloping terrains. Habitats include grasslands, deserts, and steppes. Will occur in vacant lots, pastures, agricultural fields, airports, and other areas with human presence. They will often use burrows made by other wildlife or man-made structures. Often present when prey (i.e., California ground squirrels) are abundant. Nesting sites are preferred on loose soil and on a slight incline such as road berms.	**High.** Creosote bush scrub and white bursage scrub in the Survey Area provides suitable open habitat. Additionally, a potential burrowing owl burrow (i.e., suitable for burrowing owl use but no owl or owl sign observed) and small mammal burrows were observed in the Project Site. The CNDDB yielded 35 (34 recent and 1 historic) records; however, none were within 5 miles of the Project Site. Most records were from 2006 and observed along agricultural fields in the region located north and northeast of SR-78, south of the Salton Sea, and northwest of Westmorland. The nearest record (Occ # 1934) documented 1 individual at a burrow in January 2007 located 5.4 miles north of the Survey Area. According to CNDDB, no owls were detected at the same location in February 2007 and April through May 2008.
Charadrius montanus Mountain plover (wintering)	Fed: Ca: BLM:	none SSC S	Grassland, shortgrass prairie, and agricultural fields that are recently sprouting, fallow or have been tilled, harvested, grazed or recently burned. Known wintering population located near the south end of the Salton Sea where alfalfa and Bermuda grass fields for foraging are present.	**Low.** No suitable grassland, prairie, or agricultural field habitat was observed in the Survey Area. Additionally, the agricultural land within the survey buffer consisted of fruit orchards and therefore is considered unsuitable for the species. This species is only likely to occur in the Project Site as a flyover species due to the proximity of the Survey Area to the Salton Sea. The CNDDB revealed 6 recent records; however, only one (Occ # 88) was documented within 5 miles. The nearest record (Occ #88) documented one individual near the western shore of the Salton Sea approximately 1.4 miles northeast of the Survey Area in 2009.

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Special-Status Wildlife Species with Potential to Occur within the Project Site				
Scientific Name **Common Name**	**Status**		**Habitat Requirements**	**Potential for Occurrence**
Charadrius nivosus nivosus Western snowy plover (nesting)	Fed: Ca: BLM:	**THR** SSC S	Sandy beaches, salt pond levees & shores of large alkali lakes. Needs sandy, gravelly, or friable soils for nesting. The Salton Sea is known to host a regular wintering population and historically, a breeding population.	**Low.** Although suitable habitat is present in proximity to the Survey Area along the Salton Sea, no suitable beach, pond levee, or lake shoreline habitat for nesting is present in the Survey Area. This species is only likely to occur in the Project Site as a flyover species due to the proximity of the Survey Area to the Salton Sea. Only two historic records from 1999 were identified during the CNDDB search. The nearest record (Occ # 139) describes 351 individuals observed in August of 1999 along the western shoreline of the Salton Sea located approximately 2 miles east of the Survey Area.
Coccyzus americanus occidentalis Western yellow-billed cuckoo (nesting)	Fed: Ca: BLM:	**THR** **END** S	Riparian woodland and forest, often near water and especially with dense willow and cottonwood understory. Requires broad riparian forest habitat (usually > 50 acres) for nesting.	**Presumed Absent.** No riparian habitat is present within the Survey Area. No CNDDB records identified during database search.
Colaptes chrysoides Gilded flicker	Fed: Ca: BLM:	none **END** S	Occur in Sonoran Desert with giant cactus species such as the giant saguaro, at elevations ranging from 200 to 3,200 feet. Nests mostly in giant cactus, also willow and cottonwood.	**Presumed Absent**. The Survey Area is below the known elevation and geographically ranges for the species. Additionally, no suitable saguaros, willows, or cottonwoods were observed in the Survey Area. No CNDDB records identified during database search.

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Special-Status Wildlife Species with Potential to Occur within the Project Site				
Scientific Name **Common Name**	**Status**		**Habitat Requirements**	**Potential for Occurrence**
Gelochelidon nilotica Gull-billed tern (nesting colony)	Fed: Ca: BLM:	none SSC none	Salt marshes, estuaries, coastlines, and plowed fields. Nests on beaches, sandy shores of salt marshes, and sandy barrier islands.	**Low**. Although no suitable habitat (i.e., salt marsh, estuary, coastline, or field) is present in the Survey Area, suitable habitat is present in proximity to the Survey Area along the Salton Sea. This species is only likely to occur in the Project Site as a flyover species due to the proximity of the Survey Area to the Salton Sea. The only CNDDB records were two historic records from 1992 and 1994 (Occ # 1 and 5) located along the western and southern shoreline of the Salton Sea approximately 5.5 miles southeast and 13.3 miles east of the Survey Area.
Icteria virens Yellow-breasted chat (nesting)	Fed: Ca: BLM:	none SSC none	Riparian and upland thickets, and dry overgrown pastures. Prefers to nest in dense scrub along streams or at the edges of ponds or swamps.	**Presumed Absent.** No riparian habitat is present within the Survey Area. Only records (Occ # 18 and 19) were historic (from 1960 and 1961) located near the eastern shore of the Salton Sea and more than 13 miles from the Survey Area.
Lanius ludovicianus Loggerhead shrike (nesting)	Fed: Ca: BLM:	none SSC none	Occurs in open country with short vegetation and well-spaced shrubs or low trees, particularly with thorns. Can be found near agricultural fields, riparian areas, and desert scrublands.	**Low.** Creosote bush scrub and white-bursage scrub provides suitable open country habitat for foraging but minimal thorny vegetation and large shrubs for nesting. One CNDDB record (Occ # 26) documented an adult feeding young South of Ocotillo Wells in 2010 approximately 14 miles west of the Survey Area.
Laterallus jamaicensis coturniculus California black rail	Fed: Ca: BLM:	none **THR**, FP S	Coastal and estuarine saltmarshes especially dominated by pickleweed and matted salt grass. Freshwater marshes with shallow and stable water levels and flat shorelines.	**Presumed Absent.** No saltmarsh habitat is present in the Survey Area. The CNDDB search yielded 4 recent CNDDB records (Occ # 204, 224, 225, and 226); however, all were located more than 5 miles from the Survey Area and from San Felipe Creek or the Salton Sea.

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Special-Status Wildlife Species with Potential to Occur within the Project Site				
Scientific Name **Common Name**	**Status**		**Habitat Requirements**	**Potential for Occurrence**
Melanerpes uropygialis Gila woodpecker	Fed: Ca: BLM:	none **END** S	Arid habitats including saguaro desert, riparian woodland with cottonwoods, willows, and mesquite; date palm groves, and residential areas with suitable trees for creating cavities. Often occurs with cottonwood, willow, and mesquite. Nests in cacti and other tree species. Known resident population in Imperial Valley, especially near Brawley and the lower Colorado River valley.	**Presumed Absent**. No suitable saguaro desert, riparian woodland, date palm groves, or residential areas were present in the Survey Area. No suitable nesting or foraging habitat in the form of saguaros or trees was observed on the Project Site. Although saltcedar and mango trees were observed in the southern survey buffer the lack of tree cover, especially of preferred trees (i.e., willow, cottonwood, mesquite, or date palm) in the Project Site likely precludes the species from using the Project Site and occurring in the Survey Area. The CNDDB revealed three records (Occ # 42, 62, and 63); however, all were historic and more than 5 miles from the Survey Area.
Micrathene whitneyi Elf owl (nesting)	Fed: Ca: BLM:	none **END** S	Riparian forest, desert-wash woodland, and upland desert where trees such as sycamore, ironwood, palo verde, or mesquite are present. Nests in woodpecker cavities. In California, it is a rare nester and occurs along the Lower Colorado River valley.	**Presumed Absent.** No suitable riparian forest, desert-wash woodland, upland desert, or trees preferred by the species were present within the Survey Area. No CNDDB records were identified during database search.
Oreothlypis luciae Lucy's warbler (nesting)	Fed: Ca: BLM:	none SSC S	Mesquite and mixed mesquite-riparian woodlands near desert streams and washes. Nests in tree or cactus cavities.	**Presumed Absent.** No suitable mesquite or mixed mesquite-riparian woodland habitat was present in the Survey Area. No CNDDB records were identified during database search.
Pelecanus occidentalis californicus California brown pelican (nesting colony & communal roosts)	Fed: Ca: BLM:	none FP S	Coastal marine habitats including estuaries. Nests along Pacific Coast mainly on ground in canyons, offshore islands, and steep, rocky slopes. May nest in exposed treetops. Requires dry sites protected from disturbances for nocturnal roosting.	**Low**. No suitable coastal marine habitat or shoreline is present within the Survey Area. This species is only likely to occur in the Project Site as a flyover species due to the proximity of the Survey Area to the Salton Sea. Four recent records were recovered from the CNDDB search; however, only 2 (Occ # 22 and 23) occur within 5 miles of the Survey Area. All CNDDB records were limited to the southern shoreline of the Salton Sea.

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Special-Status Wildlife Species with Potential to Occur within the Project Site				
Scientific Name **Common Name**	**Status**		**Habitat Requirements**	**Potential for Occurrence**
Rallus obsoletus ssp. *yumanensis* Yuma Ridgway's rail	Fed: Ca: BLM:	**END THR,** FP none	Consistently found in freshwater marshes that are composed of cattail and bulrush. This emergent vegetation averages greater than 6 feet tall. Water depth tends to be around 3.5 inches deep. Range extends from Nevada, California, and Arizona to Baja California and Sonora Mexico.	**Presumed Absent.** Although suitable habitat is present in proximity to the Survey Area along the Salton Sea, no freshwater marsh habitat is present in the Survey Area. The CNDDB search yielded 6 CNDDB records (5 recent and 1 historic); however, all were located more than 5 miles from the Survey Area. The nearest record (Occ # 31) from 2009 and located 9.6 miles east of the Survey Area.
Rynchops niger Black skimmer (nesting colony)	Fed: Ca: BLM:	none SSC none	Wetlands (inland), marine subtidal and intertidal on rock, sand, and muddy habitat.	**Low.** Although no suitable wetland, marine subtidal, or intertidal habitat exists in the Survey Area, suitable habitat is present in proximity to the Survey Area along the Salton Sea. This species is only likely to occur in the Project Site as a flyover species due to the proximity of the Survey Area to the Salton Sea. The CNDDB search revealed only 1 record (Occ # 1); however, it was historic (from 1975) and located 10.1 miles east of the Survey Area.
Strix occidentalis occidentalis California spotted owl	Fed: Ca: BLM:	none SSC S	Occurs in mature mixed montane evergreen and coniferous forests and montane oak woodlands with dense canopies. Nesting occurs in well-shaded, steep and narrow canyons often with canyon live oaks.	**Presumed Absent.** No mixed montane evergreen forest, coniferous forest, or oak woodland habitat is present in the Survey Area. No records from the Spotted Owl Observations Database within 5 miles of the Survey Area. All records were from the Peninsular Ranges in San Diego County approximately 40 miles east of the Survey Area.

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Special-Status Wildlife Species with Potential to Occur within the Project Site				
Scientific Name **Common Name**	**Status**		**Habitat Requirements**	**Potential for Occurrence**
Toxostoma crissale Crissal thrasher	Fed: Ca: BLM:	none SSC S	Densely vegetated desert scrub and riparian brush, often near arroyos including those with saltcedar. Prefer habitats with an extensive shrub layer including mesquite thickets with catclaw acacia, desert ironwood, arrowweed, and saltbush	**Presumed Absent.** No suitable desert scrub, riparian brush, or mesquite thickets were observed in the Survey Area. The desert scrub in the Survey Area (i.e., creosote bush scrub and white bursage scrub) lacked dense vegetation, an extensive shrub layer, or vegetation associated with the species. CNDDB yielded 2 records (Occ # 7 and 8); however, both were historic (1948 and 1952) and located more than 5 miles from the Survey Area near Westmorland. Although a stand of saltcedar was present in the survey buffer, the lack of recent nearby records and lack of vegetation composition and structure preferred by the species likely precludes it from occurring in the Survey Area.
Vireo bellii arizonae Arizona bell's vireo (nesting)	Fed: Ca: BLM:	none **END** S	Lowland riparian habitat with willows, mesquite, and sometimes saltcedar. In California, breeding occurs along the Colorado River.	**Presumed Absent.** No riparian habitat, willows or mesquite trees are present in the Survey Area. Although the limited amounts of saltcedar were observed in the Survey Area the lack of riparian habitat, absence of records in the vicinity, and the location of the Survey Area outside the known range of the species likely precludes this species from occurring in the Project Site. No CNDDB records were identified during the database search.

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Special-Status Wildlife Species with Potential to Occur within the Project Site				
Scientific Name **Common Name**	**Status**		**Habitat Requirements**	**Potential for Occurrence**
MAMMALS				
Antrozous pallidus Pallid bat	Fed: Ca: BLM:	none SSC S	Roosts in rock crevices, caves, mines, buildings, bridges, and in trees. Generally, in mountainous areas, lowland desert scrub, arid grasslands near water and rocky outcrops, and open woodlands.	**Low.** Although no suitable roosting habitat for this species (i.e., cliffs or rock crevices) is present in the Survey Area, suitable foraging habitat exists within the Survey Area in the creosote bush scrub and white bursage scrub. Suitable foraging habitat is also present over the Salton Sea in proximity to the Survey Area. CNDDB yielded 2 historic records from 1946 and 1996. 1946. The 1946 record (Occ #154) was nearest to the Survey Area and located at Kane Spring 4.6 miles to the southeast. This record documented multiple individuals collected between 1943 and 1946. The remaining record (Occ # 23) was from Anza Borrego Desert State Park, 17.8 miles southwest of the Survey Area.
Eumops perotis californicus Western mastiff bat	Fed: Ca: BLM:	none SSC S	Roosts high above ground in rock and cliff crevices, shallow caves, and rarely in buildings. Occurs in open, arid and semiarid habitats including rocky canyons, woodlands, coastal scrub, grasslands, chaparral, desert scrub, palm oases, and urban areas.	**Low.** Although no suitable roosting habitat for this species is present (i.e., cliffs, caves, or buildings), suitable foraging habitat exists within the Survey Area in the creosote bush scrub and white bursage scrub. Suitable foraging habitat is also present over the Salton Sea in proximity to the Survey Area. The CNDDB search revealed 1 historic record (Occ # 136) from 1990 of a roost in Anza Borrego Desert State Park, 17.8 miles southwest of the Survey Area.

EEC ORIGINAL PKG

Special-Status Wildlife Species with Potential to Occur within the Project Site				
Scientific Name **Common Name**	**Status**		**Habitat Requirements**	**Potential for Occurrence**
Lasiurus xanthinus Western yellow bat	Fed: Ca: BLM:	none SSC none	Roosts in the foliage of trees, especially in fan palms with dead fronds, as well as sycamores and cottonwoods. Found in riparian woodland, palm oases, desert washes and riparian, and human developed areas in arid regions.	**Presumed Absent.** No suitable roosting habitat for this species (i.e., fan palms or sycamore trees) is present in the Survey Area. Additionally, the saltcedar trees observed in the Survey Area are not preferred by the species and the only trees with foliage for roosting were located in the agricultural land, outside the Project Site, in the survey buffer. Suitable foraging habitat is also present over the Salton Sea in proximity to the Survey Area. Only 1 record (Occ #8) was identified during the CNDDB search. The record documented 3 individuals collected in 1990 and 1994 near Westmorland 16.7 miles southeast of the Survey Area.
Macrotus californicus California leaf-nosed bat	Fed: Ca: BLM:	none SSC S	Roosts in caves, abandoned mine tunnels, and natural rock crevices in canyon walls. Inhabits lowland (below 2,000 feet) desert.	**Low.** Although no suitable roosting habitat for this species (i.e., caves, mine tunnels, or canyons) are present in the Survey Area, suitable desert foraging habitat exists within the Survey Area in the creosote bush scrub and white bursage scrub. No CNDDB records were identified during the database search.
Myotis ciliolabrum Small-footed myotis	Fed: Ca: BLM:	none none S	Roosts in rock crevices and cracks, caves, and mines. Maternity roosts include abandoned buildings. Occurs in in deserts, badlands, woodlands, riparian areas, and near outcrops and cliffs.	**Low.** Although no suitable roosting habitat for this species (i.e., rock crevices, caves, mines, or abandoned buildings) are present in the Survey Area, suitable desert foraging habitat exists within the Survey Area in the creosote bush scrub and white bursage scrub. No CNDDB records as this species is not tracked in the CNDDB species occurrence data.

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Special-Status Wildlife Species with Potential to Occur within the Project Site				
Scientific Name **Common Name**	**Status**		**Habitat Requirements**	**Potential for Occurrence**
Myotis evotis Long-eared myotis	Fed: Ca: BLM:	none none S	Roosts in man-made structures, trees, mines, caves, and erosional cavities and rock crevices (sometimes in ground). Found in woodlands and forests ranging from lowland to subalpine, shrublands, riparian areas, and meadows. Prefers coniferous woodlands and forests.	**Presumed Absent.** No suitable woodland, forest, riparian, or meadow habitat is present within the Survey Area. Additionally, no suitable structures, trees, mines, caves, erosional cavities, or rock crevices for roosting habitat for this species are present in the Survey Area. No CNDDB records of this species were identified during the database search.
Myotis thysanodes Fringed myotis	Fed: Ca: BLM:	none none S	Roosts in cliff faces, rock crevices, mines, caves, tree snags, and in man-made structures. Most common at mid elevations in deserts, riparian areas, woodlands, and grasslands.	**Low.** Although no suitable roosting habitat for this species (i.e., cliff faces, rock crevices, mines, caves, tree snags or man-made structures) is present in the Survey Area, suitable desert foraging habitat exists within the Survey Area in the creosote bush scrub and white bursage scrub. No CNDDB records of this species were identified during the database search.
Myotis velifer Cave myotis	Fed: Ca: BLM:	none none S	Roosts are in caves and mines. Migrating individuals roost in rock fissures, carports, attics of old buildings, or abandoned swallow nests. Inhabits riparian habitats near desert scrub.	**Low.** Although no suitable roosting habitat (i.e., caves, mines, rock fissures, carports, attics or swallow nests) is present in the Survey Area, suitable desert foraging habitat exists within the Survey Area in the creosote bush scrub and white bursage scrub. No CNDDB records of this species were identified during the database search.

EEC ORIGINAL PKG

Special-Status Wildlife Species with Potential to Occur within the Project Site				
Scientific Name **Common Name**	**Status**		**Habitat Requirements**	**Potential for Occurrence**
Myotis yumanensis Yuma myotis	Fed: Ca: BLM:	none none S	Roosts near water in bridges, buildings, caves, mines, trees (snags & exfoliating bark), and rarely in crevices of cliffs and rocks. Occurs near water in riparian areas, moist woodlands and forests, and desert scrub.	**Low.** Although no suitable roosting habitat for the species (i.e., bridges, buildings, caves, mines, tree or cliff/rock crevices) is present in the Survey Area, suitable desert foraging habitat near water (i.e., Salton Sea) exists within the Survey Area in the creosote bush scrub and white bursage scrub. No CNDDB records of this species were identified during the database search.
Nyctinomops femorosaccus pocketed free-tailed bat	Fed: Ca: BLM:	none SSC none	Roosts in crevices of outcrops and cliffs, shallow caves, and buildings. Found in deserts and chaparral habitats, along rugged canyons, high cliffs, and semiarid rock outcroppings.	**Low.** Although no suitable roosting habitat for this species (i.e., cliff or outcrop crevice, cave, or building) is present in the Survey Area suitable desert foraging habitat exists within the Survey Area in the creosote bush scrub and white bursage scrub. The CNDDB search yielded only 1 historic record (Occ # 4) that reported multiple individual captures and 3 roosts between 1992 and 1996 in Anza Borrego State Park 17.8 miles southwest of the Survey Area.
Ovis canadensis nelson Desert bighorn sheep	Fed: Ca: BLM:	none FP S	Open, steep, and rocky terrain in arid desert mountains particularly in southeastern California.	**Presumed Assent**. No steep or rocky mountain terrain is present within the Survey Area. No CNDDB records of this species were identified during the database search. Nearest known population is in the Chocolate Mountains Aerial Gunnery Range, more than 20 miles northeast of the Survey Area.

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Special-Status Wildlife Species with Potential to Occur within the Project Site				
Scientific Name **Common Name**	**Status**		**Habitat Requirements**	**Potential for Occurrence**
Perognathus longimembris bangsi Palm Springs pocket mouse	Fed: Ca: BLM:	none SSC S	Sparsely vegetated creosote bush scrub, desert scrub, and grassland habitats with flat or gently sloping terrain and loose, sandy soils.	**Moderate**. Suitable creosote bush scrub and white bursage scrub habitat is present within the Survey Area. Suitable soils and terrain for the species are also present across the Survey Area, including the Project Site. The CNDDB search revealed 3 records; all were recent but more than 5 miles from the Survey Area. All records were from 2015 in the Ocotillo Wells State Vehicle Recreation Area on the west side of SR-86. The closest record (Occ # 18) was 8.4 miles west of the Survey Area and reported the capture and release of 1 individual north of Tule Wash.
Sigmodon hispidus eremicus Yuma hispid cotton rat	Fed: Ca: BLM:	none SSC none	Inhabits a variety of habitats, but generally associated with drainage ditches, canals, and seeps vegetated with plants such as arrow weed, salt grass, common reed, cattails, sedges, tamarisk, heliotrope, and annual grasses. They utilize runways through dense herbaceous growth and nests are built of woven grass. Noted presence in moist agricultural fields.	**Presumed Absent.** No suitable drain, ditch, canal, seep, or agricultural field habitat, including dense herbaceous vegetation or moist conditions is present in the Survey Area. Only 2 recent records (Occ # 14 and 15), both from 2008, were identified during the CNDDB search. Both records were more than 5 miles from the Survey Area along IDD Trifolum drains south of the Salton Sea, with the closest (Occ # 14) 11.7 miles away.
Taxidea taxus American badger	Fed: Ca: BLM:	none SSC none	Occurs in open habitats with friable soil such as grasslands, brushlands with sparse ground cover, open chaparral, and sometimes riparian zones.	**Moderate.** Although the CNDDB search did not identify any nearby records of this species, suitable habitat including friable soil was present within the Project site.
Vulpes macrotis arsipus Desert kit fox	Fed: Ca: BLM:	none CCR Title 14 Chapter 5 § 460 none	Occurs in desert habitats that include creosote bush, shadscale, greasewood, and sagebrush. This species feeds primarily on nocturnal rodents and rabbits, but will also opportunistically feed birds, reptiles, and insects.	**High.** Although this species is not tracked in the CNDDB, the Project site contains suitable foraging and denning habitat for this species. This species could utilize the portions of the Project Site while foraging, denning, or moving through the area.

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Special-Status Wildlife Species with Potential to Occur within the Project Site			
Scientific Name **Common Name**	**Status**	**Habitat Requirements**	**Potential for Occurrence**
Federal Designations: (Federal Endangered Species Act, USFWS) **END**: Federally-listed, Endangered **THR**: Federally-listed, Threatened **CAN**: Federal Candidate Species FSC: Federal Species of Concern FPD: Federal Proposed for Delisting	**State Designations**: (California Endangered Species Act, CDFW) **END**: State-listed, Endangered **THR**: State-listed, Threatened **CAN**: State Candidate Species SSC: California Species of Special Concern FP: Fully Protected Species CCR Title 14 Chapter 5 § 460:Furbearing Mammals		**Bureau of Land Management (BLM) Classifications:** S: BLM Sensitive Species
Sources: For Names and Status BLM 2014 CDFW 2023c CDFW 2023d Chesser et al. 2023		For Habitat Descriptions: Audubon 2023 Birds of the World 2023 Cornell 2023 NatureServe 2023 Sherbrooke 2003 Small 1994 Stebbins and McGinnis 2012 Zeiner et al. 1990	For Records from Database Search: CDFW 2023a (CNDDB) CDFW 2022 (Spotted Owl Viewer) USFWS 2022 (only for desert pupfish)

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Air Quality and Greenhouse Gas Emissions Assessment for the North Star 3 Project

County of Imperial, California

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LIST OF ACRONYMS AND ABBREVIATIONS

Term	Definition
°F	Degrees Fahrenheit
µg/m^3	Micrograms per cubic meter; ppm = parts per million
1992 CO Plan	1992 Federal Attainment Plan for Carbon Monoxide
AB	Assembly Bill
AQMD	Air Quality Management District
BESS	Battery Electric Storage System
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
Caltrans	California Department of Transportation
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCAA	California Clean Air Act
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CH_4	Methane
CO_2	Carbon dioxide

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Term	Definition
CO_2e	Carbon dioxide equivalent
County	Imperial County
CUP	Conditional Use Permit
DPM	Diesel particulate matter
EO	Executive Order
GHG	Greenhouse gas
GWP	Global warming potential
ICAPCD	Imperial County Air Pollution Control District
IPCC	Intergovernmental Panel on Climate Change
kV	Kilovolt
MDAQMD	Mojave Desert Air Quality Management District
MWAC	Megawatt Alternating Current
N_2O	Nitrous oxide
NAAQS	National Ambient Air Quality Standards
NO_2	Nitrogen dioxide
NO_x	Nitric oxides
O_3	Ozone
PM	Particulate matter
PM_{10}	Coarse particulate matter
$PM_{2.5}$	Fine particulate matter
ppb	Parts per billion
Project	North Star 3 Project
PV	Photovoltaic
ROGs	Reactive organic gases
SB	Senate Bill
SCAQMD	South Coast Air Quality Management
SIP	State Implementation Plan
SO_2	Sulfur dioxide
SO_x	Sulfur oxides
SR	State Route
SRA	Source receptor area
SSAB	Salton Sea Air Basin
TACs	Toxic air contaminants
USEPA	U.S. Environmental Protection Agency
VOC	Volatile organic compound
VMT	Vehicle Miles Traveled

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1.0 INTRODUCTION

This report documents the results of an assessment of both air quality and greenhouse gas (GHG) emissions completed for the North Star 3 Power and Battery Electric Storage System Project (Project), which includes the construction of a 100-megawatt (MW) alternating current (AC) solar field on approximately 585 acres of vacant land on three parcels in Imperial County, California (APN 017-350-031, 305 acres; APN 017-350-030, 160 acres; and APN 017-350-027, 120 acres). This assessment was prepared using methodologies and assumptions recommended in the rules and regulations promulgated by the Imperial County Air Pollution Control District (ICAPCD). Regional and local existing conditions are presented, along with pertinent emissions standards and regulations.

1.1 Project Overview

The Project proposes to construct a 100-MW alternating current solar field, consisting of 226,800 tracker modules in 7,560 strings and associated collector and inverter facilities, and a 100 MW Battery Energy Storage System (BESS), on approximately 585 acres of vacant land. The Project would connect to the grid with the onsite 161 kilovolt (kV) L transmission line. The Proposed Project Site is within an Imperial County General Plan designated Agricultural area and is zoned S-2 (Open Space/Preservation), which allows solar generating facilities with a Conditional Use Permit (CUP). Neither parcel is within the County's Renewable Energy and Transmission Element (RE). An amendment to the County's General Plan will be needed to include and classify the Project Site within the RE Overlay Zone, and a CUP to allow construction and operation of the solar energy generation facility with battery storage within the RE Overlay Zone will be required to implement the Project.

1.2 Project Location

The total combined Project Site, consisting of three separate parcels of 305 acres, 160 acres, and 120 acres in size, spans approximately 585 acres on land positioned near the western banks of the Salton Sea in Imperial County, approximately four miles north of the State Route 78 / State Route 86 intersection (see Figure 1). The Project Site is approximately 24 miles northwest of the City of Brawley and eight miles south of Salton City, east of Highway 86 and west and south of the former Salton Sea Test Base. Site access would be available from State Highway 86. The site is currently vacant, undeveloped desert land, and is surrounded by open space on all sides, with active agriculture to the southeast.

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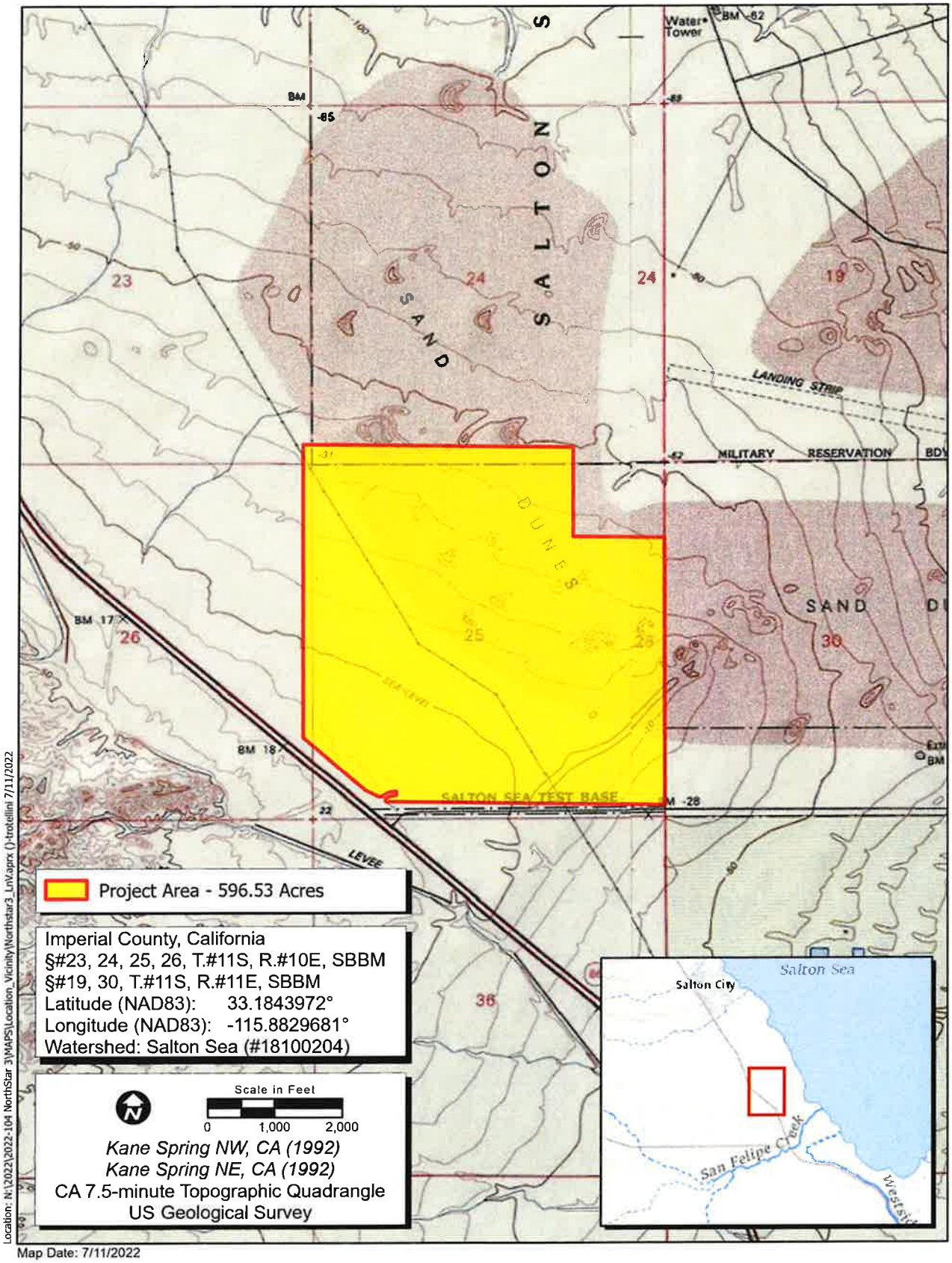

Figure 1 Project Location and Vicinity

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ENVIRONMENTAL CONSULTANTS

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2.0 AIR QUALITY

2.1 Air Quality Setting

Air quality in a region is determined by its topography, meteorology, and existing air pollutant sources. These factors are discussed below, along with the current regulatory structure that applies to the Salton Sea Air Basin (SSAB), which encompasses the Project Site, pursuant to the regulatory authority of the ICAPCD.

Ambient air quality is commonly characterized by climate conditions, the meteorological influences on air quality, and the quantity and type of pollutants released. The air basin is subject to a combination of topographical and climatic factors that reduce the potential for high levels of regional and local air pollutants. The following section describes the pertinent characteristics of the air basin and provides an overview of the physical conditions affecting pollutant dispersion in the Project Area.

2.1.1 Salton Sea Air Basin

The California Air Resources Board (CARB) divides the State into air basins that share similar meteorological and topographical features. Imperial County, which extends over 4,482 square miles in the southeastern corner of California, lies in the SSAB, which includes the Imperial Valley and the central part of Riverside County, including the Coachella Valley. The province is characterized by the large-scale sinking and warming of air within the semi-permanent subtropical high-pressure center over the Pacific Ocean. The elevation in Imperial County ranges from about 230 feet below sea level in the Salton Sea to more than 2,800 feet on the mountain summits to the east.

2.1.1.1 Temperature and Precipitation

The flat terrain near the Salton Sea, intense heat from the sun during the day, and strong radiational cooling at night create deep convective thermals during the daytime and equally strong surface-based temperature inversions at night. The temperature inversions and light nighttime winds trap any local air pollution emissions near the ground. The area is subject to frequent hazy conditions at sunrise, followed by rapid daytime dissipation as winds pick up and the temperature warms. The lack of clouds and atmospheric moisture creates strong diurnal and seasonal temperature variations ranging from an average summer maximum of 108 degrees Fahrenheit (° F) down to a winter morning minimum of 38° F. The most pleasant weather occurs from about mid-October to early May when daily highs are in the 70s and 80s with very infrequent cloudiness or rainfall. Imperial County experiences rainfall on an average of only four times per year (>0.10 inches in 24 hours). The local area usually has three days of rain in winter and one thunderstorm day in August. The annual rainfall in this region is less than three inches per year (ICAPCD 2010).

2.1.1.2 Wind

Winds in the area are driven by a complex pattern of local, regional and global forces, but primarily reflect the temperature difference between the cool ocean to the west and the heated interior of the entire

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desert southwest. For much of the year, winds flow predominantly from the west to the east. In summer, intense solar heating in the Imperial Valley creates a more localized wind pattern, as air comes up from the southeast via the Gulf of California. During periods of strong solar heating and intense convection, turbulent motion creates good mixing and low levels of air pollution. However, even strong turbulent mixing is insufficient to overcome the limited air pollution controls on sources in the Mexicali, Mexico area. Imperial County is predominately agricultural land. This is a factor in the cumulative air quality of the SSAB. The agricultural production generates dust and small particulate matter through the use of agricultural equipment on unpaved roads, land preparation, and harvest practices. The Imperial County experiences unhealthful air quality from photochemical smog and from dust due to extensive surface disturbance and the very arid climate (ICAPCD 2010).

2.1.1.3 Inversion

The entire county is affected by inversion layers, where warm air overlays cooler air. Inversion layers trap pollutants close to the ground. In the winter, these pollutant-trapping, ground-based inversions are formed during windless, clear-sky conditions, as cold air collects in low-lying areas such as valleys and canyons. Imperial County experiences surface inversions almost every day of the year. Due to strong surface heating, these inversions are usually broken allowing pollutants to be more easily dispersed (ICAPCD 2010).

2.1.2 Criteria Air Pollutants

Criteria air pollutants are defined as those pollutants for which the federal and state governments have established air quality standards for outdoor or ambient concentrations to protect public health with a determined margin of safety. Ozone (O_3), coarse particulate matter (PM_{10}), and fine particulate matter ($PM_{2.5}$) are generally considered to be regional pollutants because they or their precursors affect air quality on a regional scale. Pollutants such as carbon monoxide (CO), nitrogen dioxide (NO_2), and sulfur dioxide (SO_2) are considered to be local pollutants because they tend to accumulate in the air locally. PM is also considered a local pollutant. Health effects commonly associated with criteria pollutants are summarized in Table 1.

Table 1. Criteria Air Pollutants- Summary of Common Sources and Effects

Pollutant	Major Manmade Sources	Human Health & Welfare Effects
CO	An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust.	Reduces the ability of blood to deliver oxygen to vital tissues, effecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.
NO_2	A reddish-brown gas formed during fuel combustion for motor vehicles, energy utilities and industrial sources.	Respiratory irritant; aggravates lung and heart problems. Precursor to ozone and acid rain. Causes brown discoloration of the atmosphere.

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Table 1. Criteria Air Pollutants- Summary of Common Sources and Effects

Pollutant	Major Manmade Sources	Human Health & Welfare Effects
O_3	Formed by a chemical reaction between reactive organic gases (ROGs) and nitrous oxides (N_2O) in the presence of sunlight. Common sources of these precursor pollutants include motor vehicle exhaust, industrial emissions, solvents, paints and landfills.	Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield.
PM_{10} & $PM_{2.5}$	Power plants, steel mills, chemical plants, unpaved roads and parking lots, wood-burning stoves and fireplaces, automobiles and others.	Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; aggravated asthma; development of chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility (haze).
SO_2	A colorless, nonflammable gas formed when fuel containing sulfur is burned. Examples are refineries, cement manufacturing, and locomotives.	Respiratory irritant. Aggravates lung and heart problems. Can damage crops and natural vegetation. Impairs visibility.

Source: California Air Pollution Control Officers Association (CAPCOA 2013)

2.1.2.1 Carbon Monoxide

CO in the urban environment is associated primarily with the incomplete combustion of fossil fuels in motor vehicles. CO combines with hemoglobin in the bloodstream and reduces the amount of oxygen that can be circulated through the body. High CO concentrations can cause headaches, aggravate cardiovascular disease and impair central nervous system functions. CO concentrations can vary greatly over comparatively short distances. Relatively high concentrations of CO are typically found near crowded intersections and along heavy roadways with slow moving traffic. Even under the most severe meteorological and traffic conditions, high concentrations of CO are limited to locations within relatively short distances of the source. Overall CO emissions are decreasing as a result of the Federal Motor Vehicle Control Program, which has mandated increasingly lower emission levels for vehicles manufactured since 1973. CO levels in the SSAB are in compliance with the state and federal one- and eight-hour standards.

2.1.2.2 Nitrogen Oxides

Nitrogen gas comprises about 80 percent of the air and is naturally occurring. At high temperatures and under certain conditions, nitrogen can combine with oxygen to form several different gaseous compounds collectively called nitric oxides (NO_x). Motor vehicle emissions are the main source of NO_x in urban areas. NO_x is very toxic to animals and humans because of its ability to form nitric acid with water in the eyes, lungs, mucus membrane, and skin. In animals, long-term exposure to NO_x increases susceptibility to respiratory infections, and lowering resistance to such diseases as pneumonia and influenza. Laboratory studies show that susceptible humans, such as asthmatics, who are exposed to high concentrations can suffer from lung irritation or possible lung damage. Precursors of NO_x, such as NO and

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NO_2, attribute to the formation of O_3 and $PM_{2.5}$. Epidemiological studies have also shown associations between NO_2 concentrations and daily mortality from respiratory and cardiovascular causes and with hospital admissions for respiratory conditions.

2.1.2.3 Ozone

O_3 is a secondary pollutant, meaning it is not directly emitted. It is formed when volatile organic compounds (VOCs) or ROGs and NO_x undergo photochemical reactions that occur only in the presence of sunlight. The primary source of ROG emissions is unburned hydrocarbons in motor vehicle and other internal combustion engine exhaust. NO_x forms as a result of the combustion process, most notably due to the operation of motor vehicles. Sunlight and hot weather cause ground-level O_3 to form. Ground-level O_3 is the primary constituent of smog. Because O_3 formation occurs over extended periods of time, both O_3 and its precursors are transported by wind and high O_3 concentrations can occur in areas well away from sources of its constituent pollutants.

People with lung disease, children, older adults, and people who are active can be affected when O_3 levels exceed ambient air quality standards. Numerous scientific studies have linked ground-level O_3 exposure to a variety of problems including lung irritation, difficult breathing, permanent lung damage to those with repeated exposure, and respiratory illnesses.

2.1.2.4 Particulate Matter

PM includes both aerosols and solid particulates of a wide range of sizes and composition. Of concern are those particles smaller than or equal to 10 microns in diameter size (PM_{10}) and small than or equal to 2.5 microns in diameter ($PM_{2.5}$). Smaller particulates are of greater concern because they can penetrate deeper into the lungs than larger particles. PM_{10} is generally emitted directly as a result of mechanical processes that crush or grind larger particles or form the resuspension of dust, typically through construction activities and vehicular travel. PM_{10} generally settles out of the atmosphere rapidly and is not readily transported over large distances. $PM_{2.5}$ is directly emitted in combustion exhaust and is formed in atmospheric reactions between various gaseous pollutants, including NO_x, sulfur oxides (SO_x) and VOCs. $PM_{2.5}$ can remain suspended in the atmosphere for days and/or weeks and can be transported long distances.

The principal health effects of airborne PM are on the respiratory system. Short-term exposure of high $PM_{2.5}$ and PM_{10} levels are associated with premature mortality and increased hospital admissions and emergency room visits. Long-term exposure is associated with premature mortality and chronic respiratory disease. According to the U.S. Environmental Protection Agency (USEPA), some people are much more sensitive than others to breathing PM_{10} and $PM_{2.5}$. People with influenza, chronic respiratory and cardiovascular diseases, and the elderly may suffer worse illnesses; people with bronchitis can expect aggravated symptoms; and children may experience decline in lung function due to breathing in PM_{10} and $PM_{2.5}$. Other groups considered sensitive include smokers and people who cannot breathe well through their noses. Exercising athletes are also considered sensitive because many breathe through their mouths.

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2.1.3 Toxic Air Contaminants

In addition to the criteria pollutants discussed above, toxic air contaminants (TACs) are another group of pollutants of concern. TACs are considered either carcinogenic or noncarcinogenic based on the nature of the health effects associated with exposure to the pollutant. For regulatory purposes, carcinogenic TACs are assumed to have no safe threshold below which health impacts would not occur, and cancer risk is expressed as excess cancer cases per one million exposed individuals. Noncarcinogenic TACs differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis.

There are many different types of TACs, with varying degrees of toxicity. Sources of TACs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Additionally, diesel engines emit a complex mixture of air pollutants composed of gaseous and solid material. The solid emissions in diesel exhaust are known as diesel particulate matter (DPM). In 1998, California identified DPM as a TAC based on its potential to cause cancer, premature death, and other health problems (e.g., asthma attacks and other respiratory symptoms). Those most vulnerable are children (whose lungs are still developing) and the elderly (who may have other serious health problems). Overall, diesel engine emissions are responsible for the majority of California's known cancer risk from outdoor air pollutants. Public exposure to TACs can result from emissions from normal operations, as well as from accidental releases of hazardous materials during upset conditions. The health effects of TACs include cancer, birth defects, neurological damage, and death.

2.1.3.1 Diesel Exhaust

Most recently, CARB identified DPM as a TAC. DPM differs from other TACs in that it is not a single substance but rather a complex mixture of hundreds of substances. Diesel exhaust is a complex mixture of particles and gases produced when an engine burns diesel fuel. DPM is a concern because it causes lung cancer; many compounds found in diesel exhaust are carcinogenic. DPM includes the particle-phase constituents in diesel exhaust. The chemical composition and particle sizes of DPM vary between different engine types (heavy-duty, light-duty), engine operating conditions (idle, accelerate, decelerate), fuel formulations (high/low sulfur fuel), and the year of the engine (USEPA 2002). Some short-term (acute) effects of diesel exhaust include eye, nose, throat, and lung irritation, and diesel exhaust can cause coughs, headaches, light-headedness, and nausea. DPM poses the greatest health risk among the TACs; due to their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung.

2.1.4 Ambient Air Quality

Ambient air quality at the Project Site can be inferred from ambient air quality measurements conducted at nearby air quality monitoring stations. CARB maintains more than 60 monitoring stations throughout California. O_3, PM_{10} and $PM_{2.5}$ are the pollutant species most potently affecting the Project region. As described in detail below, the Project region is designated as a nonattainment area for the federal O_3 and $PM_{2.5}$ standards and is also a nonattainment area for the state standards for O_3 and PM_{10} (CARB 2019).

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The Niland-English Road air quality monitoring station (7711 English Road, Niland), located approximately 23.0 miles northwest of the Project Site, monitors ambient concentrations of O_3 and PM_{10}. The Brawley-Main Street #2 air quality monitoring station (220 Main Street, Brawley), located 15.0 miles west of the Project Site, monitors ambient concentrations of $PM_{2.5}$. Ambient emission concentrations will vary due to localized variations in emission sources and climate and should be considered "generally" representative of ambient concentrations in the Project Area.

Table 2 summarizes the published data concerning O_3, $PM_{2.5}$ and PM_{10} from the Niland-English Road and Brawley-Main Street #2 monitoring stations for each year that the monitoring data is provided. O_3, PM_{10} and $PM_{2.5}$ are the pollutant species most potently affecting the Project region.

Table 2. Summary of Ambient Air Quality Data

Pollutant Standards	2018	2019	2020
O_3- Niland-English Road			
Max 1-hour concentration (ppm)	0.060	0.060	0.054
Max 8-hour concentration (ppm) (state/federal)	0.055 / 0.055	0.055 / 0.054	0.046 / 0.045
Number of days above 1-hour standard (state/federal)	0 / 0	0 / 0	0 / 0
Number of days above 8-hour standard (state/federal)	0 / 0	0 / 0	0 / 0
PM_{10}- Niland-English Road			
Max 24-hour concentration (µg/m³) (state/federal)	333.8 / 331.5	156.3 / 155.7	241.3 / 239.8
Number of days above 24-hour standard (state/federal)	* / 10.1	49.3 / 1.0	68.9 / 1.0
$PM_{2.5}$- Brawley-Main Street			
Max 24-hour concentration (µg/m³) (state/federal)	55.1 / 55.1	28.9 / 28.9	23.7 / 23.7
Number of days above federal 24-hour standard	6.1	0	0

Source: CARB 2021a
µg/m³ = micrograms per cubic meter; ppm = parts per million
* = Insufficient data available

The USEPA and CARB designate air basins or portions of air basins and counties as being in "attainment" or "nonattainment" for each of the criteria pollutants. Areas that do not meet the standards are classified as nonattainment areas. The National Ambient Air Quality Standards (NAAQS) (other than O_3, PM_{10} and $PM_{2.5}$ and those based on annual averages or arithmetic mean) are not to be exceeded more than once per year. The NAAQS for O_3, PM_{10}, and $PM_{2.5}$ are based on statistical calculations over one- to three-year periods, depending on the pollutant. The California Ambient Air Quality Standards (CAAQS) are not to be exceeded during a three-year period. The attainment status for the portion of the SSAB encompassing the Project Site is included in Table 3.

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Table 3. Attainment Status of Criteria Pollutants in the Imperial County Portion of the SSAB

Pollutant	State Designation	Federal Designation
O_3	Nonattainment	Nonattainment
PM_{10}	Nonattainment	Attainment
$PM_{2.5}$	Attainment	Nonattainment
CO	Attainment	Unclassified/Attainment
NO_2	Attainment	Unclassified/Attainment
SO_2	Attainment	Unclassified/Attainment

Source: CARB 2019

The determination of whether an area meets the state and federal standards is based on air quality monitoring data. Some areas are unclassified, which means there is insufficient monitoring data for determining attainment or nonattainment. Unclassified areas are typically treated as being in attainment. Because the attainment/nonattainment designation is pollutant-specific, an area may be classified as nonattainment for one pollutant and attainment for another. Similarly, because the state and federal standards differ, an area could be classified as attainment for the federal standards of a pollutant and as nonattainment for the state standards of the same pollutant. The region is designated as a nonattainment area for the federal O_3 and $PM_{2.5}$ standards and is also a nonattainment area for the state standards for O_3 and PM_{10} (CARB 2019).

2.1.5 Sensitive Receptors

Sensitive receptors are defined as facilities or land uses that include members of the population who are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis. The nearest existing sensitive receptor to the Project Site is a single-family residence located approximately 0.5 miles from the southeastern corner of the Project boundary.

2.2 Regulatory Framework

2.2.1 Federal

2.2.1.1 Clean Air Act

The Clean Air Act (CAA) of 1970 and the CAA Amendments of 1971 required the USEPA to establish the NAAQS, with states retaining the option to adopt more stringent standards or to include other specific

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pollutants. On April 2, 2007, the Supreme Court found that carbon dioxide (CO_2) is an air pollutant covered by the CAA; however, no NAAQS have been established for CO_2.

These standards are the levels of air quality considered safe, with an adequate margin of safety, to protect the public health and welfare. They are designed to protect those "sensitive receptors" most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

The USEPA has classified air basins (or portions thereof) as being in attainment, nonattainment, or unclassified for each criteria air pollutant, based on whether or not the NAAQS have been achieved. If an area is designated unclassified, it is because inadequate air quality data were available as a basis for a nonattainment or attainment designation. Table 3 lists the federal attainment status of the SSAB for the criteria pollutants.

2.2.2 State

2.2.2.1 California Clean Air Act

The California Clean Air Act (CCAA) allows the state to adopt ambient air quality standards and other regulations provided that they are at least as stringent as federal standards. CARB, a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both federal and state air pollution control programs within California, including setting the CAAQS. CARB also conducts research, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. CARB also has primary responsibility for the development of California's State Implementation Plan (SIP), for which it works closely with the federal government and the local air districts.

2.2.2.2 California State Implementation Plan

The CCAA (and its subsequent amendments) requires the state to prepare an air quality control plan referred to as the SIP. The SIP is a living document that is periodically modified to reflect the latest emissions inventories, plans, and rules and regulations of air basins as reported by the agencies with jurisdiction over them. The CAA Amendments dictate that states containing areas violating the NAAQS revise their SIPs to include extra control measures to reduce air pollution. The SIP includes strategies and control measures to attain the NAAQS by deadlines established by the CAA. The USEPA has the responsibility to review all SIPs to determine if they conform to the requirements of the CAA. State law makes CARB the lead agency for all purposes related to the SIP. Local air districts and other agencies prepare SIP elements and submit them to CARB for review and approval. CARB then forwards SIP revisions to the USEPA for approval and publication in the Federal Register.

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Local air districts, such as the ICAPCD, prepare air quality attainment plans or air quality management plans and submit them to CARB for review, approval, and incorporation into the applicable SIP. The air districts develop the strategies stated in the SIPs for achieving air quality standards on a regional basis.

For 8-Hour O_3, the ICAPCD adopted the 2017 8-hour Ozone State Implementation Plan in October 2018. The plan includes control measures which are an integral part of how the ICAPCD currently controls the ROG and NO_X emissions within the O_3 nonattainment areas. The overall strategy includes programs and control measures which represent the implementation of Reasonable Available Control Technology (40 CFR 51.912) and the assurance that stationary sources maintain a net decrease in emissions.

For PM_{10}, the ICAPCD adopted the PM_{10} State Implementation Plan in 2018, which maintained previously adopted fugitive dust control measures (Regulation VIII). The USEPA had previously approved Regulation VIII fugitive dust rules into the Imperial County portion of the California SIP in 2013.

For $PM_{2.5}$, the ICAPCD adopted the $PM_{2.5}$ SIP in April 2018. This SIP concluded that the majority of the $PM_{2.5}$ emissions resulted from transport in nearby Mexico. Specifically, the SIP demonstrates attainment of the 2006 $PM_{2.5}$ NAAQS "but for" transport of international emissions from Mexicali, Mexico. In accordance with the CCAA, the $PM_{2.5}$ SIP satisfies the attainment demonstration requirement satisfying the provisions of the CCAA.

The ICAPCD is working cooperatively with counterparts from Mexico to implement emissions reductions strategies and projects for air quality improvements at the border. The two countries strive to achieve these goals through local input from states, County governments, and citizens. Within the Mexicali and Imperial Valley area, the Air Quality Task Force (AQTF) has been organized to address those issues unique to the border region known as the Mexicali/Imperial air shed. The AQTF membership includes representatives from Federal, State, and local governments from both sides of the border, as well as representatives from academia, environmental organizations, and the general public. This group was created to promote regional efforts to improve the air quality monitoring network, emissions inventories, and air pollution transport modeling development, as well as the creation of programs and strategies to improve air quality.

2.2.2.3 Tanner Air Toxics Act & Air Toxics "Hot Spots" Information and Assessment Act

CARB's Statewide comprehensive air toxics program was established in 1983 with Assembly Bill (AB) 1807, the Toxic Air Contaminant Identification and Control Act (Tanner Air Toxics Act of 1983). AB 1807 created California's program to reduce exposure to air toxics and sets forth a formal procedure for CARB to designate substances as TACs. Once a TAC is identified, CARB adopts an airborne toxics control measure (ATCM) for sources that emit designated TACs. If there is a safe threshold for a substance at which there is no toxic effect, the control measure must reduce exposure to below that threshold. If there is no safe threshold, the measure must incorporate toxics best available control technology to minimize emissions.

CARB also administers the state's mobile source emissions control program and oversees air quality programs established by state statute, such as AB 2588, the Air Toxics "Hot Spots" Information and Assessment Act of 1987. Under AB 2588, TAC emissions from individual facilities are quantified and prioritized by the air quality management district or air pollution control district. High priority facilities are

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required to perform a health risk assessment (HRA) and, if specific thresholds are exceeded, required to communicate the results to the public in the form of notices and public meetings. In September 1992, the "Hot Spots" Act was amended by Senate Bill (SB) 1731, which required facilities that pose a significant health risk to the community to reduce their risk through a risk management plan.

2.2.3 Local

2.2.3.1 Imperial County Air Pollution Control District

The ICAPCD is the local air quality agency and shares responsibility with CARB for ensuring that state and federal ambient air quality standards are achieved and maintained in the SSAB. Furthermore, ICAPCD adopts and enforces controls on stationary sources of air pollutants through its permit and inspection programs and regulates agricultural burning. Other ICAPCD responsibilities include monitoring ambient air quality, preparing clean air plans, planning activities such as modeling and maintenance of the emission inventory, and responding to citizen air quality complaints.

To achieve and maintain ambient air quality standards, the ICAPCD has adopted various rules and regulations for the control of airborne pollutants. The ICAPCD Rules and Regulations that are applicable to the Proposed Project include, but are not limited to, ICAPCD Regulation VIII (Fugitive Dust Rules). The purpose of this regulation is to reduce the amount of PM_{10} entrained in the ambient air as a result of emissions generated from construction and other earthmoving activities by requiring actions to prevent, reduce, or mitigate PM_{10} emissions. Regulation VIII requires the Project to adopt best available control measures to minimize emissions from surface-disturbing activities. These measures include the following (ICAPCD 2017):

- All disturbed areas, including bulk material storage which is not being actively utilized, shall be effectively stabilized and visible emissions shall be limited to no greater than 20 percent opacity for dust emissions by using water, chemical stabilizers, dust suppressants, tarps, or other suitable material such as vegetative ground cover.
- All on-site and off-site unpaved roads will be effectively stabilized, and visible emissions shall be limited to no greater than 20 percent opacity for dust emissions by paving, chemical stabilizers, or dust suppressants.
- All unpaved traffic areas of 1 acre or more with 75 or more average vehicle trips per day will be effectively stabilized and visible emissions shall be limited to no greater than 20 percent opacity for dust emissions by paving, chemical stabilizers, dust suppressants, and/or watering.
- The transport of bulk materials shall be completely covered unless 6 inches of freeboard space from the top of the container is maintained with no spillage and loss of bulk material. In addition, the cargo compartment of all haul trucks is to be cleaned and/or washed at the delivery site after removal of bulk material.

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- All track-out or carry-out will be cleaned at the end of each workday or immediately when mud or dirt extends a cumulative distance of 50 linear feet or more onto a paved road within an urban area.
- Bulk material handling or transfer shall be stabilized prior to handling or at points of transfer with application of sufficient water, chemical stabilizers, or by sheltering or enclosing the operation and transfer line.
- The construction of any new unpaved road is prohibited within any area with a population of 500 or more unless the road meets the definition of a temporary unpaved road. Any temporary unpaved road shall be effectively stabilized and visible emissions shall be limited to no greater than 20 percent opacity for dust emission by paving, chemical stabilizers, dust suppressants and/or watering.

In addition, there are other ICAPCD rules and regulations, not detailed here, which may apply to the Proposed Project, but are administrative or descriptive in nature. These include rules associated with fees, enforcement and penalty actions, and variance procedures.

2.3 Air Quality Emissions Impact Assessment

2.3.1 Thresholds of Significance

The impact analysis provided below is based on the following California Environmental Quality Act (CEQA) Guidelines Appendix G thresholds of significance. The Project would result in a significant impact to air quality if it would do any of the following:

1. Conflict with or obstruct implementation of any applicable air quality plan.
2. Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).
3. Expose sensitive receptors to substantial pollutant concentrations.
4. Result in other emissions (such as those leading to odors adversely affecting a substantial number of people).

2.3.1.1 Imperial County Air Pollution Control District Thresholds

The significance criteria established by the applicable air quality management or air pollution control district (ICAPCD) may be relied upon to make the above determinations. The ICAPCD has identified significance thresholds for use in evaluating project impacts under CEQA. Accordingly, the ICAPCD-recommended thresholds of significance are used to determine whether implementation of the proposed Project would result in a significant air quality impact. Significance thresholds for evaluation construction and operational air quality impacts are listed in Table 4.

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Table 4. ICAPCD Significance Thresholds – Pounds per Day			
Criteria Pollutant and Precursors	Construction Activities	Operations	
	Average Daily Emissions (lbs/day)	Average Daily Emissions (lbs/day)	
		Tier I Threshold	Tier II Threshold
ROG	75	<137	>137
NO_x	100	<137	>137
PM_{10}	150	<150	>150
$PM_{2.5}$	N/A	<550	>550
CO	550	<550	>550
SO_2	N/A	<150	>150

Source: ICAPCD 2017

Projects that are predicted to exceed Tier I thresholds require implementation of applicable ICAPCD standard mitigation measures to be considered less than significant. Projects exceeding Tier II thresholds are required to implement applicable ICAPCD standard mitigation measures, as well as applicable discretionary mitigation measures. Projects that exceed the Tier II thresholds after implementation of standard and discretionary mitigation measures would be considered to have a potentially significant impact to human health and welfare.

By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size, by itself, to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's individual emissions exceed its identified significance thresholds, the project would be cumulatively considerable. Projects that do not exceed significance thresholds would not be considered cumulative considerable.

2.3.2 Methodology

Air quality impacts were assessed in accordance with methodologies recommended by the ICAPCD. Where criteria air pollutant quantification was required, emissions were modeled using the California Emissions Estimator Model (CalEEMod), version 2020.4.0. CalEEMod is a statewide land use emissions computer model designed to quantify potential criteria pollutant emissions associated with both construction and operations from a variety of land use projects. Project construction-generated air pollutant emissions were calculated using CalEEMod model defaults for Imperial County. Operational air pollutant emissions were based on the Project Site plans.

2.3.3 Impact Analysis

2.3.3.1 Project Construction-Generated Criteria Air Quality Emissions

Emissions associated with Project implementation would be temporary and short-term but have the potential to represent a significant air quality impact. Two basic sources of short-term emissions will be generated through Project implementation: operation of the heavy-duty equipment (i.e., excavators,

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loaders, haul trucks) and the creation of fugitive dust during clearing and grading. Construction activities such as excavation and grading operations, construction vehicle traffic, and wind blowing over exposed soils would generate exhaust emissions and fugitive PM emissions that affect local air quality at various times during construction. Effects would be variable depending on the weather, soil conditions, the amount of activity taking place, and the nature of dust control efforts. The dry climate of the area during the summer months creates a high potential for dust generation. Construction activities would be subject to ICAPCD Regulation VIII which, as previously described, requires taking reasonable precautions to reduce the amount of PM_{10} entrained in the ambient air as a result of emissions generated from construction and other earthmoving activities by requiring actions to prevent, reduce, or mitigate PM_{10} emissions. Regulation VIII requires the Project to adopt best available control measures to minimize emissions from surface-disturbing activities to comply with ICAPCD Regulation VIII (Fugitive Dust Rules).

Emissions associated with Project off-road equipment, worker commute trips, and ground disturbance were calculated using the CARB-approved CalEEMod computer program, which is designed to model emissions for land use development projects, based on typical construction requirements. See Appendix A for more information regarding the construction assumptions, including types of construction equipment used and Project duration used in this analysis.

Predicted maximum daily emissions attributable to Project construction are summarized in Table 5. Such emissions are short-term and of temporary duration, lasting only as long as Project construction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceeds the ICAPCD thresholds of significance.

Table 5. Project Construction-Generated Emissions

Construction Year	Pollutant (pounds per day)					
	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Construction Year One	6.26	65.75	48.76	0.11	10.72	5.85
Construction Year Two	5.67	57.67	47.06	0.11	10.33	5.49
Construction Year Three	4.13	25.09	35.80	0.06	3.72	1.84
ICAPCD Significance Threshold	*75*	*100*	*550*	*N/A*	*150*	*N/A*
Exceed ICAPCD Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: CalEEMod version 2020.4.0. Refer to Appendix A for Model Data Outputs.
Notes: Pounds per day taken from the season with the highest output.

As shown in Table 5, emissions generated during Project construction would not exceed the ICAPCD significance threshold. Therefore, criteria pollutant emissions generated during Project construction would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is nonattainment under an applicable federal or state ambient air quality standard.

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2.3.3.2 *Operational Criteria Air Quality Emissions*

Although limited, implementation of the Project would result in long-term operational emissions of criteria air pollutants such as PM_{10}, $PM_{2.5}$, CO, and SO_2 as well as O_3 precursors such as ROG and NO_X. Project-generated increases in emissions would be predominately associated with motor vehicle use for routine maintenance work, site security, and trucking in water. Long-term operational emissions attributable to the Project are identified in Table 6 and compared to the operational significance thresholds promulgated by the ICAPCD.

Table 6. Operational-Related Emissions (Regional Significance Analysis)

Emission Source	Pollutant (pounds per day)					
	ROG	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Summer Emissions						
Area	11.94	0.00	0.06	0.00	0.00	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.03	0.04	0.34	0.00	0.09	0.03
Total:	**11.97**	**0.04**	**0.40**	**0.00**	**0.07**	**0.02**
ICAPCD Significance Threshold	*137*	*137*	*150*	*550*	*550*	*150*
Exceed ICAPCD Significance Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
Winter Emissions						
Area	11.94	0.00	0.06	0.00	0.00	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.02	0.04	0.26	0.00	0.07	0.02
Total:	**11.97**	**0.04**	**0.32**	**0.00**	**0.07**	**0.02**
ICAPCD Significance Threshold	*137*	*137*	*150*	*550*	*550*	*150*
Exceed ICAPCD Significance Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: CalEEMod version 2020.4.0. Refer to Appendix A for Model Data Outputs.
Notes: Operational emissions account for six heavy-duty truck vehicle trip per day. It is noted that this is a conservative estimate and many days will have no operational related vehicle trips.

As shown in Table 6, the Project's emissions would not exceed any ICAPCD's thresholds for any criteria air pollutants during operation. Additionally, the purpose of the Project is the operation of a renewable energy and storage facility. Once in operation, it will decrease the need for energy from fossil fuel–based power plants in the state (see Table 7). Thus, once operational the Project would represent a beneficial impact to air quality.

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2.3.3.3 Conflict with an Applicable Air Quality Management Plan

As previously described, the Project region is classified as nonattainment for federal O_3 and $PM_{2.5}$ standards (CARB 2019). The USEPA, under the provisions of the CAA, requires each state with regions that have not attained the federal air quality standards to prepare a SIP, detailing how these standards are to be met in each local area. The SIP is a legal agreement between each state and the federal government to commit resources to improving air quality. It serves as the template for conducting regional and project-level air quality analysis. CARB is the lead agency for developing the SIP in California. Local air districts, such as the ICAPCD, prepare air quality attainment plans or air quality management plans and submit them to CARB for review, approval, and incorporation into the applicable SIP. The air districts develop the strategies stated in the SIPs for achieving air quality standards on a regional basis.

The region's SIP is constituted of the ICAPCD air quality plans: 2018 PM_{10} SIP, the 2018 Annual $PM_{2.5}$ SIP, the 2017 8-Hour Ozone SIP, 2013 24-Hour $PM_{2.5}$ SIP, the 2009 1997 8-hour Ozone RACT SIP, the 2009 PM_{10} SIP and the 2008 Ozone Early Progress Plans. Project compliance with all of the ICAPCD rules and regulations results in conformance with the ICAPCD air quality plans. These air quality attainment plans are a compilation of new and previously submitted plans, programs (such as monitoring, modeling, permitting, etc.), district rules, state regulations, and federal controls describing how the state will attain ambient air quality standards. These SIP plans and associated control measures are based on information derived from projected growth in Imperial County in order to project future emissions and then determine strategies and regulatory controls for the reduction of emissions. Growth projections are based on the general plans developed by Imperial County and the incorporated cities in the county.

As previously described, the Project consists of the construction of a 100-MW alternating current solar field, consisting of 226,800 tracker modules in 7,560 strings and associated collector and inverter facilities, and a 100 MW BESS, on approximately 585 acres of vacant land. The Project would not result in population growth and would not cause an increase in currently established population projections. The Project does not include residential development or large local or regional employment centers, and thus would not result in significant population or employment growth.

Furthermore, the operation of the Project would create renewable energy over its planned lifetime and decrease the need for energy from fossil fuel–based power plants in the state, which is considered a beneficial impact to statewide air quality. The energy produced by the Project would displace the criteria pollutant emissions which would otherwise be produced by existing business-as-usual power generation resources (including natural gas and coal).

Table 7 shows the emissions that would potentially be displaced by the Proposed Project. Note that this estimate only includes that associated with the combustion of fossil fuels; it does not include the vehicle trips associated with the Project's operations, and it similarly does not include operational employee trips associated with natural gas or coal combustion nor the emissions associated with extracting and transporting those power sources. In addition, this estimate only includes the displacement of that portion of the California market that comes from fossil fuels and does not include the approximate 50 percent of the California electricity generated by non-combustion sources (wind, solar, nuclear, hydro-electric)

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(California Energy Commission [CEC] 2020). Displacement of fossil fuel emissions has a direct beneficial effect on human health for those receptors downwind of the location of the fossil fuel power plants.

Table 7. Proposed Project Displaced Criteria Pollutant Emissions (Tons)

Construction Year	Emissions (Tons)					
	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Emissions Displaced Annually (tons)						
Displaced Natural Gas-Source Emissions	0.00	2.14	0.65	1.47	2.03	0.82
Displaced Coal-Source Emissions	0.00	13.97	0.58	0.66	0.10	0.07
Total	0.00	16.11	1.23	2.13	2.13	0.89
Emissions Displaced over 30 Years (tons)						
Total	0	483.37	36.93	64.03	63.93	26.75

Source: Displaced emissions calculated by ECORP using USEPA's AP-42 Fifth Edition Compilation of Air Emissions Factors 1995; 2015. See Appendix B.

Notes: In order to provide a conservative analysis, the proposed Project is assumed to generate electricity 25 percent of the time available (2,190 hours annually). Heat Rate indicates the energy generator efficiency of existing fossil-fuel based energy generators. The heat rate of a power plant measures the amount of fuel used to generate one unit of electricity. Power plants with lower heat rates are more efficient than plants with higher heat rates. The CEC's "Updated Thermal Power Plant Efficiency Measures and Operational Characteristics for Production Cost Modeling" (2019) estimates heat rates and operating ranges for thermal power plants supplying energy to California. The average heat rate of power plants types are as follows:
**Steam Boiler fueled by coal: 10,800 heat rate **Steam Boiler fueled by natural gas: 10,200 heat rate **Gas Turbine: 10,100 heat rate **Combined natural gas Boiler and Turbine: 7,640 heat rate.
By omitting steam boilers fueled by coal since so little of California's energy is derived from coal, the average heat rate = 9,313 [(10,100 + 10,200 + 7,640) ÷ 3 = 9,313]. 100 MW (219,000,000 annual KWh) x 9,313 heat rate = 2,039,547,000,000 Btu displaced from fossil fuel production. Fossil fuel-based energy consumption in California is predominately derived from natural gas (37.06 percent). Coal constitutes 2.74 percent of all fossil fuel-based energy. Therefore, 865,175,837,400 of the displaced Btu is displaced natural gas consumption and 55,883,587,800 of the displaced Btu is displaced coal. The heat content of coal is assumed at 24 million Btu per ton of coal burned. At a rate of 24 million Btu per ton of coal burned, the Project would displace 2,328 tons of burned coal annually.

As shown, the Project would potentially displace approximately 483 tons of NO_x, 37 tons of CO, 64 tons of SO_2, 64 tons of PM_{10}, and 27 tons of $PM_{2.5}$ over the course of 30 years. Furthermore, as demonstrated in Table 6 and Table 7, the Project would not exceed the applicable significance thresholds for construction or operational-source emissions.

2.3.3.4 Exposure of Sensitive Receptors to Toxic Air Contaminants

As previously described, sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and

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daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over age 65, children under age 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis. The nearest existing sensitive land use to the Project Site is a single-family residence located approximately 0.5 miles from the southeastern corner of the Project boundary.

Construction-Generated Air Contaminants

Construction of the Project would result in temporary, short-term proposed Project-generated emissions of diesel particulate matter (DPM), ROG, NOx, CO, and PM_{10} from the exhaust of off-road, heavy-duty diesel equipment for Project construction; soil hauling truck traffic; paving; and other miscellaneous activities. The portion of the SSAB which encompasses the Project Area is designated as a nonattainment area for federal O_3 and $PM_{2.5}$ standards and is also a nonattainment area for the state standards for O_3 and PM_{10} (CARB 2019). Thus, existing O_3 and PM_{10} levels in the SSAB are at unhealthy levels during certain periods. However, as shown in Table 5, the Project would not exceed the ICAPCD significance thresholds for construction emissions.

The health effects associated with O_3 are generally associated with reduced lung function. Because the Project would not involve construction activities that would result in O_3 precursor emissions (ROG or NO_x) in excess of the ICAPCD thresholds, the Project is not anticipated to substantially contribute to regional O_3 concentrations and the associated health impacts.

CO tends to be a localized impact associated with congested intersections. In terms of adverse health effects, CO competes with oxygen, often replacing it in the blood, reducing the blood's ability to transport oxygen to vital organs. The results of excess CO exposure can include dizziness, fatigue, and impairment of central nervous system functions. The Project would not involve activities that would result in CO emissions in excess of the ICAPCD thresholds. Thus, the Project's CO emissions would not contribute to the health effects associated with this pollutant.

Particulate matter (PM_{10} and $PM_{2.5}$) contains microscopic solids or liquid droplets that are so small that they can get deep into the lungs and cause serious health problems. Particulate matter exposure has been linked to a variety of problems, including premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms such as irritation of the airways, coughing, or difficulty breathing. For construction-type activity, DPM is the primary TAC of concern. PM_{10} exhaust is considered a surrogate for DPM as all diesel exhaust is considered to be DPM. Most PM_{10} exhaust derives from combustion, such as use of gasoline and diesel fuels by motor vehicles. As with O_3 and NOx, the Project would not generate emissions of PM_{10} or $PM_{2.5}$ that would exceed the ICAPCD's thresholds. Accordingly, the Project's PM_{10} and $PM_{2.5}$ emissions are not expected to cause any increase in related regional health effects for these pollutants.

In summary, Project construction would not result in a potentially significant contribution to regional concentrations of nonattainment pollutants and would not result in a significant contribution to the adverse health impacts associated with those pollutants.

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Operational Air Contaminants

Operation of the Proposed Project would not result in the development of any substantial sources of air toxics. There would be no stationary sources associated Project operations; nor would the Project attract additional mobile sources that spend long periods queuing and idling at the site. Onsite Project emissions would not result in significant concentrations of pollutants at the nearby sensitive receptor as the predominant operational emissions associated with the Proposed Project would be routine maintenance work, water deliveries, and site security. Therefore, the Project would not be a substantial source of TACs. The Project will not result in a high carcinogenic or non-carcinogenic risk during operation.

Carbon Monoxide Hot Spots

It has long been recognized that CO exceedances are caused by vehicular emissions, primarily when idling at intersections. Concentrations of CO are a direct function of the number of vehicles, length of delay, and traffic flow conditions. Under certain meteorological conditions, CO concentrations close to congested intersections that experience high levels of traffic and elevated background concentrations may reach unhealthy levels, affecting nearby sensitive receptors. Given the high traffic volume potential, areas of high CO concentrations, or "hot spots," are typically associated with intersections that are projected to operate at unacceptable levels of service during the peak commute hours. It has long been recognized that CO hotspots are caused by vehicular emissions, primarily when idling at congested intersections. However, transport of this criteria pollutant is extremely limited, and CO disperses rapidly with distance from the source under normal meteorological conditions. Furthermore, vehicle emissions standards have become increasingly more stringent in the last 20 years. Currently, the allowable CO emissions standard in California is a maximum of 3.4 grams/mile for passenger cars (there are requirements for certain vehicles that are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of increasingly sophisticated and efficient emissions control technologies, CO concentration in the SSAB is designated as in attainment. Detailed modeling of Project-specific CO "hot spots" is not necessary and thus this potential impact is addressed qualitatively.

A CO "hot spot" would occur if an exceedance of the state one-hour standard of 20 parts per million (ppm) or the eight-hour standard of 9 ppm were to occur. The analysis prepared for CO attainment in the South Coast Air Quality Management District's (SCAQMD's) *1992 Federal Attainment Plan for Carbon Monoxide* in Los Angeles County and a Modeling and Attainment Demonstration prepared by the SCAQMD as part of the 2003 Air Quality Management Plan can be used to demonstrate the potential for CO exceedances of these standards. The SCAQMD is the air pollution control officer for much of southern California. The SCAQMD conducted a CO hot spot analysis as part of the 1992 CO Federal Attainment Plan at four busy intersections in Los Angeles County during the peak morning and afternoon time periods. The intersections evaluated included Long Beach Boulevard and Imperial Highway (Lynwood), Wilshire Boulevard and Veteran Avenue (Westwood), Sunset Boulevard and Highland Avenue (Hollywood), and La Cienega Boulevard and Century Boulevard (Inglewood). The busiest intersection evaluated was at Wilshire Boulevard and Veteran Avenue, which has a traffic volume of approximately 100,000 vehicles per day. Despite this level of traffic, the CO analysis concluded that there was no violation of CO standards (SCAQMD 1992). In order to establish a more accurate record of baseline CO concentrations affecting the Los Angeles, a CO "hot spot" analysis was conducted in 2003 at the same four busy intersections in Los

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Angeles at the peak morning and afternoon time periods. This "hot spot" analysis did not predict any violation of CO standards. The highest one-hour concentration was measured at 4.6 ppm at Wilshire Boulevard and Veteran Avenue and the highest eight-hour concentration was measured at 8.4 ppm at Long Beach Boulevard and Imperial Highway. Thus, there was no violation of CO standards.

Similar considerations are also employed by other Air Districts when evaluating potential CO concentration impacts. More specifically, the Bay Area Air Quality Management District (BAAQMD), the air pollution control officer for the San Francisco Bay Area, concludes that under existing and future vehicle emission rates, a given project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour or 24,000 vehicles per hour where vertical and/or horizontal air does not mix—in order to generate a significant CO impact.

The Proposed Project is anticipated to result in no more than 6 daily traffic trips. It is noted that this is a conservative estimate and many days will have no operational related vehicle trips. Thus, the Proposed Project would not generate traffic volumes at any intersection of more than 100,000 vehicles per day (or 44,000 vehicles per day) and there is no likelihood of the Project traffic exceeding CO values.

2.3.3.5 Odors

Typically, odors are regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache).

With respect to odors, the human nose is the sole sensing device. The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals have the ability to smell minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; in fact, an odor that is offensive to one person (e.g., from a fast-food restaurant) may be perfectly acceptable to another. It is also important to note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity.

Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet, then the person is describing the quality of the odor. Intensity refers to the strength of the odor. For example, a person may use the word "strong" to describe the intensity of an odor. Odor intensity depends on the odorant concentration in the air. When an odorous sample is progressively diluted, the odorant concentration decreases. As this occurs, the odor intensity weakens and eventually becomes so low that the detection or recognition of the odor is quite difficult. At some point during dilution, the concentration of the odorant reaches a detection threshold. An odorant concentration below the detection threshold means that the concentration in the air is not detectable by the average human.

During construction, the Proposed Project presents the potential for generation of objectionable odors in the form of diesel exhaust in the immediate vicinity of the site. However, these emissions are short-term in

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nature and will rapidly dissipate and be diluted by the atmosphere downwind of the emission sources. Additionally, odors would be localized and generally confined to the Project Area, which is generally devoid of surrounding receptors. Therefore, odors generated during Project construction would not adversely affect a substantial number of people to odor emissions.

Land uses commonly considered to be potential sources of obnoxious odorous emissions include agriculture (farming and livestock), wastewater treatment plants, food processing plants, chemical plants, composting facilities, refineries, landfills, dairies, and fiberglass molding. The Proposed Project does not include any uses identified as being associated with odors.

3.0 GREENHOUSE GAS EMISSIONS

3.1 Greenhouse Gas Setting

Certain gases in the earth's atmosphere, classified as GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space. A portion of the radiation is absorbed by the earth's surface and a smaller portion of this radiation is reflected back toward space. This absorbed radiation is then emitted from the earth as low-frequency infrared radiation. The frequencies at which bodies emit radiation are proportional to temperature. Because the earth has a much lower temperature than the sun, it emits lower-frequency radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead trapped, resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth. Without the greenhouse effect, the earth would not be able to support life as we know it.

Prominent GHGs contributing to the greenhouse effect are CO_2, methane (CH_4), and N_2O. Fluorinated gases also make up a small fraction of the GHGs that contribute to climate change. Fluorinated gases include chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride; however, it is noted that these gases are not associated with typical land use development. Human-caused emissions of these GHGs in excess of natural ambient concentrations are believed to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth's climate, known as global climate change or global warming. It is "extremely likely" that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in GHG concentrations and other anthropogenic factors together (Intergovernmental Panel on Climate Change [IPCC] 2014).

Table 8 describes the primary GHGs attributed to global climate change, including their physical properties, primary sources, and contributions to the greenhouse effect.

Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. CH_4 traps over 25 times more heat per molecule than CO_2, and N_2O absorbs 298 times more heat per molecule than CO_2 (IPCC 2014). Often, estimates of GHG emissions are presented in carbon dioxide equivalents (CO_2e), which weight each gas by its global warming potential. Expressing GHG emissions in CO_2e takes the contribution of all GHG emissions to the greenhouse effect

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and converts them to a single unit equivalent to the effect that would occur if only CO_2 were being emitted.

Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and TACs, which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (about one day), GHGs have long atmospheric lifetimes (one to several thousand years). GHGs persist in the atmosphere for long enough time periods to be dispersed around the globe. Although the exact lifetime of any particular GHG molecule is dependent on multiple variables and cannot be pinpointed, it is understood that more CO_2 is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, or other forms. Of the total annual human-caused CO_2 emissions, approximately 55 percent is sequestered through ocean and land uptakes every year, averaged over the last 50 years, whereas the remaining 45 percent of human-caused CO_2 emissions remains stored in the atmosphere (IPCC 2013).

Table 8. Greenhouse Gases

Greenhouse Gas	Description
CO_2	Carbon dioxide is a colorless, odorless gas. CO_2 is emitted in a number of ways, both naturally and through human activities. The largest source of CO_2 emissions globally is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, industrial facilities, and other sources. A number of specialized industrial production processes and product uses such as mineral production, metal production, and the use of petroleum-based products can also lead to CO_2 emissions. The atmospheric lifetime of CO_2 is variable because it is so readily exchanged in the atmosphere.[1]
CH_4	Methane is a colorless, odorless gas and is the major component of natural gas, about 87 percent by volume. It is also formed and released to the atmosphere by biological processes occurring in anaerobic environments. Methane is emitted from a variety of both human-related and natural sources. Human-related sources include fossil fuel production, animal husbandry (intestinal fermentation in livestock and manure management), rice cultivation, biomass burning, and waste management. These activities release significant quantities of CH_4 to the atmosphere. Natural sources of CH_4 include wetlands, gas hydrates, permafrost, termites, oceans, freshwater bodies, non-wetland soils, and other sources such as wildfires. The atmospheric lifetime of CH_4 is about12 years.[2]
N_2O	Nitrous oxide is a clear, colorless gas with a slightly sweet odor. Nitrous oxide is produced by both natural and human-related sources. Primary human-related sources of N_2O are agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuels, adipic acid production, and nitric acid production. N_2O is also produced naturally from a wide variety of biological sources in soil and water, particularly microbial action in wet tropical forests. The atmospheric lifetime of N_2O is approximately 120 years.[3]

Sources: [1]USEPA 2016a, [2] USEPA 2016b, [3] USEPA 2016c

The quantity of GHGs that it takes to ultimately result in climate change is not precisely known; it is sufficient to say the quantity is enormous, and no single project alone would measurably contribute to a noticeable incremental change in the global average temperature or to global, local, or microclimates. From the standpoint of CEQA, GHG impacts to global climate change are inherently cumulative.

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3.1.1 Sources of Greenhouse Gas Emissions

In 2021, CARB released the 2021 edition of the California GHG inventory covering calendar year 2019 emissions. In 2019, California emitted 418.2 million gross metric tons of CO_2e including from imported electricity. Combustion of fossil fuel in the transportation sector was the single largest source of California's GHG emissions in 2019, accounting for approximately 40 percent of total GHG emissions in the State. When emissions from extracting, refining and moving transportation fuels in California are included, transportation is responsible for over 50 percent of statewide emissions in 2019. Continuing the downward trend from 2018, transportation emissions decreased 3.5 million metric tons of CO_2e in 2019, only being outpaced by electricity, which reduced emissions by 4.3 million metric tons of CO_2e in 2019. Emissions from the electricity sector account for 14 percent of the inventory and have shown a substantial decrease in 2019 due to increases in renewables. California's industrial sector accounts for the second largest source of the State's GHG emissions in 2019, accounting for 21 percent (CARB 2021b).

3.2 Regulatory Framework

3.2.1 State

3.2.1.1 Executive Order S-3-05

Executive Order (EO) S-3-05, signed by Governor Arnold Schwarzenegger in 2005, proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce the Sierra Nevada snowpack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the EO established total GHG emission targets for the state. Specifically, emissions are to be reduced to the 2000 level by 2010, the 1990 level by 2020, and to 80 percent below the 1990 level by 2050.

3.2.1.2 Assembly Bill 32 Climate Change Scoping Plan and Updates

In 2006, the California legislature passed Assembly Bill (AB) 32 (Health and Safety Code § 38500 et seq., or AB 32), also known as the Global Warming Solutions Act. AB 32 required CARB to design and implement feasible and cost-effective emission limits, regulations, and other measures, such that statewide GHG emissions are reduced to 1990 levels by 2020 (representing a 25 percent reduction in emissions). Pursuant to AB 32, CARB adopted a Scoping Plan in December 2008, which outlined measures to meet the 2020 GHG reduction goals. California exceeded the target of reducing GHG emissions to 1990 levels by the year 2017.

The Scoping Plan is required by AB 32 to be updated at least every five years. The latest update, the 2017 Scoping Plan Update, addresses the 2030 target established by Senate Bill (SB) 32 as discussed below and establishes a proposed framework of action for California to meet a 40 percent reduction in GHG emissions by 2030 compared to 1990 levels. The key programs that the Scoping Plan Update builds on include increasing the use of renewable energy in the State, the Cap-and-Trade Regulation, the Low Carbon Fuel Standard, and reduction of methane emissions from agricultural and other wastes.

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3.2.1.3 Senate Bill 32 and Assembly Bill 197 of 2016

In August 2016, Governor Brown signed SB 32 and AB 197, which serve to extend California's GHG reduction programs beyond 2020. SB 32 amended the Health and Safety Code to include § 38566, which contains language to authorize CARB to achieve a statewide GHG emission reduction of at least 40 percent below 1990 levels by no later than December 31, 2030.

3.2.1.4 Senate Bill 100 of 2018

In 2018, SB 100 was signed by Governor Brown, codifying a goal of 60 percent renewable procurement by 2030 and 100 percent by 2045 Renewables Portfolio Standard.

3.3 Greenhouse Gas Emissions Impact Assessment

3.3.1 Thresholds of Significance

The impact analysis provided below is based on the following CEQA Guidelines Appendix G thresholds of significance. The Project would result in a significant impact to GHG emissions if it would:

1. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.
2. Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

The Appendix G thresholds for GHG's do not prescribe specific methodologies for performing an assessment, do not establish specific thresholds of significance, and do not mandate specific mitigation measures. Rather, the CEQA Guidelines emphasize the lead agency's discretion to determine the appropriate methodologies and thresholds of significance consistent with the manner in which other impact areas are handled in CEQA. With respect to GHG emissions, the CEQA Guidelines § 15064.4(a) states that lead agencies "shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate" GHG emissions resulting from a project. The CEQA Guidelines note that an agency has the discretion to either quantify a project's GHG emissions or rely on a "qualitative analysis or other performance-based standards." (14 California Code of Regulations [CCR] 15064.4(b)). A lead agency may use a "model or methodology" to estimate GHG emissions and has the discretion to select the model or methodology it considers "most appropriate to enable decision makers to intelligently take into account the project's incremental contribution to climate change." (14 CCR 15064.4(c)). Section 15064.4(b) provides that the lead agency should consider the following when determining the significance of impacts from GHG emissions on the environment:

1. The extent a project may increase or reduce GHG emissions as compared to the existing environmental setting.
2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.

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3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4(b)).

In addition, Section 15064.7(c) of the CEQA Guidelines specifies that "[w]hen adopting or using thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence" (14 CCR 15064.7(c)). The CEQA Guidelines also clarify that the effects of GHG emissions are cumulative and should be analyzed in the context of CEQA's requirements for cumulative impact analysis (see CEQA Guidelines § 15130(f)). As a note, the CEQA Guidelines were amended in response to SB 97. In particular, the CEQA Guidelines were amended to specify that compliance with a GHG emissions reduction plan renders a cumulative impact insignificant.

Per CEQA Guidelines § 15064(h)(3), a project's incremental contribution to a cumulative impact can be found not cumulatively considerable if the project would comply with an approved plan or mitigation program that provides specific requirements that would avoid or substantially lessen the cumulative problem within the geographic area of the project. To qualify, such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency. Examples of such programs include a "water quality control plan, air quality attainment or maintenance plan, integrated waste management plan, habitat conservation plan, natural community conservation plans [and] plans or regulations for the reduction of greenhouse gas emissions." Put another way, CEQA Guidelines § 15064(h)(3) allows a lead agency to make a finding of less than significant for GHG emissions if a project complies with adopted programs, plans, policies and/or other regulatory strategies to reduce GHG emissions.

The significance of the Project's GHG emissions is evaluated consistent with CEQA Guidelines § 15064.4(b)(2) by considering whether the Project complies with applicable plans, policies, regulations and requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. The ICAPCD has not adopted a GHG significance threshold yet recommends the 100,000-metric ton of CO_2e threshold established by the Mojave Desert Air Quality Management District (MDAQMD). As previously described, Section 15064.7(c) of the CEQA Guidelines specifies that "[w]hen adopting or using thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence" (14 CCR 15064.7(c)). This ICAPCD-recommended threshold is appropriate as the MDAQMD GHG thresholds were formulated based on similar geography and climate patterns as found in Imperial County. Therefore, the 100,000-metric ton of CO_2e threshold is appropriate for this analysis.

In *Center for Biological Diversity v. Department of Fish and Wildlife* (2015) 62 Cal. 4th 2014, 213, 221, 227, following its review of various potential GHG thresholds proposed in an academic study [Crockett, *Addressing the Significance of Greenhouse Gas Emissions: California's Search for Regulatory Certainty in an Uncertain World* (July 2011), 4 Golden Gate U. Envtl. L. J. 203], the California Supreme Court identified the

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use of numeric bright-line thresholds as a potential pathway for compliance with CEQA GHG requirements. The study found numeric bright line thresholds designed to determine when small projects were so small as to not cause a cumulatively considerable impact on global climate change was consistent with CEQA. Specifically, Public Resources Code section 21003(f) provides it is a policy of the state that "[a]ll persons and public agencies involved in the environmental review process be responsible for carrying out the process in the most efficient, expeditious manner in order to conserve the available financial, governmental, physical and social resources with the objective that those resources may be better applied toward the mitigation of actual significant effects on the environment." The Supreme Court-reviewed study noted, "[s]ubjecting the smallest projects to the full panoply of CEQA requirements, even though the public benefit would be minimal, would not be consistent with implementing the statute in the most efficient, expeditious manner. Nor would it be consistent with applying lead agencies' scarce resources toward mitigating actual significant climate change impacts." (Crockett, *Addressing the Significance of Greenhouse Gas Emissions: California's Search for Regulatory Certainty in an Uncertain World* (July 2011), 4 Golden Gate U. Envtl. L. J. 203, 221, 227.)

3.3.2 Methodology

Where GHG emission quantification was required, emissions were modeled using CalEEMod, version 2020.4.0. CalEEMod is a statewide land use emissions computer model designed to quantify potential GHG emissions associated with both construction and operations from a variety of land use projects. Project construction generated GHG emissions were calculated using CalEEMod model defaults for Imperial County. Operational GHG emissions were based on the Project Site plans.

3.3.3 Impact Analysis

3.3.3.1 Generation of GHG Emissions

Project Construction

Construction-related activities that would generate GHG emissions include worker commute trips, haul trucks carrying supplies and materials to and from the project site, and off-road construction equipment (e.g., dozers, loaders, excavators). Table 9 illustrates the specific construction generated GHG emissions that would result from construction of the Project. Consistent with SCAQMD recommendations, Project construction GHG emissions have been amortized over the expected life of the Project, which is considered to be 30 years for a solar energy generation facility. Once construction is complete, the generation of these GHG emissions would cease.

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Table 9. Construction-Related Greenhouse Gas Emissions	
Emissions Source	**CO_2e (Metric Tons/Year)**
Construction Year One	166
Construction Year Two	1,071
Construction Year Three	71
Significance Threshold	*100,000*
Exceed Significance Threshold?	**No**

Source: CalEEMod version 2020.4.0. Refer to Appendix A for Model Data Outputs.

As shown in Table 9, Project would result in the generation of approximately 166 metric tons of CO_2e in the first year of construction, 1,071 metric tons in the second year of construction, and 71 metric tons in the third year of construction. Therefore, Project GHG emissions would not exceed the significance threshold.

Additionally, the Project proposes a solar energy generation facility intended to generate renewable energy. Solar plants generate far less GHG life-cycle emissions (approximately 83 to 94 percent less) than fossil-fueled energy plants. As identified in Table 12 below, the Project would potentially displace approximately53,220 metric tons of CO_2e per year, and approximately 1,596,596 metric tons of CO_2e over the course of 30 years, which is considerably more than would be generated during construction.

Operations

Operation of the Project would result in an increase in GHG emissions solely associated with motor vehicle trips. Long-term GHG emissions attributed to operations of the Project are identified in Table 10.

Table 10. Operational-Related Greenhouse Gas Emissions	
Emission Source	**CO_2e (Metric Tons/ Year)**
Area Source	0.01
Energy	0
Mobile	8.30
Waste	0
Water	0
Total	**8.32**
Significance Threshold	*100,000*
Exceed Significance Threshold?	**No**

Source: CalEEMod version 2020.4.0. Refer to Appendix A for Model Data Outputs.
Notes: Operational emissions account for six heavy-duty truck vehicle trip per day. It is noted that this is a conservative estimate and many days will have no operational related vehicle trips.

As shown in Table 10, operational-generated emissions would not exceed the significance threshold of 100,000 metric tons of CO_2e annually.

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3.3.3.2 *Conflict with any Applicable Plan, Policy, or Regulation of an Agency Adopted for the Purpose of Reducing the Emissions of Greenhouse Gases*

The Project would not conflict with any adopted plans, policies, or regulations adopted for the purpose of reducing GHG emissions. The Proposed Project is subject to compliance with SB 32. As discussed previously, the Proposed Project-generated GHG emissions would not surpass either the ICAPCD-recommended GHG significance threshold, which was prepared with the purpose of complying with statewide GHG-reduction efforts. Additionally, once construction is complete, the Project would be a producer of renewable energy, which generates substantially less GHG emissions compared with the more common types of fossil-fueled energy generation facilities.

GHG emissions generated by energy sources account for all stages of the life cycle (including mining, construction, etc.), which are referred to as the cumulative GHG emissions and are usually expressed in grams of CO_2e per unit of busbar electricity (i.e., gCO_2/KWh_e). When comparing various fossil-fueled energy generators, the GHG emissions generated are dependent on the type of fuel (i.e., gas, oil, coal). GHG emissions generated by some of the more common types of fossil-fueled plants and solar-power plants are summarized in Table 11.

Table 11. Life-Cycle Greenhouse Gas Emissions for Various Types of Energy Generators

Fossil Fueled	
Coal	950 to 1,250 gCO_2e/ KWh_e
Oil	500 to 1,200 gCO_2e/ KWh_e
Gas	440 to 780 gCO_2e/ KWh_e
Solar	43 to 73[3] gCO_2e/ KWh_e

Source: Weisser 2007
Notes:
1 gCO_2e/ KWh_e = grams of CO_2e per unit of busbar electricity.
2 Emissions are based on lifecycle of energy source including mining, construction, operation, etc.
3 Solar PV life-cycle emissions result from using fossil-fuel-based energy to produce the materials for solar cells, modules, and systems, as well as directly from smelting, production, and manufacturing facilities.

As shown in Table 11, solar plants generate far less GHG life-cycle emissions (approximately 83 to 94 percent less) than fossil-fueled energy plants. Therefore, the Proposed Project would contribute to the continued reduction of GHG emissions in the interconnected California and western U.S. electricity systems, as the energy produced by the Project would displace GHG emissions that would otherwise be produced by existing business-as-usual power generation resources (including natural gas, coal, arid renewable combustion resources).

Table 12 shows the emissions that would potentially be displaced by the Proposed Project. Note that this estimate only includes that associated with the combustion of fossil fuels; it does not include the vehicle trips associated with the Project's operations, and it similarly does not include operational employee trips

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associated with natural gas or coal combustion nor the emissions associated with extracting and transporting those power sources. In addition, this estimate only includes the displacement of that portion of the California market that comes from fossil fuels and does not include the approximate 50 percent of the California electricity generated by non-combustion sources (wind, solar, nuclear, hydro-electric) (CEC 2020).

Table 12. Proposed Project Displaced GHG Emissions (Metric Tons)

	Emissions (Metric Tons)			
	CO_2	CH_4	N_2O	CO_2e
Emissions Displaced Annually (metric tons)				
Displaced Natural Gas-Source Emissions	47,585	0.00	0.00	47,585
Displaced Coal-Source Emissions	5,626	0.037	0.028	5,635
Total	**53,210**	**0.037**	**0.028**	**53,220**
Emissions Displaced over 30 Years (metric tons)				
Total	**1,596,309**	**1.118**	**0.838**	**1,596,596**

Source: Displaced emissions calculated by ECORP using USEPA's AP-42 Fifth Edition Compilation of Air Emissions Factors 1995; 2015. See Appendix B.

Notes: In order to provide a conservative analysis, the proposed Project is assumed to generate electricity 25 percent of the time available (2,190 hours annually). Heat Rate indicates the energy generator efficiency of existing fossil-fuel based energy generators. The heat rate of a power plant measures the amount of fuel used to generate one unit of electricity. Power plants with lower heat rates are more efficient than plants with higher heat rates. The CEC's "Updated Thermal Power Plant Efficiency Measures and Operational Characteristics for Production Cost Modeling" (2019) estimates heat rates and operating ranges for thermal power plants supplying energy to California. The average heat rate of power plants types are as follows:
**Steam Boiler fueled by coal: 10,800 heat rate **Steam Boiler fueled by natural gas: 10,200 heat rate **Gas Turbine: 10,100 heat rate **Combined natural gas Boiler and Turbine: 7,640 heat rate.
By omitting steam boilers fueled by coal since so little of California's energy is derived from coal, the average heat rate = 9,313 [(10,100 + 10,200 + 7,640) ÷ 3 = 9,313]. 100 MW (219,000,000 annual KWh) x 9,313 heat rate = 2,039,547,000,000 Btu displaced from fossil fuel production. Fossil fuel-based energy consumption in California is predominately derived from natural gas (37.06 percent). Coal constitutes 2.74 percent of all fossil fuel-based energy. Therefore, 865,175,837,400 of the displaced Btu is displaced natural gas and unspecified nonrenewable sources consumption and 55,883,587,800 of the displaced Btu is displaced coal. The heat content of coal is assumed at 24 million Btu per ton of coal burned. At a rate of 24 million Btu per ton of coal burned, the Project would displace 2,328 tons of burned coal annually.

As shown, the Project would potentially displace approximately 53,220 metric tons of CO_2e per year, and approximately 1,596,596 metric tons of CO_2e over the course of 30 years.

While the Project would emit some GHG emissions during construction and a small amount during operations, the contribution of renewable resource energy production to meet the goals of the Renewable Portfolio Standard (Scoping Plan Measure E-3) would result in a net cumulative reduction of GHG emissions, a key environmental benefit. (Scoping Plan Measure E-3, Renewable Portfolio Standard, of the Climate Change Scoping Plan requires that all investor-owned utility companies generate 60 percent

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of their energy demand from renewable sources by year 2030.) Therefore, the short-term minor generation of GHG emissions during construction, which is necessary to create this new, low-GHG-emitting power-generating facility, as well as the negligible amount generated during ongoing maintenance operations, would be more than offset by GHG emission reductions associated with solar-generated energy during operation.

Increasing sources of solar energy is one of the measures identified under the Scoping Plan to reduce statewide GHG emissions. The Proposed Project would reduce GHG emissions in a manner consistent with SB 32 and other California GHG-reducing legislation by creating a new source of solar power to replace the current use of fossil-fuel power and reduce GHG emissions power generation and use.

The Project would not conflict with any applicable plan, policy, or regulation intended to reduce GHG emissions.

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LIST OF APPENDICES

Appendix A – CalEEMod Output Files Criteria Air Pollutants & Greenhouse Gas Emissions

Appendix B – Renewable Energy Emissions Displacement

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APPENDIX A

CalEEMod Output Files Criteria Air Pollutants & Greenhouse Gas Emissions

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Northstar #3

Imperial County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	585.00	Acre	585.00	25,482,600.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	3.4	**Precipitation Freq (Days)**	12
Climate Zone	15			**Operational Year**	2024
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MWhr)	189.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Total days spent per phase based on similar solar facility projects in Imperial County

Off-road Equipment - Unit amount based on similar solar facility projects in Imperial County

Off-road Equipment - Unit amount based on similar solar facility projects in Imperial County

Off-road Equipment - Unit amount based on similar solar facility projects in Imperial County

Grading -

Trips and VMT - Imported values based on similar solar facility projects in Imperial County

On-road Fugitive Dust - Project Site will be accessed via Highway 86

Vehicle Trips - Weekday trip rate of 0.1 per acre assumed.

Road Dust - Project Site will be accessed directly via Highway 86.

Construction Off-road Equipment Mitigation -

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Northstar #3 - Imperial County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Area Mitigation -

Energy Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	9,300.00	104.00
tblConstructionPhase	NumDays	930.00	200.00
tblConstructionPhase	NumDays	360.00	67.00
tblConstructionPhase	PhaseEndDate	6/3/2065	2/5/2024
tblConstructionPhase	PhaseEndDate	10/10/2029	9/12/2023
tblConstructionPhase	PhaseEndDate	3/18/2026	12/6/2022
tblConstructionPhase	PhaseStartDate	10/11/2029	9/13/2023
tblConstructionPhase	PhaseStartDate	3/19/2026	12/7/2022
tblConstructionPhase	PhaseStartDate	10/31/2024	9/5/2022
tblOffRoadEquipment	HorsePower	130.00	97.00
tblOffRoadEquipment	HorsePower	132.00	46.00
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.50	0.50
tblOffRoadEquipment	LoadFactor	0.42	0.37
tblOffRoadEquipment	LoadFactor	0.36	0.45
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Trenchers
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentType	Tractors/Loaders/Backhoes	Pavers
tblOffRoadEquipment	OffRoadEquipmentType	Welders	Paving Equipment
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblRoadDust	RoadPercentPave	50	100
tblTripsAndVMT	VendorTripNumber	0.00	10.00
tblTripsAndVMT	VendorTripNumber	0.00	10.00
tblTripsAndVMT	VendorTripNumber	4,177.00	10.00
tblTripsAndVMT	WorkerTripNumber	10,703.00	300.00
tblVehicleTrips	CW_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	WD_TR	0.00	0.01

2.0 Emissions Summary

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.1256	1.3163	0.8444	1.8600e-003	1.0345	0.0591	1.0936	0.3395	0.0544	0.3938	0.0000	164.7223	164.7223	0.0481	1.8900e-003	166.4871
2023	0.6715	6.2803	5.6080	0.0120	1.7043	0.2688	1.9730	0.6891	0.2476	0.9367	0.0000	1,061.1838	1,061.1838	0.3024	8.0900e-003	1,071.1538
2024	0.0502	0.3269	0.4406	7.9000e-004	0.0315	0.0167	0.0482	8.3800e-003	0.0154	0.0238	0.0000	69.8189	69.8189	0.0139	1.2100e-003	70.5267
Maximum	**0.6715**	**6.2803**	**5.6080**	**0.0120**	**1.7043**	**0.2688**	**1.9730**	**0.6891**	**0.2476**	**0.9367**	**0.0000**	**1,061.1838**	**1,061.1838**	**0.3024**	**8.0900e-003**	**1,071.1538**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.1256	1.3163	0.8444	1.8600e-003	0.4710	0.0591	0.5300	0.1543	0.0544	0.2086	0.0000	164.7221	164.7221	0.0481	1.8900e-003	166.4869
2023	0.6715	6.2803	5.6080	0.0120	0.8390	0.2688	1.1078	0.3294	0.2476	0.5770	0.0000	1,061.1827	1,061.1827	0.3024	8.0900e-003	1,071.1526
2024	0.0502	0.3269	0.4406	7.9000e-004	0.0315	0.0167	0.0482	8.3800e-003	0.0154	0.0238	0.0000	69.8189	69.8189	0.0139	1.2100e-003	70.5267
Maximum	**0.6715**	**6.2803**	**5.6080**	**0.0120**	**0.8390**	**0.2688**	**1.1078**	**0.3294**	**0.2476**	**0.5770**	**0.0000**	**1,061.1827**	**1,061.1827**	**0.3024**	**8.0900e-003**	**1,071.1526**

EEC ORIGINAL PKG

Northstar #3 - Imperial County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	51.58	0.00	45.87	52.55	0.00	40.24	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	7-14-2022	10-13-2022	0.3296	0.3296
2	10-14-2022	1-13-2023	1.3943	1.3943
3	1-14-2023	4-13-2023	2.0359	2.0359
4	4-14-2023	7-13-2023	2.0584	2.0584
5	7-14-2023	10-13-2023	1.7183	1.7183
6	10-14-2023	1-13-2024	0.9921	0.9921
7	1-14-2024	4-13-2024	0.2378	0.2378
		Highest	2.0584	2.0584

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.1792	5.0000e-005	5.3700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0105	0.0105	3.0000e-005	0.0000	0.0111
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	3.1700e-003	5.3600e-003	0.0371	9.0000e-005	9.5000e-003	6.0000e-005	9.5700e-003	2.5300e-003	6.0000e-005	2.5900e-003	0.0000	8.1872	8.1872	3.3000e-004	3.7000e-004	8.3044
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.1824**	**5.4100e-003**	**0.0425**	**9.0000e-005**	**9.5000e-003**	**8.0000e-005**	**9.5900e-003**	**2.5300e-003**	**8.0000e-005**	**2.6100e-003**	**0.0000**	**8.1976**	**8.1976**	**3.6000e-004**	**3.7000e-004**	**8.3156**

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.1792	5.0000e-005	5.3700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0105	0.0105	3.0000e-005	0.0000	0.0111
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	3.1700e-003	5.3600e-003	0.0371	9.0000e-005	9.5000e-003	6.0000e-005	9.5700e-003	2.5300e-003	6.0000e-005	2.5900e-003	0.0000	8.1872	8.1872	3.3000e-004	3.7000e-004	8.3044
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.1824**	**5.4100e-003**	**0.0425**	**9.0000e-005**	**9.5000e-003**	**8.0000e-005**	**9.5900e-003**	**2.5300e-003**	**8.0000e-005**	**2.6100e-003**	**0.0000**	**8.1976**	**8.1976**	**3.6000e-004**	**3.7000e-004**	**8.3156**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	9/5/2022	12/6/2022	5	67	
2	Building Construction	Building Construction	9/13/2023	2/5/2024	5	104	
3	Grading	Grading	12/7/2022	9/12/2023	5	200	

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Acres of Grading (Site Preparation Phase): 67

Acres of Grading (Grading Phase): 900

Acres of Paving: 585

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Plate Compactors	4	7.00	8	0.43
Building Construction	Tractors/Loaders/Backhoes	4	7.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Trenchers	2	7.00	78	0.50
Grading	Excavators	4	8.00	158	0.38
Building Construction	Forklifts	4	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Grading	Graders	3	8.00	187	0.41
Building Construction	Welders	1	8.00	46	0.45
Grading	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Pavers	1	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Paving Equipment	2	8.00	46	0.45

Trips and VMT

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	4	10.00	10.00	0.00	10.20	11.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	15	38.00	10.00	0.00	10.20	11.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	19	300.00	10.00	0.00	10.20	11.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4390	0.0000	0.4390	0.2256	0.0000	0.2256	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0671	0.7014	0.3899	7.8000e-004		0.0340	0.0340		0.0313	0.0313	0.0000	68.5781	68.5781	0.0222	0.0000	69.1326
Total	**0.0671**	**0.7014**	**0.3899**	**7.8000e-004**	**0.4390**	**0.0340**	**0.4730**	**0.2256**	**0.0313**	**0.2569**	**0.0000**	**68.5781**	**68.5781**	**0.0222**	**0.0000**	**69.1326**

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0400e-003	0.0217	7.9800e-003	1.0000e-004	3.6800e-003	3.0000e-004	3.9800e-003	1.0600e-003	2.9000e-004	1.3500e-003	0.0000	9.8846	9.8846	5.0000e-005	1.3800e-003	10.2956
Worker	1.4700e-003	9.0000e-004	0.0103	2.0000e-005	2.5800e-003	1.0000e-005	2.5900e-003	6.8000e-004	1.0000e-005	7.0000e-004	0.0000	2.0856	2.0856	8.0000e-005	7.0000e-005	2.1089
Total	**2.5100e-003**	**0.0226**	**0.0183**	**1.2000e-004**	**6.2600e-003**	**3.1000e-004**	**6.5700e-003**	**1.7400e-003**	**3.0000e-004**	**2.0500e-003**	**0.0000**	**11.9703**	**11.9703**	**1.3000e-004**	**1.4500e-003**	**12.4045**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1976	0.0000	0.1976	0.1015	0.0000	0.1015	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0671	0.7014	0.3899	7.8000e-004		0.0340	0.0340		0.0313	0.0313	0.0000	68.5780	68.5780	0.0222	0.0000	69.1325
Total	**0.0671**	**0.7014**	**0.3899**	**7.8000e-004**	**0.1976**	**0.0340**	**0.2316**	**0.1015**	**0.0313**	**0.1328**	**0.0000**	**68.5780**	**68.5780**	**0.0222**	**0.0000**	**69.1325**

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0400e-003	0.0217	7.9800e-003	1.0000e-004	3.6800e-003	3.0000e-004	3.9800e-003	1.0600e-003	2.9000e-004	1.3500e-003	0.0000	9.8846	9.8846	5.0000e-005	1.3800e-003	10.2956
Worker	1.4700e-003	9.0000e-004	0.0103	2.0000e-005	2.5800e-003	1.0000e-005	2.5900e-003	6.8000e-004	1.0000e-005	7.0000e-004	0.0000	2.0856	2.0856	8.0000e-005	7.0000e-005	2.1089
Total	**2.5100e-003**	**0.0226**	**0.0183**	**1.2000e-004**	**6.2600e-003**	**3.1000e-004**	**6.5700e-003**	**1.7400e-003**	**3.0000e-004**	**2.0500e-003**	**0.0000**	**11.9703**	**11.9703**	**1.3000e-004**	**1.4500e-003**	**12.4045**

3.3 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1107	0.9817	1.0130	1.5100e-003		0.0537	0.0537		0.0497	0.0497	0.0000	130.0864	130.0864	0.0396	0.0000	131.0755
Total	**0.1107**	**0.9817**	**1.0130**	**1.5100e-003**		**0.0537**	**0.0537**		**0.0497**	**0.0497**	**0.0000**	**130.0864**	**130.0864**	**0.0396**	**0.0000**	**131.0755**

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.4000e-004	0.0195	8.2800e-003	1.2000e-004	4.2800e-003	1.9000e-004	4.4700e-003	1.2300e-003	1.8000e-004	1.4200e-003	0.0000	11.1183	11.1183	4.0000e-005	1.5300e-003	11.5763
Worker	0.0474	0.0278	0.3280	7.7000e-004	0.0901	4.5000e-004	0.0906	0.0239	4.1000e-004	0.0243	0.0000	70.4871	70.4871	2.3700e-003	2.3000e-003	71.2313
Total	**0.0483**	**0.0473**	**0.3363**	**8.9000e-004**	**0.0944**	**6.4000e-004**	**0.0951**	**0.0252**	**5.9000e-004**	**0.0258**	**0.0000**	**81.6054**	**81.6054**	**2.4100e-003**	**3.8300e-003**	**82.8075**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1107	0.9817	1.0130	1.5100e-003		0.0537	0.0537		0.0497	0.0497	0.0000	130.0863	130.0863	0.0396	0.0000	131.0753
Total	**0.1107**	**0.9817**	**1.0130**	**1.5100e-003**		**0.0537**	**0.0537**		**0.0497**	**0.0497**	**0.0000**	**130.0863**	**130.0863**	**0.0396**	**0.0000**	**131.0753**

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.4000e-004	0.0195	8.2800e-003	1.2000e-004	4.2800e-003	1.9000e-004	4.4700e-003	1.2300e-003	1.8000e-004	1.4200e-003	0.0000	11.1183	11.1183	4.0000e-005	1.5300e-003	11.5763
Worker	0.0474	0.0278	0.3280	7.7000e-004	0.0901	4.5000e-004	0.0906	0.0239	4.1000e-004	0.0243	0.0000	70.4871	70.4871	2.3700e-003	2.3000e-003	71.2313
Total	**0.0483**	**0.0473**	**0.3363**	**8.9000e-004**	**0.0944**	**6.4000e-004**	**0.0951**	**0.0252**	**5.9000e-004**	**0.0258**	**0.0000**	**81.6054**	**81.6054**	**2.4100e-003**	**3.8300e-003**	**82.8075**

3.3 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0353	0.3122	0.3370	5.0000e-004		0.0165	0.0165		0.0152	0.0152	0.0000	43.3695	43.3695	0.0132	0.0000	43.6988
Total	**0.0353**	**0.3122**	**0.3370**	**5.0000e-004**		**0.0165**	**0.0165**		**0.0152**	**0.0152**	**0.0000**	**43.3695**	**43.3695**	**0.0132**	**0.0000**	**43.6988**

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0000e-004	6.4700e-003	2.6500e-003	4.0000e-005	1.4300e-003	6.0000e-005	1.4900e-003	4.1000e-004	6.0000e-005	4.7000e-004	0.0000	3.6563	3.6563	1.0000e-005	5.0000e-004	3.8060
Worker	0.0147	8.2100e-003	0.1009	2.5000e-004	0.0300	1.4000e-004	0.0302	7.9700e-003	1.3000e-004	8.1000e-003	0.0000	22.7932	22.7932	7.1000e-004	7.1000e-004	23.0219
Total	**0.0150**	**0.0147**	**0.1035**	**2.9000e-004**	**0.0315**	**2.0000e-004**	**0.0317**	**8.3800e-003**	**1.9000e-004**	**8.5700e-003**	**0.0000**	**26.4495**	**26.4495**	**7.2000e-004**	**1.2100e-003**	**26.8280**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0353	0.3122	0.3370	5.0000e-004		0.0165	0.0165		0.0152	0.0152	0.0000	43.3694	43.3694	0.0132	0.0000	43.6987
Total	**0.0353**	**0.3122**	**0.3370**	**5.0000e-004**		**0.0165**	**0.0165**		**0.0152**	**0.0152**	**0.0000**	**43.3694**	**43.3694**	**0.0132**	**0.0000**	**43.6987**

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0000e-004	6.4700e-003	2.6500e-003	4.0000e-005	1.4300e-003	6.0000e-005	1.4900e-003	4.1000e-004	6.0000e-005	4.7000e-004	0.0000	3.6563	3.6563	1.0000e-005	5.0000e-004	3.8060
Worker	0.0147	8.2100e-003	0.1009	2.5000e-004	0.0300	1.4000e-004	0.0302	7.9700e-003	1.3000e-004	8.1000e-003	0.0000	22.7932	22.7932	7.1000e-004	7.1000e-004	23.0219
Total	**0.0150**	**0.0147**	**0.1035**	**2.9000e-004**	**0.0315**	**2.0000e-004**	**0.0317**	**8.3800e-003**	**1.9000e-004**	**8.5700e-003**	**0.0000**	**26.4495**	**26.4495**	**7.2000e-004**	**1.2100e-003**	**26.8280**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.5856	0.0000	0.5856	0.1111	0.0000	0.1111	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0542	0.5855	0.4235	9.0000e-004		0.0247	0.0247		0.0227	0.0227	0.0000	79.3892	79.3892	0.0257	0.0000	80.0311
Total	**0.0542**	**0.5855**	**0.4235**	**9.0000e-004**	**0.5856**	**0.0247**	**0.6103**	**0.1111**	**0.0227**	**0.1338**	**0.0000**	**79.3892**	**79.3892**	**0.0257**	**0.0000**	**80.0311**

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.8000e-004	5.8200e-003	2.1400e-003	3.0000e-005	9.9000e-004	8.0000e-005	1.0700e-003	2.8000e-004	8.0000e-005	3.6000e-004	0.0000	2.6556	2.6556	1.0000e-005	3.7000e-004	2.7660
Worker	1.5000e-003	9.2000e-004	0.0106	2.0000e-005	2.6300e-003	1.0000e-005	2.6500e-003	7.0000e-004	1.0000e-005	7.1000e-004	0.0000	2.1292	2.1292	8.0000e-005	7.0000e-005	2.1530
Total	**1.7800e-003**	**6.7400e-003**	**0.0127**	**5.0000e-005**	**3.6200e-003**	**9.0000e-005**	**3.7200e-003**	**9.8000e-004**	**9.0000e-005**	**1.0700e-003**	**0.0000**	**4.7848**	**4.7848**	**9.0000e-005**	**4.4000e-004**	**4.9190**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2635	0.0000	0.2635	0.0500	0.0000	0.0500	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0542	0.5855	0.4235	9.0000e-004		0.0247	0.0247		0.0227	0.0227	0.0000	79.3891	79.3891	0.0257	0.0000	80.0310
Total	**0.0542**	**0.5855**	**0.4235**	**9.0000e-004**	**0.2635**	**0.0247**	**0.2882**	**0.0500**	**0.0227**	**0.0727**	**0.0000**	**79.3891**	**79.3891**	**0.0257**	**0.0000**	**80.0310**

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.8000e-004	5.8200e-003	2.1400e-003	3.0000e-005	9.9000e-004	8.0000e-005	1.0700e-003	2.8000e-004	8.0000e-005	3.6000e-004	0.0000	2.6556	2.6556	1.0000e-005	3.7000e-004	2.7660
Worker	1.5000e-003	9.2000e-004	0.0106	2.0000e-005	2.6300e-003	1.0000e-005	2.6500e-003	7.0000e-004	1.0000e-005	7.1000e-004	0.0000	2.1292	2.1292	8.0000e-005	7.0000e-005	2.1530
Total	**1.7800e-003**	**6.7400e-003**	**0.0127**	**5.0000e-005**	**3.6200e-003**	**9.0000e-005**	**3.7200e-003**	**9.8000e-004**	**9.0000e-005**	**1.0700e-003**	**0.0000**	**4.7848**	**4.7848**	**9.0000e-005**	**4.4000e-004**	**4.9190**

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.5732	0.0000	1.5732	0.6540	0.0000	0.6540	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4963	5.1977	4.1424	9.1400e-003		0.2139	0.2139		0.1968	0.1968	0.0000	802.7164	802.7164	0.2596	0.0000	809.2067
Total	**0.4963**	**5.1977**	**4.1424**	**9.1400e-003**	**1.5732**	**0.2139**	**1.7871**	**0.6540**	**0.1968**	**0.8508**	**0.0000**	**802.7164**	**802.7164**	**0.2596**	**0.0000**	**809.2067**

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.1900e-003	0.0455	0.0193	2.7000e-004	9.9900e-003	4.5000e-004	0.0104	2.8800e-003	4.3000e-004	3.3100e-003	0.0000	25.9428	25.9428	1.0000e-004	3.5800e-003	27.0113
Worker	0.0140	8.2100e-003	0.0969	2.3000e-004	0.0266	1.3000e-004	0.0268	7.0700e-003	1.2000e-004	7.1900e-003	0.0000	20.8328	20.8328	7.0000e-004	6.8000e-004	21.0528
Total	**0.0162**	**0.0537**	**0.1163**	**5.0000e-004**	**0.0366**	**5.8000e-004**	**0.0372**	**9.9500e-003**	**5.5000e-004**	**0.0105**	**0.0000**	**46.7756**	**46.7756**	**8.0000e-004**	**4.2600e-003**	**48.0641**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.7080	0.0000	0.7080	0.2943	0.0000	0.2943	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4963	5.1977	4.1424	9.1400e-003		0.2139	0.2139		0.1968	0.1968	0.0000	802.7154	802.7154	0.2596	0.0000	809.2058
Total	**0.4963**	**5.1977**	**4.1424**	**9.1400e-003**	**0.7080**	**0.2139**	**0.9218**	**0.2943**	**0.1968**	**0.4911**	**0.0000**	**802.7154**	**802.7154**	**0.2596**	**0.0000**	**809.2058**

EEC ORIGINAL PKG

Northstar #3 - Imperial County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.1900e-003	0.0455	0.0193	2.7000e-004	9.9900e-003	4.5000e-004	0.0104	2.8800e-003	4.3000e-004	3.3100e-003	0.0000	25.9428	25.9428	1.0000e-004	3.5800e-003	27.0113
Worker	0.0140	8.2100e-003	0.0969	2.3000e-004	0.0266	1.3000e-004	0.0268	7.0700e-003	1.2000e-004	7.1900e-003	0.0000	20.8328	20.8328	7.0000e-004	6.8000e-004	21.0528
Total	**0.0162**	**0.0537**	**0.1163**	**5.0000e-004**	**0.0366**	**5.8000e-004**	**0.0372**	**9.9500e-003**	**5.5000e-004**	**0.0105**	**0.0000**	**46.7756**	**46.7756**	**8.0000e-004**	**4.2600e-003**	**48.0641**

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.1700e-003	5.3600e-003	0.0371	9.0000e-005	9.5000e-003	6.0000e-005	9.5700e-003	2.5300e-003	6.0000e-005	2.5900e-003	0.0000	8.1872	8.1872	3.3000e-004	3.7000e-004	8.3044
Unmitigated	3.1700e-003	5.3600e-003	0.0371	9.0000e-005	9.5000e-003	6.0000e-005	9.5700e-003	2.5300e-003	6.0000e-005	2.5900e-003	0.0000	8.1872	8.1872	3.3000e-004	3.7000e-004	8.3044

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	5.85	0.00	0.00	24,944	24,944
Total	5.85	0.00	0.00	24,944	24,944

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	16.40	9.50	11.90	100.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.526464	0.059349	0.179786	0.147621	0.026929	0.006851	0.008316	0.016412	0.000925	0.000120	0.022958	0.000766	0.003504

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.1792	5.0000e-005	5.3700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0105	0.0105	3.0000e-005	0.0000	0.0111
Unmitigated	2.1792	5.0000e-005	5.3700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0105	0.0105	3.0000e-005	0.0000	0.0111

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.5315					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.6472					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-004	5.0000e-005	5.3700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0105	0.0105	3.0000e-005	0.0000	0.0111
Total	**2.1792**	**5.0000e-005**	**5.3700e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0105**	**0.0105**	**3.0000e-005**	**0.0000**	**0.0111**

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.5315					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.6472					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-004	5.0000e-005	5.3700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0105	0.0105	3.0000e-005	0.0000	0.0111
Total	**2.1792**	**5.0000e-005**	**5.3700e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0105**	**0.0105**	**3.0000e-005**	**0.0000**	**0.0111**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EEC ORIGINAL PKG

Northstar #3 - Imperial County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Northstar #3

Imperial County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	585.00	Acre	585.00	25,482,600.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	3.4	**Precipitation Freq (Days)**	12
Climate Zone	15			**Operational Year**	2024
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MWhr)	189.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Total days spent per phase based on similar solar facility projects in Imperial County

Off-road Equipment - Unit amount based on similar solar facility projects in Imperial County

Off-road Equipment - Unit amount based on similar solar facility projects in Imperial County

Off-road Equipment - Unit amount based on similar solar facility projects in Imperial County

Grading -

Trips and VMT - Imported values based on similar solar facility projects in Imperial County

On-road Fugitive Dust - Project Site will be accessed via Highway 86

Vehicle Trips - Weekday trip rate of 0.1 per acre assumed.

Road Dust - Project Site will be accessed directly via Highway 86.

Construction Off-road Equipment Mitigation -

EEC ORIGINAL PKG

Northstar #3 - Imperial County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Area Mitigation -

Energy Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	9,300.00	104.00
tblConstructionPhase	NumDays	930.00	200.00
tblConstructionPhase	NumDays	360.00	67.00
tblConstructionPhase	PhaseEndDate	6/3/2065	2/5/2024
tblConstructionPhase	PhaseEndDate	10/10/2029	9/12/2023
tblConstructionPhase	PhaseEndDate	3/18/2026	12/6/2022
tblConstructionPhase	PhaseStartDate	10/11/2029	9/13/2023
tblConstructionPhase	PhaseStartDate	3/19/2026	12/7/2022
tblConstructionPhase	PhaseStartDate	10/31/2024	9/5/2022
tblOffRoadEquipment	HorsePower	130.00	97.00
tblOffRoadEquipment	HorsePower	132.00	46.00
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.50	0.50
tblOffRoadEquipment	LoadFactor	0.42	0.37
tblOffRoadEquipment	LoadFactor	0.36	0.45
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Trenchers
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentType	Tractors/Loaders/Backhoes	Pavers
tblOffRoadEquipment	OffRoadEquipmentType	Welders	Paving Equipment
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblRoadDust	RoadPercentPave	50	100
tblTripsAndVMT	VendorTripNumber	0.00	10.00
tblTripsAndVMT	VendorTripNumber	0.00	10.00
tblTripsAndVMT	VendorTripNumber	4,177.00	10.00
tblTripsAndVMT	WorkerTripNumber	10,703.00	300.00
tblVehicleTrips	CW_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	WD_TR	0.00	0.01

2.0 Emissions Summary

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	6.2644	65.7538	48.7545	0.1063	17.2217	2.7494	19.9710	7.2457	2.5298	9.7755	0.0000	10,334.8471	10,334.8471	3.1562	0.0540	10,429.8434
2023	5.6688	57.6675	47.0598	0.1062	17.2217	2.3565	19.5782	7.2457	2.1682	9.4139	0.0000	10,314.4467	10,314.4467	3.1548	0.1075	10,408.6202
2024	4.1279	25.0917	35.8017	0.0628	2.4381	1.2828	3.7209	0.6492	1.1869	1.8361	0.0000	6,107.2253	6,107.2253	1.1805	0.1019	6,167.0993
Maximum	**6.2644**	**65.7538**	**48.7545**	**0.1063**	**17.2217**	**2.7494**	**19.9710**	**7.2457**	**2.5298**	**9.7755**	**0.0000**	**10,334.8471**	**10,334.8471**	**3.1562**	**0.1075**	**10,429.8434**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	6.2644	65.7538	48.7545	0.1063	7.9726	2.7494	10.7220	3.3211	2.5298	5.8508	0.0000	10,334.8471	10,334.8471	3.1562	0.0540	10,429.8434
2023	5.6688	57.6675	47.0598	0.1062	7.9726	2.3565	10.3292	3.3211	2.1682	5.4893	0.0000	10,314.4467	10,314.4467	3.1548	0.1075	10,408.6202
2024	4.1279	25.0917	35.8017	0.0628	2.4381	1.2828	3.7209	0.6492	1.1869	1.8361	0.0000	6,107.2253	6,107.2253	1.1805	0.1019	6,167.0993
Maximum	**6.2644**	**65.7538**	**48.7545**	**0.1063**	**7.9726**	**2.7494**	**10.7220**	**3.3211**	**2.5298**	**5.8508**	**0.0000**	**10,334.8471**	**10,334.8471**	**3.1562**	**0.1075**	**10,429.8434**

EEC ORIGINAL PKG

Northstar #3 - Imperial County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	50.16	0.00	42.75	51.84	0.00	37.33	0.00	0.00	0.00	0.00	0.00	0.00

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	11.9438	5.4000e-004	0.0596	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1280	0.1280	3.3000e-004		0.1364
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0300	0.0381	0.3430	7.4000e-004	0.0736	4.9000e-004	0.0741	0.0196	4.6000e-004	0.0201		74.8163	74.8163	2.8800e-003	3.0300e-003	75.7925
Total	**11.9738**	**0.0386**	**0.4026**	**7.4000e-004**	**0.0736**	**7.0000e-004**	**0.0743**	**0.0196**	**6.7000e-004**	**0.0203**		**74.9444**	**74.9444**	**3.2100e-003**	**3.0300e-003**	**75.9289**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	11.9438	5.4000e-004	0.0596	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1280	0.1280	3.3000e-004		0.1364
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0300	0.0381	0.3430	7.4000e-004	0.0736	4.9000e-004	0.0741	0.0196	4.6000e-004	0.0201		74.8163	74.8163	2.8800e-003	3.0300e-003	75.7925
Total	**11.9738**	**0.0386**	**0.4026**	**7.4000e-004**	**0.0736**	**7.0000e-004**	**0.0743**	**0.0196**	**6.7000e-004**	**0.0203**		**74.9444**	**74.9444**	**3.2100e-003**	**3.0300e-003**	**75.9289**

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	9/5/2022	12/6/2022	5	67	
2	Building Construction	Building Construction	9/13/2023	2/5/2024	5	104	
3	Grading	Grading	12/7/2022	9/12/2023	5	200	

Acres of Grading (Site Preparation Phase): 67

Acres of Grading (Grading Phase): 900

Acres of Paving: 585

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Plate Compactors	4	7.00	8	0.43
Building Construction	Tractors/Loaders/Backhoes	4	7.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Trenchers	2	7.00	78	0.50
Grading	Excavators	4	8.00	158	0.38
Building Construction	Forklifts	4	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Grading	Graders	3	8.00	187	0.41

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Building Construction	Welders	1	8.00	46	0.45
Grading	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Pavers	1	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Paving Equipment	2	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	4	10.00	10.00	0.00	10.20	11.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	15	38.00	10.00	0.00	10.20	11.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	19	300.00	10.00	0.00	10.20	11.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					13.1047	0.0000	13.1047	6.7350	0.0000	6.7350			0.0000			0.0000
Off-Road	2.0036	20.9386	11.6399	0.0233		1.0150	1.0150		0.9338	0.9338		2,256.5486	2,256.5486	0.7298		2,274.7939
Total	**2.0036**	**20.9386**	**11.6399**	**0.0233**	**13.1047**	**1.0150**	**14.1196**	**6.7350**	**0.9338**	**7.6687**		**2,256.5486**	**2,256.5486**	**0.7298**		**2,274.7939**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0322	0.5964	0.2355	3.0900e-003	0.1104	9.0600e-003	0.1195	0.0318	8.6700e-003	0.0404		325.1324	325.1324	1.5800e-003	0.0451	338.6198
Worker	0.0542	0.0263	0.3858	7.5000e-004	0.0776	4.1000e-004	0.0780	0.0206	3.8000e-004	0.0210		75.3164	75.3164	2.5800e-003	2.3300e-003	76.0768
Total	**0.0864**	**0.6227**	**0.6212**	**3.8400e-003**	**0.1880**	**9.4700e-003**	**0.1975**	**0.0524**	**9.0500e-003**	**0.0614**		**400.4488**	**400.4488**	**4.1600e-003**	**0.0475**	**414.6966**

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.8971	0.0000	5.8971	3.0307	0.0000	3.0307			0.0000			0.0000
Off-Road	2.0036	20.9386	11.6399	0.0233		1.0150	1.0150		0.9338	0.9338	0.0000	2,256.5486	2,256.5486	0.7298		2,274.7939
Total	**2.0036**	**20.9386**	**11.6399**	**0.0233**	**5.8971**	**1.0150**	**6.9121**	**3.0307**	**0.9338**	**3.9645**	**0.0000**	**2,256.5486**	**2,256.5486**	**0.7298**		**2,274.7939**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0322	0.5964	0.2355	3.0900e-003	0.1104	9.0600e-003	0.1195	0.0318	8.6700e-003	0.0404		325.1324	325.1324	1.5800e-003	0.0451	338.6198
Worker	0.0542	0.0263	0.3858	7.5000e-004	0.0776	4.1000e-004	0.0780	0.0206	3.8000e-004	0.0210		75.3164	75.3164	2.5800e-003	2.3300e-003	76.0768
Total	**0.0864**	**0.6227**	**0.6212**	**3.8400e-003**	**0.1880**	**9.4700e-003**	**0.1975**	**0.0524**	**9.0500e-003**	**0.0614**		**400.4488**	**400.4488**	**4.1600e-003**	**0.0475**	**414.6966**

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8384	25.1707	25.9749	0.0388		1.3763	1.3763		1.2734	1.2734		3,676.8134	3,676.8134	1.1182		3,704.7681
Total	**2.8384**	**25.1707**	**25.9749**	**0.0388**		**1.3763**	**1.3763**		**1.2734**	**1.2734**		**3,676.8134**	**3,676.8134**	**1.1182**		**3,704.7681**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0252	0.4620	0.2101	2.9900e-003	0.1104	4.9100e-003	0.1153	0.0318	4.7000e-003	0.0365		314.0247	314.0247	1.2500e-003	0.0432	326.9309
Worker	1.5022	0.6952	10.4905	0.0216	2.3277	0.0115	2.3392	0.6174	0.0106	0.6281		2,185.8079	2,185.8079	0.0692	0.0643	2,206.7085
Total	**1.5274**	**1.1572**	**10.7005**	**0.0246**	**2.4381**	**0.0165**	**2.4545**	**0.6492**	**0.0153**	**0.6645**		**2,499.8326**	**2,499.8326**	**0.0704**	**0.1075**	**2,533.6394**

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8384	25.1707	25.9749	0.0388		1.3763	1.3763		1.2734	1.2734	0.0000	3,676.8134	3,676.8134	1.1182		3,704.7681
Total	**2.8384**	**25.1707**	**25.9749**	**0.0388**		**1.3763**	**1.3763**		**1.2734**	**1.2734**	**0.0000**	**3,676.8134**	**3,676.8134**	**1.1182**		**3,704.7681**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0252	0.4620	0.2101	2.9900e-003	0.1104	4.9100e-003	0.1153	0.0318	4.7000e-003	0.0365		314.0247	314.0247	1.2500e-003	0.0432	326.9309
Worker	1.5022	0.6952	10.4905	0.0216	2.3277	0.0115	2.3392	0.6174	0.0106	0.6281		2,185.8079	2,185.8079	0.0692	0.0643	2,206.7085
Total	**1.5274**	**1.1572**	**10.7005**	**0.0246**	**2.4381**	**0.0165**	**2.4545**	**0.6492**	**0.0153**	**0.6645**		**2,499.8326**	**2,499.8326**	**0.0704**	**0.1075**	**2,533.6394**

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.7116	24.0139	25.9264	0.0388		1.2670	1.2670		1.1722	1.1722		3,677.4339	3,677.4339	1.1169		3,705.3571
Total	**2.7116**	**24.0139**	**25.9264**	**0.0388**		**1.2670**	**1.2670**		**1.1722**	**1.1722**		**3,677.4339**	**3,677.4339**	**1.1169**		**3,705.3571**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0242	0.4605	0.2014	2.9500e-003	0.1104	4.9000e-003	0.1153	0.0318	4.6900e-003	0.0365		309.7971	309.7971	1.2100e-003	0.0424	322.4633
Worker	1.3922	0.6174	9.6739	0.0210	2.3277	0.0109	2.3386	0.6174	0.0101	0.6275		2,119.9943	2,119.9943	0.0624	0.0595	2,139.2789
Total	**1.4163**	**1.0779**	**9.8753**	**0.0239**	**2.4381**	**0.0158**	**2.4539**	**0.6492**	**0.0148**	**0.6640**		**2,429.7915**	**2,429.7915**	**0.0636**	**0.1019**	**2,461.7422**

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.7116	24.0139	25.9264	0.0388		1.2670	1.2670		1.1722	1.1722	0.0000	3,677.4339	3,677.4339	1.1169		3,705.3571
Total	**2.7116**	**24.0139**	**25.9264**	**0.0388**		**1.2670**	**1.2670**		**1.1722**	**1.1722**	**0.0000**	**3,677.4339**	**3,677.4339**	**1.1169**		**3,705.3571**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0242	0.4605	0.2014	2.9500e-003	0.1104	4.9000e-003	0.1153	0.0318	4.6900e-003	0.0365		309.7971	309.7971	1.2100e-003	0.0424	322.4633
Worker	1.3922	0.6174	9.6739	0.0210	2.3277	0.0109	2.3386	0.6174	0.0101	0.6275		2,119.9943	2,119.9943	0.0624	0.0595	2,139.2789
Total	**1.4163**	**1.0779**	**9.8753**	**0.0239**	**2.4381**	**0.0158**	**2.4539**	**0.6492**	**0.0148**	**0.6640**		**2,429.7915**	**2,429.7915**	**0.0636**	**0.1019**	**2,461.7422**

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					16.8164	0.0000	16.8164	7.1358	0.0000	7.1358			0.0000			0.0000
Off-Road	6.0262	65.0575	47.0532	0.1004		2.7387	2.7387		2.5196	2.5196		9,723.5122	9,723.5122	3.1448		9,802.1317
Total	**6.0262**	**65.0575**	**47.0532**	**0.1004**	**16.8164**	**2.7387**	**19.5552**	**7.1358**	**2.5196**	**9.6554**		**9,723.5122**	**9,723.5122**	**3.1448**		**9,802.1317**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0322	0.5964	0.2355	3.0900e-003	0.1104	9.0600e-003	0.1195	0.0318	8.6700e-003	0.0404		325.1324	325.1324	1.5800e-003	0.0451	338.6198
Worker	0.2061	0.0999	1.4659	2.8300e-003	0.2948	1.5700e-003	0.2964	0.0782	1.4500e-003	0.0797		286.2025	286.2025	9.8100e-003	8.8700e-003	289.0918
Total	**0.2382**	**0.6963**	**1.7013**	**5.9200e-003**	**0.4052**	**0.0106**	**0.4159**	**0.1100**	**0.0101**	**0.1201**		**611.3349**	**611.3349**	**0.0114**	**0.0540**	**627.7117**

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.5674	0.0000	7.5674	3.2111	0.0000	3.2111			0.0000			0.0000
Off-Road	6.0262	65.0575	47.0532	0.1004		2.7387	2.7387		2.5196	2.5196	0.0000	9,723.5122	9,723.5122	3.1448		9,802.1317
Total	**6.0262**	**65.0575**	**47.0532**	**0.1004**	**7.5674**	**2.7387**	**10.3061**	**3.2111**	**2.5196**	**5.7307**	**0.0000**	**9,723.5122**	**9,723.5122**	**3.1448**		**9,802.1317**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0322	0.5964	0.2355	3.0900e-003	0.1104	9.0600e-003	0.1195	0.0318	8.6700e-003	0.0404		325.1324	325.1324	1.5800e-003	0.0451	338.6198
Worker	0.2061	0.0999	1.4659	2.8300e-003	0.2948	1.5700e-003	0.2964	0.0782	1.4500e-003	0.0797		286.2025	286.2025	9.8100e-003	8.8700e-003	289.0918
Total	**0.2382**	**0.6963**	**1.7013**	**5.9200e-003**	**0.4052**	**0.0106**	**0.4159**	**0.1100**	**0.0101**	**0.1201**		**611.3349**	**611.3349**	**0.0114**	**0.0540**	**627.7117**

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					16.8164	0.0000	16.8164	7.1358	0.0000	7.1358			0.0000			0.0000
Off-Road	5.4534	57.1174	45.5209	0.1004		2.3502	2.3502		2.1621	2.1621		9,723.5530	9,723.5530	3.1448		9,802.1729
Total	**5.4534**	**57.1174**	**45.5209**	**0.1004**	**16.8164**	**2.3502**	**19.1666**	**7.1358**	**2.1621**	**9.2979**		**9,723.5530**	**9,723.5530**	**3.1448**		**9,802.1729**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0252	0.4620	0.2101	2.9900e-003	0.1104	4.9100e-003	0.1153	0.0318	4.7000e-003	0.0365		314.0247	314.0247	1.2500e-003	0.0432	326.9309
Worker	0.1903	0.0881	1.3288	2.7400e-003	0.2948	1.4600e-003	0.2963	0.0782	1.3500e-003	0.0796		276.8690	276.8690	8.7600e-003	8.1500e-003	279.5164
Total	**0.2155**	**0.5500**	**1.5388**	**5.7300e-003**	**0.4052**	**6.3700e-003**	**0.4116**	**0.1100**	**6.0500e-003**	**0.1160**		**590.8937**	**590.8937**	**0.0100**	**0.0514**	**606.4473**

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.5674	0.0000	7.5674	3.2111	0.0000	3.2111			0.0000			0.0000
Off-Road	5.4534	57.1174	45.5209	0.1004		2.3502	2.3502		2.1621	2.1621	0.0000	9,723.5530	9,723.5530	3.1448		9,802.1729
Total	**5.4534**	**57.1174**	**45.5209**	**0.1004**	**7.5674**	**2.3502**	**9.9176**	**3.2111**	**2.1621**	**5.3732**	**0.0000**	**9,723.5530**	**9,723.5530**	**3.1448**		**9,802.1729**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0252	0.4620	0.2101	2.9900e-003	0.1104	4.9100e-003	0.1153	0.0318	4.7000e-003	0.0365		314.0247	314.0247	1.2500e-003	0.0432	326.9309
Worker	0.1903	0.0881	1.3288	2.7400e-003	0.2948	1.4600e-003	0.2963	0.0782	1.3500e-003	0.0796		276.8690	276.8690	8.7600e-003	8.1500e-003	279.5164
Total	**0.2155**	**0.5500**	**1.5388**	**5.7300e-003**	**0.4052**	**6.3700e-003**	**0.4116**	**0.1100**	**6.0500e-003**	**0.1160**		**590.8937**	**590.8937**	**0.0100**	**0.0514**	**606.4473**

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0300	0.0381	0.3430	7.4000e-004	0.0736	4.9000e-004	0.0741	0.0196	4.6000e-004	0.0201		74.8163	74.8163	2.8800e-003	3.0300e-003	75.7925
Unmitigated	0.0300	0.0381	0.3430	7.4000e-004	0.0736	4.9000e-004	0.0741	0.0196	4.6000e-004	0.0201		74.8163	74.8163	2.8800e-003	3.0300e-003	75.7925

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	5.85	0.00	0.00	24,944	24,944
Total	5.85	0.00	0.00	24,944	24,944

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	16.40	9.50	11.90	100.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.526464	0.059349	0.179786	0.147621	0.026929	0.006851	0.008316	0.016412	0.000925	0.000120	0.022958	0.000766	0.003504

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	11.9438	5.4000e-004	0.0596	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1280	0.1280	3.3000e-004		0.1364
Unmitigated	11.9438	5.4000e-004	0.0596	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1280	0.1280	3.3000e-004		0.1364

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.9124					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.0259					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.5100e-003	5.4000e-004	0.0596	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1280	0.1280	3.3000e-004		0.1364
Total	**11.9438**	**5.4000e-004**	**0.0596**	**0.0000**		**2.1000e-004**	**2.1000e-004**		**2.1000e-004**	**2.1000e-004**		**0.1280**	**0.1280**	**3.3000e-004**		**0.1364**

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.9124					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.0259					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.5100e-003	5.4000e-004	0.0596	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1280	0.1280	3.3000e-004		0.1364
Total	**11.9438**	**5.4000e-004**	**0.0596**	**0.0000**		**2.1000e-004**	**2.1000e-004**		**2.1000e-004**	**2.1000e-004**		**0.1280**	**0.1280**	**3.3000e-004**		**0.1364**

7.0 Water Detail

7.1 Mitigation Measures Water

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Northstar #3

Imperial County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	585.00	Acre	585.00	25,482,600.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	3.4	**Precipitation Freq (Days)**	12
Climate Zone	15			**Operational Year**	2024
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MWhr)	189.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Total days spent per phase based on similar solar facility projects in Imperial County

Off-road Equipment - Unit amount based on similar solar facility projects in Imperial County

Off-road Equipment - Unit amount based on similar solar facility projects in Imperial County

Off-road Equipment - Unit amount based on similar solar facility projects in Imperial County

Grading -

Trips and VMT - Imported values based on similar solar facility projects in Imperial County

On-road Fugitive Dust - Project Site will be accessed via Highway 86

Vehicle Trips - Weekday trip rate of 0.1 per acre assumed.

Road Dust - Project Site will be accessed directly via Highway 86.

Construction Off-road Equipment Mitigation -

EEC ORIGINAL PKG

Northstar #3 - Imperial County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Area Mitigation -

Energy Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	9,300.00	104.00
tblConstructionPhase	NumDays	930.00	200.00
tblConstructionPhase	NumDays	360.00	67.00
tblConstructionPhase	PhaseEndDate	6/3/2065	2/5/2024
tblConstructionPhase	PhaseEndDate	10/10/2029	9/12/2023
tblConstructionPhase	PhaseEndDate	3/18/2026	12/6/2022
tblConstructionPhase	PhaseStartDate	10/11/2029	9/13/2023
tblConstructionPhase	PhaseStartDate	3/19/2026	12/7/2022
tblConstructionPhase	PhaseStartDate	10/31/2024	9/5/2022
tblOffRoadEquipment	HorsePower	130.00	97.00
tblOffRoadEquipment	HorsePower	132.00	46.00
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.50	0.50
tblOffRoadEquipment	LoadFactor	0.42	0.37
tblOffRoadEquipment	LoadFactor	0.36	0.45
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Trenchers
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentType	Tractors/Loaders/Backhoes	Pavers
tblOffRoadEquipment	OffRoadEquipmentType	Welders	Paving Equipment
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblRoadDust	RoadPercentPave	50	100
tblTripsAndVMT	VendorTripNumber	0.00	10.00
tblTripsAndVMT	VendorTripNumber	0.00	10.00
tblTripsAndVMT	VendorTripNumber	4,177.00	10.00
tblTripsAndVMT	WorkerTripNumber	10,703.00	300.00
tblVehicleTrips	CW_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	WD_TR	0.00	0.01

2.0 Emissions Summary

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	6.2112	65.8198	48.3396	0.1059	17.2217	2.7494	19.9710	7.2457	2.5298	9.7755	0.0000	10,292.0768	10,292.0768	3.1561	0.0544	10,387.1908
2023	5.6202	57.7198	46.6873	0.1057	17.2217	2.3566	19.5782	7.2457	2.1682	9.4139	0.0000	10,273.4602	10,273.4602	3.1548	0.1093	10,367.7526
2024	3.7854	25.1667	33.0664	0.0596	2.4381	1.2828	3.7209	0.6492	1.1869	1.8361	0.0000	5,790.4805	5,790.4805	1.1813	0.1034	5,850.8250
Maximum	**6.2112**	**65.8198**	**48.3396**	**0.1059**	**17.2217**	**2.7494**	**19.9710**	**7.2457**	**2.5298**	**9.7755**	**0.0000**	**10,292.0768**	**10,292.0768**	**3.1561**	**0.1093**	**10,387.1908**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	6.2112	65.8198	48.3396	0.1059	7.9726	2.7494	10.7220	3.3211	2.5298	5.8508	0.0000	10,292.0768	10,292.0768	3.1561	0.0544	10,387.1908
2023	5.6202	57.7198	46.6873	0.1057	7.9726	2.3566	10.3292	3.3211	2.1682	5.4893	0.0000	10,273.4602	10,273.4602	3.1548	0.1093	10,367.7526
2024	3.7854	25.1667	33.0664	0.0596	2.4381	1.2828	3.7209	0.6492	1.1869	1.8361	0.0000	5,790.4805	5,790.4805	1.1813	0.1034	5,850.8250
Maximum	**6.2112**	**65.8198**	**48.3396**	**0.1059**	**7.9726**	**2.7494**	**10.7220**	**3.3211**	**2.5298**	**5.8508**	**0.0000**	**10,292.0768**	**10,292.0768**	**3.1561**	**0.1093**	**10,387.1908**

EEC ORIGINAL PKG

Northstar #3 - Imperial County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	50.16	0.00	42.75	51.84	0.00	37.33	0.00	0.00	0.00	0.00	0.00	0.00

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	11.9438	5.4000e-004	0.0596	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1280	0.1280	3.3000e-004		0.1364
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0217	0.0422	0.2639	6.5000e-004	0.0736	4.9000e-004	0.0741	0.0196	4.6000e-004	0.0201		65.8253	65.8253	2.8600e-003	3.1400e-003	66.8316
Total	**11.9655**	**0.0428**	**0.3235**	**6.5000e-004**	**0.0736**	**7.0000e-004**	**0.0743**	**0.0196**	**6.7000e-004**	**0.0203**		**65.9534**	**65.9534**	**3.1900e-003**	**3.1400e-003**	**66.9680**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	11.9438	5.4000e-004	0.0596	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1280	0.1280	3.3000e-004		0.1364
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0217	0.0422	0.2639	6.5000e-004	0.0736	4.9000e-004	0.0741	0.0196	4.6000e-004	0.0201		65.8253	65.8253	2.8600e-003	3.1400e-003	66.8316
Total	**11.9655**	**0.0428**	**0.3235**	**6.5000e-004**	**0.0736**	**7.0000e-004**	**0.0743**	**0.0196**	**6.7000e-004**	**0.0203**		**65.9534**	**65.9534**	**3.1900e-003**	**3.1400e-003**	**66.9680**

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	9/5/2022	12/6/2022	5	67	
2	Building Construction	Building Construction	9/13/2023	2/5/2024	5	104	
3	Grading	Grading	12/7/2022	9/12/2023	5	200	

Acres of Grading (Site Preparation Phase): 67

Acres of Grading (Grading Phase): 900

Acres of Paving: 585

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Plate Compactors	4	7.00	8	0.43
Building Construction	Tractors/Loaders/Backhoes	4	7.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Trenchers	2	7.00	78	0.50
Grading	Excavators	4	8.00	158	0.38
Building Construction	Forklifts	4	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Grading	Graders	3	8.00	187	0.41

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Building Construction	Welders	1	8.00	46	0.45
Grading	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Pavers	1	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Paving Equipment	2	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	4	10.00	10.00	0.00	10.20	11.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	15	38.00	10.00	0.00	10.20	11.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	19	300.00	10.00	0.00	10.20	11.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					13.1047	0.0000	13.1047	6.7350	0.0000	6.7350			0.0000			0.0000
Off-Road	2.0036	20.9386	11.6399	0.0233		1.0150	1.0150		0.9338	0.9338		2,256.5486	2,256.5486	0.7298		2,274.7939
Total	**2.0036**	**20.9386**	**11.6399**	**0.0233**	**13.1047**	**1.0150**	**14.1196**	**6.7350**	**0.9338**	**7.6687**		**2,256.5486**	**2,256.5486**	**0.7298**		**2,274.7939**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0310	0.6576	0.2420	3.0900e-003	0.1104	9.0800e-003	0.1195	0.0318	8.6900e-003	0.0405		325.4173	325.4173	1.5400e-003	0.0453	338.9572
Worker	0.0406	0.0275	0.2748	6.3000e-004	0.0776	4.1000e-004	0.0780	0.0206	3.8000e-004	0.0210		63.9861	63.9861	2.5800e-003	2.3900e-003	64.7637
Total	**0.0715**	**0.6852**	**0.5169**	**3.7200e-003**	**0.1880**	**9.4900e-003**	**0.1975**	**0.0524**	**9.0700e-003**	**0.0614**		**389.4034**	**389.4034**	**4.1200e-003**	**0.0477**	**403.7209**

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.8971	0.0000	5.8971	3.0307	0.0000	3.0307			0.0000			0.0000
Off-Road	2.0036	20.9386	11.6399	0.0233		1.0150	1.0150		0.9338	0.9338	0.0000	2,256.5486	2,256.5486	0.7298		2,274.7939
Total	**2.0036**	**20.9386**	**11.6399**	**0.0233**	**5.8971**	**1.0150**	**6.9121**	**3.0307**	**0.9338**	**3.9645**	**0.0000**	**2,256.5486**	**2,256.5486**	**0.7298**		**2,274.7939**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0310	0.6576	0.2420	3.0900e-003	0.1104	9.0800e-003	0.1195	0.0318	8.6900e-003	0.0405		325.4173	325.4173	1.5400e-003	0.0453	338.9572
Worker	0.0406	0.0275	0.2748	6.3000e-004	0.0776	4.1000e-004	0.0780	0.0206	3.8000e-004	0.0210		63.9861	63.9861	2.5800e-003	2.3900e-003	64.7637
Total	**0.0715**	**0.6852**	**0.5169**	**3.7200e-003**	**0.1880**	**9.4900e-003**	**0.1975**	**0.0524**	**9.0700e-003**	**0.0614**		**389.4034**	**389.4034**	**4.1200e-003**	**0.0477**	**403.7209**

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8384	25.1707	25.9749	0.0388		1.3763	1.3763		1.2734	1.2734		3,676.8134	3,676.8134	1.1182		3,704.7681
Total	**2.8384**	**25.1707**	**25.9749**	**0.0388**		**1.3763**	**1.3763**		**1.2734**	**1.2734**		**3,676.8134**	**3,676.8134**	**1.1182**		**3,704.7681**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0239	0.5103	0.2160	2.9900e-003	0.1104	4.9300e-003	0.1153	0.0318	4.7100e-003	0.0365		314.5687	314.5687	1.2100e-003	0.0434	327.5352
Worker	1.1284	0.7271	7.5031	0.0184	2.3277	0.0115	2.3392	0.6174	0.0106	0.6281		1,857.9353	1,857.9353	0.0698	0.0658	1,879.2989
Total	**1.1523**	**1.2374**	**7.7191**	**0.0214**	**2.4381**	**0.0165**	**2.4545**	**0.6492**	**0.0153**	**0.6646**		**2,172.5040**	**2,172.5040**	**0.0710**	**0.1093**	**2,206.8341**

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8384	25.1707	25.9749	0.0388		1.3763	1.3763		1.2734	1.2734	0.0000	3,676.8134	3,676.8134	1.1182		3,704.7681
Total	**2.8384**	**25.1707**	**25.9749**	**0.0388**		**1.3763**	**1.3763**		**1.2734**	**1.2734**	**0.0000**	**3,676.8134**	**3,676.8134**	**1.1182**		**3,704.7681**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0239	0.5103	0.2160	2.9900e-003	0.1104	4.9300e-003	0.1153	0.0318	4.7100e-003	0.0365		314.5687	314.5687	1.2100e-003	0.0434	327.5352
Worker	1.1284	0.7271	7.5031	0.0184	2.3277	0.0115	2.3392	0.6174	0.0106	0.6281		1,857.9353	1,857.9353	0.0698	0.0658	1,879.2989
Total	**1.1523**	**1.2374**	**7.7191**	**0.0214**	**2.4381**	**0.0165**	**2.4545**	**0.6492**	**0.0153**	**0.6646**		**2,172.5040**	**2,172.5040**	**0.0710**	**0.1093**	**2,206.8341**

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.7116	24.0139	25.9264	0.0388		1.2670	1.2670		1.1722	1.1722		3,677.4339	3,677.4339	1.1169		3,705.3571
Total	**2.7116**	**24.0139**	**25.9264**	**0.0388**		**1.2670**	**1.2670**		**1.1722**	**1.1722**		**3,677.4339**	**3,677.4339**	**1.1169**		**3,705.3571**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0229	0.5085	0.2077	2.9500e-003	0.1104	4.9100e-003	0.1153	0.0318	4.7000e-003	0.0365		310.3414	310.3414	1.1700e-003	0.0426	323.0645
Worker	1.0509	0.6444	6.9323	0.0178	2.3277	0.0109	2.3386	0.6174	0.0101	0.6275		1,802.7052	1,802.7052	0.0632	0.0608	1,822.4034
Total	**1.0739**	**1.1528**	**7.1400**	**0.0208**	**2.4381**	**0.0158**	**2.4539**	**0.6492**	**0.0148**	**0.6640**		**2,113.0467**	**2,113.0467**	**0.0644**	**0.1034**	**2,145.4679**

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.7116	24.0139	25.9264	0.0388		1.2670	1.2670		1.1722	1.1722	0.0000	3,677.4339	3,677.4339	1.1169		3,705.3571
Total	**2.7116**	**24.0139**	**25.9264**	**0.0388**		**1.2670**	**1.2670**		**1.1722**	**1.1722**	**0.0000**	**3,677.4339**	**3,677.4339**	**1.1169**		**3,705.3571**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0229	0.5085	0.2077	2.9500e-003	0.1104	4.9100e-003	0.1153	0.0318	4.7000e-003	0.0365		310.3414	310.3414	1.1700e-003	0.0426	323.0645
Worker	1.0509	0.6444	6.9323	0.0178	2.3277	0.0109	2.3386	0.6174	0.0101	0.6275		1,802.7052	1,802.7052	0.0632	0.0608	1,822.4034
Total	**1.0739**	**1.1528**	**7.1400**	**0.0208**	**2.4381**	**0.0158**	**2.4539**	**0.6492**	**0.0148**	**0.6640**		**2,113.0467**	**2,113.0467**	**0.0644**	**0.1034**	**2,145.4679**

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					16.8164	0.0000	16.8164	7.1358	0.0000	7.1358			0.0000			0.0000
Off-Road	6.0262	65.0575	47.0532	0.1004		2.7387	2.7387		2.5196	2.5196		9,723.5122	9,723.5122	3.1448		9,802.1317
Total	**6.0262**	**65.0575**	**47.0532**	**0.1004**	**16.8164**	**2.7387**	**19.5552**	**7.1358**	**2.5196**	**9.6554**		**9,723.5122**	**9,723.5122**	**3.1448**		**9,802.1317**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0310	0.6576	0.2420	3.0900e-003	0.1104	9.0800e-003	0.1195	0.0318	8.6900e-003	0.0405		325.4173	325.4173	1.5400e-003	0.0453	338.9572
Worker	0.1541	0.1047	1.0444	2.4100e-003	0.2948	1.5700e-003	0.2964	0.0782	1.4500e-003	0.0797		243.1473	243.1473	9.8200e-003	9.0900e-003	246.1019
Total	**0.1851**	**0.7623**	**1.2864**	**5.5000e-003**	**0.4052**	**0.0107**	**0.4159**	**0.1100**	**0.0101**	**0.1201**		**568.5646**	**568.5646**	**0.0114**	**0.0544**	**585.0591**

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.5674	0.0000	7.5674	3.2111	0.0000	3.2111			0.0000			0.0000
Off-Road	6.0262	65.0575	47.0532	0.1004		2.7387	2.7387		2.5196	2.5196	0.0000	9,723.5122	9,723.5122	3.1448		9,802.1317
Total	**6.0262**	**65.0575**	**47.0532**	**0.1004**	**7.5674**	**2.7387**	**10.3061**	**3.2111**	**2.5196**	**5.7307**	**0.0000**	**9,723.5122**	**9,723.5122**	**3.1448**		**9,802.1317**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0310	0.6576	0.2420	3.0900e-003	0.1104	9.0800e-003	0.1195	0.0318	8.6900e-003	0.0405		325.4173	325.4173	1.5400e-003	0.0453	338.9572
Worker	0.1541	0.1047	1.0444	2.4100e-003	0.2948	1.5700e-003	0.2964	0.0782	1.4500e-003	0.0797		243.1473	243.1473	9.8200e-003	9.0900e-003	246.1019
Total	**0.1851**	**0.7623**	**1.2864**	**5.5000e-003**	**0.4052**	**0.0107**	**0.4159**	**0.1100**	**0.0101**	**0.1201**		**568.5646**	**568.5646**	**0.0114**	**0.0544**	**585.0591**

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					16.8164	0.0000	16.8164	7.1358	0.0000	7.1358			0.0000			0.0000
Off-Road	5.4534	57.1174	45.5209	0.1004		2.3502	2.3502		2.1621	2.1621		9,723.5530	9,723.5530	3.1448		9,802.1729
Total	**5.4534**	**57.1174**	**45.5209**	**0.1004**	**16.8164**	**2.3502**	**19.1666**	**7.1358**	**2.1621**	**9.2979**		**9,723.5530**	**9,723.5530**	**3.1448**		**9,802.1729**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0239	0.5103	0.2160	2.9900e-003	0.1104	4.9300e-003	0.1153	0.0318	4.7100e-003	0.0365		314.5687	314.5687	1.2100e-003	0.0434	327.5352
Worker	0.1429	0.0921	0.9504	2.3300e-003	0.2948	1.4600e-003	0.2963	0.0782	1.3500e-003	0.0796		235.3385	235.3385	8.8400e-003	8.3400e-003	238.0445
Total	**0.1669**	**0.6024**	**1.1664**	**5.3200e-003**	**0.4052**	**6.3900e-003**	**0.4116**	**0.1100**	**6.0600e-003**	**0.1160**		**549.9072**	**549.9072**	**0.0101**	**0.0518**	**565.5797**

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.5674	0.0000	7.5674	3.2111	0.0000	3.2111			0.0000			0.0000
Off-Road	5.4534	57.1174	45.5209	0.1004		2.3502	2.3502		2.1621	2.1621	0.0000	9,723.5530	9,723.5530	3.1448		9,802.1729
Total	**5.4534**	**57.1174**	**45.5209**	**0.1004**	**7.5674**	**2.3502**	**9.9176**	**3.2111**	**2.1621**	**5.3732**	**0.0000**	**9,723.5530**	**9,723.5530**	**3.1448**		**9,802.1729**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0239	0.5103	0.2160	2.9900e-003	0.1104	4.9300e-003	0.1153	0.0318	4.7100e-003	0.0365		314.5687	314.5687	1.2100e-003	0.0434	327.5352
Worker	0.1429	0.0921	0.9504	2.3300e-003	0.2948	1.4600e-003	0.2963	0.0782	1.3500e-003	0.0796		235.3385	235.3385	8.8400e-003	8.3400e-003	238.0445
Total	**0.1669**	**0.6024**	**1.1664**	**5.3200e-003**	**0.4052**	**6.3900e-003**	**0.4116**	**0.1100**	**6.0600e-003**	**0.1160**		**549.9072**	**549.9072**	**0.0101**	**0.0518**	**565.5797**

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0217	0.0422	0.2639	6.5000e-004	0.0736	4.9000e-004	0.0741	0.0196	4.6000e-004	0.0201		65.8253	65.8253	2.8600e-003	3.1400e-003	66.8316
Unmitigated	0.0217	0.0422	0.2639	6.5000e-004	0.0736	4.9000e-004	0.0741	0.0196	4.6000e-004	0.0201		65.8253	65.8253	2.8600e-003	3.1400e-003	66.8316

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	5.85	0.00	0.00	24,944	24,944
Total	5.85	0.00	0.00	24,944	24,944

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	16.40	9.50	11.90	100.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.526464	0.059349	0.179786	0.147621	0.026929	0.006851	0.008316	0.016412	0.000925	0.000120	0.022958	0.000766	0.003504

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	11.9438	5.4000e-004	0.0596	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1280	0.1280	3.3000e-004		0.1364
Unmitigated	11.9438	5.4000e-004	0.0596	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1280	0.1280	3.3000e-004		0.1364

EEC ORIGINAL PKG

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.9124					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.0259					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.5100e-003	5.4000e-004	0.0596	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1280	0.1280	3.3000e-004		0.1364
Total	**11.9438**	**5.4000e-004**	**0.0596**	**0.0000**		**2.1000e-004**	**2.1000e-004**		**2.1000e-004**	**2.1000e-004**		**0.1280**	**0.1280**	**3.3000e-004**		**0.1364**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.9124					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.0259					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.5100e-003	5.4000e-004	0.0596	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1280	0.1280	3.3000e-004		0.1364
Total	**11.9438**	**5.4000e-004**	**0.0596**	**0.0000**		**2.1000e-004**	**2.1000e-004**		**2.1000e-004**	**2.1000e-004**		**0.1280**	**0.1280**	**3.3000e-004**		**0.1364**

7.0 Water Detail

7.1 Mitigation Measures Water

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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APPENDIX B

Renewable Energy Emissions Displacement

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CRITERIA AIR POLLUTANT DISPLACEMENT

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Table A-1. Renewable Energy Generator Specifications

Megawatt Project	**100**
Operational Time[1]	**25**
Annual Hours of Generation[1]	**2,190**
Annual Kilowatt Hours	**219,000,000**
Heat Rate[2]	**9,313**
Btu Displaced[3]	**2,039,547,000,000**

Notes:

[1] The Project is assumed to generate electricity 25 percent of the time available (2,190 hours annually).

[2] Heat Rate indicate the enery generator efficiency of existing fossil-fuel based energy generators. The heat rate of a power plant measures the amount of fuel used to generate one unit of electricity. Power plants with lower heat rates are more efficient than plants with highter heat rates. The CEC's "Updated Thermal Power Plant Efficiency Measures and Operational Characteristics for Production Cost Modeling" (2019) estimates heat rates and operating ranges for thermal power plants supplying energy to California. the average heat rate of power plant types are as follows:

Table A-2. Heat Rates

Steam Boiler Fueled by Coal:	10,800
Steam Boiler Fueled by Natural Gas:	10,200
Gas Turbine:	10,100
Combined Natural Gas Boiler & Turbine:	7,640

Omitting steam boilers fueled by cola since so little of California's energy is derived from coal, the average heat rate = 9313

[3] The annual kilowatt hours multipled by the average heat rate of existing fossil fuel based energy generators equals the amount of Btu displaced from fossil fuel production, as shown in Table A-3.

Table A-3. Btu Displacement

Annual Kilowatt Hours	219,000,000
Average Heat Rate	9,313
Btu Displaced from Fossil Fuel Based Energy Production	2,039,547,000,000

Energy consumption in California is predominately derived from natural gas, followed by renewables, nuclear, unspecified nonrenewable sources, and coal, as shown in Table A-4.

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Table A-4. California Energy Mix (percentages)

Natural Gas	37.06
Coal	2.74
Renewables (not including hydroelctric generators)	33.09
Nuclear	9.33
Unspecified nonrenewable sources	5.36

Source: California Energy Commission. 2021. "2020 Total System Electric Generation." https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2020-total-system-electric-generation

For the purposes of this anlaysis, the percentage of California energy derived from natural gas is added to unspecificed nonrewable sources. Table A-5 identifies the displaced Btu attributable to displaced natural gas and displaced coal.

Table A-5. Btu Displacement by Fossil Fuel Type - Annually

Natural Gas & Unspecified Nonrewable Sources	865,175,837,400
Coal	55,883,587,800

The heat content of coal is assumed at 24 million Btu per ton of coal burned. Table A-6 shows the tons of displaced burned coal based on this heat content.

Table A-6. Tons of Displaced Burned Coal - Annually

Displaced Coal Burn	2,328

Table A-7. Emissions Displacement - Tons per Year[4]

Natural Gas	
Nitrogen Oxide	2.14
Carbon Monoxide	0.65
Coarse Particulate Matter	2.03
Fine Particulate Matter	0.82
Sulfur Dioxide	1.47

Coal	
Nitrogen Oxide	13.97
Carbon Monoxide	0.58
Coarse Particulate Matter	0.10
Fine Particulate Matter	0.07
Sulfur Dioxide	0.66

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Table A-8. Total Combined Emissions Displacement - Tons per Year

Natural Gas & Coal	
Nitrogen Oxide	16.11
Carbon Monoxide	1.23
Coarse Particulate Matter	2.13
Fine Particulate Matter	0.89
Sulfur Dioxide	2.13

Table A-9. Total Combined Emissions Displacement over the Life of the Project (30 years) - Tons per Year

Natural Gas & Coal	
Nitrogen Oxide	**483.37**
Carbon Monoxide	**36.93**
Coarse Particulate Matter	**63.93**
Fine Particulate Matter	**26.75**
Sulfur Dioxide	**64.03**

[4]Source: Displaced emissions calculated by ECORP Consulting using U.S. EPA's AP-42 Fifth Edition Compilation of Air Emissions Factors 1995; 2015.

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GREENHOUSE GAS EMISSIONS DISPLACEMENT

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Table B-1. Renewable Energy Generator Specifications

Megawatt Project	**100**
Operational Time[1]	**25**
Annual Hours of Generation[1]	**2,190**
Annual Kilowatt Hours	**219,000,000**
Heat Rate[2]	**9,313**
Btu Displaced[3]	**2,039,547,000,000**

Notes:

[1] The Project is assumed to generate electricity 25 percent of the time available (2,190 hours annually).

[2] Heat Rate indicate the enery generator efficiency of existing fossil-fuel based energy generators. The heat rate of a power plant measures the amount of fuel used to generate one unit of electricity. Power plants with lower heat rates are more efficient than plants with highter heat rates. The CEC's "Updated Thermal Power Plant Efficiency Measures and Operational Characteristics for Production Cost Modeling" (2019) estimates heat rates and operating ranges for thermal power plants supplying energy to California. the average heat rate of power plant types are as follows:

Table B-2. Heat Rates

Steam Boiler Fueled by Coal:	10,800
Steam Boiler Fueled by Natural Gas:	10,200
Gas Turbine:	10,100
Combined Natural Gas Boiler & Turbine:	7,640

Omitting steam boilers fueled by cola since so little of California's energy is derived from coal, the average heat rate = 9313

[3] The annual kilowatt hours multipled by the average heat rate of existing fossil fuel based energy generators equals the amount of Btu displaced from fossil fuel production, as shown in Table A-3.

Table B-3. Btu Displacement

Annual Kilowatt Hours	219,000,000
Average Heat Rate	9,313
Btu Displaced from Fossil Fuel Based Energy Production	2,039,547,000,000

Energy consumption in California is predominately derived from natural gas, followed by renewables, nuclear, unspecified nonrenewable sources, and coal, as shown in Table A-4.

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Table B-4. California Energy Mix (percentages)

Natural Gas	37.06
Coal	2.74
Renewables (not including hydroelctric generators)	33.09
Nuclear	9.33
Unspecified nonrenewable sources	5.36

Source: California Energy Commission. 2021. "2020 Total System Electric Generation." https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2020-total-system-electric-generation

For the purposes of this anlaysis, the percentage of California energy derived from natural gas is added to unspecificed nonrewable sources. Table A-5 identifies the displaced Btu attributable to displaced natural gas and displaced coal.

Table B-5. Btu Displacement by Fossil Fuel Type - Annually

Natural Gas & Unspecified Nonrewable Sources	865,175,837,400
Coal	55,883,587,800

The heat content of coal is assumed at 24 million Btu per ton of coal burned. Table A-6 shows the tons of displaced burned coal based on this heat content.

Table B-6. Tons of Displaced Burned Coal - Annually

Displaced Coal Burn	2,328

Table B-7. Emissions Displacement - Metric Tons per Year[4]

Natural Gas	
Carbon Dioxide	47,585
Methane	0.000
Nitrous Oxide	0.000
Carbon Dioxide Equivalents	47,585

Coal	
Carbon Dioxide	5626
Methane	0.037
Nitrous Oxide	0.028
Carbon Dioxide Equivalents	5635

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Table B-8. Total Combined Emissions Displacement - Metric Tons per Year

Natural Gas & Coal	
Carbon Dioxide	53,210
Methane	0.037
Nitrous Oxide	0.028
Carbon Dioxide Equivalents	53,220

Table B-9. Total Combined Emissions Displacement over the Life of the Project (30 years) - Metric Tons per Year

Natural Gas & Coal	
Carbon Dioxide	1,596,309
Methane	1.118
Nitrous Oxide	0.838
Carbon Dioxide Equivalents	**1,596,596**

[4]Source: Displaced emissions calculated by ECORP Consulting using U.S. EPA's AP-42 Fifth Edition Compilation of Air Emissions Factors 1995; 2015.

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Energy Consumption Assessment
for the
North Star 3 Project

County of Imperial, California

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July 2022

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APPENDICES

Appendix A - Energy Consumption Modeling Output

LIST OF ACRONYMS AND ABBREVIATIONS

Term	Definition
BESS	Battery Electric Storage System
CalEEMod	California Emissions Estimator Model
CAISO	California Independent System Operator
CARB	California Air Resources Board

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Term	Definition
CEC	California Energy Commission
CPUC	California Public Utilities Commission
EO	Executive Order
EPS	Emissions Performance Standard
HSAT	Horizontal Single-Axis Tracker
IID	Imperial Irrigation District
kWh	Kilowatt-Hours
MW	Megawatt
MWh	Megawatt Hour
PV	Photovoltaic
Project	North Star 3 Project
RPS	Renewable Portfolio Standard
SB	Senate Bill

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1.0 INTRODUCTION

This report documents the results of an Energy Impact Assessment completed for the North Star 3 Power and Battery Electric Storage System Project (Project), which includes the construction of a 100-megawatt (MW) alternating current (AC) solar field on approximately 585 acres of vacant land on three parcels in Imperial County, California (APN 017-350-031, 305 acres; APN 017-350-030, 160 acres; and APN 017-350-027, 120 acres). This report was prepared to analyze the potential direct and indirect environmental impacts associated with Project energy consumption, including the depletion of nonrenewable resources (oil, natural gas, coal, etc.) during the construction and operational phases. The impact analysis focuses on the four sources of energy that are relevant to the Proposed Project: electricity, natural gas, the equipment-fuel necessary for Project construction, and the automotive fuel necessary for Project operations.

1.1 Project Overview

The Project proposes to construct a 100-MW alternating current solar field, consisting of 226,800 tracker modules in 7,560 strings and associated collector and inverter facilities, and a 100 MW Battery Energy Storage System (BESS), on approximately 585 acres of vacant land. The Project would connect to the grid with the onsite 161 kilovolt (kV) L transmission line. The Proposed Project Site is within an Imperial County General Plan designated Agricultural area and is zoned S-2 (Open Space/Preservation), which allows solar generating facilities with a Conditional Use Permit (CUP). Neither parcel is within the County's Renewable Energy and Transmission Element (RE). An amendment to the County's General Plan will be needed to include and classify the Project Site within the RE Overlay Zone, and a CUP to allow construction and operation of the solar energy generation facility with battery storage within the RE Overlay Zone will be required to implement the Project.

1.2 Project Location

The total combined Project Site, consisting of three separate parcels of 305 acres, 160 acres, and 120 acres in size, spans approximately 585 acres on land positioned near the western banks of the Salton Sea in Imperial County, approximately four miles north of the State Route 78 / State Route 86 intersection (see Figure 1). The Project Site is approximately 24 miles northwest of the City of Brawley and eight miles south of Salton City, east of Highway 86 and west and south of the former Salton Sea Test Base. Site access would be available from State Highway 86. The site is currently vacant, undeveloped desert land, and is surrounded by open space on all sides, with active agriculture to the southeast.

2.0 ENERGY CONSUMPTION

2.1 Energy Types and Sources

California relies on a regional power system comprised of a diverse mix of natural gas, renewable, hydroelectric, and nuclear generation resources. Natural gas provides California with a majority of its electricity followed by renewables, large hydroelectric and nuclear (California Energy Commission [CEC] 2021a).

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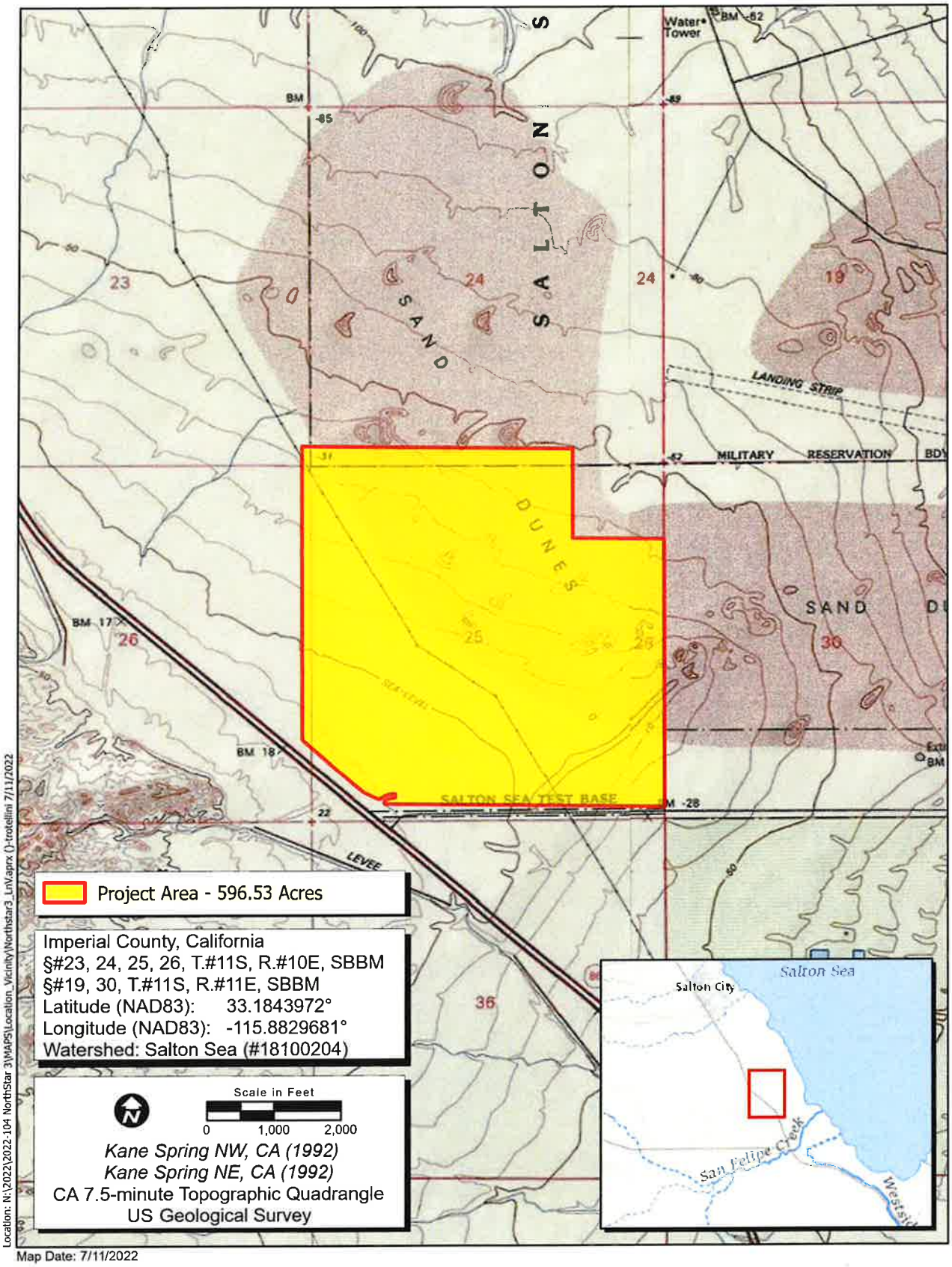

Figure 1 Project Location and Vicinity

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

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Imperial Irrigation District (IID), the sixth largest electrical utility in California serving more than 150,000 customers in the Imperial Valley and parts of Riverside and San Diego counties, provides electrical services to the Project Area. IID controls more than 1,100 megawatts of energy derived from a diverse resource portfolio that includes its own generation, and long- and short-term power purchases. Located in a region with abundant sunshine, enviable geothermal capacity, wind and other renewable potential, IID has met or exceeded all Renewable Portfolio Standard (RPS) requirements to date, procuring renewable energy from diverse sources, including biomass, biowaste, geothermal, hydroelectric, solar and wind.

The Southern California Gas Company provides natural gas services to Imperial County. As the nation's largest natural gas distribution utility, the Southern California Gas Company delivers natural gas energy to 21.6 million consumers through 5.9 million meters in more than 500 communities. The Southern California Gas Company's service territory encompasses approximately 20,000 square miles throughout Central and Southern California, from Visalia to the Mexican border.

Imperial County, which encompasses the Project Site, contains 54 power plants generating electricity, of which 23 are solar-powered, 18 are geothermal, eight are hydro-powered, three are natural gas-fired, one is biomass-fired, and one is wind-powered (CEC 2021b).

2.1.1 Energy Consumption

Electricity use is measured in kilowatt-hours (kWh) and natural gas use is measured in therms. Vehicle fuel use is typically measured in gallons (e.g. of gasoline or diesel fuel), although energy use for electric vehicles is measured in kWh.

The electricity consumption associated with all non-residential uses in Imperial County from 2016 to 2020 is shown in Table 1. As indicated, the demand has decreased since 2016.

Table 1. Non-Residential Electricity Consumption in Imperial County 2016 - 2020

Year	Electricity Consumption (kilowatt hours)
2020	834,483,019
2019	839,095,659
2018	831,318,925
2017	817,450,656
2016	895,952,526

Source: CEC 2021c

The natural gas consumption associated with all non-residential uses in Imperial County from 2016 to 2020 is shown in Table 2. As indicated, the demand has increased since 2016.

Table 2. Non-Residential Natural Gas Consumption in Imperial County 2016-2020

Year	Natural Gas Consumption (therms)
2020	33,813,768
2019	34,736,596

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Table 2. Non-Residential Natural Gas Consumption in Imperial County 2016-2020	
Year	**Natural Gas Consumption (therms)**
2018	31,159,562
2017	33,090,927
2016	28,708,371

Source: CEC 2021c

Automotive fuel consumption in Imperial County from 2016 to 2021 is shown in Table 3. Fuel consumption has remained relatively constant between 2016 and 2021.

Table 3. Automotive Fuel Consumption in Imperial County 2016-2021	
Year	**Total Fuel Consumption**
2021	216,105,185
2020	194,711,440
2019	217,988,585
2018	218,114,145
2017	220,106,315
2016	215,751,500

Source: California Air Resources Board (CARB) 2021

2.2 Regulatory Framework

2.2.1 State

2.2.1.1 Executive Order B-55-18

In September 2018 Governor Jerry Brown Signed Executive Order (EO) B-55-18, which establishing a new statewide goal "to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter." Carbon neutrality refers to achieving a net zero carbon dioxide emissions. This can be achieved by reducing or eliminating carbon emissions, balancing carbon emissions with carbon removal, or a combination of the two. This goal is in addition to existing statewide targets for GHG emission reduction. EO B-55-18 requires the California Air Resource Board (CARB) to "work with relevant state agencies to ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal.

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2.2.1.2 Senate Bill 1368

On September 29, 2006, Governor Arnold Schwarzenegger signed into law Senate Bill (SB) 1368 (Perata, Chapter 598, Statutes of 2006). The law limits long-term investments in baseload generation by the state's utilities to those power plants that meet an emissions performance standard jointly established by the CEC and the California Public Utilities Commission (CPUC).

The CEC has designed regulations that:

- Establish a standard for baseload generation owned by, or under long-term contract to, publicly owned utilities, of 1,100 pounds carbon dioxide per megawatt hour (MWh). This would encourage the development of power plants that meet California's growing energy needs while minimizing their emissions of greenhouse gas.
- Require posting of notices of public deliberations by publicly owned utilities on long-term investments on the CEC website. This would facilitate public awareness of utility efforts to meet customer needs for energy over the long term while meeting the State's standards for environmental impact.
- Establish a public process for determining the compliance of proposed investments with the emissions performance standard (EPS) (Perata, Chapter 598, Statutes of 2006).

2.2.2 Renewable Energy Sources (Renewable Portfolio Standards)

Established in 2002 under SB 1078 and accelerated by SB 107 (2006) and SB 2 (2011), California's Renewables Portfolio Standard (RPS) obligates investor-owned utilities, energy service providers, and community choice aggregators to procure 33 percent of their electricity from renewable energy sources by 2020. Eligible renewable resources are defined in the 2013 RPS to include biodiesel; biomass; hydroelectric and small hydro (30 megawatts or less); Los Angeles Aqueduct hydro power plants; digester gas; fuel cells; geothermal; landfill gas; municipal solid waste; ocean thermal, ocean wave, and tidal current technologies; renewable derived biogas; multi-fuel facilities using renewable fuels; solar photovoltaic; solar thermal electric; wind; and other renewables that may be defined later. Governor Jerry Brown signed SB 350 on October 7, 2015, which expands the RPS by establishing a goal of 60 percent of the total electricity sold to retail customers in California per year by December 31, 2030. In addition, SB 350 includes the goal to double the energy efficiency savings in electricity and natural gas final end uses (such as heating, cooling, lighting, or class of energy uses upon which an energy efficiency program is focused) of retail customers through energy conservation and efficiency. The bill also requires the CPUC, in consultation with the CEC, establish efficiency targets for electrical and gas corporations consistent with this goal. SB 350 also provides for the transformation of the California Independent System Operator (CAISO) into a regional organization to promote the development of regional electricity transmission markets in the western states and to improve the access of consumers served by the CAISO to those markets, pursuant to a specified process. In 2018, SB 100 was signed by Governor Brown, codifying a goal of 60 percent renewable procurement by 2030 and 100 percent by 2045 Renewables Portfolio Standard.

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2.3 Energy Consumption Impact Assessment

2.3.1 Thresholds of Significance

The impact analysis provided below is based on the following CEQA Guidelines Appendix G thresholds of significance. The Project would result in a significant impact to energy if it would do any of the following:

1) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.

2) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

The impact analysis focuses on the four sources of energy that are relevant to the Proposed Project: electricity, natural gas, the equipment fuel necessary for Project construction, and the automotive fuel necessary for Project operations. Addressing energy impacts requires an agency to make a determination as to what constitutes a significant impact. There are no established thresholds of significance, statewide or locally, for what constitutes a wasteful, inefficient, and unnecessary consumption of energy for a proposed land use. For the purposes of this analysis, the amount of electricity and natural gas estimated to be consumed by the Project are quantified and compared to that consumed by all non-residential land uses in Imperial County. Similarly, the amount of fuel necessary for Project construction and operations is calculated and compared to that consumed in Imperial County.

2.3.2 Methodology

Levels of construction and operational related energy consumption estimated to be consumed by the Project include the number of kWh of electricity, therms of natural gas and gallons of gasoline. The amount of total construction-related fuel used was estimated using ratios provided in the Climate Registry's General Reporting Protocol for the Voluntary Reporting Program, Version 2.1. Electricity and natural gas consumption estimates were calculated using the California Emissions Estimator Model (CalEEMod), version 2020.4.0 (see Air Quality and Greenhouse Gas Emissions Assessment: North Star 3 Project [ECORP 2022]). CalEEMod is a statewide land use computer model designed to quantify resources associated with both construction and operations from a variety of land use projects. Operational automotive fuel consumption has been calculated with EMFAC 2021. EMFAC 2021 is a mathematical model that was developed to calculate emission rates and rates of gasoline consumption from motor vehicles that operate on highways, freeways, and local roads in California.

2.3.3 Impact Analysis

2.3.3.1 Project Energy Consumption

The Project includes the construction of a 100-MW alternating current solar field, consisting of 226,800 tracker modules in 7,560 strings and associated collector and inverter facilities, and a 100 MW BESS, on approximately 585 acres of vacant land. Operations of the Proposed Project would not result in the consumption of electricity or natural gas and thus, would not contribute to the County wide usage.

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Instead, the Project would directly support the RPS goal of increasing the percentage of electricity procured from renewable sources.

Therefore, the consumption of electricity and natural gas is not a factor in this analysis. The two sources of energy associated with the Project includes the equipment fuel necessary for construction and the automotive fuel necessary for ongoing maintenance activities. For the purpose of this analysis, Project increases in construction and automotive fuel consumption are compared with the countywide fuel consumption in 2021, the most recent full year of data. This analysis conservatively assumes that all of the automobile trips projected to arrive at the Project during operations would be new to Imperial County.

Energy consumption associated with the Proposed Project is summarized in Table 4.

Table 4. Proposed Project Energy and Fuel Consumption

Energy Type	Annual Energy Consumption	Percentage Increase Countywide
Facility Electrical and Natural Gas Consumption		
Electricity Consumption[1]	0 kilowatt-hours	0.000
Natural Gas[1]	0 therms	0.000
Automotive Fuel Consumption		
Year One of Construction[2] Year Two of Construction[2] Year Three of Construction[2]	16,453 gallons 105,517 gallons 6,995 gallons	0.007 0.048 0.003
Project Operations[3]	2,004 gallons	0.000

Source: 1CalEEMod; 2Climate Registry 2016; 3EMFAC2021 (CARB 2020)
Notes: The Project increases in electricity and natural gas consumption are compared with all uses in Imperial County in 2020, the latest data available. The Project increases in automotive fuel consumption are compared with the countywide fuel consumption in 2021, the most recent full year of data.

Fuel necessary for Project construction would be required for the operation and maintenance of construction equipment and the transportation of materials to the Project Site. The fuel expenditure necessary to construct the solar facility and infrastructure would be temporary, lasting only as long as Project construction. As indicated in Table 4, the Project's gasoline fuel consumption during the one-time construction period is estimated to be 16,453 gallons during the first year of construction, 105,517 gallons during the second year of construction, and 6,995 gallons during the third year of construction. This would increase the annual countywide gasoline fuel use associated with offroad equipment in the County by 0.007 percent, 0.048 percent, and 0.003 percent, respectively. As such, Project construction would have a nominal effect on local and regional energy supplies. No unusual Project characteristics would necessitate the use of construction equipment that would be less energy efficient than at comparable construction sites in the region or the state. Construction contractors would purchase their own gasoline and diesel fuel from local suppliers and would judiciously use fuel supplies to minimize costs due to waste and subsequently maximize profits. Additionally, construction equipment fleet turnover and increasingly stringent state and federal regulations on engine efficiency combined with state regulations limiting

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engine idling times and requiring recycling of construction debris, would further reduce the amount of transportation fuel demand during Project construction. For these reasons, it is expected that construction fuel consumption associated with the Project would not be any more inefficient, wasteful, or unnecessary than other similar development projects of this nature.

Once construction is completed the Project would be remotely controlled. No employees would be based at the Project sites. The only operational emissions associated with the Project would be associated with motor vehicle use for routine maintenance work, water import, and site security as well as panel upkeep and cleaning. Six heavy-duty truck vehicle trips per day for routine maintenance work, site security, and trucking in water was assumed. This is a conservative estimate as most days would require no operational related vehicle trips. As indicated in Table 4, this would estimate to a consumption of approximately 2,004 gallons of automotive fuel per year, which would increase the annual countywide automotive fuel consumption by 0.0009 percent. Fuel consumption associated with both the construction equipment needed to construct the Project and the vehicle trips generated by the Project during ongoing maintenance activities would not be considered inefficient, wasteful, or unnecessary in comparison to other similar developments in the region.

State and Local Plans for Renewable Energy/Energy Efficiency

The purpose of the Proposed Project is the construction of a renewable energy and storage facility in Imperial County. Once in operation, it will decrease the need for energy from fossil fuel–based power plants in the state. The result would be a net increase in electricity resources available to the regional grid, generated from a renewable source. Therefore, the Project would directly support the RPS goal of increasing the percentage of electricity procured from renewable sources. Additionally, the Project would also be consistent with the County's General Plan Conservation and Open Space Element, Objective 9.2 which encourages renewable energy developments. Therefore, the Project would directly support state and local plans for renewable energy development.

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APPENDIX A

Energy Consumption Modeling Output

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Proposed Project
Total Construction-Related
Gasoline Usage

Construction

Table 1. Construction Year One			
Action	**Carbon Dioxide Equivalents (CO_2e) in Metric Tons[1]**	**Conversion of Metric Tons to Kilograms[2]**	**Construction Equipment Emission Factor[2]**
Project Construction	167	167,000	10.15
Total Gallons Consumed During Construction Year One:			**16,453**

Table 2. Construction Year Two			
Action	**Carbon Dioxide Equivalents (CO_2e) in Metric Tons[1]**	**Conversion of Metric Tons to Kilograms[2]**	**Construction Equipment Emission Factor[2]**
Project Construction	1071	1,071,000	10.15
Total Gallons Consumed During Construction Year Two:			**105,517**

Table 3. Construction Year Three			
Action	**Carbon Dioxide Equivalents (CO_2e) in Metric Tons[1]**	**Conversion of Metric Tons to Kilograms[2]**	**Construction Equipment Emission Factor[2]**
Project Construction	71	71,000	10.15
Total Gallons Consumed During Construction Year Three:			**6,995**

Sources:

[1]ECORP Consulting. 2022. Air Quality and Greenhouse Gas Emissions Assessment: Northstar #3 Project

[2]Climate Registry. 2016. *General Reporting Protocol for the Voluntary Reporting Program version 2.1.* January 2016. http://www.theclimateregistry.org/wp-content/uploads/2014/11/General-Reporting-Protocol-Version-2.1.pd

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Proposed Project
Total Construction-Related and Operational
Gasoline Usage

Operations

Table 5. Average Miles per Gallon in Imperial County in 2021[3]

Area	Sub-Area	Cal. Year	Season	Veh_tech	EMFAC 2021 Category	Total Onroad Vehicle Gallons Consumed in Imperial County in 2021	Total Onroad Vehicle Miles Traveled in Imperial County in 2021	Total Passenger Vehicle Miles per Gallon in Imperial County in 2021
Sub-Areas	Imperial County	2024	Annual	All Vehicles	All Vehicles	216,105,185	3,873,811,795	17.93

Sources:
[3]California Air Resource Board. 2021. EMFAC2021 Mobile Emissions Model.

Table 6. Total Gallons During Project Operations

Project Onroad Vehicle Daily Trips[3]	Estimated Miles per Trip[4]	Project Onroad Vehicle Daily Miles Traveled	Project Onroad Vehicle Daily Fuel Consumption	Project Onroad Vehicle Annual Fuel Consumption
6	16.4	98.40	5.49	**2,004**

Sources:
[3]Operational emissions account for four heavy-duty truck vehicle trip per day for routine maintenance work, site security, and trucking in water; [4]CalEEMod 2020.4.0

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Noise Impact Assessment
for the
North Star 3 Project

County of Imperial, California

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July 2022

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LIST OF ACRONYMS AND ABBREVIATIONS

Term	Definition
ANSI	American National Standards Institute
APN	Assessor's Parcel Number
Aqueduct	Imperial Irrigation District Aqueduct
BESS	Battery Electric Storage System
BLM	Bureau of Land Management
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
County	Imperial County
CNEL	Community Noise Equivalent Level
CUP	Conditional Use Permit
dB	Decibel
dBA	Decibel is A-weighted
FHWA	Federal Highway Administration
FICON	Federal Interagency Commission on Noise
FTA	Federal Transit Administration
HSAT	Horizontal Single Axis Tracker
Hz	Hertz
IID	Imperial Irrigation District
kV	Kilovolt
Leq	Measure of ambient noise
Ldn	a 24-hour average Leq with a 10-dBA "weighting" added to noise during the hours of 10:00 pm to 7:00 am to account for noise sensitivity in the nighttime
Lmax	The maximum A-weighted noise level during the measurement period
Lmin	The maximum and minimum A-weighted noise level during the measurement period
MWAC	Mega Watt Alternating Current
MWH	Mega Watts Per Hour
OPR	Office of Planning and Research
OSHA	Federal Occupational Safety and Health Administration
OSHPD	Office of State Health Planning and Development
PPV	Peak particle velocity
PV	Photovoltaic
Project	North Star 3 Project
RE Overlay Zone	Renewable Energy and Transmission Overlay Zone
RMS	Root mean square
S-2	Open Space/Preservation
SR	State Route
STC	Sound Transmission Class
VdB	Vibration Velocity Level
WEAL	Western Electro-Acoustic Laboratory, Inc.

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1.0 INTRODUCTION

This report documents the results of a Noise Impact Assessment completed for the North Star 3 Power Project and Battery Electric Storage System (Project), which includes the construction of a 100-megawatt (MW) alternating current (AC) solar field on approximately 585 acres of vacant land on three parcels in Imperial County, California (APN 017-350-031, 305 acres; APN 017-350-030, 160 acres; and APN 017-350-027, 120 acres). This report was prepared as a comparison of predicted Project noise levels to noise standards promulgated by the County of Imperial General Plan Noise Element. The purpose of this report is to estimate Project-generated noise and to determine the level of impact the Project would have on the environment.

1.1 Project Overview

The Project proposes to construct a 100-MW alternating current solar field, consisting of 226,800 tracker modules in 7,560 strings and associated collector and inverter facilities, and a 100 MW Battery Energy Storage System (BESS), on approximately 585 acres of vacant land. The Project would connect to the grid with the onsite 161 kilovolt (kV) L transmission line. The Proposed Project Site is within an Imperial County General Plan designated Agricultural area and is zoned S-2 (Open Space/Preservation), which allows solar generating facilities with a Conditional Use Permit (CUP). Neither parcel is within the County's Renewable Energy and Transmission Element (RE). An amendment to the County's General Plan will be needed to include and classify the Project Site within the RE Overlay Zone, and a CUP to allow construction and operation of the solar energy generation facility with battery storage within the RE Overlay Zone will be required to implement the Project.

1.2 Project Location

The total combined Project Site, consisting of three separate parcels of 305 acres, 160 acres, and 120 acres in size, spans approximately 585 acres on land positioned near the western banks of the Salton Sea in Imperial County, approximately four miles north of the State Route 78 / State Route 86 intersection (Figure 1). The Project Site is approximately 24 miles northwest of the City of Brawley and eight miles south of Salton City, east of Highway 86 and west and south of the former Salton Sea Test Base. Site access would be available from State Highway 86. The site is currently vacant, undeveloped desert land, and is surrounded by open space on all sides, with active agriculture to the southeast.

2.0 ENVIRONMENTAL NOISE AND GROUNDBORNE VIBRATION ANALYSIS

2.1 Fundamentals of Noise and Environmental Sound

2.1.1 Addition of Decibels

The decibel (dB) scale is logarithmic, not linear, and therefore sound levels cannot be added or subtracted through ordinary arithmetic. Two sound levels 10 dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted (dBA), an increase of 10 dBA is generally perceived as a doubling in loudness.

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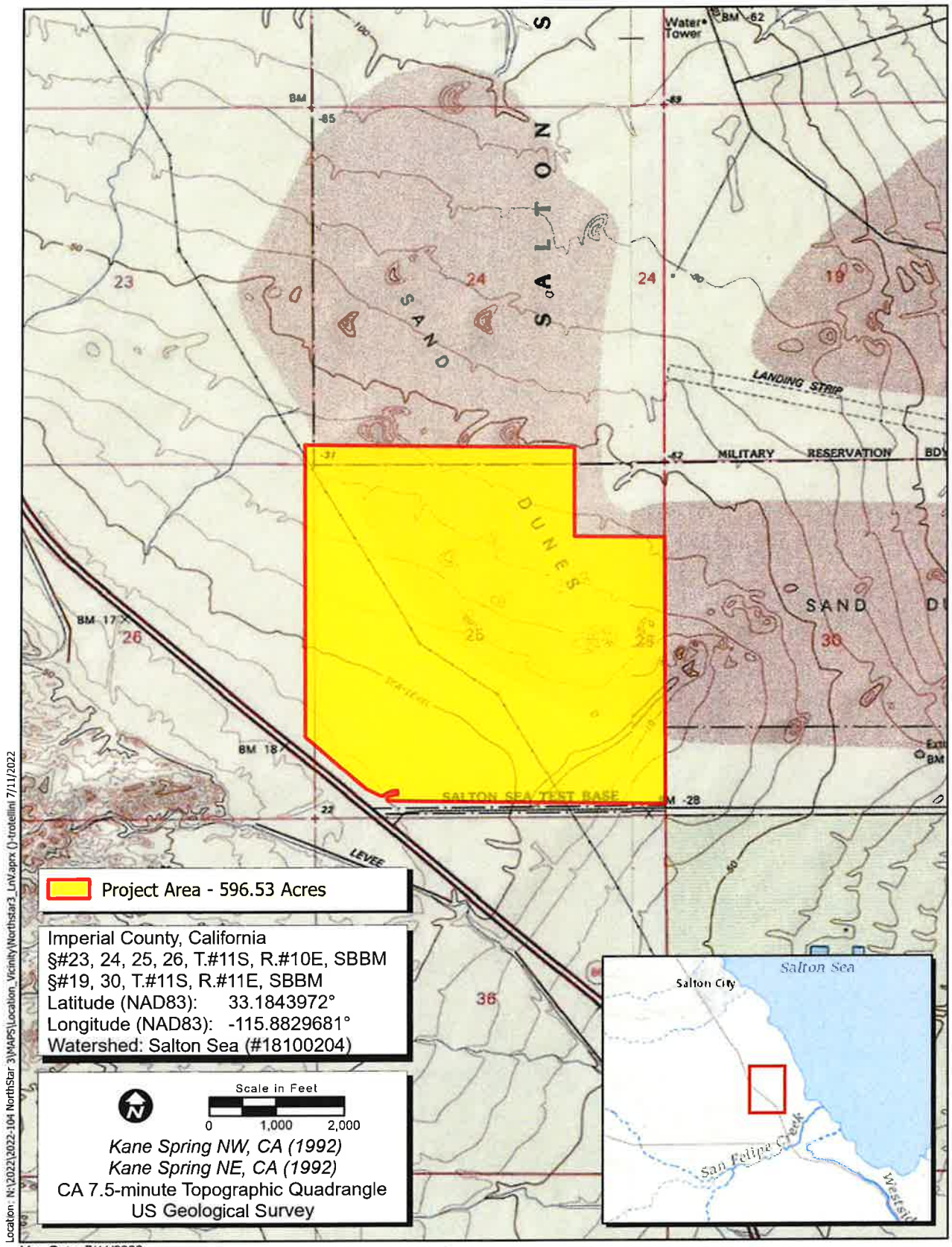

Figure 1 Project Location and Vicinity

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For example, a 70-dBA sound is half as loud as an 80-dBA sound and twice as loud as a 60-dBA sound. When two identical sources are each producing sound of the same loudness, the resulting sound level at a given distance would be three dB higher than one source under the same conditions (Federal Transit Administration [FTA] 2018). For example, a 65-dB source of sound, such as a truck, when joined by another 65 dB source results in a sound amplitude of 68 dB, not 130 dB (i.e., doubling the source strength increases the sound pressure by three dB). Under the decibel scale, three sources of equal loudness together would produce an increase of five dB.

Typical noise levels associated with common noise sources are depicted in Figure 2.

2.1.2 Sound Propagation and Attenuation

Noise can be generated by a number of sources, including mobile sources such as automobiles, trucks and airplanes, and stationary sources such as construction sites, machinery, and industrial operations. Sound spreads (propagates) uniformly outward in a spherical pattern, and the sound level decreases (attenuates) at a rate of approximately 6 dB (dBA) for each doubling of distance from a stationary or point source (FHWA 2017). Sound from a line source, such as a highway, propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of approximately 3 dBA for each doubling of distance from a line source, such as a roadway, depending on ground surface characteristics (Federal Highway Administration [FHWA] 2017). No excess attenuation is assumed for hard surfaces like a parking lot or a body of water. Soft surfaces, such as soft dirt or grass, can absorb sound, so an excess ground-attenuation value of 1.5 dBA per doubling of distance is normally assumed. For line sources, an overall attenuation rate of three dB per doubling of distance is assumed (FHWA 2011).

Noise levels may also be reduced by intervening structures; generally, a single row of detached buildings between the receptor and the noise source reduces the noise level by about five dBA (FHWA 2006), while a solid wall or berm generally reduces noise levels by 10 to 20 dBA (FHWA 2011). However, noise barriers or enclosures specifically designed to reduce site-specific construction noise can provide a sound reduction 35 dBA or greater (Western Electro-Acoustic Laboratory, Inc. [WEAL] 2000). To achieve the most potent noise-reducing effect, a noise enclosure/barrier must physically fit in the available space, must completely break the "line of sight" between the noise source and the receptors, must be free of degrading holes or gaps, and must not be flanked by nearby reflective surfaces. Noise barriers must be sizable enough to cover the entire noise source and extend lengthwise and vertically as far as feasibly possible to be most effective. The limiting factor for a noise barrier is not the component of noise transmitted through the material, but rather the amount of noise flanking around and over the barrier. In general, barriers contribute to decreasing noise levels only when the structure breaks the "line of sight" between the source and the receiver.

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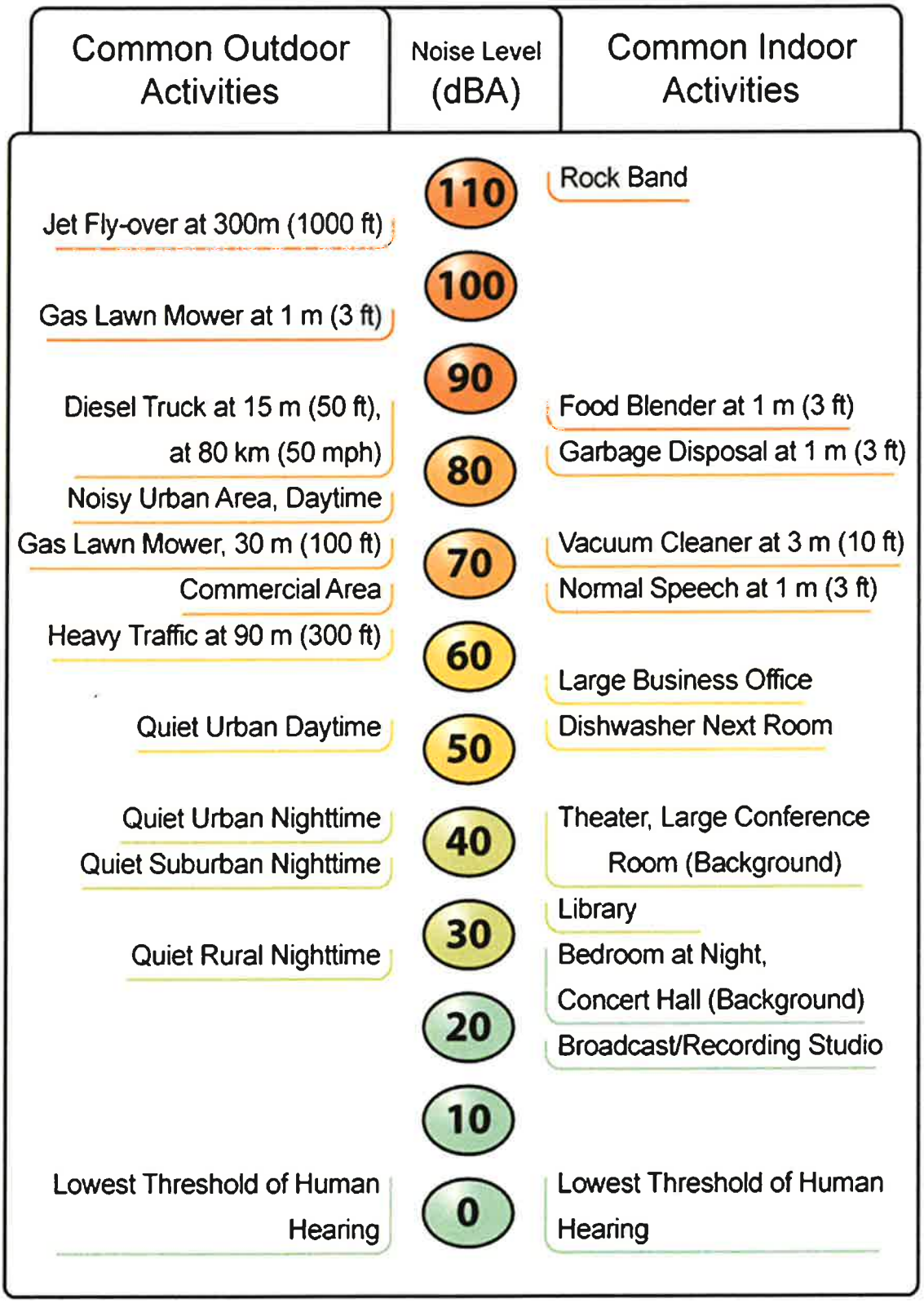

Source: California Department of Transportation (Caltrans) 2020a

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The manner in which older homes in California were constructed generally provides a reduction of exterior-to-interior noise levels of about 20 to 25 dBA with closed windows (Caltrans 2002). The exterior-to-interior reduction of newer residential units is generally 30 dBA or more (Harris Miller, Miller & Hanson Inc. 2006). Generally, in exterior noise environments ranging from 60 dBA Community Noise Equivalent Level (CNEL) to 65 dBA CNEL, interior noise levels can typically be maintained below 45 dBA, a typical residential interior noise standard, with the incorporation of an adequate forced air mechanical ventilation system in each residential building, and standard thermal-pane residential windows/doors with a minimum rating of Sound Transmission Class (STC) 28. (STC is an integer rating of how well a building partition attenuates airborne sound. In the U.S., it is widely used to rate interior partitions, ceilings, floors, doors, windows, and exterior wall configurations). In exterior noise environments of 65 dBA CNEL or greater, a combination of forced-air mechanical ventilation and sound-rated construction methods is often required to meet the interior noise level limit. Attaining the necessary noise reduction from exterior to interior spaces is readily achievable in noise environments less than 75 dBA CNEL with proper wall construction techniques following California Building Code methods, the selections of proper windows and doors, and the incorporation of forced-air mechanical ventilation systems.

2.1.3 Noise Descriptors

The decibel scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Several rating scales have been developed to analyze the adverse effect of community noise on people. Because environmental noise fluctuates over time, these scales consider that the effect of noise on people is largely dependent on the total acoustical energy content of the noise, as well as the time of day when the noise occurs. The noise descriptors most often encountered when dealing with traffic, community, and environmental noise include the average hourly noise level (in L_{eq}) and the average daily noise levels/community noise equivalent level (in L_{dn}/CNEL). The L_{eq} is a measure of ambient noise, while the L_{dn} and CNEL are measures of community noise. Each is applicable to this analysis and defined as follows:

- Equivalent Noise Level (Leq) is the average acoustic energy content of noise for a stated period of time. Thus, the Leq of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.
- Day-Night Average (Ldn) is a 24-hour average Leq with a 10-dBA "weighting" added to noise during the hours of 10:00 pm to 7:00 am to account for noise sensitivity in the nighttime. The logarithmic effect of these additions is that a 60 dBA 24-hour Leq would result in a measurement of 66.4 dBA Ldn.
- Community Noise Equivalent Level (CNEL) is a 24-hour average Leq with a 5-dBA weighting during the hours of 7:00 pm to 10:00 pm and a 10-dBA weighting added to noise during the hours of 10:00 pm to 7:00 am to account for noise sensitivity in the evening and nighttime, respectively.

Table 1 provides a list of other common acoustical descriptors.

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Table 1. Common Acoustical Descriptors

Descriptor	Definition
Decibel, dB	A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20.
Sound Pressure Level	Sound pressure is the sound force per unit area, usually expressed in micropascals (or 20 micronewtons per square meter), where 1 pascal is the pressure resulting from a force of 1 newton exerted over an area of 1 square meter. The sound pressure level is expressed in decibels as 20 times the logarithm to the base 10 of the ratio between the pressures exerted by the sound to a reference sound pressure (e.g., 20 micropascals). Sound pressure level is the quantity that is directly measured by a sound level meter.
Frequency, Hertz (Hz)	The number of complete pressure fluctuations per second above and below atmospheric pressure. Normal human hearing is between 20 Hz and 20,000 Hz. Infrasonic sounds are below 20 Hz and ultrasonic sounds are above 20,000 Hz.
A-Weighted Sound Level, dBA	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high-frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.
Equivalent Noise Level, Leq	The average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.
Lmax, Lmin	The maximum and minimum A-weighted noise level during the measurement period.
L01, L10, L50, L90	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period.
Day/Night Noise Level, Ldn or DNL	A 24-hour average L_{eq} with a 10 dBA "weighting" added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the nighttime. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.4 dBA L_{dn}.
Community Noise Equivalent Level, CNEL	A 24-hour average L_{eq} with a 5 dBA "weighting" during the hours of 7:00 p.m. to 10:00 p.m. and a 10 dBA "weighting" added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the evening and nighttime, respectively. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.7 dBA CNEL.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive	That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends on its amplitude, duration, frequency, and time of occurrence and tonal or informational content, as well as the prevailing ambient noise level.
Decibel, dB	A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20.

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The A-weighted decibel sound level scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Because sound levels can vary markedly over a short period of time, a method for describing either the average character of the sound or the statistical behavior of the variations must be utilized. Most commonly, environmental sounds are described in terms of an average level that has the same acoustical energy as the summation of all the time-varying events.

The scientific instrument used to measure noise is the sound level meter. Sound level meters can accurately measure environmental noise levels to within about ±1 dBA. Various computer models are used to predict environmental noise levels from sources, such as roadways and airports. The accuracy of the predicted models depends on the distance between the receptor and the noise source. Close to the noise source, the models are accurate to within about ±1 to 2 dBA.

2.1.4 Human Response to Noise

The human response to environmental noise is subjective and varies considerably from individual to individual. Noise in the community has often been cited as a health problem, not in terms of actual physiological damage, such as hearing impairment, but in terms of inhibiting general well-being and contributing to undue stress and annoyance. The health effects of noise in the community arise from interference with human activities, including sleep, speech, recreation, and tasks that demand concentration or coordination. Hearing loss can occur at the highest noise intensity levels.

Noise environments and consequences of human activities are usually well represented by median noise levels during the day or night or over a 24-hour period. Environmental noise levels are generally considered low when the CNEL is below 60 dBA, moderate in the 60 to 70 dBA range, and high above 70 dBA. Examples of low daytime levels are isolated, natural settings with noise levels as low as 20 dBA and quiet, suburban, residential streets with noise levels around 40 dBA. Noise levels above 45 dBA at night can disrupt sleep. Examples of moderate-level noise environments are urban residential or semi-commercial areas (typically 55 to 60 dBA) and commercial locations (typically 60 dBA). People may consider louder environments adverse, but most will accept the higher levels associated with noisier urban residential or residential-commercial areas (60 to 75 dBA) or dense urban or industrial areas (65 to 80 dBA). Regarding increases in A-weighted noise levels (dBA), the following relationships should be noted in understanding this analysis:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived by humans.
- Outside of the laboratory, a 3-dBA change is considered a just-perceivable difference.
- A change in level of at least 5 dBA is required before any noticeable change in community response would be expected. An increase of 5 dBA is typically considered substantial.
- A 10-dBA change is subjectively heard as an approximate doubling in loudness and would almost certainly cause an adverse change in community response.

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2.1.5 Effects of Noise on People

2.1.6 Hearing Loss

While physical damage to the ear from an intense noise impulse is rare, a degradation of auditory acuity can occur even within a community noise environment. Hearing loss occurs mainly due to chronic exposure to excessive noise but may be due to a single event such as an explosion. Natural hearing loss associated with aging may also be accelerated from chronic exposure to loud noise.

The Occupational Safety and Health Administration (OSHA) has a noise exposure standard that is set at the noise threshold where hearing loss may occur from long-term exposures. The maximum allowable level is 90 dBA averaged over eight hours. If the noise is above 90 dBA, the allowable exposure time is correspondingly shorter.

2.1.7 Annoyance

Attitude surveys are used for measuring the annoyance felt in a community for noises intruding into homes or affecting outdoor activity areas. In these surveys, it was determined that causes for annoyance include interference with speech, radio and television, house vibrations, and interference with sleep and rest. The L_{dn} as a measure of noise has been found to provide a valid correlation of noise level and the percentage of people annoyed. People have been asked to judge the annoyance caused by aircraft noise and ground transportation noise. There continues to be disagreement about the relative annoyance of these different sources.

2.2 Fundamentals of Environmental Groundborne Vibration

2.2.1 Vibration Sources and Characteristics

Sources of earthborne vibrations include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or manmade causes (explosions, machinery, traffic, trains, construction equipment, etc.). Vibration sources may be continuous (e.g., factory machinery) or transient (e.g., explosions).

Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Several different methods are typically used to quantify vibration amplitude. One is the peak particle velocity (PPV); another is the root mean square (RMS) velocity. The PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave. The RMS velocity is defined as the average of the squared amplitude of the signal. The PPV and RMS vibration velocity amplitudes are used to evaluate human response to vibration.

PPV is generally accepted as the most appropriate descriptor for evaluating the potential for building damage. For human response, however, an average vibration amplitude is more appropriate because it takes time for the human body to respond to the excitation (the human body responds to an average vibration amplitude, not a peak amplitude). Because the average particle velocity over time is zero, the RMS amplitude is typically used to assess human response. The RMS value is the average of the amplitude squared over time, typically a 1- sec. period (FTA 2018).

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Table 2 displays the reactions of people and the effects on buildings produced by continuous vibration levels. The annoyance levels shown in the table should be interpreted with care since vibration may be found to be annoying at much lower levels than those listed, depending on the level of activity or the sensitivity of the individual. To sensitive individuals, vibrations approaching the threshold of perception can be annoying. Low-level vibrations frequently cause irritating secondary vibration, such as a slight rattling of windows, doors, or stacked dishes. The rattling sound can give rise to exaggerated vibration complaints, even though there is very little risk of actual structural damage. In high-noise environments, which are more prevalent where groundborne vibration approaches perceptible levels, this rattling phenomenon may also be produced by loud airborne environmental noise causing induced vibration in exterior doors and windows.

Ground vibration can be a concern in instances where buildings shake, and substantial rumblings occur. However, it is unusual for vibration from typical urban sources such as buses and heavy trucks to be perceptible. For instance, heavy-duty trucks generally generate groundborne vibration velocity levels of 0.006 PPV at 50 feet under typical circumstances, which as identified in Table 2 is considered very unlikely to cause damage to buildings of any type. Common sources for groundborne vibration are planes, trains, and construction activities such as earth-moving which requires the use of heavy-duty earth moving equipment.

Table 2. Human Reaction and Damage to Buildings for Continuous or Frequent Intermittent Vibration Levels

Peak Particle Velocity (inches/second)	Approximate Vibration Velocity Level (VdB)	Human Reaction	Effect on Buildings
0.006–0.019	64–74	Range of threshold of perception	Vibrations unlikely to cause damage of any type
0.08	87	Vibrations readily perceptible	Recommended upper level to which ruins and ancient monuments should be subjected
0.1	92	Level at which continuous vibrations may begin to annoy people, particularly those involved in vibration sensitive activities	Virtually no risk of architectural damage to normal buildings
0.2	94	Vibrations may begin to annoy people in buildings	Threshold at which there is a risk of architectural damage to normal dwellings
0.4–0.6	98–104	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Architectural damage and possibly minor structural damage

Source: Caltrans 2020b

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3.0 EXISTING ENVIRONMENTAL NOISE SETTING

3.1 Noise Sensitive Land Uses

Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Additional land uses such as hospitals, historic sites, cemeteries, and certain recreation areas are considered sensitive to increases in exterior noise levels. Schools, churches, hotels, libraries, and other places where low interior noise levels are essential are also considered noise-sensitive land uses.

The nearest existing noise-sensitive land use to the Project Site is a single-family residence located approximately 0.5 mile from the southeastern corner of the Project boundary.

3.2 Existing Ambient Noise Environment

The American National Standards Institute (ANSI) Standard 12.9-2013/Part 3 "Quantities and Procedures for Description and Measurement of Environmental Sound – Part 3: Short-Term Measurements with an Observer Present" provides a table of approximate background sound levels in L_{dn}, daytime L_{eq}, and nighttime L_{eq}, based on land use and population density. The ANSI standard estimation divides land uses into six distinct categories. Descriptions of these land use categories, along with the typical daytime and nighttime levels, are provided in Table 3. At times, one could reasonably expect the occurrence of periods that are both louder and quieter than the levels listed in the table. ANSI notes, *"95% prediction interval [confidence interval] is on the order of +/- 10 dB."* The majority of the Project Area would be considered ambient noise Category 6.

Table 3. ANSI Standard 12.9-2013/Part 3 A-weighted Sound Levels Corresponding to Land Use and Population Density

Category	Land Use	Description	People per Square Mile	Typical Ldn	Daytime L_{eq}	Nighttime L_{eq}
1	Noisy Commercial & Industrial Areas and Very Noisy Residential Areas	Very heavy traffic conditions, such as in busy, downtown commercial areas; at intersections for mass transportation or other vehicles, including elevated trains, heavy motor trucks, and other heavy traffic; and at street corners where many motor buses and heavy trucks accelerate.	63,840	67 dBA	66 dBA	58 dBA

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Table 3. ANSI Standard 12.9-2013/Part 3 A-weighted Sound Levels Corresponding to Land Use and Population Density

Category	Land Use	Description	People per Square Mile	Typical Ldn	Daytime L_{eq}	Nighttime L_{eq}
2	Moderate Commercial & Industrial Areas and Noisy Residential Areas	Heavy traffic areas with conditions similar to Category 1, but with somewhat less traffic; routes of relatively heavy or fast automobile traffic, but where heavy truck traffic is not extremely dense.	20,000	62 dBA	61 dBA	54 dBA
3	Quiet Commercial, Industrial Areas and Normal Urban & Noisy Suburban Residential Areas	Light traffic conditions where no mass-transportation vehicles and relatively few automobiles and trucks pass, and where these vehicles generally travel at moderate speeds; residential areas and commercial streets, and intersections, with little traffic, compose this category.	6,384	57 dBA	55 dBA	49 dBA
4	Quiet Urban & Normal Suburban Residential Areas	These areas are similar to Category 3, but for this group, the background is either distant traffic or is unidentifiable; typically, the population density is one-third the density of Category 3.	2,000	52 dBA	50 dBA	44 dBA
5	Quiet Residential Areas	These areas are isolated, far from significant sources of sound, and may be situated in shielded areas, such as a small wooded valley.	638	47 dBA	45 dBA	39 dBA
6	Very Quiet Sparse Suburban or rural Residential Areas	These areas are similar to Category 4 but are usually in sparse suburban or rural areas; and, for this group, there are few if any nearby sources of sound.	200	42 dBA	40 dBA	34 dBA

Source: The American National Standards Institute (ANSI) 2013

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4.0 REGULATORY FRAMEWORK

4.1 Federal

4.1.1 Occupational Safety and Health Act of 1970

OSHA regulates onsite noise levels and protects workers from occupational noise exposure. To protect hearing, worker noise exposure is limited to 90 decibels with A-weighting (dBA) over an eight-hour work shift (29 Code of Regulations 1910.95). Employers are required to develop a hearing conservation program when employees are exposed to noise levels exceeding 85 dBA. These programs include provision of hearing protection devices and testing employees for hearing loss on a periodic basis.

4.1.2 Federal Interagency Commission on Noise

The 2000 Federal Interagency Commission on Noise (FICON) findings provide guidance as to the significance of changes in ambient noise levels due to transportation noise sources. FICON recommendations are based on studies that relate aircraft and traffic noise levels to the percentage of persons highly annoyed by the noise. FICON's measure of substantial increase for transportation noise exposure is as follows:

- If the existing ambient noise levels at existing noise-sensitive land uses (e.g. residential, etc.) are less than 60 dBA CNEL and the Project creates a readily perceptible 5 dBA CNEL or greater Project-related noise level increase and the resulting noise level would exceed acceptable exterior noise standards; or
- If the existing noise levels range from 60 to 65 dBA CNEL and the Project creates a barely perceptible 3 dBA CNEL or greater Project-related noise level increase and the resulting noise level would exceed acceptable exterior noise standards; or
- If the existing noise levels already exceed 65 dBA CNEL, and the Project creates a community noise level increase of greater than 1.5 dBA CNEL.

4.2 State

4.2.1 State of California General Plan Guidelines

The State of California regulates vehicular and freeway noise affecting classrooms, sets standards for sound transmission and occupational noise control, and identifies noise insulation standards and airport noise/land-use compatibility criteria. The State of California General Plan Guidelines (State of California 2003), published by the Governor's Office of Planning and Research (OPR), also provides guidance for the acceptability of projects within specific CNEL/L_{dn} contours. The guidelines also present adjustment factors that may be used in order to arrive at noise acceptability standards that reflect the noise control goals of the community, the particular community's sensitivity to noise, and the community's assessment of the relative importance of noise pollution.

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4.2.2 State Office of Planning and Research Noise Element Guidelines

The State OPR *Noise Element Guidelines* include recommended exterior and interior noise level standards for local jurisdictions to identify and prevent the creation of incompatible land uses due to noise. The Noise Element Guidelines contain a Land Use Compatibility table that describes the compatibility of various land uses with a range of environmental noise levels in terms of the CNEL.

4.2.3 California Department of Transportation

In 2020, the California Department of Transportation (Caltrans) published the Transportation and Construction Vibration Manual (Caltrans 2020b). The manual provides general guidance on vibration issues associated with the construction and operation of projects concerning human perception and structural damage. Table 2 above presents recommendations for levels of vibration that could result in damage to structures exposed to continuous vibration.

4.3 Local

4.3.1 Imperial County General Plan Noise Element

The County of Imperial General Plan Noise Element establishes maximum allowable average-hourly noise limits for various land use designations (refer to Table 4). These noise standards are to be applied at the property line of the noise-generating land use. In instances where the adjoining land use designations differ from that of the noise-generating land use, the more restrictive noise standard shall apply. Where the ambient noise level is equal to or exceeds the property line noise standard, the increase of the existing or proposed noise shall not exceed 3 dBA L_{eq}, which is a just-perceivable increase in noise. L_{eq} is defined as the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure.

Table 4. County of Imperial Property Line Noise Standards

Land Use Zone	Time Period	Average-Hourly Noise Level (dBA L_{eq})
Residential	7 a.m. - 10 p.m. 10 p.m. - 7 a.m.	50 45
Multi-residential	7 a.m. - 10 p.m. 10 p.m. - 7 a.m.	55 50
Commercial	7 a.m. -10 p.m. 10 p.m. - 7 a.m.	60 55
Light Industrial/Industrial Park	Any time	70
General Industrial	Any time	75

Source: Imperial County 2015.
Notes: When the noise-generating property and the receiving property have different uses, the more restrictive standard shall apply. When the ambient noise level is equal to or exceeds the Property Line noise standard, the increase of the existing or proposed noise shall not exceed 3 dBA L_{eq}.

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4.3.2 Construction Noise Standards

Construction noise, from a single piece of equipment or a combination of equipment, shall not exceed 75 dB L_{eq}, when averaged over an eight (8) hour period, and measured at the nearest sensitive receptor. This standard assumes a construction period, relative to an individual sensitive receptor of days or weeks. In cases of extended length construction times, the standard may be tightened so as not to exceed 75 dB L_{eq} when averaged over a one (1) hour period.

Construction equipment operations are required to be limited to the hours of 7:00 a.m. to 7:00 p.m., Monday through Friday, and 9:00 a.m. to 5:00 p.m. Saturday. No commercial construction operations are permitted on Sunday or holidays. In cases of a person constructing or modifying a residence for himself/herself, and if the work is not being performed as a business, construction equipment operations may be performed on Sundays and holidays between the hours of 9:00 a.m. and 5:00 p.m. Such non-commercial construction activities may be further restricted where disturbing, excessive, or offensive noise causes discomfort or annoyance to reasonable persons of normal sensitivity residing in an area.

4.3.3 Significant Increase of Ambient Noise Levels

The increase of noise levels generally results in an adverse impact to the noise environment. The Noise/Land Use Compatibility Guidelines are not intended to allow the increase of ambient noise levels up to the maximum without consideration of feasible noise reduction measures. The following guidelines are established by the County of Imperial for the evaluation of significant noise impact.

- If the future noise level after a project is completed will be within the "normally acceptable" noise levels shown in the Noise/Land Use Compatibility Guidelines, but will result in an increase of 5 dB CNEL or greater, the project will have a potentially significant noise impact and mitigation measures must be considered.
- If the future noise level after a project is completed will be greater than the "normally acceptable" noise levels shown in the Noise/Land Use Compatibility Guidelines, a noise increase of 3 dB CNEL or greater shall be considered a potentially significant noise impact and mitigation measures must be considered.

4.3.4 Noise/Land use Compatibility

The Imperial County General Plan Noise Element Noise/Land Use Compatibility Standards defines the acceptability of a land use in a specified noise environment. Table 5 provides the County of Imperial Noise/Land Use Compatibility Guidelines. When an acoustical analysis is performed, conformance of the proposed project with the Noise/Land Use Compatibility Guidelines will be used to evaluate potential noise impact and will provide criteria for environmental impact findings and conditions for project approval.

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Table 5. County of Imperial Noise/Land Use Compatibility Guidelines		
Land Use Category	**Community Noise Exposure Ldn or CNEL, dB**	**Acceptability**
Residential	< 60	Normally Acceptable
	60 - 70	Conditionally Acceptable
	70 - 75	Normally Unacceptable
	> 75	Clearly Unacceptable
Transient Lodging-Motels, Hotels	< 60	Normally Acceptable
	60 - 75	Conditionally Acceptable
	75 - 80	Normally Unacceptable
	> 80	Clearly Unacceptable
Schools, Libraries, Churches, Hospitals, Nursing Homes	< 60	Normally Acceptable
	60 - 70	Conditionally Acceptable
	70 - 80	Normally Unacceptable
	> 80	Clearly Unacceptable
Auditoriums, Concert Halls, Amphitheaters	< 70	Conditionally Acceptable
	> 70	Clearly Unacceptable
Sports Arenas, Outdoor Spectator Sports	< 70	Conditionally Acceptable
	70 - 75	Normally Unacceptable
	> 75	Clearly Unacceptable
Playgrounds, Neighborhood Parks	< 70	Normally Acceptable
	70 - 75	Normally Unacceptable
	> 75	Clearly Unacceptable
Golf Courses, Riding Stables, Water Recreation, Cemeteries	< 70	Normally Acceptable
	70 - 80	Normally Unacceptable
	> 80	Clearly Unacceptable
Office Buildings, Business Commercial and Professional	< 65	Normally Acceptable
	65 - 75	Conditionally Acceptable
	75 - 80	Normally Unacceptable
	> 80	Clearly Unacceptable

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Table 5. County of Imperial Noise/Land Use Compatibility Guidelines

Land Use Category	Community Noise Exposure Ldn or CNEL, dB	Acceptability
Industrial, Manufacturing Utilities, Agriculture	< 70	Normally Acceptable
	70 - 75	Conditionally Acceptable
	75 - 80	Normally Unacceptable
	> 80	Clearly Unacceptable

Source: Imperial County 2015.
Notes: Interpretation (For Land Use Planning Purposes):
Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.
Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design
Normally Unacceptable: New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
Clearly Unacceptable: New construction or development clearly should not be undertaken.

5.0 IMPACT ASSESSMENT

5.1 Thresholds of Significance

The impact analysis provided below is based on the following California Environmental Quality Act Guidelines Appendix G thresholds of significance. The Project would result in a significant noise-related impact if it would produce:

1) 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.

2) Generation of excessive groundborne vibration or groundborne noise levels.

3) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.

In order to evaluate the potential health-related effects (physical damage to the ear and mental damage from lack of sleep or focus) from construction noise, such noise generated by the Project is compared against the construction-related noise level threshold established by the County. For purposes of this analysis, Project construction noise is compared to the County's construction noise standard of 75 dBA, when averaged over an eight-hour period and measured at the nearest sensitive receptor. The increase in transportation-related noise is compared to the FICON recommendation for evaluating the impact of increased traffic noise. Noise generated onsite is compared against the County's property line standards identified in Table 4.

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5.2 Methodology

This analysis of the existing and future noise environments is based on empirical observations. Predicted construction noise levels were calculated utilizing the FHWA's Roadway Construction Noise Model (2006). Groundborne vibration levels associated with construction-related activities for the Project have been evaluated utilizing typical groundborne vibration levels associated with construction equipment. Potential groundborne vibration impacts related to structural damage and human annoyance were evaluated, taking into account the distance from construction activities to nearby structures and typically applied criteria for structural damage and human annoyance.

5.3 Impact Analysis

5.3.1 Would the Project Result in Short-Term Construction-Generated Noise in Excess of County Standards?

Onsite Solar and Battery Storage Facilities Construction Noise

Construction noise associated with the Proposed Project would be temporary and would vary depending on the nature of the activities being performed. Noise generated would primarily be associated with the operation of off-road equipment for onsite construction activities as well as construction vehicle traffic on area roadways. Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g., land clearing, grading, excavation, paving). Noise generated by construction equipment, including earth movers, pile drivers, and portable generators, can reach high levels. Typical operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Other primary sources of acoustical disturbance would be random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts). During construction, exterior noise levels could negatively affect sensitive land uses in the vicinity of the construction site.

The nearest existing noise-sensitive land use to the Project Site is a single-family residence located approximately 0.5 mile from the southeastern corner of the Project boundary. As previously described, the County's General Plan Noise Element states construction equipment operation shall be limited to the hours of 7:00 a.m. to 7:00 p.m., Monday through Friday, and 9:00 a.m. to 5:00 p.m. on Saturdays. No commercial construction operations are permitted on Sundays or holidays. Construction noise, from a single piece of equipment or a combination of equipment, shall not exceed 75 dB L_{eq}, when averaged over an eight-hour period, and measured at the nearest sensitive receptor. This standard, established by the County to prevent physical and mental damage consistent with exposure to excessive noise, assumes a construction period, relative to an individual sensitive receptor of days or weeks.

The anticipated short-term construction noise levels generated for the necessary construction equipment during the onsite solar and battery storage facility component of the Proposed Project are presented in Table 6.

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Table 6. Construction Average (dBA) Noise Levels at Nearest Receptor

Equipment	Estimated Exterior Construction Noise Level at Existing Residences	Construction Noise Standards (dBA L_{eq})	Exceeds Standards?
Site Preparation			
Rubber Tired Dozers (2)	43.2 dBA (each)	*75*	**No**
Tractors/Loaders/Backhoes (2)	45.6 dBA (each)	*75*	**No**
Combined Site Preparation Equipment	**50.6 dBA**	*75*	**No**
Grading			
Excavators (4)	42.3 dBA (each)	*75*	**No**
Graders (3)	46.6 dBA (each)	*75*	**No**
Rubber Tired Dozers (2)	43.2 dBA (each)	*75*	**No**
Scrapers (2)	45.1 dBA (each)	*75*	**No**
Tractors/Loaders/Backhoes (4)	45.6 dBA (each)	*75*	**No**
Combined Grading Equipment	**56.6 dBA**	*75*	**No**
Facility Construction			
Crane	38.1 dBA	*75*	**No**
Paver	39.8 dBA	*75*	**No**
Paving Equipment (2)	48.1 dBA (each)	*75*	**No**
Plate Compactors (4)	41.8 dBA (each)	*75*	**No**
Forklifts (4)	45 dBA (each)	*75*	**No**
Tractors/Loaders/Backhoes (4)	45.6 dBA (each)	*75*	**No**
Trenchers (2)	42.9 dBA (each)	*75*	**No**
Welder	35.6 dBA	*75*	**No**
Combined Facility Construction Equipment	**57.1 dBA**	*75*	**No**

Source: Construction noise levels were calculated by ECORP Consulting using the FHWA Roadway Noise Construction Model (FHWA 2006). Refer to Appendix A for Model Data Outputs.

Notes: Construction equipment used during construction derived from the California Emission Estimator Model (CalEEMod) 2020.4.0. CalEEMod contains default construction equipment and usage parameters for typical construction projects based on several construction surveys conducted in order to identify such parameters. The nearest residence is located approximately 0.5 mile from the Project boundary.

L_{eq} = The equivalent energy noise level, is the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.

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As shown in Table 6, no individual or cumulative pieces of construction equipment would exceed the 75 dBA County construction noise standard during any phase of construction at the nearby noise-sensitive receptors.

5.3.2 Would the Project Result in a Substantial Permanent Increase in Ambient Noise Levels in Excess of County Standards During Operations?

As previously described, noise-sensitive land uses are locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. Residences, schools, hospitals, guest lodging, libraries, and some passive recreation areas would each be considered noise-sensitive and may warrant unique measures for protection from intruding noise.

5.3.2.1 Operational Offsite Traffic Noise

Project operations would result in minimal additional traffic on adjacent roadways. The only visitors to the site would be that of water deliveries, repair or maintenance workers, whose presence at the site would be required infrequently and inconsistently. According to the California Department of Transportation (Caltrans) *Technical Noise Supplement to the Traffic Noise Analysis Protocol* (2013), doubling of traffic on a roadway is required to result in an increase of 3 dB (outside of the laboratory, a 3-dBA change is considered a just-perceivable difference). The Proposed Project would not result in a doubling of traffic on vicinity roadways, and therefore its contribution to existing traffic noise would not be perceptible.

5.3.2.2 Operational Onsite Noise

As previously stated, noise sensitive land uses are locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. Residences, schools, hospitals, guest lodging, libraries, and some passive recreation areas would each be considered noise-sensitive and may warrant unique measures for protection from intruding noise.

The main stationary operational noise associated with the Project would be from the proposed transformers, inverters, substation, and transmission lines. Previous measurements were taken by ECORP staff during a weekday in the middle of a solar facility with identified noise levels reaching 47.1 dBA at approximately 50 feet distant. These measurements were taken with a Larson Davis SoundExpert LxT precision sound level meter, which satisfies the American National Standards Institute for general environmental noise measurement instrumentation. Prior to the measurements, the SoundExpert LxT sound level meter was calibrated according to manufacturer specifications with a Larson Davis CAL200 Class I Calibrator.

As previously stated, the nearest noise sensitive receptor to the Project Site is a single-family residence located approximately 0.5 mile (2,640 feet) at the southeastern corner of the Project Site. Noise attenuates a rate of approximately six dB for each doubling of distance from a stationary or point source (FHWA 2011). Considering the solar facility noise measurement of 47.1 dBA at approximately 50 feet distant, the nearest noise sensitive receptor from the Proposed Project (approximately 0.5 mile away) would experience operational stationary noise levels well below existing ambient noise levels currently

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experienced, as shown in Table 7. Thus, the Proposed Project would not result in noise levels in excess of County noise standards.

Table 7. Operational Noise Levels at Nearest Sensitive Receptor

Location	Operational Noise Attributed to Project (L_{eq} dBA)	County Daytime Standard (L_{eq} dB)	County Nighttime Standard (L_{eq} dB)	Exceed Standard?
Residence located west of Project Site, 2,640 feet from the southeastern boundary	**<20.0**	*50.0*	*45.0*	**No**

Note: Reference noise measurement used to calculate Project onsite noise propagation identified at 47.1 dBA, per 30-minute measurements taken at a solar generation facility in Imperial County.

As shown in Table 7, Project operational noise would not exceed County daytime or nighttime standards.

5.3.3 Would the Project Expose Structures to Substantial Groundborne Vibration During Construction?

Excessive groundborne vibration impacts result from continuously occurring vibration levels. Increases in groundborne vibration levels attributable to the Project would be primarily associated with short-term construction-related activities. Construction on the Project Site would have the potential to result in varying degrees of temporary groundborne vibration, depending on the specific construction equipment used and the operations involved. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance.

Construction-related ground vibration is normally associated with impact equipment such as pile drivers, jackhammers, and the operation of some heavy-duty construction equipment, such as dozers and trucks. It is noted that pile drivers would be necessary during Project construction. Vibration decreases rapidly with distance and it is acknowledged that construction activities would occur throughout the Project Site and would not be concentrated at the point closest to sensitive receptors. Groundborne vibration levels associated with typical construction equipment at 25 feet distant are summarized in Table 8.

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Table 8. Representative Vibration Source Levels for Construction Equipment	
Equipment Type	**Peak Particle Velocity at 25 Feet (inches per second)**
Large Bulldozer	0.089
Pile Driver	0.170
Loaded Trucks	0.076
Hoe Ram	0.089
Jackhammer	0.035
Small Bulldozer/Tractor	0.003
Vibratory Roller	0.210

Source: Caltrans 2020b; FTA 2018

The County of Imperial does not regulate vibrations associated with construction. However, a discussion of construction vibration is included for full disclosure purposes. For comparison purposes, the Caltrans (2020b) recommended standard of 0.2 inch per second PPV with respect to the prevention of structural damage for older residential buildings is used as a threshold. This is also the level at which vibrations may begin to annoy people in buildings. Consistent with FTA recommendations for calculating construction vibration, construction vibration was measured from the center of the Project Site (FTA 2018). The nearest structure of concern to the construction site, with regard to groundborne vibrations, appears to be a water tank located approximately one mile from the center of the Project Site.

Based on the representative vibration levels presented for various construction equipment types in Table 8 and the construction vibration assessment methodology published by the FTA (2018), it is possible to estimate the potential project construction vibration levels. The FTA provides the following equation:

$$[PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}]$$

Table 9 presents the expected Project related vibration levels at a distance of 5,280 feet (one mile).

Table 9. Construction Vibration Levels at 5,280 Feet							
Receiver PPV Levels (in/sec)[1]					**Peak Vibration**	**Threshold**	**Exceed Threshold**
Large Bulldozer, Caisson Drilling, & Hoe Ram	**Loaded Trucks**	**Jackhammer**	**Pile Driver**	**Vibratory Roller**			
0.000	0.001	0.000	0.000	0.000	**0.000**	*0.2*	**No**

Notes: [1]Based on the Vibration Source Levels of Construction Equipment included on Table 8 (FTA 2018). Distance to the nearest structure of concern is approximately 5,280 feet measured from Project Site boundary.

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As shown in Table 9, vibration as a result of construction activities would not exceed 0.2 PPV at the nearest structure. Thus, Project construction would not exceed the recommended threshold.

5.3.4 Would the Project Expose Structures to Substantial Groundborne Vibration During Operations?

Project operations would not include the use of any large-scale stationary equipment that would result in excessive vibration levels. Therefore, the project would not result groundborne vibration impacts during operations.

5.3.5 Would the Project Expose People Residing or Working in the Project area to Excessive Airport Noise?

The Project Site is located approximately 30 miles northwest of the Imperial County Airport in Imperial and 20 miles west of the Calipatria Municipal Airport in Calipatria. The Imperial County Airport Land Use Commission has established a set of land use compatibility criteria for lands surrounding the airports in Imperial County in the Imperial County Airport Land Use Compatibility Plan (1996). As identified in the Imperial County Airport Land Use Compatibility Maps, the Proposed Project Site lays outside of the noise contours of all airports. Therefore, the Project would not expose Project workers to excessive airport noise.

5.3.6 Cumulative Noise

Would the Project Contribute to Cumulatively Considerable Noise During Construction?

Construction activities associated with the Proposed Project and other construction projects in the area may overlap, resulting in construction noise in the area. However, construction noise impacts primarily affect the areas adjacent to the construction site. Construction noise for the Project was determined to be less than significant following compliance with County noise standards. Cumulative development in the vicinity of the Project Site could result in elevated construction noise levels at sensitive receptors in the Project vicinity. However, each project would be required to comply with the applicable noise limitations on construction. Therefore, the Project would not contribute to cumulative impacts during construction.

Would the Project Contribute to Cumulatively Considerable Noise from Offsite Traffic?

As described previously, Project operations would result in extremely minimal additional traffic on adjacent roadways. The only visitors to the site would be that of water deliveries, repair or maintenance work that would be done infrequently. Thus, any cumulative noise impacts from project-related traffic would be minimal. Therefore, the Project's contribution to cumulative noise impacts from traffic would be less than significant.

Would the Project Contribute to Cumulatively Considerable Noise from Stationary Sources?

Cumulative noise impacts would primarily be associated with the transformers, inverters, substation, and transmission lines from the solar facility. Long-term noise sources associated with development at the Project, combined with other cumulative projects, could cause local noise-level increases. Noise levels

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associated with the Proposed Project and related cumulative projects together could result in higher noise levels than considered separately. However, noise increase as a result of the Project would not be perceivable and would not exceed County standards.

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6.0 REFERENCES

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APPENDIX A

Federal Highway Administration Roadway Construction Noise Model Outputs – Project Construction Noise

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Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 7/17/2022
Case Description: Northstar #3

Description	**Affected Land Use**
Site Preparation	Residential

Description	**Impact Device**	**Usage(%)**	**Equipment Spec Lmax (dBA)**	**Actual Lmax (dBA)**	**Receptor Distance (feet)**
Dozer	No	40		81.7	2640
Dozer	No	40		81.7	2640
Tractor	No	40	84		2640
Tractor	No	40	84		2640

Results

Calculated (dBA)

Equipment	***Lmax**	**Leq**
Dozer	47.2	43.2
Dozer	47.2	43.2
Tractor	49.5	45.6
Tractor	49.5	45.6
Total	**49.5**	**50.6**

*Calculated Lmax is the Loudest value.

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Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 7/17/2022
Case Description: Northstar #3

Description	**Affected Land Use**
Grading	Residential

Description	**Impact Device**	**Usage(%)**	**Equipment Spec Lmax (dBA)**	**Actual Lmax (dBA)**	**Receptor Distance (feet)**
Excavator	No	40		80.7	2640
Excavator	No	40		80.7	2640
Excavator	No	40		80.7	2640
Excavator	No	40		80.7	2640
Grader	No	40	85		2640
Grader	No	40	85		2640
Grader	No	40	85		2640
Dozer	No	40		81.7	2640
Dozer	No	40		81.7	2640
Scraper	No	40		83.6	2640
Scraper	No	40		83.6	2640
Tractor	No	40	84		2640
Tractor	No	40	84		2640
Tractor	No	40	84		2640
Tractor	No	40	84		2640

Results

Calculated (dBA)

Equipment	*Lmax	Leq
Excavator	46.3	42.3
Excavator	46.3	42.3
Excavator	46.3	42.3
Excavator	46.3	42.3
Grader	50.5	46.6
Grader	50.5	46.6
Grader	50.5	46.6
Dozer	47.2	43.2
Dozer	47.2	43.2
Scraper	49.1	45.1
Scraper	49.1	45.1
Tractor	49.5	45.6
Tractor	49.5	45.6

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Tractor		49.5	45.6
Tractor		49.5	45.6
	Total	**50.5**	**56.6**

*Calculated Lmax is the Loudest value.

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Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 7/17/2022
Case Description: Northstar #3

Description	**Land Use**
Facility Construction	Residential

Description	**Impact Device**	**Usage(%)**	**Equipment Spec Lmax (dBA)**	**Actual Lmax (dBA)**	**Receptor Distance (feet)**
Crane	No	16		80.6	2640
Gradall	No	40		83.4	2640
Gradall	No	40		83.4	2640
Gradall	No	40		83.4	2640
Gradall	No	40		83.4	2640
Paver	No	50		77.2	2640
Pavement Scarafier	No	20		89.5	2640
Pavement Scarafier	No	20		89.5	2640
Compactor (ground)	No	20		83.2	2640
Compactor (ground)	No	20		83.2	2640
Compactor (ground)	No	20		83.2	2640
Compactor (ground)	No	20		83.2	2640
Tractor	No	40	84		2640
Tractor	No	40	84		2640
Tractor	No	40	84		2640
Tractor	No	40	84		2640
Slurry Trenching Machine	No	50		80.4	2640
Slurry Trenching Machine	No	50		80.4	2640
Welder / Torch	No	40		74	2640

Results

Calculated (dBA)

Equipment	***Lmax**	**Leq**
Crane	46.1	38.1
Gradall	48.9	45
Gradall	48.9	45
Gradall	48.9	45
Gradall	48.9	45
Paver	42.8	39.8
Pavement Scarafier	55	48.1
Pavement Scarafier	55	48.1
Compactor (ground)	48.8	41.8

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Compactor (ground)		48.8	41.8
Compactor (ground)		48.8	41.8
Compactor (ground)		48.8	41.8
Tractor		49.5	45.6
Tractor		49.5	45.6
Tractor		49.5	45.6
Tractor		49.5	45.6
Slurry Trenching Machine		45.9	42.9
Slurry Trenching Machine		45.9	42.9
Welder / Torch		39.5	35.6
	Total	**55**	**57.1**

*Calculated Lmax is the Loudest value.

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Traffic, Parking and Circulation Assessment for the North Star 3 Project

Imperial County, California

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LIST OF ACRONYMS AND ABBREVIATIONS

Term	Definition
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
County	Imperial County
CNRA	California Natural Resources Agency
CSHE	Circulation and Scenic Highways Element
GHG	Greenhouse Gas
HCM	Highway Capacity Manual
IVAG	Imperial Valley Association of Governments
LOS	Level of Service
MPO	Metropolitan Planning Organization
OPR	Office of Planning and Research
PRC	Public Resources Code
Project	North Star 3 Project
RCP	Regional Comprehensive Plan
RTP	Regional Transportation Plan
SB	Senate Bill
SCAG	Southern California Association of Governments
SR	State Route
SRTP	Short Range Transit Plan
VMT	Vehicle Miles Traveled

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1.0 INTRODUCTION

This Traffic, Parking and Circulation Assessment describes regulations related to transportation, parking, and circulation, and the existing transportation systems in the Project Vicinity; identifies significance criteria for impacts to transportation, parking, and circulation; and evaluates potential impacts associated with the Project alternatives. Consistency with Imperial County goals and policies is presented in the Regulatory Setting section. Cumulative transportation impacts are presented in the Environmental Consequences and Mitigation Measures section. The Project's effects on thresholds are described in the Significance Criteria section.

2.0 AFFECTED ENVIRONMENT

Several state, regional, and local transportation-related standards and criteria apply to the Project and are discussed in the Regulatory Setting section. Standards and performance targets are identified in the Circulation and Scenic Highways Element (CSHE) of the Imperial County General Plan.

2.1 Regulatory Setting

2.1.1 State

California State Bill 375

California's Senate Bill (SB) 375) requires regional Metropolitan Planning Organizations (MPO) to focus regional land use and transportation policies to reduce Greenhouse Gas (GHG) emissions from cars and light trucks in order to meet targets established by the California Air Resources Board with assistance from the Regional Targets Advisory Committee. SB 375 calls for each MPO to develop a Sustainable Communities Strategy with its Regional Transportation Plan, identifying the transportation, land use, and housing strategies that will reduce regional GHG emissions.

Department of Transportation

The California Department of Transportation (Caltrans) is responsible for the design, construction, maintenance, and operation of the California State highway system, as well as that portion of the Interstate highway system within the state's boundaries. Alone and in partnership with Amtrak, Caltrans is also involved in the support of intercity passenger rail service in California and is a leader in promoting the use of alternative modes of transportation.

Caltrans has adopted procedures to oversee construction activities on and around its facilities. The Caltrans Construction Manual (Caltrans 2020a) describes best practices for construction activities, including personnel and equipment safety requirements, temporary traffic control, signage, and other requirements aimed at reducing construction-related hazards and constructing projects safely and efficiently. Any work proposed on Caltrans facilities would be required to abide by these requirements.

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Office of Planning and Research: Vehicle Miles Traveled Traffic Impacts Under SB 743

Per the December 2018 Technical Advisory on Evaluating Transportation Impacts in the California Environmental Quality Act (CEQA), released by the Office of Planning and Research (OPR): SB 743, which was codified in Public Resources Code (PRC) Section 21099, required changes to the guidelines implementing CEQA (CEQA Guidelines) (California Code of Regulations, Title 14, Div. 6, Ch. 3, Section 15000 et seq.) regarding the analysis of transportation impacts. As one appellate court recently explained:

> "During the last 10 years, the Legislature has charted a course of long-term sustainability based on denser infill development, reduced reliance on individual vehicles and improved mass transit, all with the goal of reducing greenhouse gas emissions. Section 21099 is part of that strategy..." (Covina Residents for Responsible Development v. City of Covina (2018) 21 Cal.App.5th 712, 729.)

Pursuant to Section 21099, the criteria for determining the significance of transportation impacts must "promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses." (Id., subd. (b)(1); see generally, adopted CEQA Guidelines, Section 15064.3, subd. (b) [Criteria for Analyzing Transportation Impacts].) To that end, in developing the criteria, OPR has proposed, and the California Natural Resources Agency (CNRA) has certified and adopted, changes to the CEQA Guidelines that identify Vehicle Miles Traveled (VMT) as the most appropriate metric to evaluate a project's transportation impacts. With the CNRA's certification and adoption of the changes to the CEQA Guidelines, automobile delay, as measured by *Level of Service (LOS)* and other similar metrics, no longer constitutes a significant environmental effect under CEQA. (PRC Section 21099, subd. (b)(3).)

Caltrans has also issued its own guidance for implementation of SB 743 for projects that could impact Caltrans facilities. Caltrans issued its Transportation Analysis Framework in September 2020, which details methodology for calculating induced demand for capacity increasing transportation projects on the State Highway System (Caltrans 2020b). Caltrans also issued its Transportation Analysis Under CEQA guidance in September 2020, which describes significance determinations for capacity increasing projects on the State Highway System.

Transportation facilities under the jurisdiction of Caltrans within the vicinity of the Project Site include Highway 78.

Due to the location of the Proposed Project and the nature of the Project being a remotely operated solar farm with structural development that would not include additional full-time employees onsite, VMT impacts are not analyzed further in this document.

2.1.2 Local

Southern California Association of Government Plans and Programs

The Southern California Association of Governments (SCAG) is responsible for the regional planning in Southern California, within the SCAG region of counties. SCAG has prepared long range growth and development plans for the Southern California region since the early 1970s as part of the ongoing

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Development Guide Program. This program provides a framework for coordinating local and regional decisions regarding future development and growth. An important component of this process is the preparation of growth at intervals ranging from 3 to 5 years. The adopted growth forecast policies become the basis for SCAG's functional plans (i.e., transportation, housing, air and water) for the region. The population totals and growth distribution are used in planning the future capacity of highways and transit systems.

The Regional Comprehensive Plan (RCP) recommends ways to redirect the region's growth in order to minimize congestion and better protect the environment. While SCAG has no authority to mandate implementation of its RCP, some of the Plan's principal goals (i.e., improved jobs/housing balance) are being implemented through county and city general plans.

The Regional Transportation Plan (RTP), Destination 2030, is linked to the RCP. Because SCAG has authority over a significant amount of transportation funding, it also has some control over the implementation of transportation-related projects. The Goods Movement Action Plan seeks to optimize the region's transportation system through increases in economic efficiency, congestion, mitigation, safety and air quality improvements, and enhancements to system security. The Compass Blueprint 2-percent Strategy provides for studying new directions for growth.

Imperial County General Plan Circulation and Scenic Highways Element

The Imperial County General Plan CSHE is intended to provide a plan to accommodate a pattern of concentrated and coordinated growth, providing both, regional and local linkage systems between unique communities, and its neighboring metropolitan regions while protecting and enhancing scenic resources within both rural and urban scenic highway corridors. The Imperial County General Plan CSHE policies related to the proposed Project are outlined below. Table 1 summarizes the proposed Project's consistency with the applicable General Plan policies.

While this report analyzes the Proposed Project's consistency with the General Plan pursuant to CEQA Guidelines Section 15125(d), the Imperial County Planning Commissioners and Board of Supervisors ultimately determines consistency with the General Plan.

Table 1. Transportation and Circulation Standards of the Imperial County General Plan CSHE

Plan/Policy	Standard/Criteria
CSHE Goal 1: The County will provide and require an integrated transportation system for the safe and efficient movement of people and goods within and through the County of Imperial with minimum disruption to the environment.	A qualitative analysis has been prepared which demonstrates that the proposed Project would not cause existing roadways or intersections to operate below a Level of Service "C".
CSHE Objective 1.2: Require a traffic analysis for any new development which may have a significant impact on County roads.	Traffic impacts were concluded to be less than significant. No mitigation is required.

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Table 1. Transportation and Circulation Standards of the Imperial County General Plan CSHE	
Plan/Policy	**Standard/Criteria**
CSHE Objective 1.12: Review new development proposals to ensure that the proposed development provides adequate parking and would not increase traffic on existing roadways and intersection to a level of service (LOS) worse than "C" without providing appropriate mitigations to existing infrastructure.	

County of Imperial Bicycle Master Plan

In 1999, the County of Imperial adopted a Bicycle Master Plan for use as a guideline in planning, developing, designing, and constructing future bicycle facilities. This was readopted in 2003. The County Bicycle Master Plan is periodically updated and approved by the County and Imperial Valley Association of Governments (IVAG). The most current approved Bicycle Master Plan is herein made a part of the Circulation Element as an appendix and said plan may be amended from time to time. The latest adopted version will constitute the appendix.

Imperial County Airport Land Use Compatibility Plan

The County of Imperial approved an amended Airport Land Use Compatibility Plan for all Imperial County airports in June 1996. The plan sets forth the criteria and policies that the Airport Land Use Commission use to assess the compatibility between the primary airports in the County and proposed land use development in the areas surrounding them. Airports affected by this plan located near El Centro are the Imperial County Airport and the Naval Air Facility at El Centro. Additionally, the Plan provides guidance for commission review of new airports and heliports proposed for construction in the County.

2002 Imperial County 20-Year Transportation Plan Update – Highway Element

The 2002 Transportation Plan is a 20-year plan that articulates Imperial County's transportation challenges. The plan provides the foundation for future transportation funding decisions by establishing a set of transportation priorities for Imperial Valley roads and highways. These priorities are intended to meet and respond to the unique transportation characteristics of Imperial Valley's residents, visitors, economy and businesses. The basis for addressing the region's particular needs was based on the mission statement: "Maintain and improve mobility for people and goods to enhance the quality of life and economic vitality of Imperial County."

Imperial County 20-Year Transportation Plan – Non Motorized Transportation Element

An *Imperial County 20-Year Non-Motorized Transportation Plan* was prepared for the IVAG and released in April 2000. The study evaluates existing facilities for pedestrian and bicycles services in Imperial County and provides long-term recommendations. The plan includes specific recommendations based upon census data. The Non-Motorized Transportation Plan is prepared for the member agencies of the IVAG.

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Imperial Valley Short Range Transit Plan

The Short Range Transit Plan (SRTP), at the time of this update, was published in 2003 and is an administrative and management tool. The SRTP is a federally mandated planning document that describes the plans, programs and goals of the transit operator. It has a 10-year planning horizon and is updated biennially. It focuses on the characteristics and capital needs of the existing system, and on committed (funded) expansion plans. The various regional County contracted transit services are listed, as well as the cities services. The plan is supported by the County circulation element goals and objectives. The SRTP is prepared for the member agencies of the IVAG.

Regional Transportation Plan, "Destination 2030"

The RTP is a multi-modal, long-range planning document prepared by the SCAG, in coordination with federal, state, IVAG, and other regional, sub regional and local agencies in Southern California.

The RTP includes programs and policies for congestion management, transit, bicycles and pedestrians, roadways, and finances. The RTP is prepared every 3 years and reflects the current future horizon based on a 20-year projection of needs.

The RTP's primary use is as a regional long-range plan for federally funded transportation projects. It also serves as a comprehensive, coordinated transportation plan for all governmental jurisdictions within the region.

Each agency responsible for transportation, such as local cities, the County, and Caltrans, has different transportation implementation responsibilities under the RTP. The RTP relies on the plans and policies governing circulation and transportation in each county to identify the region's future multi-modal transportation system.

Traffic Study and Report Policy

The *Imperial County Traffic Study and Report Policy* (Imperial County Public Works 2007) identifies standards of significance for appropriate traffic studies for applicable land use types in the region. The basic criteria that will be used to make the determination for providing a complete traffic study as a part of the project review process are listed below. The criteria are not a complete or exhaustive list, but they are intended to define when such a report is to be prepared.

General Criteria

A. Any project that adds more than 8 percent of the total existing vehicle trips on the adjacent road system at full build-out of the project.

B. Any project that generated more than 400 daily residential trip ends, 800 commercial or industrial trip ends or 200 peak hour trip ends, as determined by the average trip rates contained in the Institute of Transportation Engineers Trip Generation Informational Report or the Imperial County Local Exceptions.

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C. Any project that has the potential to degrade an existing road section, an existing signalized intersection, or an existing unsignalized intersection to below the existing level of service or to cause it to be lower than a LOS "C" during any peak hour, using the Highway Capacity Manual (HCM) Methods of analysis on any individual, existing traffic movement.

D. Any project, within criteria b. above, which generates more than 10% of its total traffic in the form of truck traffic.

E. Any project that intensifies the usage of the site above the level currently allowed by zoning codes and requires a General Plan Amendment; and/or Conditional Use Permit, zone change, variance or other discretionary permit.

F. Any project that may cause an existing or proposed intersection to meet traffic signal warrants or cause a proposed intersection to be lower than LOS "C".

The Project does not meet any of the General Criteria listed above, so a full traffic study is not required.

3.0 ENVIRONMENTAL SETTING

Existing traffic conditions are the baseline from which potential Project impacts are measured. Existing traffic conditions are presented in terms of the roadway system network, traffic volumes, and current traffic operating conditions.

3.1 Existing Road Network

3.1.1 State Roadways

State Route 86 (Highway 86)

State Route (SR) 86 is classified as a State Highway/Expressway in the Imperial County General Plan CSHE. SR 86 is a north-south route highway that connects Highway 111 in Riverside County to SR 78 in Imperial County. SR 86 is a four-lane highway with a complete grade separation within the Project vicinity; the posted speed limit is generally 65 mph.

State Route 78 (Ben Hulse Highway)

State Route 78 is classified as a State Highway/Expressway in the Imperial County General Plan CSHE. SR 78 is an east-west route highway traversing approximately 82 miles through Imperial County. The route is a two-lane conventional highway throughout its alignment, although some portions have been upgraded to a four-lane expressway and four-lane conventional highway as a result of recent improvement projects. SR 78 is a two-lane conventional highway within the Project vicinity; the posted speed limit is generally 65 mph.

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State Route 111 (Highway 111)

Highway 111 is classified as a State Highway/Expressway in the Imperial County General Plan CSHE. Highway 111 is a north-south highway connecting the three largest cities in Imperial County — Calexico, El Centro, and Brawley — and runs from Interstate 10 in Riverside County to the U.S./Mexico border. Outside the towns of Calipatria and Niland, Highway 111 is constructed as a two-lane undivided north-south roadway, providing one lane of travel per direction; and the posted speed limit is generally 65 mph.

Transit, Bicycle and Pedestrian Facilities

Transit, bicycle, and pedestrian facilities are not available in the Project vicinity.

Airports

The Cliff Hatfield Memorial Airport is located approximately 20 miles east of the Project Site and is an operational public airport. The Holtville Airport, located approximately 40 miles southeast of the Project Site, is closed indefinitely.

3.2 Existing Traffic Volumes

Existing traffic volumes on Project vicinity roadways were promulgated from the Caltrans Traffic Census Program for roadway segments in the Project vicinity, which include SRs 86, 78, and 111 (Caltrans 2017). Traffic volumes for the listed roadway segments are provided in Table 2.

Table 2. Existing Traffic Volumes on Project Vicinity Roadways

SR 86 Roadway Segment	Peak Hour Monthly Average Daily Trips	Annual Average Daily Traffic (AADT)
Junction SR 78	10,300	9,700
Junction SR 111	5,800	5,500

Source: Caltrans Traffic Census Program Traffic Volumes: Annual Average Daily Traffic (AADT) 2017.

3.3 Level of Service Standards

A project's effect on roadway capacity and LOS does not constitute a significant environmental impact under CEQA. However, a LOS evaluation is required per the County's guidelines to determine if the project would cause any negative effects on roadway operations. The Imperial County Traffic Study and Report Policy, and the County's General Plan Circulation and Scenic Highway Element require intersections and roadway segments to maintain a peak-hour LOS of C or better.

3.3.1 Intersection Level of Service Definitions

For this analysis, LOS is based on the *Highway Capacity Manual* 6th edition (Transportation Research Board 2016) definitions, included as Table 3 for ease of reference. The HCM methodology assigns an LOS

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grade to an intersection based on the delay for vehicles at the intersection, ranging from LOS A to F; LOS A signifies very slight delay with no approach phase fully utilized, while LOS F signifies very high delays and congestion, frequent cycle failures, and long queues. For signalized and all-way stop-controlled intersections, the average control delay for all vehicles is assessed; for two-way stop-controlled intersections, the intersection approach with the highest delay is utilized. Table 3 shows the LOS thresholds from the HCM. For signalized intersections, LOS criteria are stated in terms of the average control delay (in seconds) per vehicle for a 15-minute analysis period. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. For unsignalized intersections, LOS is determined by the computed or measured control delay. It is defined for each movement through the intersection rather than for the intersection as a whole.

Table 3. LOS Definitions for Signalized and Unsignalized Intersections

Level of Service (LOS)	Average Control Delay (Signalized) (sec/vehicle)	Average Control Delay (Unsignalized) (sec/vehicle)
A	≤ 10.0	≤ 10.0
B	10.0 to 20.0	10.1 to 15.0
C	20.0 to 35.0	15.1 to 25.0
D	35.1 to 55.0	25.1 to 35.0
E	55.1 to 80.0	35.1 to 50.0
F	≥ 80.1	≥ 50.0

Source: Kittleson & Associates, Inc. 2022, Appendix M

3.3.2 Existing Roadway Segment Operations

The North Star 3 Project site is adjacent to SR 86 near the SR 78 Junction. Peak hour traffic on this segment is 850 vehicles, or approximately 14 vehicles per minute. The LOS is A for this segment and all nearby intersections. Project-related traffic during construction and operation would not reduce the LOS in the Project Area to unacceptable levels.

3.3.3 Parking Facilities

Onsite parking would be provided for all construction workers for the duration of the construction period. Because the conceptual plans lack sufficient detail of site aisles and parking spaces, the design assessment is limited to a high-level basis. It is expected that there will be sufficient parking for all construction workers.

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4.0 ENVIRONMENTAL CONSEQUENCES AND MITIGATION MEASURES

4.1 Significance Criteria

For this analysis, significance criteria are based on the checklist presented in Appendix G of the State CEQA Guidelines; factual information; scientific data; and regulatory standards of Federal, State, and local agencies.

4.2 CEQA Criteria

Based on Appendix G of the State CEQA Guidelines, a project would result in a significant impact on transportation and circulation if it would:

1. conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadways, bicycle and pedestrian facilities
2. conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)
3. substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)
4. result in inadequate emergency access

4.3 Methods and Assumptions

The analysis prepared in this section is based on a Traffic Impact Report prepared by Kittelson & Associates (2022, Appendix M) and Caltrans Traffic Census Program (Traffic Volumes: Annual Average Daily Traffic 2017). As discussed above, under SB-743, a project's effect on automobile delay shall not constitute a significant environmental impact. Therefore, LOS metrics may no longer serve as transportation impact metrics for CEQA impact analyses. However, the County of Imperial Department of Public Works requires transportation analyses to review roadway capacity in terms of LOS to identify deficiencies and required improvements to the circulation system, outside of the CEQA analysis.

During the construction phase of the Project, the relative impact of implementing the Project was determined by estimating the amount of traffic associated with construction activities within the Study Area and superimposing that traffic onto existing traffic volumes. The traffic volumes associated with regular post-Project activities are anticipated to be approximately equal to or slightly higher than existing traffic volumes due to maintenance of the facility. This increase in volume is unknown and is expected to be relatively minor in comparison to existing conditions; thus, a quantitative analysis of resulting traffic operations under current and cumulative conditions is not recommended. A qualitative analysis is presented below in lieu of a quantitative analysis.

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4.4 Trip Generation

4.4.1 Construction

The amount of automobile and truck traffic associated with implementation of the Project alternatives would vary throughout the construction season as different activities occur. To ensure that the magnitude of traffic impacts is not underestimated for this analysis, it assumes the maximum probable concurrent employment on the Project Site and maximum concurrent truck activity. It is estimated there will be a maximum of 300 worker commutes and 10 vendor trips daily to the Project Site during construction.

Worker Commutes

It has been assumed for this analysis that each construction worker would drive a personal vehicle to the construction site. In reality, it is likely that some employees within individual trade groups would informally carpool to the job site; as a result, this assumption yields a conservatively high estimate of site trip generation. It has also been assumed that on a given day, 100 percent of the construction employment would arrive at the Project site during the a.m. peak hour, and that 100 percent of the onsite construction employment departs during the p.m. peak hour. In reality, it is likely that some employees would arrive and depart during periods outside of peak commute hours. Thus, this analysis provides a conservatively high estimate of peak-hour construction employee traffic. In total, with a conservative estimate, there is a maximum of 300 worker commutes during construction.

Vendor Trips

Trucks would travel to and from the Study Area over the life of the construction phase. The amount of truck activity has been estimated based on a review of the Project design. In a conservative estimate, there is a maximum of 10 daily vendor trips during construction.

Regional Trip Distribution

It is necessary to identify the traffic routes that would be used for the Proposed Project, and the regional distribution of Project trips is an element in that process. It is assumed that the relative regional distribution of the Project's employee and construction truck traffic would be similar due to the few state highways in the vicinity of the Project that would funnel both workers and construction goods.

The assumptions made about employee and truck distribution are identified in Table 4. As noted, the primary route for truck traffic would be from the east heading west on SR 78 and turning north on 86, because these are the main roads to the Project Site. Imported materials could come from either direction (e.g., Brawley, Palm Desert), but would likely approach from the south on SR 86. Employee traffic would also be heaviest from the south, based on the location of residential areas.

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Table 4. Project Trip Distribution			
Direction	**Route**	**Percentage of Total Traffic**	
		Trucks	**Employees**
West	SR 78	10	300
	Total:	**100**	**100**

Source: Data estimated based on geographic location of commuters and vendors.

Due to the location of the Project site and its associated local roadways, it can be estimated that most or all of the vendor and worker traffic would travel west on SR 78 and north on SR 86 to the Project site.

Staging and Parking

Due to lack of specificity in the Project design, the staging areas during constructed have been estimated for this analysis. The primary staging and parking area is anticipated to be off SR 86 within the Project boundary and remain until the construction period ends.

4.4.2 Operation

Due to the Project being remotely operated and the fact that it will not require full-time onsite employees, it is estimated that operational construction will be minimal and will be approximately the same as current conditions. Similar to the construction analysis, the operation analysis assumes the maximum probable operational trips to the Project site. It is estimated there will be a maximum of 4 heavy duty trucks daily to the Project Site during operation.

Parking Demand

Due to the low number of daily trips to the Project Site during operation, it is anticipated there will be a small parking area for when employees must travel to the Project Site. It is anticipated the operational parking area will be on the same footprint as the construction staging and parking area.

Long-term Traffic Volumes

Due to the nature of Project construction being temporary and operational traffic being minimal, long-term increases in traffic would be negligible and a future conditions traffic analysis following construction is not warranted.

4.5 Impacts Not Discussed Further

VMT impacts are not analyzed further in this document due to the location of the Proposed Project and the nature of the Project being a remotely operated solar that would not include full-time employees onsite.

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4.5.1 Impact Analysis and Mitigation Measures

IMPACT 1 **Conflict with Adopted Policies, Plans, or Programs Regarding Public Transit, Bicycle, or Pedestrian Facilities.** *The Proposed Project would not include any project actions within roadway segments. Additionally, the Proposed Project is not in the vicinity of a Public Transit route, or Bicycle or Pedestrian Facilities. Therefore, the Proposed Project would not conflict with any programs, plans, ordinances, or policies addressing the circulation system, including transit, roadways, bicycle, and pedestrian facilities. Therefore, no impact would occur, and no mitigation is required.*

IMPACT 2 **Result in a substantial Increase in Traffic Volume (VMT or LOS) – Existing Plus Project by conflicting or being inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).** *There would be no change in traffic volumes associated with Project construction or operation as project construction is temporary and project operation would have no full-time on-site employees. A VMT analysis is not required for this impact. This impact would be less than significant, and no mitigation would be required.*

IMPACT 3 **Result in a substantial increase in roadway or traffic hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?** *The average daily trips during construction and operation would be minimal along the State Highways. There is a potential for truck traffic when approaching the Project site along SR 78 and SR 86. However, these effects would be temporary and minor, and no long-term effects on geometric design features on Project vicinity roadways would occur that could result in an increase in hazards. This impact would be less than significant, and no mitigation would be required.*

IMPACT 4 **Result in inadequate emergency access.** *There is a potential for truck traffic when approaching the Project site along SR 78 and SR 86. However, these effects would be temporary and minor, and no long-term effects on emergency access would occur that could result in an increase in hazards. This impact would be less than significant, and no mitigation would be required.*

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Water Supply Assessment
For the ZGlobal
North Star 3, LLC
Solar Energy Project
Imperial County, California

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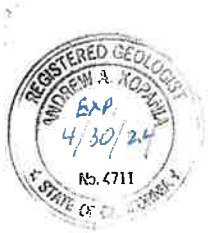

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Water Supply Assessment
For the ZGlobal
North Star 3, LLC
Solar Energy Project
Imperial County, California

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Water Supply Assessment
For the ZGlobal
North Star 3, LLC
Solar Energy Project
Imperial County, California

1.0 INTRODUCTION

EMKO Environmental, Inc. (EMKO) has prepared this Water Supply Assessment (WSA) as a subconsultant to ECORP Consulting, Inc. for the proposed ZGlobal North Star 3, LLC Solar Energy Project (Project) in Imperial County, California at the location indicated on Figure 1. Project water use includes dust control and soil conditioning requirements during construction and routine maintenance, primarily panel washing, during operation.

Water Code Sections 10910 through 10915 were amended by Senate Bill 610 (SB 610) in 2002. SB 610 requires that under specific circumstances, as detailed below, an assessment of available water supplies must be conducted. The purpose of the assessment is to determine if available water supplies are sufficient to serve the demand generated by the Project, as well as the reasonably foreseeable demand in the region over the next 20 years under average normal year, single dry year, and multiple dry year conditions. Water Code Section 10910 was further amended by SB 1262 on September 24, 2016 to require a Water Supply Assessment to include additional information regarding the groundwater basin designation and adjacent water systems. This report provides the information required for a Water Supply Assessment (WSA), as described in the October 2003 *Guidebook for Implementation of Senate Bill 610 and Senate Bill 221 of 2001 to Assist Water Suppliers, Cities, and Counties in Integrating Water and Land Use Planning*, published by the California Department of Water Resources (DWR Guidebook) along with the additional information required by SB 1262.

2.0 PROJECT DESCRIPTION

North Star 3, LLC is proposing to construct and operate solar energy generation and storage facilities on private lands in the Imperial Valley in Imperial County. The Project site is located approximately four miles north of the State Route 78/State Route 86 intersection, eight miles south of Salton City, and 24 miles northwest of the City of Brawley (see Figure 1).

The Project would cover approximately 585 acres in Section 25 of Township 11 South, Range 10 East of the San Bernardino Base and Meridian (SBB&M) within the "Kane Spring NE" 7.5-minute U.S. Geologic Survey (USGS) quadrangle. The Project site

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includes all or part of Imperial County Assessor's Parcel Numbers (APNs) 017-350-031 (approximately 305 acres), APN 017-350-030 (approximately 160 acres), and APN 017-350-027 (approximately 120 acres) (see Figure 3). The Project includes a 100-megawatt solar photovoltaic system and integrated 100-megawatt battery energy storage system along with related substations and transmission lines. The Project water supply will be provided by a new well or wells to be drilled onsite. Figure 3 is a Site Plan showing the Project layout and ancillary facilities.

The parcels are not currently located within the Imperial County Renewable Energy Overlay Zone. Thus, an amendment to the County's General Plan must be approved, along with a Conditional Use Permit (CUP), to allow construction and operation of the Project. These are discretionary actions by the County requiring compliance with the California Environmental Quality Act (CEQA). This Water Supply Assessment is intended to support and be a part of the CEQA analysis.

Domestic water and sanitation facilities would be required during construction. These would be provided through bottled water and portable facilities. A domestic/potable water connection would not be required.

Construction is anticipated to require 12 to 18 months to complete. Anticipated operational Project life is 25 to 30 years.

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Figure 1. Regional Location Map



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Figure 2. Project Location



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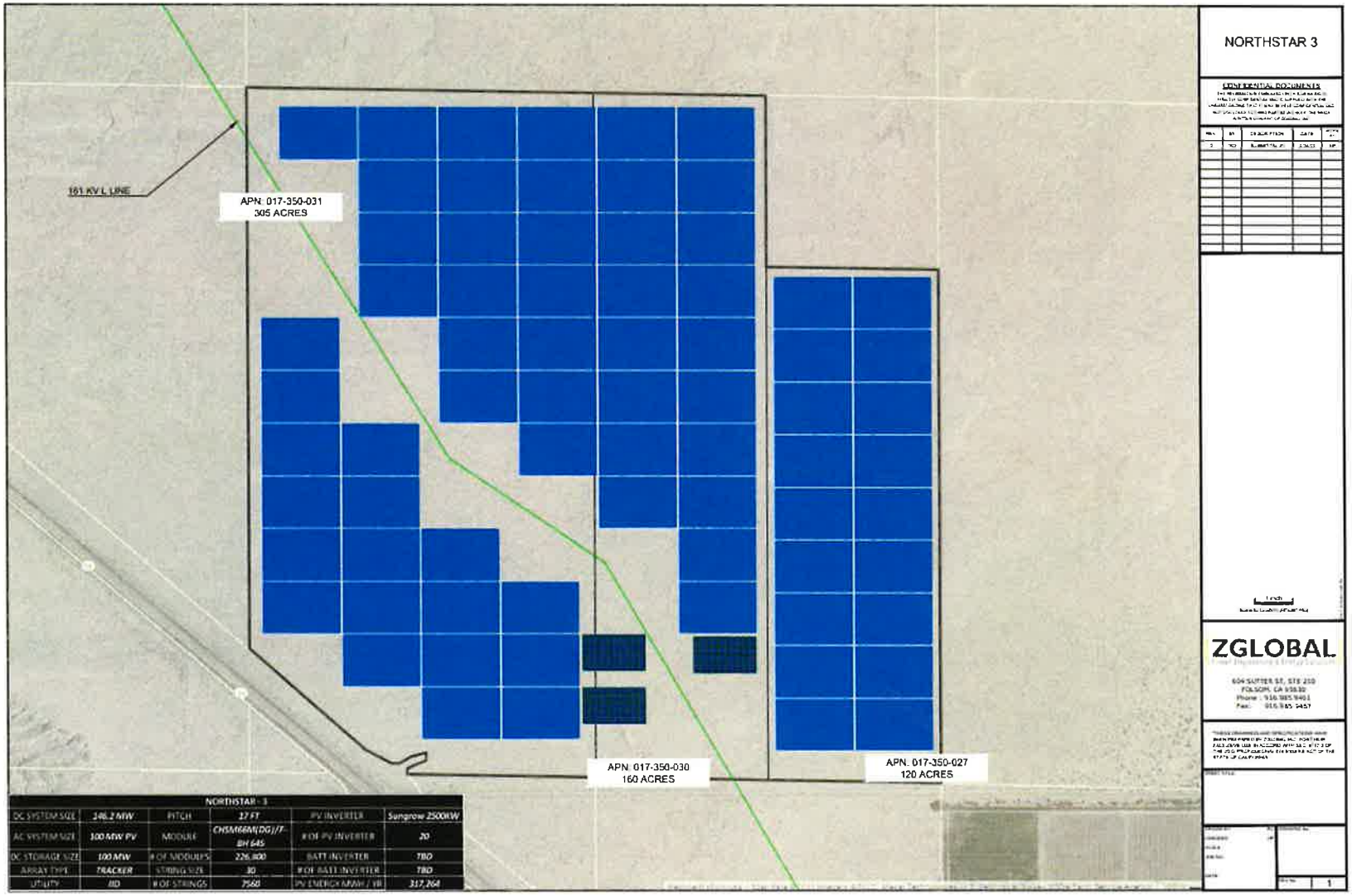
Figure 3. Site Plan



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3.0 WATER SUPPLY PLANNING UNDER SB 610 and SB 1262

SB 610, effective January 1, 2002, amends Sections 10910 through 10915 of the Water Code by requiring preparation of a WSA for development projects subject to CEQA and other criteria, as discussed below. SB 610 also amends Section 10631 of the Water Code, which relates to Urban Water Management Plans (UWMPs). The WSA process under SB 610 is designed to rely on the information typically contained in UWMPs, where available.

On September 24, 2016, SB 1262 further amended Section 10910 of the Water Code to require additional information related to adjacent public water systems and the status of the groundwater basin. These amendments provide additional consistency with the Sustainable Groundwater Management Act of 2014, as discussed further in Section 4.4.

The first steps in the WSA process are to determine whether SB 610 applies to the proposed Project. If so, then documentation of available water supplies, anticipated Project demand, and the sufficiency of supplies must be conducted. These issues are summarized by the following questions, as outlined in the DWR Guidebook:

1. Is the proposed Project subject to CEQA?
2. Is the proposed Project a "Project" under SB 610?
3. Is there a public water system that will service the proposed Project?
4. Is there a current UWMP that accounts for the project demand?
5. Is groundwater a component of the supplies for the Project?
6. Are there sufficient supplies to serve the Project over the next twenty years?

Each of these issues are discussed in the following sections as they relate to the proposed Project.

3.1 Is the Proposed Project Subject to CEQA?

The first step in the SB 610 process is to determine whether the proposed project is subject to CEQA. Water Code Section 10910(a) states that any city or county that determines that an application meets the definition of "project", per Water Code Section 10912 (see Section 3.2, below), and is subject to CEQA, shall prepare a water supply assessment for the project. CEQA applies to projects requiring issuance of a discretionary permit by a public agency, projects undertaken by a public agency, or projects funded by a public agency. As noted in Section 2.0, the proposed Project requires discretionary approval of a General Plan Amendment and a CUP by Imperial County, a public agency. Therefore, the Project is subject to CEQA. This WSA has been prepared to support the environmental review that will be conducted by Imperial County under CEQA.

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3.2 Is the Proposed Project a "Project" Under SB 610?

The second step in the SB 610 process is to determine if the proposed Project meets the definition of "project" under Water Code Section 10912(a). Under Section 10912(a) a "project" is defined as meeting any of the following criteria:

1. a proposed residential development of more than 500 dwelling units;
2. a proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space;
3. a proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space;
4. a proposed hotel or motel, or both, having more than 500 rooms;
5. a proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area;
6. a mixed-use project that includes one or more of the projects defined above; or
7. a project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project.

The Project encompasses 585 acres. As a result, the Project will include an industrial site that is larger than 40 acres and thus this WSA is being prepared in accordance with criterion 5, above.

3.3 Is There a Public Water System That Will Service the Proposed Project?

Section 10912(c) of the Water Code identifies a public water system as a system for the provision of piped water to the public for human consumption that has 3,000 or more service connections. The Project site is eight miles south of Salton City and 24 miles northwest of the City of Brawley. APN 017-350-031, APN 017-350-030, and APN 017-350-027 are located outside of Imperial Irrigation District's (IID's) Imperial Unit, meaning that they are outside of IID's water service area (IID, 2023). Thus, there are no public water systems that will serve the Project. The water supply will be provided by a new onsite groundwater supply well or wells to be drilled and installed as part of the Project.

3.4 Is There a Current Urban Water Management Plan That Accounts for the Project Demand?

The Water Code requires that all public water systems providing water for municipal purposes to more than 3,000 customers, or supplying more than 3,000 acre-feet per year, must prepare an UWMP. The DWR Guidebook (page iii) states that SB 610 repeatedly refers to the UWMP as a planning document that can be used to meet the standards set

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forth in the statute, and that UWMPs act as a foundation to fulfill the requirements of the statute. As noted in Section 3.3, above, there are no public water systems that will serve the Project and, therefore, there is not an UWMP that addresses the Project area or Project demand. Since there is not an UWMP that accounts for the Project demand, this WSA is based upon available and relevant information from DWR, the USGS, and other publicly available data. As this WSA has been prepared for use by the CEQA lead agency, this document includes an evaluation of whether the total projected water supplies, determined to be available during normal, single dry, and multiple dry water years during a 20-year projection, will meet the projected water demand associated with the proposed Project, in addition to existing and planned future uses, including agricultural and manufacturing uses, in accordance with Water Code § 10910(c)(4).

3.5 Is Groundwater a Component of the Supplies for the Project?

Water Code Section 10910(f), paragraphs 1 through 5, must be addressed if groundwater is a source of supply for the proposed Project. As described in Section 3.3, the water supply will be provided by a new groundwater supply well or wells that will be drilled and installed as part of the Project. Therefore, an assessment of groundwater conditions is included in this document.

Water Code Section 10910(f) paragraphs 1 through 5, as modified by SB 1262, state:

(f) If a water supply for a proposed project includes groundwater, the following additional information shall be included in the water supply assessment:

> (1) A review of any information contained in the urban water management plan relevant to the identified water supply for the proposed project.
>
> (2) (A) A description of any groundwater basin or basins from which the proposed project will be supplied. (B) For those basins for which a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), has the legal right to pump under the order or decree. (C) For a basin that has not been adjudicated that is a basin designated as high- or medium priority pursuant to Section 10722.4, information regarding the following: (i) Whether the department has identified the basin as being subject to critical conditions of overdraft pursuant to Section 12924; and (ii) If a groundwater sustainability agency has adopted a groundwater sustainability plan or has an approved alternative, a copy of that alternative or plan. (D) For a basin that has not been adjudicated that is a basin designated as low- or very-low priority pursuant to Section 10722.4, information as to whether the department has identified the basin or basins as overdrafted or has projected that the basin will become overdrafted if present management conditions continue, in the most current bulletin of the department that characterizes the condition of the groundwater basin, and a detailed description by the public water

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system, or the city or county if either is required to comply with this part pursuant to subdivision (b), of the efforts being undertaken in the basin or basins to eliminate the long-term overdraft condition.

(3) A detailed description and analysis of the amount and location of groundwater pumped by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), for the past five years from any groundwater basin from which the proposed project will be supplied. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(4) A detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), from any basin from which the proposed project will be supplied. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(5) An analysis of the sufficiency of the groundwater from the basin or basins from which the proposed project will be supplied to meet the projected water demand associated with the proposed project. A water assessment shall not be required to include the information required by this paragraph if the public water system determines, as part of the review required by paragraph (1), that the sufficiency of groundwater necessary to meet the initial and projected water demand associated with the project was addressed in the description and analysis required by paragraph (4) of subdivision (b) of Section 10631.

Paragraphs 1 through 4, above, are addressed in Section 4.0, below, including a description of the groundwater basin, groundwater conditions, and available supply. Section 5.0 presents available information regarding water demand for the Project.

The Paragraph 5 requirement to provide an analysis of the sufficiency of the groundwater basin to meet the projected water demand associated with the proposed project is addressed in Section 6.0, below.

3.6 Are There Sufficient Supplies to Serve the Project Over the Next Twenty Years?

Water Code Section 10910(c)(4) requires the WSA to "*include a discussion with regard to whether the total projected water supplies, determined to be available by the city or county for the project during normal, single dry, and multiple dry water years during a 20-year projection, will meet the projected water demand associated with the proposed project, in addition to existing and future planned uses, including agricultural and manufacturing uses.*"

The sufficiency of water supply for the proposed Project is addressed in Sections 6.0 and 7.0, below.

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4.0 PROJECT WATER SUPPLY

As stated in Section 3.3, above, construction and operational water will be provided by a new onsite groundwater well or wells to be drilled as part of the Project. As such, groundwater will be the sole water supply for non-potable water needs. Because there are no public water systems or other significant users of groundwater in the groundwater basin, there are no Urban Water Management Plans or other planning documents that can be relied upon for this WSA. Thus, limited information is available regarding groundwater conditions in the Project vicinity.

Overall conditions within the groundwater basin are described in Section 4.1. Groundwater recharge and available supply are discussed in Section 4.2. Groundwater level trends and the status of the basin relative to the Sustainable Groundwater Management Act of 2014 (SGMA) is provided in Section 4.3, as required by SB 1262.

4.1 Groundwater Basin

The Project is located within the West Salton Sea Groundwater Basin (Basin), designated as basin number 7-022, as defined by DWR (2023a) (see Figure 4). The Basin is bounded on the northwest and west by nonwatery-bearing rocks of the Santa Rosa Mountains, by low-lying alluvial drainage divides on the north and south, and by the Salton Sea on the east (DWR, 2003a). The groundwater basin has an area of approximately 106,000 acres, or 166 square miles (DWR, 2003a). The Basin has not been adjudicated (DWR, 2023b). Figure 4 shows the groundwater basin boundary and the approximate location of the Project.

Groundwater occurs within unconsolidated younger Quaternary alluvial deposits and the underlying unconsolidated to semi-consolidated older Tertiary to Quaternary alluvial deposits (DWR, 2003a). The maximum depth of the valley fill is estimated to be 545 feet (DWR, 2003a).

4.2 Groundwater Supply and Recharge

DWR (2023b) reports that the population in the Basin in 2010 was approximately 5,360 persons and that the population is expected to increase by 95 percent to 10,457 by 2030. There are no public water supply wells in the Basin and 13 total wells present. None of the land within the basin is irrigated (DWR, 2023b). Thus, the only water use in the basin is for domestic use, which DWR (2023b) estimates to be 4,214 acre-feet per year. Almost all of the domestic development within the Basin is in the Salton City and Salton Sea Beach areas, located along the west shore of the Salton Sea, approximately eight miles and 15 miles, respectively, northwest of the Project site.

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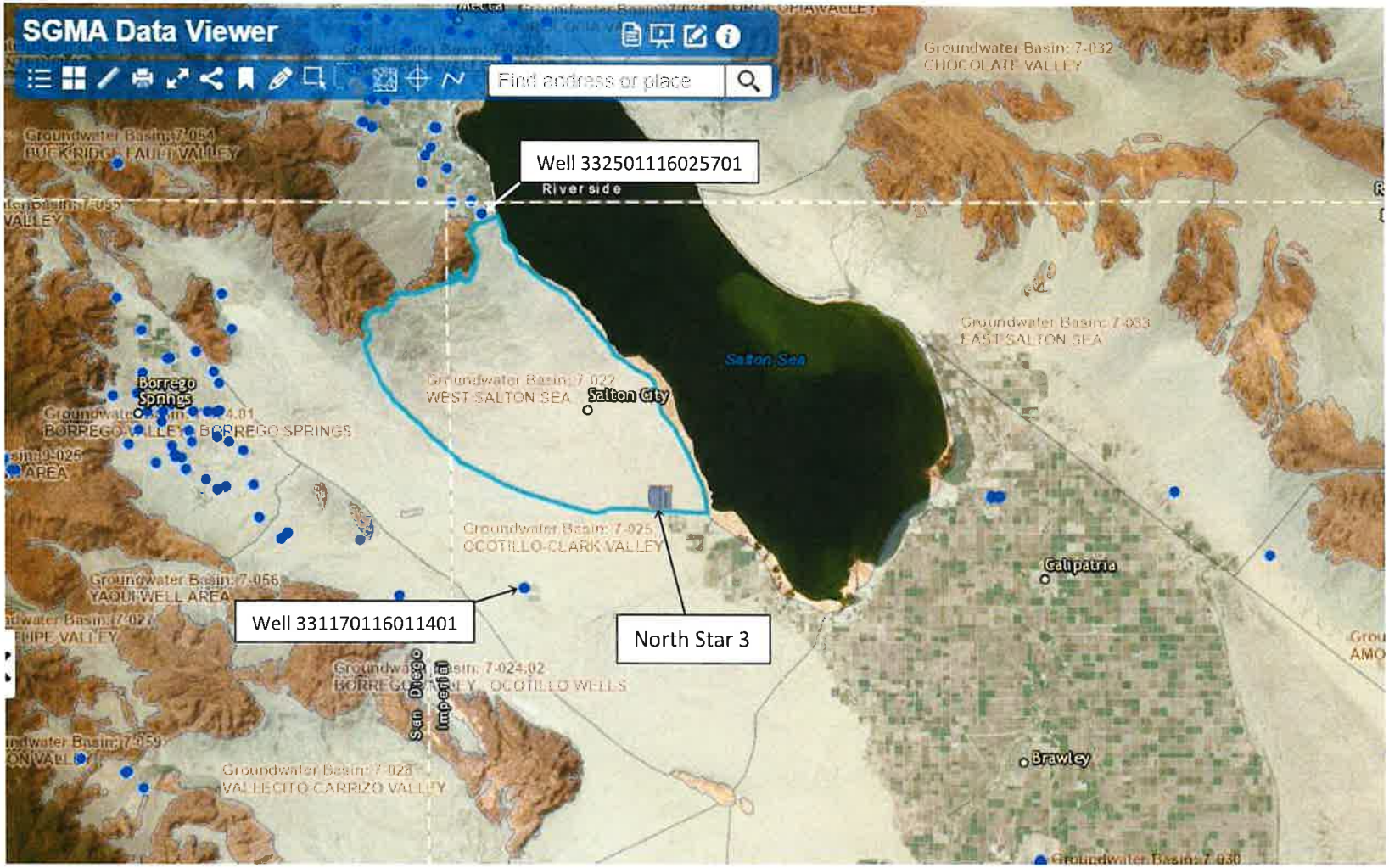
FIGURE 4. West Salton Sea Groundwater Basin



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DWR (2003a) states that the groundwater storage capacity and volume of groundwater in storage in the Basin are unknown. More recent updates from DWR (2021) do not provide any additional information regarding groundwater storage capacity or volume. However, if the average thickness of water bearing formations in the Basin is assumed to be approximately 25 percent of the maximum thickness (i.e., 136 feet) and the effective porosity is assumed to be 20 percent, then the 106,000-acre Basin may be close to 3,000,000 acre-feet. The estimates of the average thickness of the water bearing formations and the effective porosity are intended to be low estimates based. Thus, the 3,000,000 acre-feet of groundwater estimated to be in storage is considered a potentially conservative underestimate.

The average annual rainfall is very low, as discussed further in Section 6.0 below, and typically does not provide a sufficient quantity of moisture to percolate deep into the alluvial sediments. As a result, recharge of groundwater occurs primarily due to runoff from the Santa Rosa Mountains during major storm events, which may not occur every year. There is no estimate of recharge for the Basin provided in the documents reviewed for the preparation of this WSA (see Section 8.0). However, the East Salton Sea Groundwater Basin (DWR Basin 7-033, see Figure 4) is similarly located and has comparable geography. The average annual recharge for the East Salton Sea Groundwater Basin is estimated to be 200 acre-feet per year (DWR, 2003b). The West Salton Sea Groundwater Basin is about half the size of the East Salton Sea Groundwater Basin. Therefore, the average annual recharge to the West Salton Sea Groundwater Basin may be approximately 100 acre-feet per year.

The USGS's National Water Information System mapping application (https://maps.waterdata.usgs.gov/mapper/index.html) and DWR's SGMA Data Viewer website (DWR, 2023a) do not indicate the presence of any active groundwater monitoring locations within the Basin at the time this report was prepared. The blue dots on Figure 4 show the location of active monitoring locations near the Basin. Therefore, the analysis below is based on groundwater level and water quality data from the two closest wells to the Basin.

Well 332501116025701 is located just north of the northern Basin boundary, in the Coachella Valley-Indio Groundwater Basin, approximately 16 miles northwest of the Project location (see Figure 4). The USGS identification number (332501116025701) refers to the latitude and longitude of the well (i.e., 33°25'01" latitude, -116°02'57" longitude), and the California state well number 009S009E04M001 indicates the township, range, and quarter-quarter section (i.e., northwest quarter of the southwest quarter of section 4 in township 9S, range 9E, San Bernardino Base and Meridian). The ground surface elevation at the well location is reported to be -105 feet above mean sea level (ft msl) while the depth of the well is 489 feet below ground surface (ft bgs) (USGS, 2023a).

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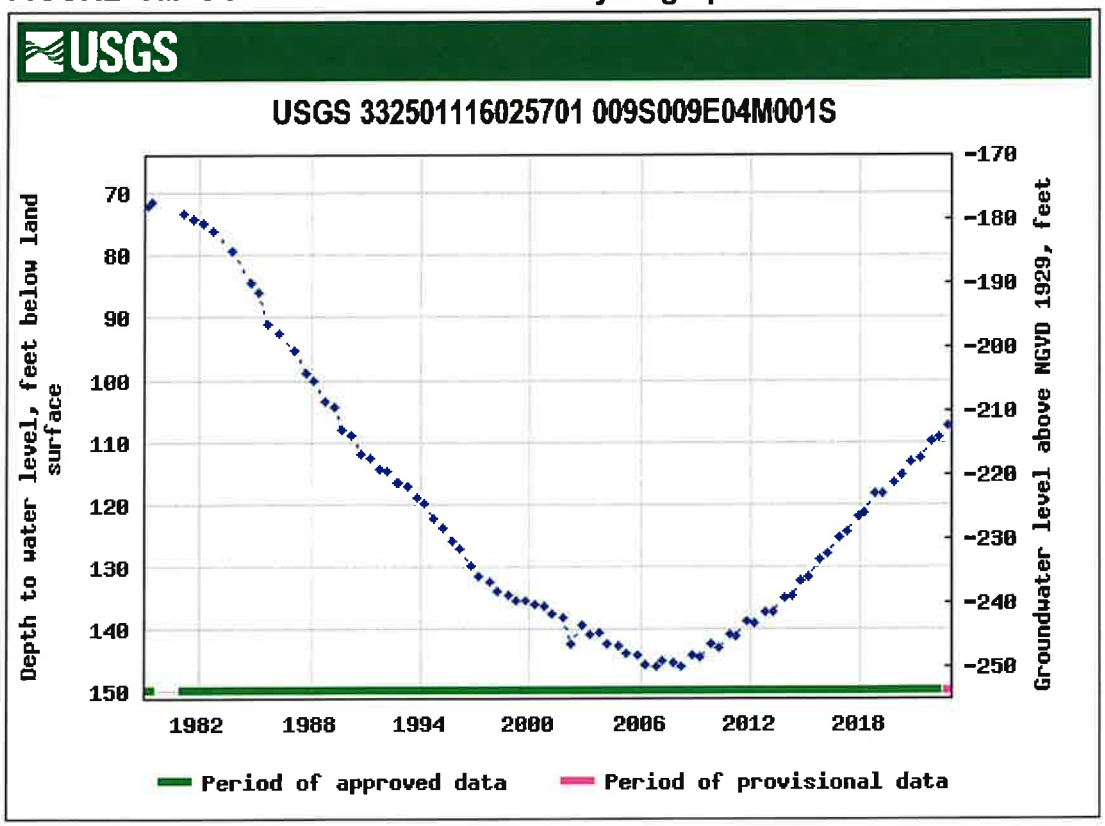
Figure 5a is a hydrograph from USGS (2023a) showing the groundwater level and groundwater elevation measured since 1963 in Well 332501116025701. As indicated on Figure 5a, the groundwater level decreased by 75 feet from 1979 to 2008. Since 2008 the groundwater level has recovered by 40 feet. The depth to groundwater in October 2022 (the last date with a reported measurement by USGS) was 107 ft bgs. The net decrease in the depth to groundwater since 1979 is 35.27 feet (USGS, 2023a). Based on the depth to groundwater and the depth of the well, the potential loss of aquifer volume since 1979 is 8.5 percent of the total available storage estimated above.

FIGURE 5a. USGS Groundwater Level Hydrograph – Well 332501116025701



Well 330701116003501 (i.e., 33°07'01" latitude, -116°00'35" longitude) is located in the Ocotillo-Clark Valley Groundwater Basin, approximately 9.5 miles southwest of the Project location (see Figure 4). The California state well number 012S009E23DM001 indicates the township, range, and quarter-quarter section (i.e., northwest quarter of the northwest quarter of section 23 in township 12S, range 9E, San Bernardino Base and Meridian). The ground surface elevation at the well location is reported to be -15 ft msl while the depth of the well is 580 ft bgs (USGS, 2023b).

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FIGURE 5b. USGS Groundwater Level Hydrograph – Well 330701116003501

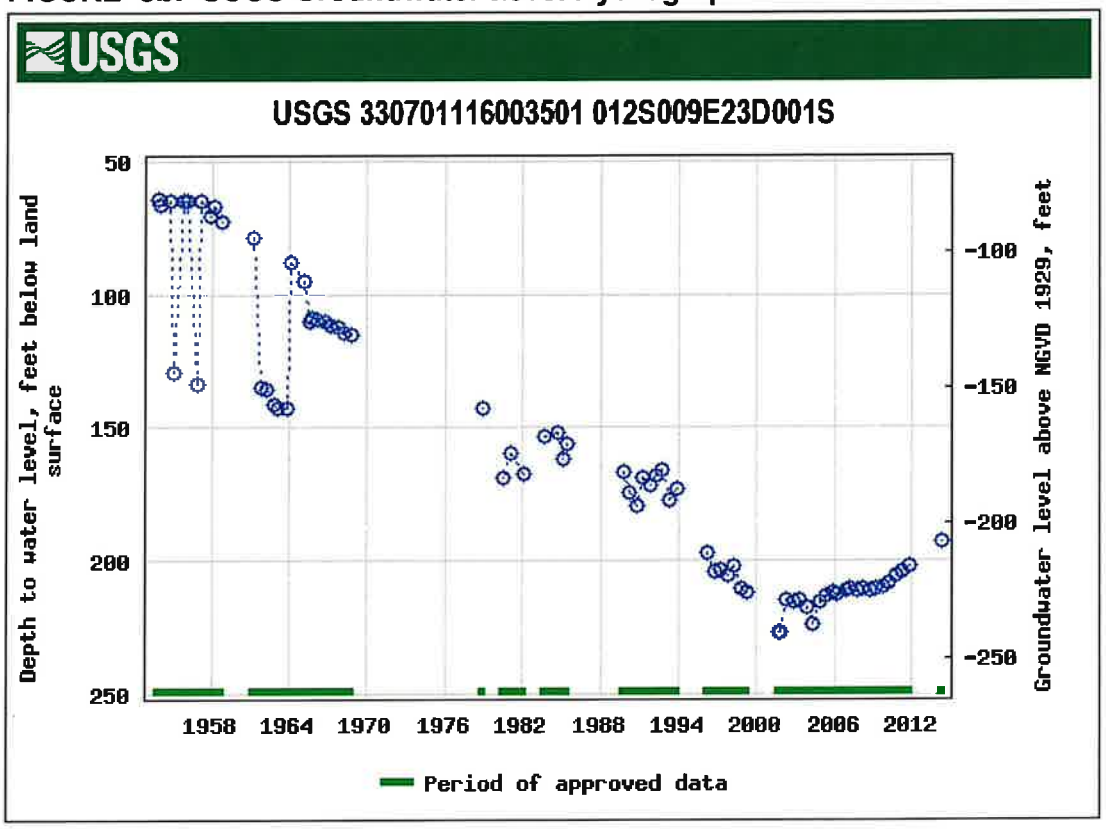

Figure 5b is a hydrograph from USGS (2023b) showing the groundwater level and groundwater elevation measured since 1963 in Well 330701116003501. As indicated on Figure 5b, the groundwater level decreased by approximately 160 feet from 1953 to 2004. Since 2004 the groundwater level has recovered by 31 feet. The depth to groundwater in March 2014 (the last date with a reported measurement by USGS) was 193 ft bgs. The net decrease in the depth to groundwater since 1953 is 129 feet (USGS, 2023b). Based on the depth to groundwater and the depth of the well, the potential loss of aquifer volume since 1953 is 25 percent of the total available storage estimated above.

It is important to note that Well 330701116003501 is located at the former Allegretti Farms property. For many decades, as much as 12,000 acre-feet of groundwater were pumped to irrigate as much as approximately 1,700 acres (Case Text, 2023). A permit to pump groundwater was rescinded by Imperial County and farming operations were replaced by a solar energy system between 2015 and 2020. Thus, groundwater pumping has decreased significantly, resulting in continued recovery of groundwater levels over the past decade.

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The nearest location from which water quality samples have been collected and analyzed is USGS Well 330730115512402, near the intersection of State Route 78 and State Route 86. The samples were collected on May 20, 1964 (USGS, 2023c). Table 1 shows the water quality results from June 1963. The September results were comparable. The groundwater has a normal pH but the levels of sodium, chloride, and sulfate are elevated compared to what would be expected from percolation of local rainfall, with the chloride and sulfate levels substantially in excess of the secondary maximum contaminant level (MCL) for drinking water of 250 mg/L. The dissolved solids concentration of 8,420 milligrams per liter (mg/L) is more than eight times the value of the high end of the range of the secondary MCL for drinking water of 1,000 mg/L. The high dissolved solids concentration renders the water unsuitable for potable or agricultural uses without treatment. The existing water quality is suitable for use for construction and maintenance purposes, though.

TABLE 1. USGS Water Quality Data (May 20, 1964)

Parameter	Units	Result
Temperature	Degrees Celsius (° C)	26.1
Specific Conductance	MicroSiemens per centimeter at 25° C	12,600
pH	Standard units	7.2
Carbon Dioxide	Milligrams per liter (mg/L)	25
Acid Neutralizing Capacity	mg/L as calcium carbonate ($CaCO_3$)	203
Bicarbonate	mg/L	248
Carbonate	mg/L	0.0
Hardness	mg/L as $CaCO_3$	1,700
Non-carbonate hardness	mg/L as $CaCO_3$	1,500
Calcium	mg/L	348
Magnesium	mg/L	197
Sodium + Potassium	mg/L	2,400
Chloride	mg/L	2,950
Sulfate	mg/L	2,400
Silica	mg/L as silica dioxide (SiO_2)	19
Dissolved Solids	mg/L	8,420

Source: USGS, 2023c

4.3 Groundwater Sustainability

A series of three bills passed by the California legislature and were signed by Governor Brown on September 16, 2014. These three bills, Assembly Bill (AB) 1739, SB 1168,

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and SB 1319, together comprise the Sustainable Groundwater Management Act of 2014 (SGMA). SGMA provides a structure under which local agencies are to develop a sustainable groundwater management program. SGMA focuses on basins or subbasins designated by DWR as high or medium priority basins, and those with critical conditions of overdraft.

According to DWR (2022b), the West Salton Sea Groundwater Basin is a very low priority basin. DWR has not identified the Basin as being overdrafted nor has it projected that it will become overdrafted if present management conditions continue (DWR, 2021 and 2023b). Thus, the Basin is not subject to the current requirements of SGMA, including the formation of a groundwater sustainability agency (GSA) and preparation of a groundwater sustainability plan (GSP).

5.0 PROJECT WATER DEMAND

Water demand varies depending on the Project phase. During construction, water will be needed for dust control and soil conditioning during installation of the photovoltaic panels, battery storage units, and related infrastructure. During the operational phase of the project, water will be needed for routine maintenance activities, which primarily consists of washing the photovoltaic panels to maintain generation efficiency.

Table 2 provides a summary of Project parameters that affect water demand and the estimated water needs for construction and operation. The construction water demand is primarily for dust control. Thus, the water needs are proportional to the size of the disturbed area and the local climate. Construction water demand is approximately 295 acre-feet. Construction is anticipated to require 12 to 18 months to complete. Thus, the monthly water demand during that period will average about 16 acre-feet to 25 acre-feet..

Table 2. Project Water Demand

Site	Area (acres)	Output (megawatts)	Construction Water (acre-feet)	Operational Water (acre-feet per year)
North Star 1	585	100	295	10

The operational water demand for panel washing and other maintenance needs is based primarily on the number of panels, which relates to the energy production or output, in megawatts. The operational water demand is anticipated to be 10 acre-feet per year. The maintenance activities are anticipated to be conducted up to twice a year over a one-to-two-week period each event, so the maintenance water demand is intermittent and not spread throughout the year. The operational water demand will occur throughout the life of the Project.

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6.0 DRY YEAR SUPPLY

The volume and sustainability of dry-year water supply for a Project in California is typically addressed by comparing annual rainfall with changes in groundwater levels in the Basin. This comparison is made for a normal or average water year[1], for single dry year, and for multiple dry water years. For this Project, local rainfall data were obtained from the Western Region Climate Center (WRCC, 2023) for the Brawley 2 SW weather station in Brawley, California, located approximately 23 miles southeast of the Project location (see Figure 1).

Figure 6 shows the annual water year rainfall for the Brawley 2 SW station from 1927 through 2007. The average water year rainfall during this period is 2.61 inches. The driest year was 2007, when no precipitation was recorded. The driest year with recorded rainfall was 1934, with only 0.2 inch of rainfall reported. The wettest year was 1983, when 9.25 inches of rain were measured. As indicated on Figure 6, a relatively wet period occurred from 1976 to 1986, with 14 of 18 water years exceeding the average annual rainfall. In comparison, the period from 1996 to 2012 was relatively dry, with 10 of 12 water years having below normal rainfall.

The historic rainfall data on Figure 6 can be compared with the groundwater levels shown on Figures 5a and 5b to assess the effects of wet and dry periods on groundwater supply in the Basin. The wettest year recorded, 1983, and the relatively wet period from 1976 to 1986, correspond to a period when groundwater levels were consistently declining. Groundwater levels began to recover between 2004 to 2008, which was during the dry period from 1996 to 2016, and have continued to increase through 2022. Thus, the available groundwater level and rainfall data do not indicate any relationship between wet, normal, single dry year, or multiple dry years and available groundwater supply. As noted above in Section 4.2, recharge of groundwater occurs primarily due to runoff from the mountains during individual major storm events (DWR, 2003). Such storm events typically occur infrequently and there may be many years between events that produce enough runoff to provide appreciable recharge.

[1] In California, a water year is defined as the period from October 1 of a calendar year through September 30 of the subsequent calendar year. A water year is designated by the year in which it ends. For example, the period from October 1, 2006 through September 30, 2007 is referred to as the 2007 water year. Due to the nature of weather patterns in the state, a water year better represents hydrologic conditions related to wet and dry periods than does a calendar year.

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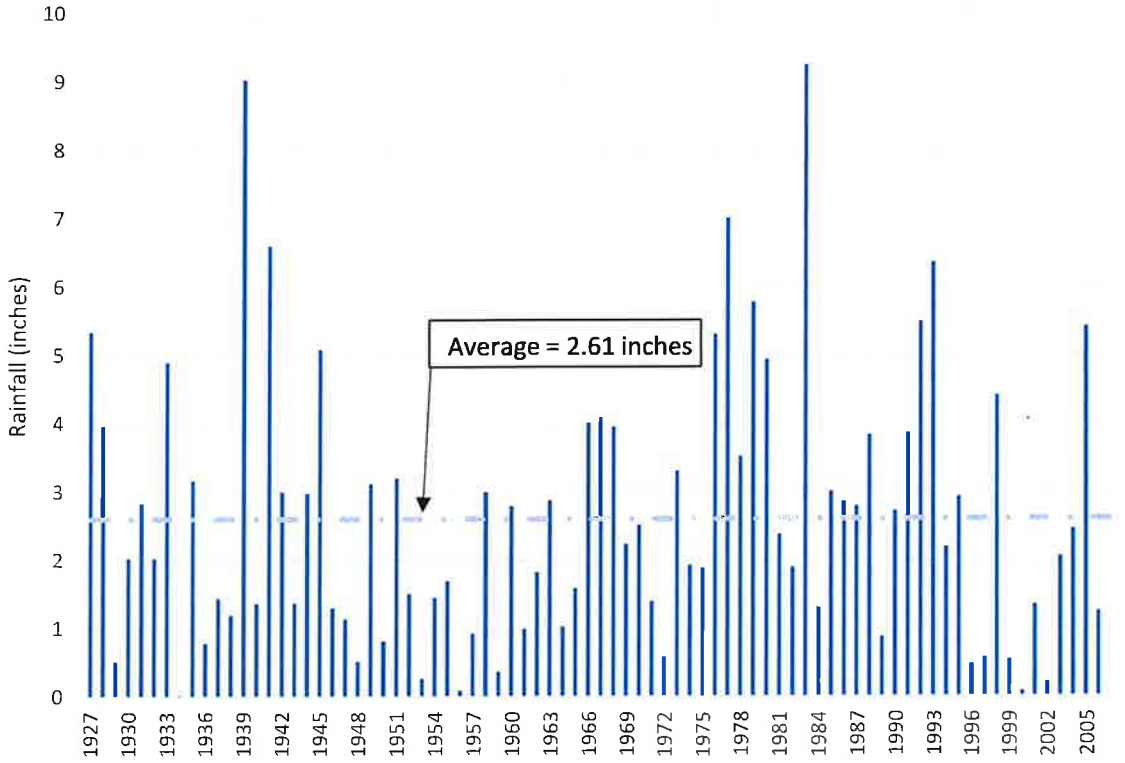
Figure 6. Water Year Rainfall at Brawley 2 SW



As described in Section 4.2, the total groundwater storage capacity of the Basin is conservatively estimated to be 3,000,000 acre-feet and the groundwater level decline in wells in adjacent groundwater basins has varied from 8.5 percent to 25 percent over the last several decades, although groundwater levels in some areas may be recovering further due to reduction of pumping for irrigation (see Section 4.2). Thus, the current storage in the Basin may be in the range of 2,250,000 to 2,745,000 acre-feet. The single year construction water demand of 295 acre-feet and the annual operational water needs of 10 acre-feet are miniscule (0.011 percent to 0.013 percent and 0.00036 percent to 0.0004 percent, respectively) compared to the available groundwater in storage. Furthermore, the long term annual operational water needs are much less than the estimated annual recharge of 100 acre-feet per year. Overall, there is adequate water available to supply the Project water needs during single dry, and multiple dry year periods.

7.0 FINDINGS and DISCUSSION

This WSA has been prepared in accordance with SB 610 and SB 1262 to support the CEQA environmental review for the proposed Project and provides an assessment of water supply adequacy for the Project in accordance with Water Code Sections 10910

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through 10915. As stated in Section 1.0, the purpose of the assessment is to determine if available water supplies are sufficient to serve the demand generated by the Project, as well as the reasonably foreseeable demand in the region over the next 20 years under average normal year, single dry year, and multiple dry year conditions. As noted in Section 4.2, above, while groundwater levels in adjacent groundwater basins had been declining during the period from the 1950s to the early 2000s, over the past 15 to 20 years they have been recovering, indicating that current water demands are less than recharge and replenishment. While the population, and presumably the related water demand, are anticipated to almost double over the next decade, the overall domestic water demand is not significant compared to the volume of groundwater in storage. Therefore, the Basin has adequate resources for current and anticipated future existing water needs.

The water demand for the proposed Project will consist of water needed during construction and water needed for maintenance once the Project is operational. The construction water demand is anticipated to be 295 acre-feet over 12 to 18 months, primarily for dust control. The operational demand is anticipated to be 10 acre-feet per year for panel washing and other maintenance activities. The operational demand will exist for the life of the Project, which is anticipated to be 25 to 30 years.

The construction water demand exceeds the potential annual recharge to the Basin of 100 acre-feet per year (see Section 4.2). However, the construction water needs are short-term, temporary, and equivalent to only 0.011 percent to 0.013 percent of the estimated groundwater in storage. This temporary water use is not anticipated to cause persistent and long-term lowering of groundwater levels. Therefore, the construction water demand will not cause or contribute to overdraft, exhaustion of water supplies, lowering of groundwater levels to depths that would be uneconomic for pumping, land subsidence, or significant alteration of groundwater quality.

The annual operational water needs are equivalent to 10 percent of the average annual recharge and 0.00036 percent to 0.0004 percent of the estimated current storage volume of the Basin. Therefore, the long-term operation and maintenance of the Project would not have any measurable effect or impact on groundwater resources in the Basin.

Based on the analysis presented in this WSA, there will be sufficient water available for existing water uses in the Basin, along with the Project water demand during normal, single dry year, and multiple dry year periods for the anticipated life of the Project, which is anticipated to be greater than 20 years.

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Visual Resources Assessment for the North Star 3 Project

Imperial County, California

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APPENDICES

Appendix A – Contrast Rating Worksheets

Appendix B – Glare Analysis Report

LIST OF ACRONYMS AND ABBREVIATIONS

Term	Definition
APN	Assessor's Parcel Number
BESS	Battery Electric Storage System
BLM	Bureau of Land Management
Caltrans	California Department of Transportation
County	Imperial County
FAA	Federal Aviation Administration
HSAT	Horizontal Single Axis Tracker
KOP	Key Observation Point
MW	Megawatt
PV	Photovoltaic
Project	North Star 3 Project
RE	Renewable Energy
SR	State Route

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1.0 INTRODUCTION

ZGlobal, through its wholly owned subsidiary North Star 3 SES, LLC (Applicant), is proposing development of the North Star 3 Solar Energy System (SES) and Battery Electric Storage System (BESS, Proposed Project), approximately 18 miles northwest of the community of Westmorland, California in Imperial County (County), California. ECORP Consulting, Inc. has been contracted to assess potential impacts to aesthetics and visual resources from construction and operation of the Proposed Project, assess potential glare-related safety hazards, and document the results of both efforts in this report. The Visual Resources Assessment discusses existing conditions on the Proposed Project site, applicable regulations, potential impacts, and the need for mitigation measures to reduce or avoid adverse impacts anticipated from implementation of the Proposed Project, as applicable. The glare hazard analysis consists of identifying locations that could experience glare conditions during project operations using a computer model and assessing the potential severity of the hazard.

The Proposed Project includes a 100-megawatt (MW) solar field, consisting of solar photovoltaic (PV) modules mounted on Horizontal Single-Axis Tracker systems with mounting racks supported by driven piles, and a 100-MW BESS. The solar field consists of 226,800 modules on 7,560 strings and associated collector and inverter facilities. The Proposed Project would connect to the onsite Pacific Gas & Electric Company (PG&E) 161 kilovolt (kV) L transmission line. The projected lifespan of the Proposed Project is 20 years. The project area will be restored to pre-project conditions following decommissioning.

Site access would be available from State Route (SR) 86 and Salton Sea Road. It is located on approximately 585 acres of vacant land on three parcels in Imperial County, California (Assessor's Parcel Number [APN] 017-350-031, 305 acres; APN 017-350-030, 160 acres; and APN 017-350-027, 120 acres). The site is currently vacant, undeveloped land and is surrounded by Open Space on all sides, with active agriculture approximately 0.5 miles to the southeast and the Salton Sea approximately 3 miles to the east of the project site.

The site is within an Imperial County General Plan-designated Agricultural area and is zoned S-2 (Open Space/Preservation), which allows solar generating facilities with a Conditional Use Permit (CUP). The Proposed Project site is not mapped on the California Department of Conservation's (DOC) Imperial County Important Farmland Map (2018), indicating that the three parcels are not considered important farmland under any category (Prime Farmland, Farmland of Statewide Importance, Unique Farmland, or Farmland) of Local Importance (DOC 2018). Neither parcel is within the County's Renewable Energy (RE) and Transmission Element. An amendment to the County's General Plan will be needed to include and classify the Project site within the RE Overlay Zone, and a CUP to allow construction and operation of the solar energy generation facility with battery storage within the RE Overlay Zone will be required to implement the Project.

The general vicinity of the Proposed Project site consists of Sonoran Desert scrub, as is the immediate vicinity. The general area is characterized by open and vast views with flat to undulating topography. Agricultural cropland and associated structures are found approximately 0.5 miles to the southeast of the site. Vegetation in the geometric agricultural fields is defined by distinct edges of exposed soils, with consistent groupings of bright yellow to dark green colors and a smooth, carpet-like texture.

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Agricultural development to the southeast of the Proposed Project largely contributes to the human-made changes in the natural landscape. The existing human-made features in the landscape are primarily geometric-shape. Transmission lines run throughout the general area and consist of vertical, continuous, galvanized, grey to silver (metallic) and light brown to dark brown (wood). There is a network of light tan to dark tan, dirt access roads throughout the general area. The roads can contribute contrast with the existing agricultural fields, during the active agricultural season.

Figures 1 and 2 show the Project Location and Key Observation Point (KOP) locations and the view from KOP 1, respectively.

2.0 AFFECTED ENVIRONMENT

2.1 Regulatory Framework

2.1.1 Federal

There are no Federal laws or regulations that apply to this Visual Resources Impact Assessment, though it includes an analysis following the Bureau of Land Management (BLM) Visual Resources Inventory class system to describe the existing scenic values in the environment. The BLM's process is often applied to non-BLM visual assessments to provide Project proponents and authorizing agencies a consistent and translatable methodology for understanding visual impacts from proposed projects.

Visual resource inventory classes are assigned through the inventory process, based on several factors including type of users, amount of use, public interest, adjacent land uses, special areas, and other factors. Classes I and II are assigned to most valued resources, with Class I reserved for those areas where a management decision has been made previously to maintain a natural landscape. This includes areas such as national wilderness areas, the wild section of national wild and scenic rivers, and other congressionally and administratively designated areas where decisions have been made to preserve a natural landscape. Classes II, III, and IV are assigned based on a combination of scenic quality, sensitivity level, and distance zones. This is accomplished by combining the three overlays for scenic quality, sensitivity levels, and distance zones, and using the guidelines to assign the proper class. Class III represents a moderate value, and Class IV is of least value. Inventory classes are informational in nature and provide the basis for considering visual values in the Resource Management Plan process. They do not establish management direction and should not be used as a basis for constraining or limiting surface disturbing activities.

2.1.2 State

The California Department of Transportation (Caltrans) manages the California Scenic Highway Program. The goal of the program is to preserve and protect scenic highway corridors from changes that would affect the aesthetic value of the land adjacent to the scenic corridor.

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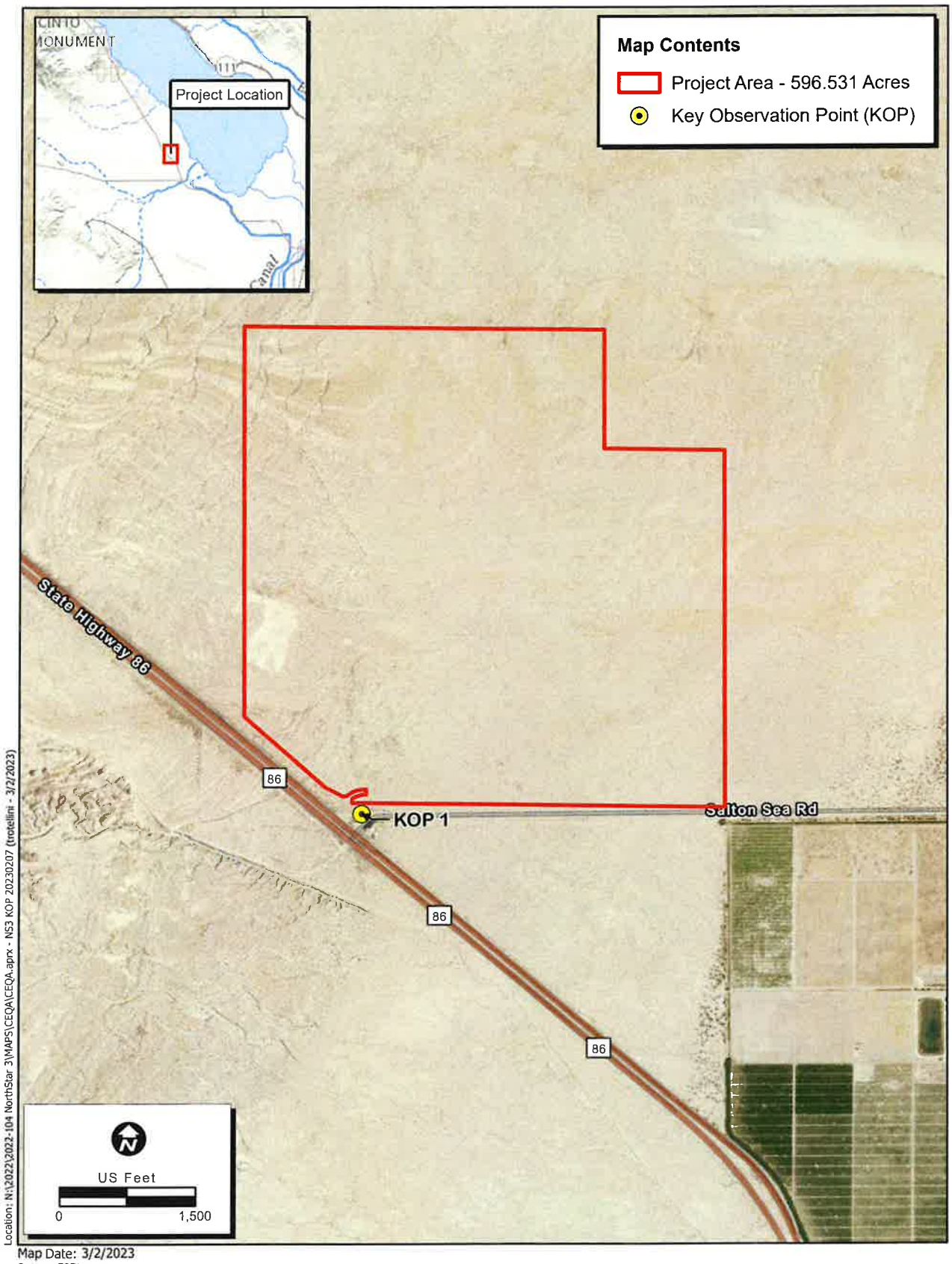

Figure 1. Project and KOP Location

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Figure 2. View from KOP 1

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2.1.3 Local

The Proposed Project site is under the Imperial County jurisdiction and subject to the County Development Code and General Plan guidelines. Section 92407.01 of the Development Code includes development criteria for facilities located within 0.5 mile of a designated scenic highway, however there are no designated scenic highways within 0.5 mile of the Proposed Project site.

The County General Plan does not specifically contain a visual element; however, it addresses related topics in the following General Plan Sections:

- Land Use Element;
- Circulation & Scenic Highways Element;
- Conservation and Open Space Element; and
- Renewable Energy and Transmission Element.

In addition, the Renewable Energy and Transmission Element (Imperial County 2015) includes specific goals, policies, and standards for renewable energy and, specifically, solar projects. Table 1 provides an analysis of the Proposed Project's consistency with the Conservation and Open Space, Land Use, and Circulation & Scenic Highway elements (Imperial County 2016).

Table 1. Project Consistency with the Conservation and Open Space, Land Use and Circulation & Scenic Highways

General Plan Policies	Consistency with General Plan	Analysis
Conservation and Open Space Element		
Goal 5: The aesthetic character of the region shall be protected and enhanced to provide a pleasing environment for residential, commercial, recreational, and tourist activity.	Yes	The Proposed Project would result in changes to the visual character of the Project site, which is currently characterized as desert landscape. However, the project site does not contain high levels of visual character or quality, and the project will be screened with a fence designed to blend with the landscape; therefore, the Proposed Project would not result in a significant deterioration in the visual character of the Proposed Project site or Project vicinity.
Objective 5.1: Encourage the preservation and enhancement of the natural beauty of the desert and mountain landscape.	Yes	See discussion above regarding Goal 5.
Goal 7: The aesthetic character of the region shall be protected and enhanced to provide a pleasing	Yes	See discussion above regarding Goal 5. There is no residential or commercial development near

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Table 1. Project Consistency with the Conservation and Open Space, Land Use and Circulation & Scenic Highways

General Plan Policies	Consistency with General Plan	Analysis
environment for residential, commercial, recreational, and tourist activity.		the Proposed Project, and the project area is not used for recreational activities.
Land Use Element		
Goal 3: Achieve balanced economic and residential growth while preserving the unique natural, scenic, and agricultural resources of Imperial County.	Yes	See discussion below regarding Objective 4.3.
Objective 3.4: Protect/improve the aesthetics of Imperial County and its communities.	Yes	The Proposed Project would result in changes to the visual character of the Project site, which is currently characterized as a desert landscape. The Project site does not contain high levels of visual character or quality, and the project will be screened with a fence designed to blend with the landscape; therefore, the Project would not result in a significant deterioration in the visual character of the Project site or Project vicinity.
Circulation and Scenic Highways Element		
Objective 4.3: Protect areas of outstanding scenic beauty along any scenic highways and protect the aesthetics of those areas.	Yes	The Proposed Project is not sited in the vicinity of a designated scenic highway.
Objective 4.5: Develop standards for aesthetically valuable sites. Design review may be required so that structures, facilities, and activities are properly merged with the surrounding environment.	Yes	The Project has been designed to avoid impacts to scenic resources.
Policy 9 (b): The County shall emphasize protection of scenic highway resources in all County actions affecting land use.	Yes	There are no scenic highways in the Project vicinity.

Source: Imperial County General Plan Circulation and Scenic Highway Element, 2008; Land Use Element, 2015b; and Conservation and Open Space Element, 2016.

2.2 Regional Setting

The Proposed Project site is approximately 23 miles northwest of the city of Brawley, CA and approximately 9 miles southeast of Salton City, a census-designated place in Imperial County. The Salton Sea is approximately three miles east of the site. State Route 86 runs from the northwest to the southeast.

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A closed naval auxiliary air station, on the western shore of the Salton Sea, is approximately 2 miles from the site. The Chocolate Mountains are approximately 20 miles to the east.

2.3 Existing Visual Character of the Project Area

The overall character of the immediate landscape is natural open space with vast panoramic views and undulating topography. Natural open space also surrounds the project area, with agricultural croplands found to the southeast (approximately 0.5 mile to the southeast). The agricultural areas include rectangular fields and associated structures and ponds. Paved and dirt roads run throughout the Project area. A high-voltage transmission circuit runs through the Project site in a southeast/northwest direction.

In addition to the transmission lines, the most notable natural features in the landscape are the textured dirt and sand with sparse desert vegetation on the foreground. The dark gray, subdued formations of the Chocolate Mountains are approximately 2,000 feet above mean sea level and are visible along the horizon. The Salton Sea is approximately 3 miles to the west of the project site and is visible from the Proposed Project site.

The existing natural landscape is a valued resource because of its unspoiled nature and panoramic view, especially of the Salton Sea and the mountains in the background, which can be seen by motorists along nearby roads, and recreation users and agricultural workers in the vicinity. The foreground view (see Figure 2), consisting of comparatively monotonous desert scrub habitat, is less valued because of the lack of distinguishing or interesting features, as evidenced by the lack of turnouts allowing motorists to stop and enjoy the view at the Proposed Project site. Though not on federal land, the Project site would be given a Class III under the BLM's Visual Resources Inventory classification system, representing an overall moderate value.

2.4 Local Character

2.4.1 Scenic Highways

There are no State designated or eligible Scenic Highways in the vicinity of the project site. Highway 86 is not a scenic route per the List of Officially Designated State Scenic Highways from California Department of Transportation. However, an approximately 20-mile segment of SR 78, from its intersection with SR 86 near the project site westward to its intersection with Quarry Road near the Ocotillo Ranger Station, is designated as "eligible" for designation as a scenic highway (Caltrans 2023).

2.4.2 Scenic Vistas

There are no Caltrans-designated vista points in the Project vicinity, nor any formal or informal turnouts along the highway near the project site.

2.4.3 Principal Viewpoints

There are no established viewpoints in the Proposed Project vicinity.

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2.5 KOP Identification

Assessments of existing visual conditions are based on professional judgment by ECORP. The analysis identified one KOP along travel routes or other surrounding areas within approximately one mile of the Proposed Project where views of the site are available (Figure 1). Figures 2 is a photograph showing the view from the KOP, toward the project location.

KOP 1: **Salton Sea Road at Southwest Corner of Proposed Project Site.** This KOP is the view traveling in a vehicle traveling on Salton Sea Road at the southwest corner of the Proposed Project site. The view of the current environmental setting is generally characterized by broad, panoramic views of flat to undulating topography and horizontal terrain that is light khaki to light brown in color in the foreground and midground and dark-colored landforms in the background. The Proposed Project would be perceivable from this KOP based on viewer perspective (Figures 1 and 2). In the foreground area, a viewer would see the Proposed Project to the immediate left (north); vacant, undeveloped Sonoran Desert scrub directly ahead and to the right (east and southeast); and Salton Sea Road directly ahead (to the east). In the mid-ground the viewer would see vacant, undeveloped Sonoran Desert Scrub and Salton Sea. The viewer would see the Chocolate Mountains in the distant (greater than 25 miles) background. Additionally, the PG&E gen-tie would be perceivable, running adjacent to Salton Sea Road.

3.0 METHODOLOGY

3.1 Introduction

The process of visual resource assessment provides a means for determining visual values and the possible effects of a proposed project on sensitive receptors (e.g., nearby residents, drivers and passengers, and pilots) from a KOP. The assessment is made based on various factors, including how a proposed project will impact adjacent land uses, public interest, and amount and type of use, etc.

ECORP's assessments of existing visual conditions are based on professional judgment. As discussed in Section 2.5, the analysis identified one KOPs, KOP 1 (Figures 1 and 2). Aerial images and photographs were used to document and understand the existing landscape character and compare that with the Proposed Project. A modified version of BLM's contrast rating worksheet (Form 8400-4) was used to determine the contrast rating for the Proposed Project. A glare analysis was conducted to determine the potential for significant glint or glare from solar panels and other built-Project components that may affect residents, motorists, or airborne travelers.

3.2 Visual Character

A visual impact assessment is a process for describing the visual character of a project, determining the visibility of the project in the surrounding landscape, and describing the visual magnitude of the project when seen from various viewpoints. The process may include an evaluation of the visual contrast to a project within the existing landscape. Although it is a relatively straightforward and objective process, there may be differences in judgement. The process for assessing visual impacts is different than

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assigning social values to people and places affected by those visual impacts. For example, though people may agree that views within a designated National Park must be protected and a view of an active landfill does not, there is no objective process for making this determination (Palmer 2019).

3.3 Viewer Sensitivity

The consideration of viewer sensitivity is a critical component when assessing impact to visual resources. Both the BLM and the US Forest Service conduct inventories on federal land when identifying visual resources, preparing visual resource management plans, and determining acceptable levels of change to visual impact. To determine sensitivity levels, the agencies consider objective factors such as amount of use, designation as a special area, and demonstrated public interest. In particular, the degree of public importance placed on landscapes viewed from travel ways and use areas are measures used to determine levels of concern.

Visual sensitivity varies with the types of users. Visual receptors most sensitive to change usually include residents at home, those engaged in outdoor recreation, or residents or visitors using public rights-of-ways where interest is focused on particular landscapes or views. Workers passing through an area on a regular basis may not be as sensitive to change compared to recreational sightseers who may be highly sensitive. Visual receptors less sensitive to change include, for example, people at their place of work where the setting is not important to the quality of working life, or people engaged in travel, recreational, or sporting activities where appreciation of landscape views is not involved. Travelers on roads usually fall into an intermediate category of moderate sensitivity to change. However, where travel involves recognized scenic routes, such as those through National Parks or Monuments, awareness of viewers is likely particularly high (Palmer 2019).

The Proposed Project is not located on federal land. However, because the process described above has become an industry standard it has been applied, generally, to this assessment.

3.4 Contrast Rating

Contrast is the difference in form, color, and light between elements and can be used to determine the degree to which a project or activity affects the visual quality of a landscape, depending on the visual contrasts created. Changes in contrast can affect viewer sensitivity. A higher degree of contrast creates a greater visual impact.

The federal BLM developed a contrast rating system for federal lands, which has become an industry standard. The rating system includes an analysis of the potential visual impact of a proposed project compared to the existing environmental setting, as seen from a KOP. To properly assess the contrasts between the proposed and existing situation, it is necessary to break each down into basic features and elements, allowing for accurate identification of proposed features that may cause contrast (BLM 1986).

Features include:

- Landform/Water Features (e.g., roads, mining, gravel pits, landfills, water impoundments)
- Vegetative Features (e.g., timber harvests, grazing systems, vegetative manipulations)

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- Structural Features (e.g., transmission lines, generation plants, oil and gas developments, recreation facilities, water tanks, buildings)

Degrees of contrast criteria, for elements, include:

- None: The element contrast is not visible or perceived.
- Weak: The element contrast can be seen but does not attract attention.
- Moderate: The element contrast begins to attract attention and begins to dominate the characteristic landscape.
- Strong: If the element contrast demands attention, will not be overlooked, and is dominant in the landscape.

Assessing contrast also includes consideration of:

- Form: Contrast in form results from changes in the shape and mass of landforms or structures. The degree of change depends on how dissimilar the introduced forms are to those continuing to exist in the landscape.
- Line: Contrasts in line results from changes in edge types and interruption or introduction of edges, bands, and silhouette lines. New lines may differ in their sub-elements (boldness, complexity, and orientation) from existing lines.
- Color: Changes in value and hue tend to create the greatest contrast. Other factors such as chroma, reflectivity, color temperature, also increase the contrast.
- Texture. Noticeable contrast in texture usually stems from differences in the grain, density, and internal contrast. Other factors such as irregularity and directional patterns of texture may affect the rating.

The following distances zones were used for evaluating impact on the existing setting from KOPs:

- Foreground – up to 0.5 miles
- Midground – 0.5 to 3 miles
- Background – 3 to 5 miles

3.5 Solar Panel Glare Potential

Glint and glare are unwanted reflections of the sun's rays from a reflective surface. This can present a nuisance and, under some circumstances, a safety hazard. Therefore, solar developments can receive objections due to potential impacts caused by glint and glare. The Federal Aviation Administration (FAA) defines glint as a momentary flash of light and can be experienced by an observer passing a solar panel such as a motorist, and glare as a continuous source of excessive brightness that can be experienced by a stationary observer located in the path of reflected sunlight from the face of a solar panel (FAA 2022).

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As a continuous source of excessive brightness, glare can be hazardous for motorist, pilots, and other observers. When light reflects off a surface, it can become polarized and produce a blinding glare, or less severe effects such as ocular after-imaging. While all types of solar panels can cause solar glare, the intensity and duration depend on the design. Smooth glass solar panels and light-textured panels cause the most intense glare while deeply textured ones (e.g., matted, non-reflective) has less intense glare but can cause glare for longer periods.

A solar panel comprises numerous solar cells. A solar cell differs from a typical reflective surface in that its surface is microscopically irregular and designed to trap the rays of sunlight for the purposes of energy production. The intent of solar technology is to increase efficiency by absorbing as much light as possible (which further reduces reflection and glare). A common misconception about solar PV panels is that they inherently cause or create "too much" glare, posing a nuisance to sensitive receptors and a safety risk for pilots. In certain situations, the glass surfaces of solar PV systems can produce glint (a momentary flash of bright light) and glare (a reflection of bright light for a longer duration); however, light absorption, rather than reflection, is central to the function of a solar PV panel so that it may absorb solar radiation and convert it to electricity. Solar PV panels are constructed of dark-colored (usually blue or black) materials and are covered with anti-reflective coatings. Modern PV panels reflect as little as two percent of incoming sunlight, which is less than soil and wood shingles (Day 2018).

Despite their low potential to create glare, PV panels can reflect sunlight skyward toward the light source, creating a potential glare impact for aircraft in the area. The effect is similar to what a motorist experiences when the sun is low in the sky and the car passes between the sun and a glass-fronted building that has been treated with an anti-reflective coating. If the motorist is heading directly toward the building, the glare would be in the motorist's eyes. Otherwise, the motorist would have to rotate his or her head to observe the glare off to the side. Because aircraft typically travel at a higher rate of speed than vehicles, the effect is momentary, lasting only if the angle between the sun, water body, and aircraft is maintained. Unless an aircraft were descending at an angle sloped directly at the solar array with the sun directly behind the aircraft, any glare that might occur from solar panels would be below the pilot's horizon.

4.0 IMPACT ASSESSMENT

4.1 Thresholds of Significance

Except as provided in Public Resources Code Section 21099, a project would be considered to have a significant impact if it would meet any of the following criteria:

1. Have a substantial adverse effect on a scenic vista?

2. Substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?

3. Substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage

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point). If the Project is in an urbanized area, would the Project conflict with applicable zoning and other regulations governing scenic quality?

4. Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?

4.2 Contrast Rating Analysis

As described in section 2.5, one KOP was identified for the Proposed Project (Figures 1 and 2). The view from KOP 1 is that seen from a motorist traveling east on SR 86, travelling adjacent to the southwest corner of the southern border of the Proposed Project. The view from KOP 1 is currently characterized by broad, panoramic views of flat, consistent, and horizontal terrain in the foreground, midground and background. The terrain is smooth and consistent, with fine smooth soils. Additionally, irregular lines from shrubs and light brown-dark soils are found throughout the area. Based on viewer perspective, the Proposed Project would be perceivable from KOP 1.

The changes that affect contrast when compared to the current environmental setting and as viewed at KOP 1 are:

- Landforms – Currently, the closest human-made landforms are agricultural plots and associated buildings and other structures approximately 0.5 mile to the southeast of the site. The Proposed Project would add structures (i.e., solar arrays, BESS, gen-tie line) in the foreground and midground. Except for the gen-tie line, structures are expected to not exceed 10 feet in height and would largely be screen by a fence using wooden slats designed to blend with the desert landscape. This would result in a moderate change in contrast.

- Lines – Currently, lines in the existing setting nearby setting are defined by irregular broken shrubs and local road surfaces. New lines would be generated by the thin, horizontal, regular edge for the solar arrays, geometric isolation (no other similar structures in the foreground, midground and background), rectangular battery storage units, and vertical and horizontal lines from the gen-tie line (transmission poles and sagging conductor wires). Addition of the new lines, particularly those from the vertical lines by the transmission poles to the onsite PG&E transmission line and elevated lines from the conductor wires would be noticeable (in foreground and midground). This would result in a moderate change in contrast.

- Color – Currently, light brown/dark brown soils, light tan-brown desert shrubs dominate the view; The Proposed Project would add subdued gray to blue-black solar arrays, light gray earthtones from battery storage and muted reflective gray transmission line. The colors from the Proposed Project would blend in with the existing setting because of similar intensity of color. This would result in a weak change in contrast.

- Texture – Currently, smooth, consistent terrain with fine, smooth soils and smooth low laying clusters of shrubs. The Proposed Project would add non-reflective matte surfaces on solar arrays, BESS and gen-tie line. The addition of the gen-tie line would result in a moderate change in contrast.

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The changes from the Proposed Project would result in a weak to moderate contrast with the present view when viewed from KOP 1.

The completed contrast rating form is provided in Appendix A.

4.3 Solar Glare Analysis

The glare analysis shows two receptors with the potential to receive low (green) and medium (yellow) glare, from the Proposed Project, that may have temporary after-image. On SR 86, in the vicinity of the Proposed Project there is the potential for stationary receptors to experience medium glare between January and mid-May and August through December between 6:30 and 7:30 am. Potential annual medium glare for stationary sources may total of 2,780 minutes (46 hours) when the modules are fully rotated to the east and west, respectively. Potential annual low glare may total 17 minutes when the modules are fully rotated to the east and west, respectively. Motorists may experience a momentary glint of glare of moderate intensity.

The second receptor, airborne travelers traveling to and from the Calipatria Municipal Airport, approximately 20 miles east of the project site, may experience 356 minutes (5.9 hours) annually over a 2-mile flight path from April to May, and August to December between 5:30 and 6:00 pm. During takeoff and landing procedures, airborne viewers (e.g., pilots) would be elevated in relation to the project area. The results for one flight path show the potential for medium glare experienced as a momentary glint for air travelers.

Results of the solar glare modeling are provided in Appendix B.

4.4 Impact Analysis

1. Would the Project have a substantial adverse effect on a scenic vista?

There are no designated scenic vistas in the Proposed Project vicinity.

Therefore, no impacts to scenic vistas would occur. No mitigation would be required.

2. Would the Project substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?

There are no designated scenic highways in the Proposed Project vicinity, and the nearest eligible scenic highway segment is 3.5 miles to the south of the Project site.

The Proposed Project would result in changes to the visual character (line, color, and texture) of the Proposed Project site, which is currently characterized as desert landscape to the north, east and south and agricultural land to the south. The existing, natural landscape is a valued, important, beautiful, and scenic resource, including views of the Salton Sea in the mid-ground and the Chocolate Mountains in the background. With the addition of new structures (e.g., solar arrays, gen-tie line) to a site with existing transmission structures and conductors, the change in overall contrast in the foreground is moderate. Contrast associated with the introduction of new lines (particularly the gen-tie line and the project fence) is moderate because of the existing transmission circuit; addition of new colors having similar color

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intensity results in a moderate contrast change; and addition of new textures results in a moderate contrast change.

However, impacts to sensitive receptors from the Proposed Project would be temporary or lessened because:

- Viewers near KOP 1 would not be stationary (traveling along SR 86 or Salton Sea Road).
- The project fence will largely block the view of the solar field components.
- The lifespan of the Proposed Project is 20 years, with full restoration after closure, addressing the moderate change in contrast from the Proposed Project in the long-term.
- With the growing need to improve renewable resources, sensitive receptors are likely to consider the Proposed Project as an interesting technology to see, rather than objectionable.

This results in a less than significant impact. No mitigation would be required.

3. Would the Project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the Project conflict with applicable zoning and other regulations governing scenic quality?

See discussion under criterion 2, immediately above.

There are no public viewpoints in the Proposed Project site and it is not in an urbanized area.

Impacts under this criterion would be less than significant. No mitigation would be required.

4. Would the Project create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?

The Project would not include any substantial source of nighttime light in the vicinity of the Project site. Any lighting required for safety and security within the Project site would be hooded and oriented downward so as not to spill over into adjacent parcels.

The glare analysis for the Proposed Project concluded that glint that may be experienced by travelers near the project site in the early morning and late evening hours. Travelers on SR 86, traveling at a typical speed of 60 mph, would experience glint along the southern project boundary during short periods at the beginning and the end of the day. Because aircraft typically travel at a higher rate of speed than vehicles, the effect is momentary, lasting only if the angle between the sun, Project, and aircraft is maintained. Unless an aircraft were descending at an angle sloped directly at the solar array with the sun directly behind the aircraft, any glare that might occur from solar panels would be below the pilot's horizon, and would at no time be as severe as the sun itself.

Given the brief period glare would be produced, these effects are considered less than significant. No mitigation is required.

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4.5 Mitigation Measures

The analysis, in this section, shows less than significant impact for the four criteria. Therefore, no mitigation measures are required.

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LIST OF APPENDICES

Appendix A – Contrast Rating Worksheets

Appendix B – Glare Analysis Report

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APPENDIX A

Contrast Rating Worksheets

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VISUAL CONTRAST RATING WORKSHEET NORTH STAR 1, KOP 1

Date: 03/01/2023

Project Name: North Star 3 SES and BESS	Key Observation Point Number: KOP1
Project Type: Solar Facility	Key Observation Point Name: SW corner of project, Salton Sea Road
Evaluator's Names: Marilyn Blume	Photo Number: Figure 2

CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Endless, broad, flat, vast open terrain	Sonoran Scrub	None
LINE	Irregular lines from shrubs throughout area Consistent line through project area from Salton Sea Road	Irregular, broken shrubs in foreground	N/A
COLOR	Light brown-dark brown soils	Light brown/dark brown soils, light tan-brown desert shrubs	N/A
TEX-TURE	Smooth, consistent terrain; fine, smooth soils	Smooth, low laying clusters of shrubs	N/A

PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No perceived change	No perceived change	Thin, horizontal, regular edge for solar arrays Geometric isolation Rectangular battery storage Transmission interconnection
LINE	No perceived change	No perceived change	Horizontal line from solar array edge Horizontal and vertical lines from battery storage Horizontal line to transmission line
COLOR	No perceived change	No perceived change	Dark subdued grey to blue black solar arrays Light grey earthtones from battery storage Muted reflective grey transmission line
TEXTURE	No perceived change	No perceived change	Matte surfaces on solar arrays, BESS and gen-tie line

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DEGREE OF CONSTRAST		FEATURES												
		LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)				
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	
ELEMENTS	Form	X				X				X				
	Line	X				X					X			
	Color		X			X					X			
	Texture		X			X					X			

Recommended Mitigation Measures

Materials and surface treatments for structures and roads should repeat and/or blend with the existing form, line, color, and texture of the surrounding landscape. For example, if the project will be viewed against an earthen or other non-sky background, appropriately colored materials should be selected to help blend structures with the project's backdrop.

Unless safety or functional requirements preclude it, all structures should be color treated to reduce contrasts with existing landscape.

Materials, coatings, or paints that have little or no reflectivity should be used on structures. Semi-gloss finishes should be used rather than flat or gloss finishes. Substation equipment should be specified with a low-reflectivity, neutral finish. Insulators at substations should be non-reflective. The surfaces of substation structures should be given low reflectivity finishes with neutral colors to minimize the contrast of the structures with their backdrops. Security fence surrounding the substations should have a dulled, darkened finish to reduce contrast.

Electric transmission towers should be color treated to reduce contrasts with the existing landscape. Monopole towers should have a low-reflectivity treatment. Where transmission facilities using monopole towers are located within the same ROW or corridor, the color treatment should match the existing facilities within the ROW, unless they contrast with the visual backdrop.

Notes

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APPENDIX B

Glare Analysis Report

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FORGESOLAR GLARE ANALYSIS

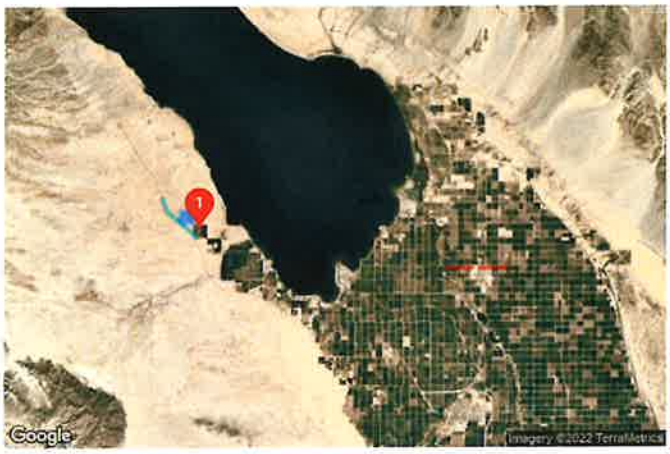
Project: **Northstar #3**

100-MW alternating current solar field, consisting of 226,800 tracker modules in 7,560 strings and associated collector and inverter facilities, and a 100 MW Battery Energy Storage System (BESS), on approximately 585 acres of vacant land in Imperial County.

Site configuration: **Northstar 3**

Client: ZGlobal

Created 15 Aug, 2022
Updated 10 Nov, 2022
Time-step 1 minute
Timezone offset UTC-8
Site ID 74083,13065
Category 10 MW to 100 MW
DNI peaks at 1,000.0 W/m^2
Ocular transmission coefficient 0.5
Pupil diameter 0.002 m
Eye focal length 0.017 m
Sun subtended angle 9.3 mrad
Methodology V2



Summary of Results

Glare with potential for temporary after-image predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
PV2	SA tracking	SA tracking	17	0.3	2,780	46.3	291,900,000.0
PV2	SA tracking	SA tracking	230	3.8	0	0.0	274,100,000.0
PV2	SA tracking	SA tracking	822	13.7	266	4.4	261,700,000.0

Total annual glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
CA-86	17	0.3	2,780	46.3
Calpatria Airport - 26	586	9.8	0	0.0
Calpatria Airport - 8	0	0.0	0	0.0
OP 1	466	7.8	266	4.4

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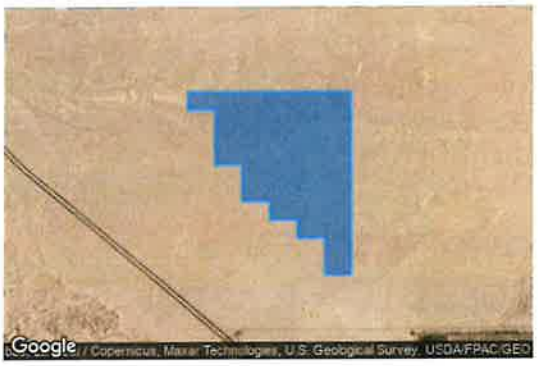
Component Data

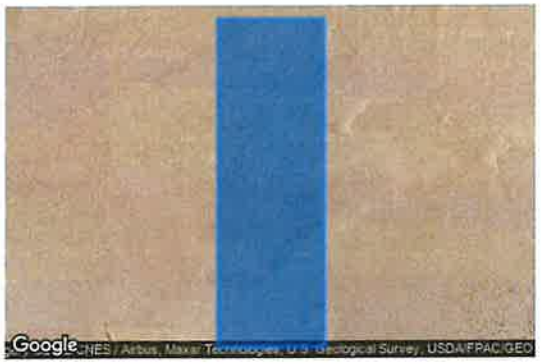
PV Arrays

Name: PV2
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 180.0°
Max tracking angle: 90.0°
Resting angle: 0.0°
Ground Coverage Ratio: 0.5
Rated power: 100000.0 kW
Panel material: Light textured glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



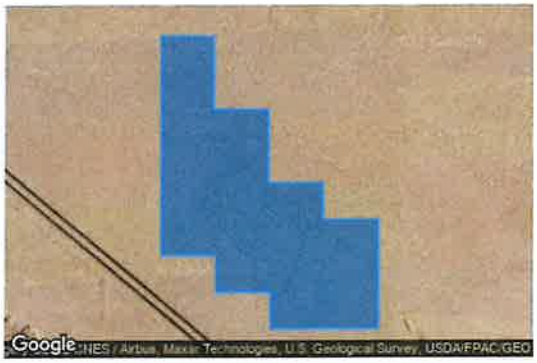
Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.180281	-115.878774	-4.83	1.00	-3.83
2	33.180279	-115.880686	-2.26	1.00	-1.26
3	33.182522	-115.880690	-9.03	1.00	-8.03
4	33.182520	-115.882699	-3.10	1.00	-2.10
5	33.183642	-115.882701	-9.23	1.00	-8.23
6	33.183639	-115.884711	-5.11	1.00	-4.11
7	33.184761	-115.884713	-11.28	1.00	-10.28
8	33.184759	-115.886722	-7.64	1.00	-6.64
9	33.187002	-115.886726	-17.80	1.00	-16.80
10	33.186999	-115.888736	-16.35	1.00	-15.35
11	33.190365	-115.888742	-29.68	1.00	-28.68
12	33.190362	-115.890752	-24.89	1.00	-23.89
13	33.191429	-115.890754	-30.55	1.00	-29.55
14	33.191444	-115.878793	-46.23	1.00	-45.23

Name: PV2
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 180.0°
Max tracking angle: 90.0°
Resting angle: 0.0°
Ground Coverage Ratio: 0.5
Rated power: 100000.0 kW
Panel material: Light textured glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.177792	-115.878250	-6.06	1.00	-5.06
2	33.187833	-115.878266	-34.90	1.00	-33.90
3	33.187838	-115.874345	-38.75	1.00	-37.75
4	33.177797	-115.874329	-21.32	1.00	-20.32

Name: PV2
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 180.0°
Max tracking angle: 90.0°
Resting angle: 0.0°
Ground Coverage Ratio: 0.5
Rated power: 100000.0 kW
Panel material: Light textured glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.184700	-115.889296	-3.24	1.00	-2.24
2	33.184703	-115.887287	-6.45	1.00	-5.45
3	33.182459	-115.887283	3.84	1.00	4.84
4	33.182462	-115.885273	-0.44	1.00	0.56
5	33.181340	-115.885271	2.63	1.00	3.63
6	33.181343	-115.883261	-0.48	1.00	0.52
7	33.178032	-115.883256	3.82	1.00	4.82
8	33.178027	-115.887177	10.03	1.00	11.03
9	33.179149	-115.887179	10.05	1.00	11.05
10	33.179147	-115.889188	13.04	1.00	14.04
11	33.180268	-115.889190	9.98	1.00	10.98
12	33.180266	-115.891200	14.59	1.00	15.59
13	33.186941	-115.891212	-12.12	1.00	-11.12
14	33.186944	-115.889300	-14.70	1.00	-13.70

Route Receptors

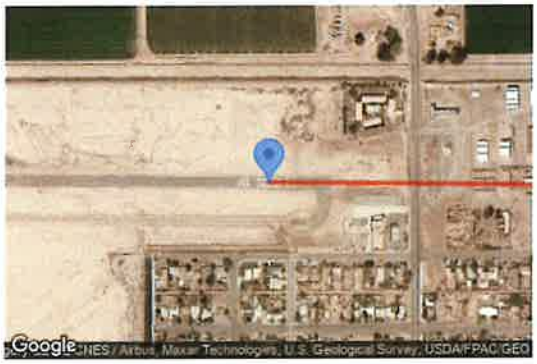
Name: CA-86
Path type: Two-way
Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.203766	-115.911917	-59.17	0.00	-59.17
2	33.190264	-115.906252	3.97	0.00	3.97
3	33.165983	-115.873121	-57.54	0.00	-57.54
4	33.163252	-115.871576	-62.83	0.00	-62.83

Flight Path Receptors

Name: Calpatria Airport - 26
Description:
Threshold height: 50 ft
Direction: 270.6°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.131305	-115.516914	-181.91	50.00	-131.91
Two-mile	33.131017	-115.482350	-164.18	585.70	421.52

Name: Calpatria Airport - 8
Description:
Threshold height: 50 ft
Direction: 90.2°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.131408	-115.526258	-185.88	50.00	-135.88
Two-mile	33.131519	-115.560824	-197.83	615.38	417.55

Discrete Observation Point Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
OP 1	1	33.171959	-115.865446	-64.00	0.00

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Glare Analysis Results

Summary of Results Glare with potential for temporary after-image predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
PV2	SA tracking	SA tracking	17	0.3	2,780	46.3	291,900,000.0
PV2	SA tracking	SA tracking	230	3.8	0	0.0	274,100,000.0
PV2	SA tracking	SA tracking	822	13.7	266	4.4	261,700,000.0

Total annual glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
CA-86	17	0.3	2,780	46.3
Calpatria Airport - 26	586	9.8	0	0.0
Calpatria Airport - 8	0	0.0	0	0.0
OP 1	466	7.8	266	4.4

PV: PV2 potential temporary after-image

Receptor results ordered by category of glare

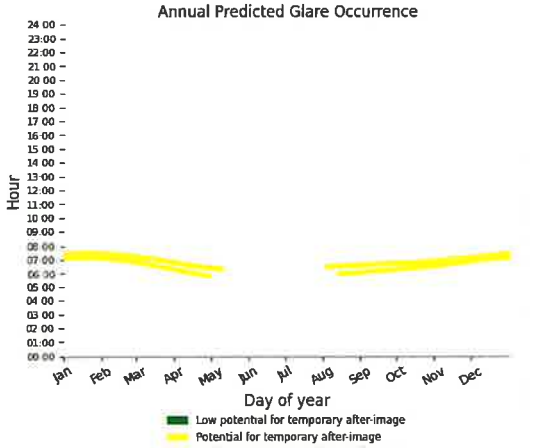
Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
CA-86	17	0.3	2,780	46.3
Calpatria Airport - 26	0	0.0	0	0.0
Calpatria Airport - 8	0	0.0	0	0.0
OP 1	0	0.0	0	0.0

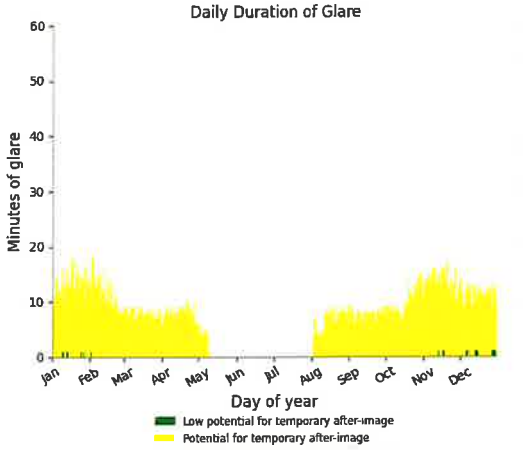
PV2 and CA-86

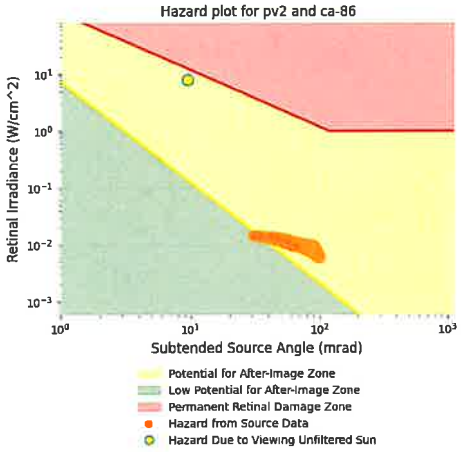
Receptor type: Route

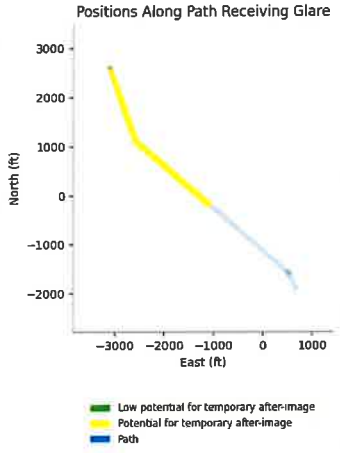
2,780 minutes of yellow glare

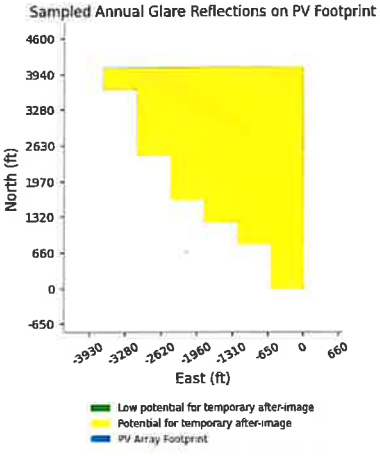
17 minutes of green glare











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PV2 and Calpatria Airport - 26

Receptor type: 2-mile Flight Path
No glare found

PV2 and Calpatria Airport - 8

Receptor type: 2-mile Flight Path
No glare found

PV2 and OP 1

Receptor type: Observation Point
No glare found

PV: PV2 low potential for temporary after-image

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
CA-86	0	0.0	0	0.0
Calpatria Airport - 26	230	3.8	0	0.0
Calpatria Airport - 8	0	0.0	0	0.0
OP 1	0	0.0	0	0.0

PV2 and CA-86

Receptor type: Route
No glare found

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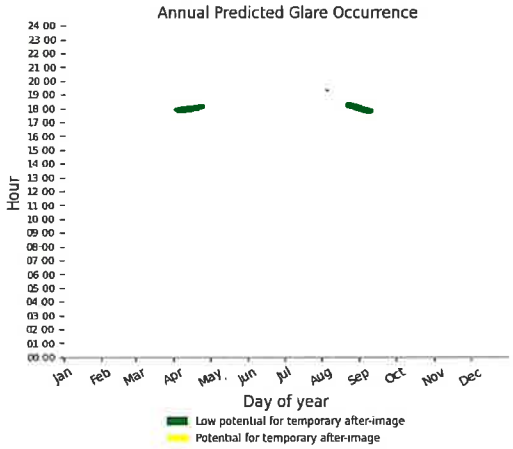
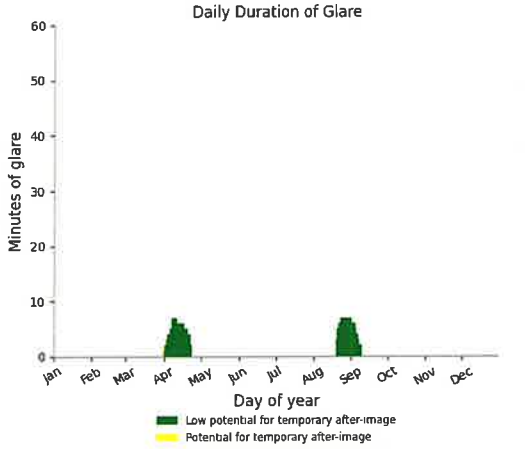
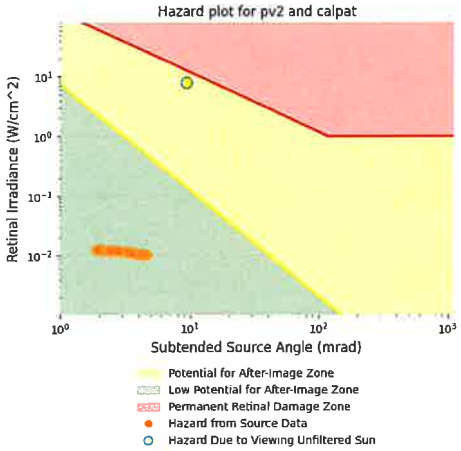
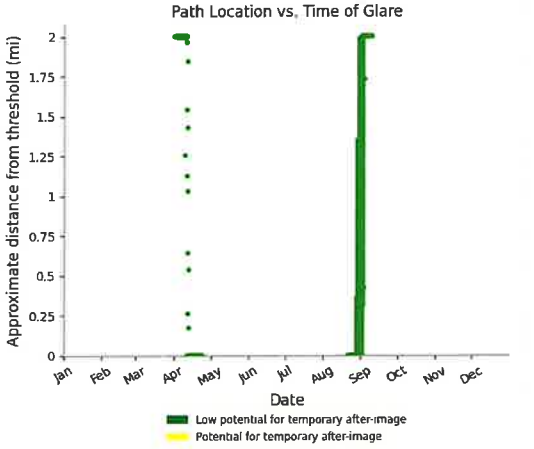
PV2 and Calpatria Airport - 26

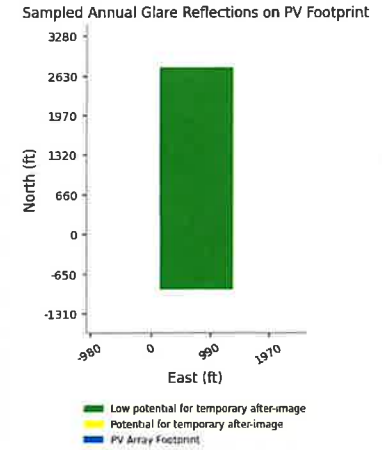
Receptor type: 2-mile Flight Path
0 minutes of yellow glare
230 minutes of green glare

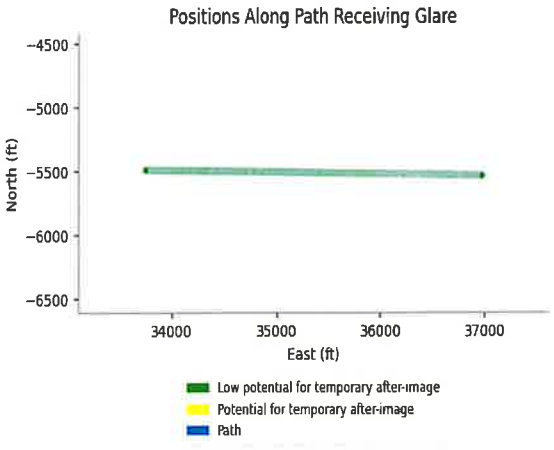












PV2 and Calpatria Airport - 8

Receptor type: 2-mile Flight Path

No glare found

PV2 and OP 1

Receptor type: Observation Point

No glare found

PV: PV2 potential temporary after-image

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
CA-86	0	0.0	0	0.0
Calpatria Airport - 26	356	5.9	0	0.0
Calpatria Airport - 8	0	0.0	0	0.0
OP 1	466	7.8	266	4.4

PV2 and CA-86

Receptor type: Route

No glare found

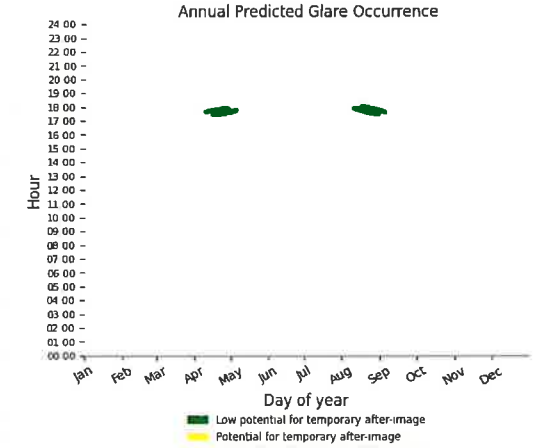
EEC ORIGINAL PKG

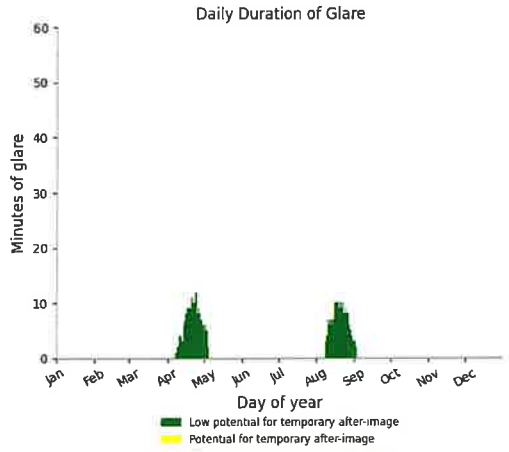
PV2 and Calpatria Airport - 26

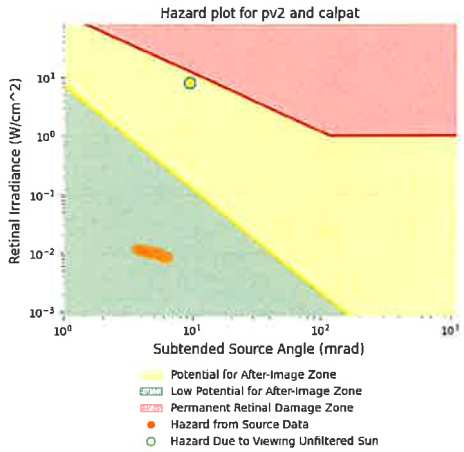
Receptor type: 2-mile Flight Path

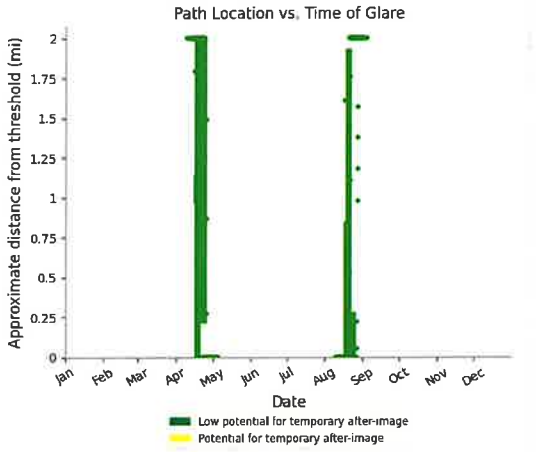
0 minutes of yellow glare

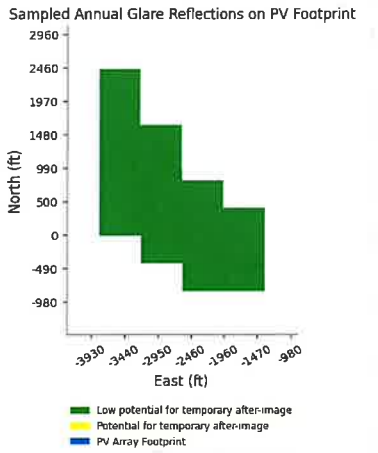
356 minutes of green glare

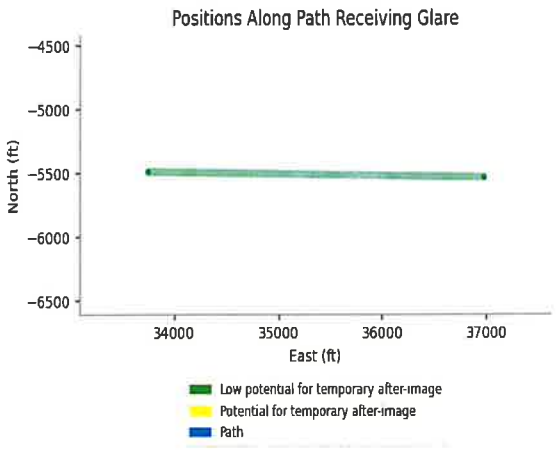












PV2 and Calpatria Airport - 8

Receptor type: 2-mile Flight Path

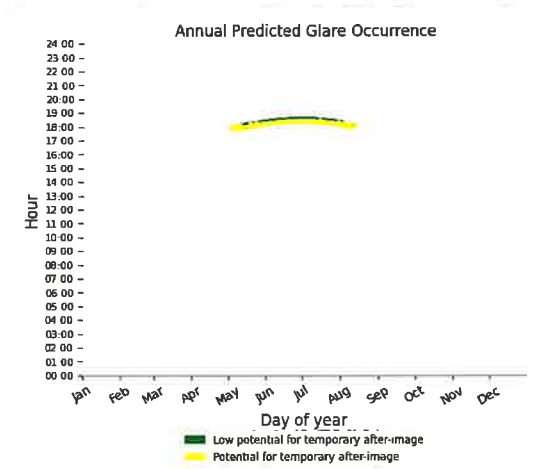
No glare found

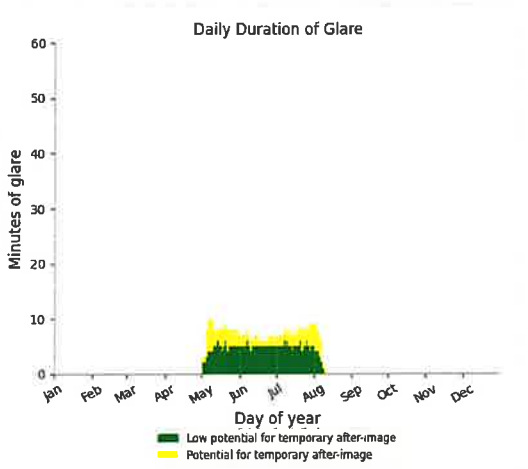
PV2 and OP 1

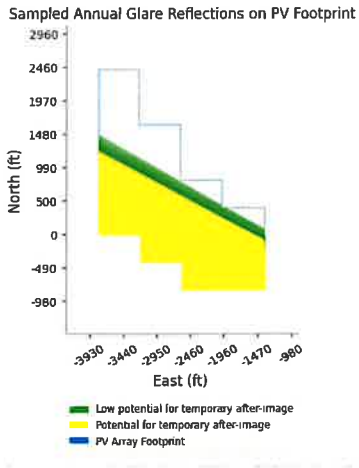
Receptor type: Observation Point

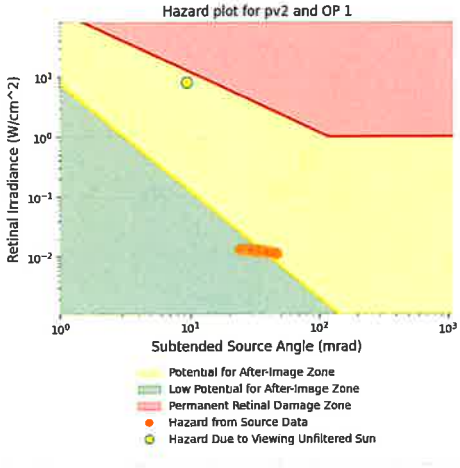
266 minutes of yellow glare

466 minutes of green glare









EEC ORIGINAL PKG

Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.
"Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.
Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.
The algorithm does not rigorously represent the detailed geometry of a system; detailed features such as gaps between modules, variable height of the PV array, and support structures may impact actual glare results. However, we have validated our models against several systems, including a PV array causing glare to the air-traffic control tower at Manchester-Boston Regional Airport and several sites in Albuquerque, and the tool accurately predicted the occurrence and intensity of glare at different times and days of the year.
Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare. This primarily affects V1 analyses of path receptors.
Random number computations are utilized by various steps of the annual hazard analysis algorithm. Predicted minutes of glare can vary between runs as a result. This limitation primarily affects analyses of Observation Point receptors, including ATCTs. Note that the SGHAT/ ForgeSolar methodology has always relied on an analytical, qualitative approach to accurately determine the overall hazard (i.e. green vs. yellow) of expected glare on an annual basis.
The analysis does not automatically consider obstacles (either man-made or natural) between the observation points and the prescribed solar installation that may obstruct observed glare, such as trees, hills, buildings, etc.
The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)
The variable direct normal irradiance (DNI) feature (if selected) scales the user-prescribed peak DNI using a typical clear-day irradiance profile. This profile has a lower DNI in the mornings and evenings and a maximum at solar noon. The scaling uses a clear-day irradiance profile based on a normalized time relative to sunrise, solar noon, and sunset, which are prescribed by a sun-position algorithm and the latitude and longitude obtained from Google maps. The actual DNI on any given day can be affected by cloud cover, atmospheric attenuation, and other environmental factors.
The ocular hazard predicted by the tool depends on a number of environmental, optical, and human factors, which can be uncertain. We provide input fields and typical ranges of values for these factors so that the user can vary these parameters to see if they have an impact on the results. The speed of SGHAT allows expedited sensitivity and parametric analyses.
The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.
Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid based on aggregated research data. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.
Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.
Refer to the Help page at **www.forgesolar.com/help/** for assumptions and limitations not listed here.

Default glare analysis parameters and observer eye characteristics (for reference only):

- Analysis time interval: 1 minute
- Ocular transmission coefficient: 0.5
- Pupil diameter: 0.002 meters
- Eye focal length: 0.017 meters
- Sun subtended angle: 9.3 milliradians

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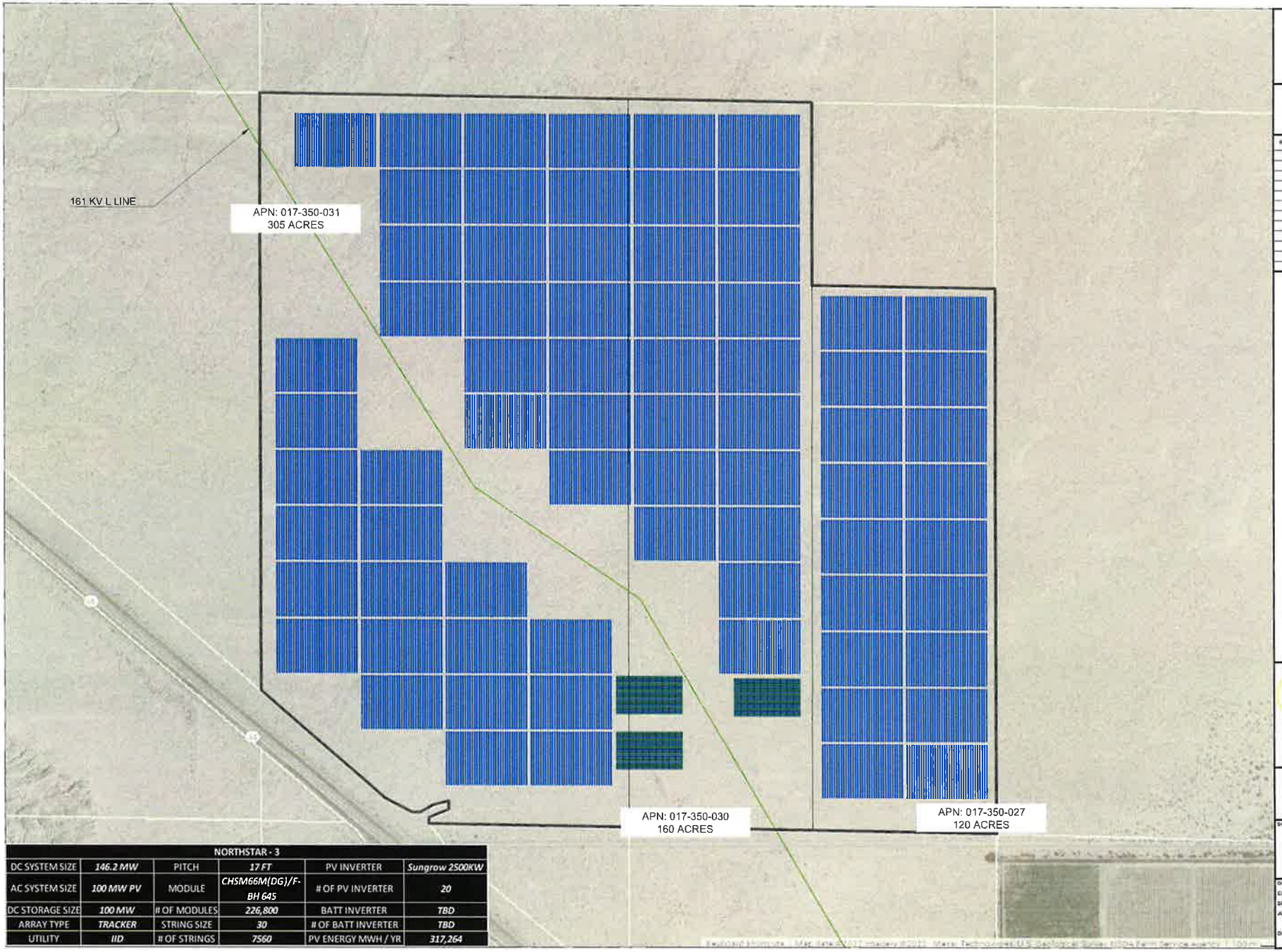
EEC ORIGINAL PKG



NORTHSTAR - 3					
DC SYSTEM SIZE	146.2 MW	PITCH	17 FT	PV INVERTER	Sungrow 2500KW
AC SYSTEM SIZE	100 MW PV	MODULE	CHSM66M(DG)/F-BH 645	# OF PV INVERTER	20
DC STORAGE SIZE	100 MW	# OF MODULES	226,800	BATT INVERTER	TBD
ARRAY TYPE	TRACKER	STRING SIZE	30	# OF BATT INVERTER	TBD
UTILITY	IID	# OF STRINGS	7560	PV ENERGY MWH / YR	317,264

NORTHSTAR 3

CONFIDENTIAL DOCUMENTS

THE INFORMATION EMBODIED ON THIS DRAWING IS STRICTLY CONFIDENTIAL AND IS SUPPLIED WITH THE UNDERSTANDING THAT IT WILL BE HELD CONFIDENTIAL AND NOT DISCLOSED TO THIRD PARTIES WITHOUT THE PRIOR WRITTEN CONSENT OF ZGLOBAL, INC.

REV.	BY	DESCRIPTION	DATE	APPRD BY
0	RO	SUBMITTAL #1	22NOV	HP

1 inch
Scale to Confirm 24"x36" Plot

ZGLOBAL
Power Generation & Energy Solutions
604 SUTTER ST, STE 250
FOLSOM, CA 95630
Phone : 916.985.9461
FAX: 916.985.9467

"THESE DRAWINGS AND SPECIFICATIONS HAVE BEEN PREPARED BY ZGLOBAL INC. FOR THEIR EXCLUSIVE USE IN ACCORD WITH SEC. 5537.3 OF THE 2012 PROFESSIONAL ENGINEERS ACT OF THE STATE OF CALIFORNIA"

SHEET TITLE

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CHECKED HP
SCALE
JOB NO
DATE
DRAWING No.
REV No.

ATTACHMENT "J"

NOI COMMENT LETTERS

150 SOUTH NINTH STREET
EL CENTRO, CA 92243-2850

TELEPHONE: (442) 265-1800
FAX: (442) 265-1799

AIR POLLUTION CONTROL DISTRICT

RECEIVED
By Imperial County Planning & Development Services at 8:27 am, Jul 26, 2024

July 22, 2024

Jim Minnick, Director
Imperial County Planning & Development Services
801 Main Street
El Centro, CA 92243

SUBJECT: Notice of Intent for a Mitigated Negative Declaration for General Plan Amendment 23-0002, Zone Change 23-0002, Conditional Use Permit 23-0007 & 23-0008 and Initial Study 23-0007 – Apex Energy Solutions

Dear Mr. Minnick:

The Imperial County Air Pollution Control District (Air District) would like to thank you for the opportunity to review and comment on the Notice of Intent (NOI) for a Mitigated Negative Declaration (MND) for General Plan Amendment (GPA) 23-0002, Zone Change (ZC) 23-0002, and Conditional Use Permits (CUP) 23-0007 & 23-0008, and Initial Study (IS) 23-0007 regarding the proposed construction and operation of a 100 Megawatt (MW) solar photovoltaic (PV) energy generation system and a 200 MW battery energy storage system (BESS) (Project). The Project is located on approximately 585 acres at 4580 West US Highway 86, Salton City also identified with Assessor's Parcel Numbers 017-350-027, 017-350-030, & 017-350-031.

The Air District previously provided comments for the project before in a letter dated January 18, 2024, in the previous letter the Air District informed the applicant that the Air District was unable to concur with the Air Quality Analysis (AQA) and CalEEMod as presented if the applicant revised to the document and models to address the concerns of the Air District the updated AQA and CalEEMod would be reviewed again. The Air District also provided the following resolutions the project must comply with in order to ensure the project remains below significant impact levels and for the Air District to concur with the less than significant determination with the current AQA:

- Submit an **Enhanced Construction Dust Control Plan** to the Air District for review and approval.

AN EQUAL OPPORTUNITY / AFFIRMATIVE ACTION EMPLOYER

- Submit an **Operational Dust Control Plan** to the Air District for review and approval.
    - Will require site visit to finalize.

- Submit an **Equipment List** periodically during construction to the Air District for review.
    - The list must be in Excel Format and include make, model, year, id/serial number(s), type, tier, horsepower, and actual dates and hours used.
        - Typically submitted electronically on a monthly basis.
    - The Air District will calculate NO_x emissions using Equipment Lists once construction is completed to verify NO_x thresholds were not exceeded.
        - In the event an exceedance is determined the project may become subject to Policy 5 requirements.

At the time of writing the Air District has not received an updated AQA or CalEEMod, therefore, the Air District concludes the project will comply with the above conditions. The Air District requests the applicant submit a formal letter of commitment to the Air District certifying the project will comply with all conditions and the Air District request the conditions be included as conditions of the CUP.

The Air District reminds the applicant the project will need to comply with all Air District rules and regulation and emphasizes Regulation VIII, a collection of rules designed to maintain fugitive dust emissions below 20% visual opacity.

Finally, the Air District requests a copy of the draft CUP for review prior to recording.

For your convenience, the Air District's rules and regulations are available via the web at https://apcd.imperialcounty.org/rules-and-regulations/. Please feel free to call our office at (442) 265-1800 or contact us through email to setup a discussion regarding the project or if you have any additional questions or concerns.

Respectfully,

Ismael Garcia
Environmental Coordinator

Reviewed by,
Monica Soucier

IID

www.iid.com

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July 24, 2024

RECEIVED
By Imperial County Planning & Development Services at 8:23 am, Jul 24, 2024

Mr. Gerardo Quero
Planner II
Planning & Development Services Department
County of Imperial
801 Main Street
El Centro, CA 92243

SUBJECT: NOI for the Preparation of an MND for the NorthStar 3 Solar Energy and BESS Project; GPA23-0002/ZC23-0002/CUP23-0007/CUP23-0008/IS23-0007

Dear Mr. Quero:

On June 18, 2924, the Imperial Irrigation District received from the Imperial County Planning & Development Services Department, the Notice Intent for the preparation of a Mitigated Negative Declaration for the NorthStar 3 Solar Energy and Battery Energy Storage System project; General Plan Amendment No. 23-0002, Zone Change No. 23-0002, Conditional Use Permit No. 23-0007, Conditional Use Permit No. 23-0008, Initial Study No. 23-0007. The applicant, Apex Energy Solution, LLC; proposes the construction and operation of a 100MW PV energy generation facility, a 200MW battery storage system. The nearly 585-acre project site is located at 4580 W. Hwy. 86, Salton City, CA (APNs 017-350-027, -030, -031).

The IID has reviewed the project information and in addition to the comments provided in the January 4, 2024 district letter (see attached), has the following observations:

1. The applicant will be required to provide and bear all costs associated with acquisition of rights of way, easements, and infrastructure relocations deemed necessary to accommodate street or road improvements imposed by the municipality or County.

2. Due to projects dropping out of the district's interconnection queue, previously completed IID system impact and facility studies for the NorthStar 3 Solar Energy and BESS project are no longer valid, and the project had to be restudied. The project is currently going through the IID study process. Consequently, to properly assess for potential project impacts and determine if the project will require or result in the relocation or construction of new or expanded electric power facilities, the construction or relocation of which could cause significant environmental effects, these studies will have to be performed. Any system improvements or

mitigation identified in such studies to accommodate the project shall be the responsibility of the applicant proponent and should be included as part of the project for environmental assessment purposes.

3. Furthermore, the project proposes to tap into the L Line. However, currently the line is at or near capacity and all project proponents planning to interconnect to this line have been required to reinitiate the interconnection process.

4. Notwithstanding the previous comment, preliminary study results indicate that the applicant will be required to provide IID with a new switching station to interconnect to the IID system. The land which the switching station is to be built on shall be conveyed to IID in fee simple ownership. IID banks and power line corridors re not public roadways, and IID does not guarantee accessibility or conditions suitable for all traffic or emergency vehicles. All access points to the switching station shall be connected to a public road or granted by easement. Access to the switching station shall consist of 2 access roads to enter the site. Access roads shall have a minimum of 30' wide and must be capable to handle heavy trucks without deformation and provide sufficient turning radius. The switching station and land requirements shall conform to IID substation standard RGSTD-1001 and the Final North Star 3 system impact and facility studies.

Should you have any questions, please do not hesitate to contact me at 760-482-3609 or at dvargas@iid.com. Thank you for the opportunity to comment on this matter.

Respectfully,

Donald Vargas
Compliance Administrator II

Enclosure

Jamie Asbury – General Manager
Mike Pacheco – Manager, Water Dept.
Matthew H Smelser – Manager, Energy Dept.
Geoffrey Holbrook – General Counsel
Michael P. Kemp – Superintendent General, Fleet Services and Reg. & Environ. Compliance
Laura Cervantes. – Supervisor, Real Estate
Jessica Humes – Environmental Project Mgr. Sr., Water Dept.

IID

www.iid.com

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January 4, 2024

Mr. Gerardo Quero
Planner II
Planning & Development Services Department
County of Imperial
801 Main Street
El Centro, CA 92243

SUBJECT: NorthStar 3 Solar Energy and BESS Project; GPA23-0002/ZC23-0002/CUP23-0007/CUP23-0008/IS23-0007

Dear Mr. Quero:

On December 22, 2023, the Imperial Irrigation District received from the Imperial County Planning & Development Services Department, a request for agency comments on the NorthStar 3 Solar Energy and Battery Energy Storage System project; General Plan Amendment No. 23-0002, Zone Change No. 23-0002, Conditional Use Permit No. 23-0007, Conditional Use Permit No. 23-0008, Initial Study No. 23-0007. The applicant, Apex Energy Solution, LLC; proposes the construction and operation of a 100MW PV energy generation facility, a 200MW battery storage system. The project will interconnect to the IID 161kV L transmission line via an approximately 0.75-mile gen-tie line. The nearly 585-acre project site is located at 4580 W. Hwy. 86, Salton City, **CA** (APNs 017-350-027, -030, -031).

1. There are a few mentions of MW output throughout the project documentation that don't seem to align. The project's Interconnection Request application submitted to the IID indicates a 100MW PV and 100 BESS facility.

2. If the project requires electrical service, the applicant should be advised to contact Gabriel Ramirez, IID project development service planner, at (760) 339-9257 or e-mail Mr. Ramirez at gramirez@iid.com to initiate the customer service application process. In addition to submitting a formal application (available for download at the district website http://www.iid.com/home/showdocument?id=12923), the applicant will be required to submit an AutoCAD file of site plan, approved electrical plans, electrical panel size and panel location, operating voltage, electrical loads, project schedule, and the applicable fees, permits, easements and environmental compliance documentation pertaining to the provision of electrical service to the project. The applicant shall be responsible for all costs and mitigation measures related to providing electrical service to the project.

3. Electrical capacity is limited in the project area. A circuit study may be required. Any system improvements or mitigation identified in the circuit study to enable the provision of electrical service to the project shall be the financial responsibility of the applicant.

4. Applicant shall provide a surveyed legal description and an associated exhibit certified by a licensed surveyor for all rights of way deemed by IID as necessary to accommodate the project electrical infrastructure. Rights-of-Way and easements shall be in a form acceptable to and at no cost to IID for installation, operation, and maintenance of all electrical facilities.

5. Any construction or operation on IID property or within its existing and proposed right of way or easements including but not limited to: surface improvements such as proposed new streets, driveways, parking lots, landscape; and all water, sewer, storm water, or any other above ground or underground utilities; will require an encroachment permit, or encroachment agreement (depending on the circumstances). A copy of the IID encroachment permit application and instructions for its completion are available at https://www.iid.com/about-iid/department-directory/real-estate. The IID Real Estate Section should be contacted at (760) 339-9239 for additional information regarding encroachment permits or agreements. No foundations or buildings will be allowed within IID's right of way.

6. Any new, relocated, modified or reconstructed IID facilities required for and by the project (which can include but is not limited to electrical utility substations, electrical transmission and distribution lines, water deliveries, canals, drains, etc.) need to be included as part of the project's California Environmental Quality Act (CEQA) and/or National Environmental Policy Act (NEPA) documentation, environmental impact analysis and mitigation. Failure to do so will result in postponement of any construction and/or modification of IID facilities until such time as the environmental documentation is amended and environmental impacts are fully analyzed. Any and all mitigation necessary as a result of the construction, relocation and/or upgrade of IID facilities is the responsibility of the project proponent.

7. When the time comes for the project to go through the CEQA process and address the environmental factors to be assessed, pursuant to the checklist in Appendix G of the CEQA guidelines, to correctly evaluate the potential impacts related to the environmental factor "XIX. UTILITIES AND SERVICE SYSTEMS" and determine the appropriate compliance action, a circuit study/distribution impact study, facility study, and/or system impact study will have to be performed to establish if the project will require or result in the relocation or construction of new or expanded electric power facilities, the construction or relocation of which could cause significant environmental effects.

8. The project is in the early stages of the IID interconnection process, the district has yet to perform a System Impact Study at this point. Thus, the IID infrastructure that may be necessary to accommodate the project has not been identified. However, assuming there are no issues with the point of interconnection at IID's 161kV "L" line, at minimum, a new switching station, most likely built on the project's property, to loop in-and-out the "L" line with a short gen-tie into the switching station would be required.

Should you have any questions, please do not hesitate to contact me at 760-482-3609 or at dvargas@iid.com. Thank you for the opportunity to comment on this matter.

Respectfully,

Donald Vargas
Compliance Administrator II

Jamie Asbury – General Manager
Mike Pacheco – Manager, Water Dept.
Matthew H Smelser – Manager, Energy Dept.
Geoffrey Holbrook – General Counsel
Michael P. Kemp – Superintendent General, Fleet Services and Reg. & Environ. Compliance
Laura Cervantes. – Supervisor, Real Estate
Jessica Humes – Environmental Project Mgr. Sr., Water Dept.

Docusign Envelope ID: 33F3AD47-7237-48EC-B202-271A818AF4DA

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Inland Deserts Region
3602 Inland Empire Boulevard, Suite C-220
Ontario, CA 91764
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

RECEIVED
By Imperial County Planning & Development Services at 11:14 am, Jul 25, 2024

July 25, 2024

Gerardo Quero
Planner II
Imperial County Planning & Development Services Department
801 Main Street
El Centro, CA 92243
ICPDSCommentLetters@co.imperial.ca.us

North Star 3 Solar and Battery Storage Project (PROJECT)
MITIGATED NEGATIVE DECLARATION (MND)
SCH# 2024060955

Dear Mr. Minnick:

The California Department of Fish and Wildlife (CDFW) received a Notice of Intent to Adopt an MND from Imperial County Planning & Development Services Department (ICPDS) for the Project pursuant the California Environmental Quality Act (CEQA) and CEQA Guidelines.[1]

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

CDFW ROLE

CDFW is California's **Trustee Agency** for fish and wildlife resources and holds those resources in trust by statute for all the people of the State. (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a).) CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. (*Id.*, § 1802.) Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

CDFW is also submitting comments as a **Responsible Agency** under CEQA. (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381.) CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority. (Fish & G. Code, § 1600 et seq.) Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.),

[1] CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

Docusign Envelope ID: 33F3AD47-7237-48EC-B202-271A818AF4DA

the project proponent may seek related take authorization as provided by the Fish and Game Code.

PROJECT DESCRIPTION SUMMARY

Proponent: Apex Energy Solutions, LLC
Objective: The objective of the Project is to construct and operate a 100-Megawatt (MW) solar photovoltaic (PV) energy generation facility, a 200-MW Battery Energy Storage System (BESS), and an on-site transmission line connection to the existing Imperial Irrigation District's 161-Kilovolt "L" Line which traverses the Project site. Primary Project activities include construction and operation of a 100-MW PV energy generation facility and a 200-MW BESS facility.
Location: The Project is located approximately 9 miles southeast of the town of Salton City in Imperial County, Assessor's Parcel Numbers 017-350-031, 017-350-030, and 017-350-027, Latitude 33.181000, Longitude -115.880750. The nearest cross streets are Salton Sea Road and Highway 86.
Timeframe: Construction is expected to be 12 to 18 months in duration.

COMMENTS AND RECOMMENDATIONS

CDFW notes there is a lack of appropriate biological resource surveys and supporting documentation provided in the MND, therefore it is unclear how some of the proposed mitigation measures or proposed project revisions will be able to reduce the Project's potentially substantial adverse effect on biological resources to less than significant with mitigation incorporated. Without the environmental baseline adequately evaluated, many of the mitigation measures proposed require surveys to be able to identify and quantify biological resources that will be impacted by the project at a later date. CDFW notes that baseline surveys should have already been conducted and included in the environmental document, and appropriate mitigation for on-site resources should have been included in the MND, as deferment does not allow the development of effective mitigation measures.

CDFW offers the comments and recommendations below to assist ICPDS in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. Editorial comments or other suggestions may also be included to improve the document.

I. Project Description and Related Impact Shortcoming

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 CDFW or USFWS?

COMMENT 1:

Section: IV. Biological Resources **Page:** 57

Issue: The MND identified the Project's substantial adverse effect on candidate, sensitive, or special status species as less than significant with mitigation incorporated. The MND includes a mitigation measure for sensitive species on Bureau of Land Management (BLM)-managed Land despite the project occurring on private land.

Specific impact: The Project Description describes regional site access from State Route 82, local vehicular site access from Salton Sea Road, as well as the proposed

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point of connection to the electrical grid on-site. However, BIO-10 (hereto referred to as BIO-9, as the document lacks a BIO-9 between BIO-8 and BIO-10) states that impacts to habitat within land managed by the BLM could take place during construction activities if workers from the Project do not stay on BLM roads. The Phase I ESA report, Air Quality and Greenhouse Gas Emission Assessment, Energy Consumption Assessment, Noise Impact Assessment, and Visual Resources Impact Assessment, all state that the Project site access is through Highway 86 with no mention of Salton Sea Road. CDFW is concerned with the lack of consistency between these documents regarding site access.

The Project description should clarify which road will be used for site access in order to determine if significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources could occur. The document states that the Project location is within the Desert Renewable Energy Conservation Plan (DRECP) area, a plan only applicable to projects occurring on BLM-managed land. According to shapefiles provided by the BLM, the Project site is located between parcels of BLM-managed land as well as land designated to the DRECP. Clarification is needed regarding the statement that impacts may occur on BLM land when the project site nor its access roads appear to occur on BLM land.

Why impact would occur: The documents provided lack information about which access road, either the Salton Sea Road through BLM-managed land, or the state Highway 86 for Project site entrance, would be used. The Phase I ESA Report states that the Project site entrance will be off of Highway 86 with a posted security gate. If the Salton Sea Road through BLM-managed land is used, impacts to special status species on BLM-managed land could occur.

Evidence impact would be significant: The MND has not analyzed impacts to BLM-managed land, nor has it explained if the project will use any roads within BLM-managed land. Several portions of the document have established that the access to the worksite is through Highway 86. BIO-2 (hereby separated into separate Mitigation Measures BIO-10 through BIO-24) states that any areas within the Project site will be delineated. As the entirety of the Project (including vehicle access and staging areas) can be contained within the boundaries of the Project site outside of BLM-managed land, CDFW is uncertain whether the mitigation measure regarding impacts on BLM-managed land or access to BLM-managed land via Salton Sea Road is necessary and requests clarification.

Recommended Potentially Feasible Mitigation Measure(s) (Regarding Environmental Setting and Related Impact Shortcoming)

Mitigation Measure: BIO-9

To reduce impacts to less than significant: CDFW recommends BIO-9 be changed to the following measure to avoid impacts to sensitive species on BLM-managed land, which were not evaluated by the MND.

~~**BIO-9. Minimization of Impacts to Sensitive Species on BLM Land:** All vehicles shall stay on designated roads within BLM land to minimize impacts to habitat. Coordination with a qualified biologist shall occur prior to the staging of equipment and placement of temporary or permanent structures within BLM land. Additionally, a biologist shall demarcate temporary and permanent workspaces in the field prior to the commencement of construction-related activities. Construction plans shall incorporate measures to minimize and avoid impacts to habitats within this area. Tires shall be~~

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~~cleaned prior to entering BLM lands to control introduction of invasive plant species.~~
Site Access: All Project access shall occur through the entrance designated from Highway 86 to avoid impacts to sensitive species occurring on BLM-managed land adjacent to the Project area.

II. Environmental Setting and Related Impact Shortcoming

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 CDFW or USFWS?

COMMENT 2:

Section: IV. Biological Resources **Page** 48

Issue: CDFW is concerned that the MND has not accurately described or fully established the biological resources present onsite, limiting the CEQA Lead Agency's and CDFW's ability to analyze the Project's potential impacts, avoidance, and/or mitigation measures on candidate, sensitive, or special status species. The MND relies on field reconnaissance surveys of the Project area that were conducted on October 25 and 26, 2022 and just focused on documenting the potential habitat to support special-status plant species. BIO-1 conditions a pre-construction rare plant survey to be performed prior to the start of construction, particularly focusing on areas that may support special status species.

Specific impact: The Biological Resources Technical Report for the Project included a reconnaissance survey to identify potential habitat for special status plants which was only performed once, over a two-day period, during drought conditions. As noted in BIO-1, only one of the five special status plant species with high potential to occur within the Project site per the MND has a fall blooming period. The reconnaissance survey was performed during an inappropriate time of year for the other four species and did not follow the *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW, March 2018). Without protocol surveys, potential Project impacts to candidate, sensitive, or special status species may be mischaracterized, resulting in avoidable, unminimized, or unmitigated impacts not analyzed by the MND.

Why impact would occur: The MND and accompanying Biological Technical Resources Report for the Project does not have sufficient information as to whether there's suitable habitat and potential impacts to Orcutt's woody-aster, Harwood's milkvetch, gravel milkvetch, Abrams' spurge, and Torrey's boxthorn. A reconnaissance survey is too general in nature to accurately characterize the biological baseline conditions on which the MND must base its analysis concerning potentially significant impacts. Botanical surveys were not performed, rather a habitat assessment. The Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (CDFW, March 2018) state botanical field surveys need to be conducted when plants will be both evident and identifiable, with the timing and number of visits considered to determine presence of special status species and floristic diversity. Multiple surveys during the season may be warranted to capture floristic diversity (CDFW, 2018). Habitats, such as desert plant communities that have annual and short-lived perennial plants as major floristic components, may require yearly surveys to accurately document baseline conditions for purposes of impact assessment (CDFW, 2018). Focused surveys limited to certain habitats and species

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"are not considered floristic in nature and are not adequate to identify all plants in a project area to the level necessary to determine if they are special status plants" (CDFW, March 2018).

Also, BIO-1 defers mitigation by requiring a mitigation plan or additional avoidance and minimization measures to be developed and implemented at a later date should the need be identified through focused preconstruction surveys. All mitigation and avoidance and minimization measures incorporated to bring impacts to species to less than significant should be contained within the MND. The timing of mitigation strategies described, such as seed collection, could be hindered by the timing associated with project development and deadlines, drafting of the plan or measures, and/or insufficient number of surveys. Additionally, mitigation strategies developed at a later date may not be effective to reduce impacts to less than significant, as the requirements are not contained within the MND to ensure compliance. As such, without an appropriate baseline and impact analyses provided in the MND, CDFW is concerned any plans developed per BIO-1 may not appropriately mitigate the impact to present species as determined by the MND.

Evidence impact would be significant: Given the presence of potentially suitable habitat, Project impacts to the species identified above are possible and the MND should incorporate avoidance, minimization, and mitigation measures for each species based on an assumption of presence or based on focused surveys, following professionally accepted methods (protocol level surveys), and incorporated in the MND. Sensitive plant species are listed under the CESA as threatened, or endangered, or proposed candidates for listing; designated as rare under the Native Plant Protection Act; or plants that otherwise meet the definition of rare, threatened, or endangered species under CEQA. Plants constituting California Rare Plant Ranks 1A, 1B, 2A, and 2B generally meet the criteria of a CESA-listed species and should be considered as an endangered, rare or threatened species for the purposes of CEQA analysis. Take of any CESA-listed species is prohibited except as authorized by state law (Fish and Game Code, §§ 2080 & 2085). Fish and Game Code Sections 1900–1913 includes provisions that prohibit the take of endangered and rare plants from the wild and a salvage requirement for landowners.

Recommended Potentially Feasible Mitigation Measure(s) (Regarding Environmental Setting and Related Impact Shortcoming)

Mitigation Measure: BIO-1

To reduce impacts to less than significant: CDFW recommends botanical field surveys following the *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW, March 2018*)* be conducted by qualified personnel annually prior to the start of construction. One botanical field survey may be insufficient to detect plants that are not evident and identifiable every year, therefore CDFW recommends multiple surveys. Appropriate surveys will identify the species present to allow development of effective mitigation measures. CDFW provides editorial suggestions to BIO-1, provided below, that are recommended to be incorporated into the mitigation measure.

BIO-1. Rare Plant Surveys: Prior to initiating ground disturbance, **three** ~~rare plant~~ **botanical field** surveys shall be conducted that are **floristic in nature (i.e., identifying all plant species to the taxonomic level necessary to determine rarity), and inclusive of areas proposed for disturbance and indirectly impacted by the Project.** ~~conducted within suitable habitat within the Survey Area during the appropriate~~

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~~blooming period for the Orcutt's woody-aster (March through April), Harwood's milkvetch (January through May), gravel milkvetch (February through June), Abrams' spurge (August through November), and Torrey's boxthorn (approximately March through June).~~ The surveys shall be conducted by a **qualified** botanist or qualified biologist in accordance with the USFWS Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants (USFWS 1996); the CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW 2018); and the CNPS Botanical Survey Guidelines (CNPS 2001). If any special-status species are observed during the ~~rare plant~~ **botanical field** surveys~~, the location of the individual plant or population will be recorded with a submeter GPS device for mapping purposes.~~ **the Project shall be designed to reduce impacts to these species through the establishment of buffers, to the extent feasible. Buffer distances will be determined by the qualified botanist or biologist, typically 50 feet or greater from an identified special-status plant species, unless the qualified botanist or biologist determines a reduced buffer would suffice to avoid impacts to the species. All special-status plant species identified on site shall be mapped with a submeter GPS device and depicted on a site-specific aerial photograph and topographic map and included on any construction, grading, fuel modification, or other pertinent plans.** ~~Consultation with CDFW may be required to develop a mitigation plan or additional avoidance and minimization measures if project-related impacts to rare plants within the project site are unavoidable.~~ **If avoidance of special-status plant species is not feasible, a Special-Status Plant Relocation Plan shall be developed and implemented. The Special-Status Plant Relocation Plan shall address mitigation for special-status plants, including topsoil salvage to preserve seed bank and management of salvaged topsoil; seed collection, storage, possible nursery propagation, and planting; salvage and planting of bulbs as feasible; location of on-site receptor sites; land protection instruments for receptor areas; and funding mechanisms. The Special-Status Plant Relocation Plan shall include methods, monitoring, reporting, success criteria, adaptive management, and contingencies for achieving success.** ~~Mitigation measures that may be implemented if the species is observed include establishing a no disturbance buffer around locations of individuals or a population, salvage or seed collection, and additional monitoring requirements~~. **The Project proponent shall mitigate the loss of the plant(s) through the purchase of mitigation credits from a CDFW-approved bank or land acquisition and conservation at a minimum 2:1 (replacement to impact) ratio for occupied habitat should success criteria not be met, or presence of the species is assumed based on suitable habitat acreage within the Project area. Note that a higher ratio may be warranted if the proposed mitigation lands are located far away from the Project site.**

COMMENT 3:

Section: IV. Biological Resources **Page:** 97

Issue: The Project occurs within the range of the desert kit fox (*Vulpes macrotis*), a protected species pursuant to Title 14 of the California Code of Regulations section 460, which prohibits the take of the species at any time, as well as the American badger (*Taxidea taxus*), a Species of Special Concern (SSC). CDFW recommends surveys, following appropriate methodology, be conducted over all areas proposed to be directly or indirectly affected by the Project to determine presence/absence.

Specific impact: The staging of construction equipment, vehicles, and any foot traffic may result in the collapse of occupied burrows and result in the direct mortality and/or

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injury to desert kit fox and American badger. Project construction and activities may result in the injury or mortality of desert kit fox and American badger.

Why impact would occur: The impact analysis identified desert kit fox as a special-status species with high potential to occur on the Project site and the American badger as a special-status species with a moderate potential to occur on the Project site. However, CDFW is concerned that an impact analysis of said species was not properly established as there have been no surveys conducted for presence, absence, or sign of presence of desert kit fox and American badger.

Evidence impact would be significant: The desert kit fox is protected from take (See Cal. Code Regs., tit. 14, § 460). American badger is a SSC and protected from take without appropriate licensure (See Cal. Code Regs., tit. 14, § 461). CEQA provides protection for not only CESA-listed species, but for any species including but not limited to SSC which can be shown to meet the criteria for State listing. American badger is SSC that meets the CEQA definition of rare, threatened, or endangered species (CEQA Guidelines, § 15380).

Recommended Potentially Feasible Mitigation Measure(s) (Regarding Environmental Setting and Related Impact Shortcoming)

To reduce impacts to less than significant:
Mitigation Measure: BIO-25

To reduce impacts to less than significant:

CDFW recommends that surveys following appropriate methodology be conducted over all areas proposed to be directly or indirectly affected by the Project to determine the presence or absence of this species and the number of desert kit fox and American badger that are present, as well as document sign of presence. This survey may be combined with a burrowing owl breeding survey should each burrow be evaluated for each species and documented.

If desert kit fox or American badger are found or have the potential to occupy the Project site due to the presence of sign, CDFW recommends the lead agency require species-specific avoidance, minimization, and monitoring measures aimed at avoiding direct impacts to desert kit fox and American badger. Avoidance and minimization measures should include pre-activity surveys following appropriate survey methods, including procedures used to classify identified dens as inactive dens, active and potentially active dens, and active natal dens, and methods utilized to quantify and locate single or paired animals. The measures should also include detailed monitoring requirements and methods of exclusion/passive relocation to be conducted, and methods and timing of den excavation. CDFW recommends the following mitigation measure be added to the MND.

BIO-26. Desert Kit Fox and American Badger: Prior to the beginning of surface disturbance, the Project Biologist shall conduct a pre-Project 10-meter transect survey (or reduced based on topography and vegetation), to attain 100% visual coverage within the Project area and a minimum 200-meter buffer to determine the presence or absence of desert kit fox and/or American badger individuals, dens, and sign. If potential dens are located, they shall be monitored by the Project Biologist. Trail cameras may be used to assist with observation but shall not be the sole basis upon which the status is determined. The Project proponent shall provide the results of the survey to CDFW prior to start of Project activities.

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Project proponent shall provide a determination if active dens can be avoided and buffered from Project activities to prevent take and disturbance with the survey results. Should active dens be present within the Project area that cannot be avoided with an adequate buffer, the Project proponent shall reschedule Project activities or submit a monitoring and passive relocation plan for CDFW's review and approval. No disturbance or passive relocation of active dens may take place during the breeding season or when juveniles are dependent on parental care.

Comment 4:

Section: IV. Biological Resources **Page:** 55

Issue: Flat-tailed horned lizard is a CDFW ranked SSC found adjacent to the Project site (California Natural Diversity Database (CNDDB), 2009). Colorado Desert fringe-toed lizard is a CDFW ranked SCC with a high probability of being found on site. Appropriate surveys to determine each species presence within the Project site were not performed. The MND states the Project has high potential to impact each species. Additionally, mitigation for each species is not proposed, and avoidance and minimization measures are proposed to be developed at a later date.

Specific Impact: Impact to flat-tailed horned lizard, Colorado Desert fringe-toed lizard, and habitat disturbance resulting from Project activities may occur through: installation and maintenance of utility structures, such as transmission lines and cable lines; habitat disturbance from installation of towers, construction, and use of access routes to utility sites; road constructed to maintain or build utilities may cause a proliferation of new access roads into previously undisturbed areas, resulting in off-site habitat disturbance; and indirect but potentially large impact are avian predators (Common ravens, loggerhead shrikes, etc.) utilizing transmission lines and towers to more effectively prey upon flat-tailed horned lizards (Flat-tailed Horned Lizard Rangewide Management Strategy, 2003). Habitat for the Colorado Desert fringe-toed lizard is impacted by fragmentation due to development, conversion to agriculture, and degraded by off-road vehicle use (Zeiner, 2000).

Evidence impact would be significant: The Flat-tailed horned lizard is a designated sensitive species by BLM and SSC by CDFW. In 1994, BLM, CDFW, United States Bureau of Reclamation, Arizona Department of Game and Fish, and USFWS developed the foundation that would be the Memorandum of Understanding for the conservation agreement and management plan for the flat-tailed horned lizard, which has a declining population due to habitat fragmentation from agricultural development, urbanization, utilities, energy and mineral extraction, and other forms of land development. The Project site is directly across Highway 86 from the Ocotillo Wells State Vehicular Recreational Area Research Area (Ocotillo Wells RA) which has confirmed presence of the species since 2008. In addition, CNDDB confirmed Flat-tailed horned sightings adjacent to the Project site on the same side of Highway 86. Presence of the species in the immediate vicinity suggests the Project has potential to impact flat-tailed horned lizards. The Colorado Desert fringe-toed lizard is designated as a SSC by CDFW. CEQA provides protection for not only CESA-listed species, but for any species including but not limited to SSC which can be shown to meet the criteria for State listing. Colorado Desert fringe-toed lizard is SSC that meets the CEQA definition of rare, threatened, or endangered species (CEQA Guidelines, § 15380).

Recommended Potentially Feasible Mitigation Measure(s) (Regarding Mitigation Measure or Alternative and Related Impact Shortcoming):

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To reduce impacts to less than significant:

CDFW is concerned with mitigation measure BIO-6 covering several different special-status species, as each species listed in the measure has different survey, mitigation, minimization, and avoidance methods. It is recommended that BIO-6 focuses solely on the flat-tailed horned lizard and Colorado Desert fringe-toed lizard.

Additionally, CDFW is concerned no mitigation is proposed for each species, despite the Project's location adjacent to the flat-tailed horned lizard Ocotillo Wells RA and the West Mesa Management Area which is an area where impacts are mitigated at a 3:1 to 6:1 ratio (for every one acre of impact, 3-6 acres of mitigation is required). As mitigation for the flat-tailed horned lizard is difficult to obtain, CDFW recommends the lead agency determine if full avoidance may be necessary prior to Project activities if species presence is determined and cannot be adequately mitigated.

Mitigation Measure: BIO-6

To reduce impacts to less than significant:

BIO-6. Flat-Tailed Horned Lizard and Colorado Desert Fringe-toed Lizard: Prior to Project activities, surveys for presence/absence of flat-tailed horned lizard (FTHL) and Colorado Desert Fringe-toed Lizard (CDFTL) shall be conducted using parallel, linear routes that are evenly spaced in areas of suitable habitat and be performed by a qualified Project Biologist.

For FTHLs, each transect shall be 10 meters apart. On each transect, FTHLs, sign of FTHLs (i.e., scat or tracks), and harvester ant mounds shall be surveyed. If FTHL or sign is located while surveying, the biologist shall pause, scan the immediate area, follow the tracks (if present), and scan the immediate vicinity of the tracks, scat, and/or ant mound observed. Three surveys shall be conducted, spaced two weeks apart during April through September. Surveys will be conducted when surface temperatures in the sun exceed 85°F. Scat surveys shall not be conducted for at least 12 days after heavy rainstorms, or strong winds of an intensity sufficient to move a considerable amount of sand across roads.

For CDFTL, each transect shall be spaced 5 meters apart. One surveyor shall focus on habitat/substrate 30-40 meters in front, while one surveyor focuses on the area 2-10 meters in front. Surveys shall be conducted only when winds are 10mph or less and it is not raining. Up to six surveys shall be conducted over the same area on separate days by a qualified biologist between April and September when ground temperature in sun exceeds 85°F.
Project proponent shall provide the results of the surveys for both species to CDFW prior to start of Project activities.

If FTHL or CDFTL are present, the following minimization and mitigation measures shall apply:

- **During Project activities, the Project Biologist shall check areas of active disturbance at least hourly. Prior to construction, a qualified Project Biologist shall clear the area of FTHL or CDFTL. During construction, a Project Biologist shall be present in each area of active surface disturbance throughout the workday from initial clearing to Project completion. FTHL and CDFTL will be moved out of harm's way during all construction activities and will be conducted by two or more biological**

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monitors when construction activities are being conducted in suitable habitat. To the extent feasible, methods to find FTHL and CDFTL will be designed to achieve a maximal capture rate and will include, but not be limited to using strip transects, tracking, and raking around shrubs. During construction, the minimum survey effort will be 30 minutes per acre.

- **Occupied habitat shall be mitigated at a 1:1 ratio (1 acres of mitigation for every acre of impact) through off-site acquisition of FTHL and CDFTL habitat of equal or greater quality that is conserved and managed in perpetuity. Proposed mitigation lands shall be approved by CDFW.**

~~A pre-construction survey shall be conducted for special-status wildlife species within all areas of potential permanent and temporary disturbance. The pre-construction survey shall take place no more than 14 days prior to the start of ground-disturbing activities. The pre-construction surveys shall take place regardless of breeding season timing and shall focus on identifying the presence of special-status wildlife species present within the Survey Area or that were identified as having a high/moderate potential to occur on the site. These species include, but are not limited to, flat-tailed horned lizard, Colorado Desert fringe-toed lizard, burrowing owl, desert kit fox, and American badger. Should any special status species be identified during the pre-construction survey, consultation to develop suitable avoidance and minimization measures with the appropriate agency (USFWS, CDFW) may need to be undertaken.~~

Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW or USFWS?

COMMENT 5:

Section: IV. Biological Resources **Page:** 55-56

Issue: The MND does not include, but should include a jurisdictional delineation of all ephemeral stream features potentially subject to notification for Lake and Streambed Agreement pursuant Fish and Game Code section 1602. The *Aquatic Resource Delineation Report for the North Star 3 Project* (Appendix D) may include this information but is missing from the MND. Additionally, BIO-9 defers mitigation to be determined by the regulatory agencies and states mitigation may occur on-site.

Specific impact: The MND states there is a total of 23.32 acres of areas subject to Fish and Game Code section 1602 within the Project's study area that have potential to be impacted. CDFW cannot accurately determine if the acreage provided in the MND for impact analysis is accurate as no supporting document or figures were provided. Additionally, the MND does not identify the mitigation that will reduce impacts to less than significant for the purposes of CEQA.

Why impact would occur: CDFW was unable to analyze the jurisdictional delineation and provide comment as the pertinent attachment was missing from the MND. Additionally, there were no figures to depict the location of the resources. The jurisdictional delineation and proposed site plan should be used to identify what impacts would occur and develop a mitigation measure that defines the appropriate mitigation. As currently written, the mitigation measure BIO-8 is a conditional measure and states, "if project related impacts occur… a regulatory permit… is needed prior to the impact occurring". Deferring mitigation to a regulatory permit does not reduce impacts to resources to less than significant for the purposes of CEQA. Additionally, it is also

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unclear how on-site mitigation could occur and to what extent it will reduce impacts to less than significant.

Evidence impact would be significant: Project activities may cause substantial diversion or obstruction of natural flow of streams, substantially change the bed, bank, and channels of streams, and/or deposit or disposal of material into streams in the Project area. For any such activities, the Project Applicant should provide written notification per Fish and Game Code section 1602. Project activities subject to notification are not described in the MND, and there is potential that resource presence is not appropriately quantified in the MND. So CDFW is unable to adequately review the Project pertaining to the department's lake and streambed alteration regulatory authority (Fish & G. Code, § 1600 et seq.).

Recommended Potentially Feasible Mitigation Measure(s) (Regarding Mitigation Measure or Alternative and Related Impact Shortcoming)

Mitigation Measure: BIO-8

To reduce impacts to less than significant:
CDFW recommends the MND include a jurisdictional delineation to identify stream resources subject to Fish and Game Code section 1602. Should the Project be unable to avoid impacts to stream resources, the Project applicant will need to notify CDFW per Fish and Game Code section 1602. Fish and Game Code section 1602 requires any entity to notify CDFW prior to commencing any activity that may do one or more of the following: substantially divert or obstruct the natural flow of any river, stream, or lake; substantially change or use any material from the bed, channel or bank of any river, stream, or lake; or deposit debris, waste or other materials that could pass into any river, stream, or lake. Please note that "any river, stream or lake" includes those that are episodic (i.e., those that are dry for periods of time) as well as those that are perennial (i.e., those that flow year-round). This includes ephemeral streams, desert washes, and watercourses with a subsurface flow similar to those referenced above. CDFW provides editorial comments to BIO-8 below.

BIO-8. Aquatic Resources Regulatory Permitting: ~~If p~~ **P**roject-related impacts **that will** occur to the riparian areas **or areas subject to Fish and Game Code section 1602 shall be mitigated at a minimum of 2:1 ratio (two acres of mitigation for every impact to one acre of resource). The Project proponent shall obtain all necessary regulatory permits for resources** ~~that may also fall~~ under the jurisdiction of the USACE, CDFW, and/or RWQCB~~, a regulatory permit with those agencies is needed~~ prior to the impact occurring. Refer to the Aquatic Resource Delineation Report or the North Star 3 Project (Appendix D of this Initial Study) for preliminary determination of regulatory limits ~~that~~ **of** areas that may be regulated by USACE, CDFW, or RWQCB. Permitting includes preparation and submittal of a Pre-Construction Notification under Section 404 of the federal CWA, an Application for Water Quality Certification under Section 401 of the federal CWA and a notification of Lake or Streambed Alteration under Section 1600 of the California Fish and Game Code. A completed CEQA document, and Notice of Determination, will be necessary to submit along with the applications. Other items such as finalized project plans, quantities of fill material, supporting technical studies, etc., are also submitted along with the applications. As a part of this process, the project must also identify and approve mitigation through the respective agencies.

Mitigation ~~can~~ **shall** include: ~~onsite or~~ offsite ~~options or~~ **land acquisition that is conserved and managed in perpetuity for the resource;** ~~could include,~~ payment of

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an in-lieu fee to a conservation organization; **and/or**~~. Types of mitigation can include~~ restoration, creation, rehabilitation, enhancement, or other types of habitat improvement. ~~Typically, t~~**T**he type of mitigation and **final** acreage of mitigation ~~is negotiated~~ **shall be approved by** ~~with~~ the regulatory agencies during the permitting process.

COMMENT 6:

Section: IV. Biological Resources **Page:** 55

Issue: When evaluating impacts to Mojave-Sonoran Desert Dunes, the MND states, "The amount of this vegetation community that may be permanently removed is minor (0.18 acre in total). The project proponent would avoid impacts to Mojave-Sonoran Desert [dunes] occurring within the project site. Therefore, no impact would occur." CDFW finds this evaluation of impact to be unclear.

Specific impact: The MND states there is a potential for permanent removal of 0.18 acres of a state rarity rank S3 natural community, then states the impact will be avoided in the following sentence. The MND should be clear if the Project will have an impact on the sparsely vegetated sensitive natural community defined by herbs and subshrubs with intermittent seasonal annuals and scattered perennials, found in active dunes, partially stabilized dunes, stabilized dunes, and sand fields (CNPS, 2024).

Why impact would occur: The MND does not propose any clear avoidance measures nor mitigation to bring the impact to less than significant should the potential impact occur.

Evidence impact would be significant: Natural communities ranked S1 through S3 are considered sensitive communities to be addressed in the environmental review processes of CEQA.

Recommended Potentially Feasible Mitigation Measure(s) (Regarding Mitigation Measure or Alternative and Related Impact Shortcoming)

Mitigation Measure: BIO-28

To reduce impacts to less than significant: CDFW recommends the Project be sited to avoid all 0.18 acres of Mojave-Sonoran Desert dunes. Additionally, CDFW recommends there be an appropriate buffer for avoidance between the Project boundary and the transition of habitat due to the temporal variability in landscape shapes and patterns and shifting natures of the community. This will also avoid frequent need of operation and maintenance activities to rectify built up sand on the proposed security fencing. Also to make the intent of avoidance clearer, CDFW proposes inclusion of the following mitigation measure in the MND.

BIO-27. Avoidance of Mojave-Sonoran Desert Dunes: To avoid permanent impacts to the Mojave-Sonoran Desert Dunes, a sensitive natural community, the Project proponent shall fully avoid dunes found within and adjacent to the Project site. If necessary, the Project site boundary shall be adjusted to comply with full avoidance with an appropriate buffer. If impacts to dune habitat is not feasible, the Project proponent shall mitigate for the permanent impacts at a minimum 2:1 (2 acres of mitigation for every 1 acre of impact). Mitigation shall include: offsite land acquisition that is conserved and managed in perpetuity for the natural community; payment of an in-lieu fee to a conservation organization; and/or

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restoration, creation, rehabilitation, enhancement, or other types of habitat improvement.

III. Mitigation Measure or Alternative and Related Impact Shortcoming

Would the Project interfere substantially with movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede use of native wildlife nursery sites?

COMMENT 7:

Section: IV. Biological Resources **Page:** 50

Issue: CDFW appreciates the inclusion of BIO-2's mention of migratory bird powerline collision risk and the project's intent to minimize collisions by following the 2012 Avian Power Line Interaction Committee's Reducing Avian Collisions with Power Lines guidelines. However, CDFW considers the Mitigation Measure to be lacking information on specifics for how these protections will take place.

Specific impact: The protection options given are to bury the electrical components where feasible or protect lines. Burying electrical components is only feasible/applicable if lines contain voltage less than 345kV, and dependent on variables such as type of cable, land use patters, soil conditions, regulatory acceptance, outage risks and reliability requirements, termination facility requirements, length and operating limits, and other environmental concerns. The variables listed make burying lines rarely feasible (APLIC 2012). The mitigation measure also does not list specific details on how the electrical components will be protected.

Why impact would occur: Collisions of birds and powerlines are more likely to occur in migratory waterfowl, which are a large portion of the Pacific Flyway known to migrate through the area in which the Project is located, and raptors.

Evidence impact would be significant: Migratory waterfowl, such as Gaviformes, Pelecaniformes, Cicioniformes, Anseriformes, and Podicipediformes, are all common families found along the Pacific Flyway, and birds associated with powerline collisions (Bevanger, 1998). Falconiformes and Strigiformes are also more susceptible to powerline collision. All bird families listed above are protected by the USFWS Migratory Bird Treaty Act, while Falconiformes and Strigiformes are protected by Fish and Game Code sections 3503 and 3503.5.

Recommended Potentially Feasible Mitigation Measure(s) (Regarding Mitigation Measure or Alternative and Related Impact Shortcoming)

Mitigation Measure: BIO-2

To reduce impacts to less than significant:

BIO-2. Minimization of Impacts to Migratory Birds, Bats, and Raptors: To reduce indirect impacts on migratory birds, bats, and raptors, the project shall comply with APLIC 2012 Guidelines for overhead utilities, as appropriate, to minimize avian collisions with transmission facilities (APLIC 2012). All electrical components on the project site shall either be underground or **the transmission lines and poles will follow design plans recommended by APLIC (i.e., installing covers over the insulator and conductor on the center phase, installing phase covers over all**

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three insulators and conductors for three phase transmission lines, lowering and/or replacing the crossarm with a longer cross arm on pole-top pin constructions), or utilizing link marking devices (e.g., aerial marker spheres, spirals, or suspended devices). ~~protected so that there will be no exposure to wildlife and therefore no potential for electrocution.~~

Multiple Biological Resource Environmental Issue Areas

COMMENT 8:

Section: IV. Biological Resources **Page:** 50-53

Issue: CDFW is concerned with the length and number of topics provided in BIO-2 General Impact Avoidance and Minimization Measures, as well as their ability to reduce impacts to biological resources to less than significant.

Specific impact: The Mitigation Measure written for BIO-2 is not focused and too general. Each of the measures included in BIO-2 should be separated into its own mitigation measure and compiled into a Mitigation Monitoring Reporting Plan (MMRP) for enforceability and compliance by on-site personnel during Project activities

Why impact would occur: Mitigation measures given should be focused on a singular issue per measure, as opposed to listing several general measures. The purpose of mitigation and minimization measures is to reduce the impact of a project to less than significant for each separate issue or biological resource that is anticipated to be impacted.

Evidence impact would be significant: A blanket measure covering many topics is less effective in being properly tracked in an MMRP, as each measure is required to be checked individually for compliance and may have a different party responsible for its compliance, depending on the subject of the measure.

Recommended Potentially Feasible Mitigation Measure(s) (Regarding Mitigation Measure or Alternative and Related Impact Shortcoming)

To reduce impacts to less than significant:

Mitigation Measure: BIO-10 - BIO-24

CDFW provides the following renumbering of mitigation measures as well as editorial comments explained in Section IV. Editorial Comments and/or Suggestions below.

Mitigation Measure BIO-10. Project Biologist: The Project proponent shall designate a Project Biologist who shall be responsible for overseeing compliance with protective measures for biological resources during vegetation clearing and work activities within and adjacent to areas of native habitat. The Project Biologist shall be familiar with the local habitats, plants, and wildlife**, and have experience performing all necessary surveys and monitoring for biological resources present on site**. The Project Biologist shall also maintain communications with the Contractor to ensure that issues relating to biological resources are appropriately and lawfully managed and shall monitor construction. The Project Biologist shall monitor **all ground disturbing** activities within construction areas**, including activities** during nesting bird season (generally February 1 to September 15), ~~such as~~ vegetation removal, the implementation of Best Management Practices (BMPs), and installation of security

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fencing to protect native species. The Project Biologist shall ensure that all wildlife and regulatory agency permit requirements, conservation measures, and general avoidance and minimization measures are properly implemented and followed.

Mitigation Measure BIO-11. Project Site Delineation: The boundaries of all areas to be newly disturbed (including solar facility areas, staging areas, access roads, and sites for temporary placement of construction materials and spoils) shall be delineated with stakes and flagging prior to disturbance. All disturbances, vehicles, and equipment shall be confined to the flagged areas. Stockpiling of material shall only be allowed within established work areas.

Mitigation Measure BIO-12. Wildlife Entrapment Avoidance: No potential wildlife entrapments (e.g., trenches, bores) shall be left uncovered overnight. Any uncovered pitfalls will be excavated to 3:1 slopes at the ends to provide wildlife escape ramps. Alternatively, man-made ramps may be installed. Covered pitfalls will be covered completely to prevent access by small mammals or reptiles.

To avoid wildlife entrapment (including birds), all pipes or other construction materials or supplies shall be covered or capped in storage or laydown areas, and at the end of each **construction** workday ~~in construction, quarrying and processing/handling areas~~. No pipes or tubing of sizes or inside diameters ranging from 1 to 10 inches shall be left open either temporarily or permanently.

Mitigation Measure BIO-13. Rodenticide: No anticoagulant rodenticides, such as Warfarin and related compounds (indandiones and hydroxycoumarins), shall be used within the Project site~~, on off-site project facilities and activities,~~ or in support of any other Project activities.

Mitigation Measure BIO-14. Trash Abatement: All trash and food-related waste shall be placed in self-closing containers and removed regularly from the site to prevent overflow. Workers shall not feed wildlife.

Mitigation Measure BIO-15. Project Site Speed Limit: To minimize the likelihood for vehicle strikes on wildlife, speed limits shall not exceed 15 miles per hour when driving on access roads. All vehicles required for O&M must remain on designated access/maintenance roads.

Mitigation Measure BIO-16. Artificial Lighting: Avoid nighttime construction lighting or if nighttime construction cannot be avoided, use shielded directional lighting pointed downward and towards the interior of the project sites, thereby avoiding illumination of adjacent natural areas and the night sky.

Mitigation Measure BIO-17. Equipment Mufflers: All construction equipment used for the projects shall be equipped with properly operating and maintained mufflers.

Mitigation Measure BIO-18. Hazardous Substances: Hazardous materials and equipment stored overnight, including small amounts of fuel to refuel hand-held equipment, shall be stored within secondary containment when within 50 feet of open water **or resources subject to Fish and Game Code section 1602** to the fullest extent practicable. Secondary containment shall consist of a ring of sandbags around each piece of stored equipment/structure. A plastic tarp/visqueen lining with no seams shall be placed under the equipment and over the edges of the sandbags, or a plastic hazardous materials secondary containment unit shall be utilized by the Contractor. The Contractor will be required to conduct vehicle refueling in upland areas where fuel

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cannot enter waters of the U.S. **or areas subject to Fish and Game Code section 1602,** and in areas that do not have potential to support federally threatened or endangered species. Any fuel containers, repair materials, including creosote-treated wood, and/or stockpiled material that is left on site overnight, shall be secured in secondary containment within the work area and staging/assembly area and covered with plastic at the end of each workday. In the event that no activity is to occur in the work area for the weekend and/or a period of time greater than 48 hours, the Contractor shall ensure that all portable fuel containers are removed from the project site. All equipment shall be maintained in accordance with the manufacturer's recommendations and requirements. Equipment and containers shall be inspected daily for leaks. Should a leak occur, contaminated soils and surfaces will be cleaned up and disposed of following the guidelines identified in the Stormwater Pollution Prevention Plan or equivalent, Materials Safety Data Sheets, and any specifications required by other permits issued for the project. The Contractor shall utilize off-site maintenance and repair shops as much as possible for maintenance and repair of equipment. If maintenance of equipment must occur onsite, fuel/oil pans, absorbent pads, or appropriate containment will be used to capture spills/leaks within all areas. ~~Where feasible, m~~**Maintenance** of equipment shall occur in upland areas where fuel cannot enter waters of the U.S. **or areas subject to Fish and Game Code section 1602,** and in areas that do not have potential to support federally threatened or endangered species.

Mitigation Measure BIO-19. Firearms and Pets: Project personnel and any other individuals associated with the Project are prohibited from bringing any firearms or dogs on the Project Area during, except those in the possession of authorized security personnel or local, state, or federal law enforcement officials, dogs that may be used to aid in official and approved monitoring procedures/protocols, or service dogs under Title II and Title III of the American with Disabilities Act. ~~Firearms,~~ **O**pen fires~~,~~ and pets shall be prohibited at all work locations and access roads. Smoking shall be prohibited along the Project alignment.

Mitigation Measure BIO-20. Best Management Practices: Appropriate BMPs shall be used by the Contractor to control erosion and sedimentation and to capture debris and contaminants from construction to prevent their deposition in waterways. Erosion and sediment control devices used for the proposed project, including fiber rolls and bonded fiber matrix, shall be made from biodegradable materials such as jute, with no plastic mesh, to avoid creating a wildlife entanglement hazard.

Mitigation Measure BIO-21. Cross-Country Vehicle Use: Cross-country vehicle and equipment use outside of approved designated work areas and access roads shall be prohibited to prevent unnecessary ground and vegetation disturbance.

Mitigation Measure BIO-22. Injured or Dead Wildlife: Any injured or dead wildlife encountered during Project-related activities shall be reported to the Project Biologist, biological monitor, CDFW, or a CDFW-approved veterinary facility as soon as possible to report the observation and determine the best course of action. For special-status species, the Project Biologist shall notify **via email or phone** the County, USFWS, and/or CDFW, as appropriate, within 24 hours of the discovery.

Mitigation Measure BIO-23. Checking Beneath Vehicles: The ground beneath all parked equipment and vehicles shall be inspected for wildlife before moving.

Mitigation Measure BIO-24. Fugitive Dust Abatement: Water applied to dirt roads and construction areas for dust abatement shall be used the minimal amount needed to

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meet safety and air quality standards to prevent the formation of puddles, which could attract wildlife. Pooled rainwater or floodwater ~~within retention basins~~ shall be removed to avoid attracting wildlife to the active work areas.

COMMENT 9:

Section: IV. Biological Resources **Page:** 50

Issue: CDFW appreciated the inclusion of a mitigation measure for avoidance and minimization of invasive species in BIO-2 General Impact Avoidance and Minimization Measures.

Specific Impact: CDFW is concerned with the effectiveness of the measure at avoiding and minimizing introduction of invasive plant species to Project Site.

Why Impact Would Occur: The measure included the use of chemical removal but gave no conditions or guidelines to follow in the event that herbicides will be used on the Project site. The potential to transport seeds onto the site is also included, but the measures to limit that potential are lacking.

Evidence Impact Would Be Significant: Use of chemical removal is regulated by the California Department of Pesticide Regulation and requires guidelines be met. Without the guidelines of properly preventing the transport of invasive seed onto the Project site, the potential for seed transport increases.

Recommended Potentially Feasible Mitigation Measure(s) (Regarding Mitigation Measure or Alternative and Related Impact Shortcoming:

Mitigation Measure: BIO-25

To reduce impacts to less than significant: CDFW recommends the following edits to the mitigation measure for avoidance and minimization of invasive species.

BIO-25. Invasive Plants: The Contractor shall actively manage the spread of **invasive and nonnative plants** ~~noxious weeds~~ by implementing weed control activities, including, but not limited to, cleaning equipment and inspecting equipment prior to transport to the sites and cleaning of tires and **underside of** equipment prior to leaving the site**, vacuuming and cleaning the interior of vehicles and heavy equipment that have been used off-site before bringing them to the Project site, clean by pressure washing, washing in hot water, freezing, or bleaching personal gear and clothing, including footwear, that have been worn offsite before bringing them to the Project site, and not transporting soil or other fill material from off-site locations to the Project area unless they are certified weed free.** The introduction of exotic, nonnative, weed, and/or invasive plant species will be avoided and controlled wherever possible, and may be achieved through physical or chemical removal and prevention, limiting the size of any vegetation and/or ground disturbance to the absolute minimum, and limiting ingress and egress to defined routes. Preventing exotic plants from entering the site via vehicular sources will include measures such as cleaning vehicles coming into and going from the site. **Any use of herbicide for chemical removal of invasive and nonnative plants shall only use herbicides containing a harmless dye and registered with the California Department of Pesticide Regulation (DPR). All herbicides shall be applied in accordance with regulations set by the DPR. All herbicides shall be used according to label instructions. Labeled instructions of the herbicide used shall be made available to CDFW upon**

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request. No herbicide application when winds are greater than five (5) miles per hour.

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 CDFW or USFWS?

COMMENT 10:

Section: IV. Biological Resources **Page:** 54

Issue: The Project may impact burrowing owl, a California Species of Special Concern (SSC). Breeding surveys and non-breeding surveys were not performed for burrowing owl, therefore, the MND has not established an environmental baseline for this species. BIO-4 conditions a pre-construction survey to be performed to determine species presence of burrowing owl following the *Staff Report on Burrowing Owl Mitigation* (CDFG, March 2012). CDFW considers the BIO-4 to be an avoidance measure rather than a mitigation measure.

Specific impact: Mitigation Measure BIO-4 does not address the high potential for species presence or the potential burrow identified during the biological reconnaissance survey. Additionally, the MND did not analyze the Project's impact on the species nor did it identify mitigation requirements for the loss of nesting burrows, satellite burrows, foraging habitat, dispersal and migration habitat, wintering habitat, and habitat linkages.

Why impact would occur: The MND lacks sufficient information to determine whether the site is occupied by the species and whether there would be a significant impact, as the environmental baseline for the species is based on one reconnaissance survey that lacks the temporal consideration of species occupancy and their use of the surrounding landscape for survival. The mitigation measure only requires buffering individuals, then either excluding the species from the burrow or waiting for the species to leave the burrow after breeding season. Burrowing owls are dependent on burrows at all times of the year for survival and/or reproduction, evicting them from nesting, roosting, and satellite burrows may lead to direct and indirect impacts or take. Loss of access to burrows will likely result in varying levels of increased stress on burrowing owls and could depress reproduction, increase predation, increase energetic costs, and introduce risks posed by having to find and compete for available burrows (CDFG, 2012). CDFW considers habitat to be occupied when at least one burrowing owl, or its sign at or near a burrow entrance, is observed within the last three years (CDFG, 2012).

Evidence impact would be significant: Take, possession or destruction of individual burrowing owls, their nests and eggs is prohibited under Fish and Game Code sections 3503, 3503.5 and 3513. Eviction of burrowing owls is a potentially significant impact under CEQA and mitigation must be roughly proportional to the level of impacts, including cumulative impacts, in accordance with the provisions of CEQA (CEQA Guidelines, §§ 15126.4(a)(4)(B), 15064, 15065, and 16355). As stated in the *Staff Report on Burrowing Owl Mitigation* (CDFG, 2012), "the current scientific literature supports the conclusion that mitigation for permanent habitat loss necessitates replacement with an equivalent or greater habitat area for breeding, foraging, wintering, dispersal, presence of burrows, burrow surrogates, presence of fossorial mammal dens, well drained soils, and abundant and available prey within close proximity to the burrow".

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Additionally, the California Fish and Game Commission has received a formal petition to change the status of burrowing owls to threatened or endangered which could potentially make take of this species under purview of CESA should the species become a candidate species later this year.

Recommended Potentially Feasible Mitigation Measure(s) (Regarding Mitigation Measure or Alternative and Related Impact Shortcoming)

Mitigation Measure: BIO-4

To reduce impacts to less than significant:

CDFW recommends surveys be performed per the guidance of the *Staff Report on Burrowing Owl Mitigation* (CDFG, 2012), assess the impact within the MND, and update the proposed mitigation measure to include avoidance, minimization, and mitigation for burrowing owls identified on-site, and these same measures be applied to any individuals found during take avoidance surveys as conditions by the proposed mitigation measure. CDFW recommends the guidance of mitigating impacts to burrowing owls in the Staff Report on Burrowing Owl Mitigation (CDFG, 2012) be followed, including (a) permanent impacts to nesting, occupied and satellite burrows and/or burrowing owl habitat such that the habitat acreage, number of burrows and burrowing owls impacted are replaced with permanent conservation of similar vegetation communities (grassland, scrublands, desert, urban, and agriculture) to provide for burrowing owl nesting, foraging, wintering, and dispersal (i.e., during breeding and non-breeding seasons) comparable to or better than that of the impact area, and (b) sufficiently large acreage, and presence of fossorial mammals.

Due to the potential for the species to become a candidate under CESA, the impact analysis and appropriate mitigation measures within the MND are needed to support the issuance of any incidental take permit should the project proponent need to seek take authorization as provided by the Fish and Game Code.

BIO-4. Burrowing Owl Avoidance, ~~and~~ Minimization**, and Mitigation:** ~~Take avoidance (pre-construction)~~ **Four breeding season** surveys for burrowing owl shall be completed prior to project construction **by a qualified avian biologist**. Surveys shall be conducted as detailed within Appendix D of the Staff Report on Burrowing Owl Mitigation (California Department of Fish and Game [CDFG] 2012). **This survey shall include 100 percent coverage of the Project site. A report summarizing the breeding season surveys including all requirement for survey reports shall be submitted to CDFW for review and approval.** If burrowing owl **or sign thereof** is not detected, **no further action is necessary.** ~~construction may proceed.~~

If burrowing owl, **active burrowing owl burrows, or sign thereof are found, the qualified avian biologist shall prepare and implement a plan for avoidance, minimization, and mitigation measures to be reviewed and approved by CDFW prior to commencing Project activities. The plan shall propose mitigation for permanent impacts to nesting, loss of foraging habitat, occupied and satellite burrows and/or burrowing owl habitat such that the habitat acreage, number of burrows and burrowing owls impacted are replaced with permanent conservation of similar vegetation communities to provide for burrowing owl nesting, foraging, wintering, and dispersal comparable to or better than that of the impact area. The mitigation land shall be sufficiently large acreage with presence of fossorial mammals. The mitigation lands may require habitat enhancements including enhancement or expansion of burrows for breeding, shelter, and dispersal**

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opportunity, and remove or control of population stressors. Permanent protection of mitigation land shall be through a conservation easement deeded to a nonprofit conservation organization or public agency with a conservation mission. The Project proponent shall develop and implement a mitigation land management plan to address long-term ecological sustainability and maintenance of the site for burrowing owls, and funding for the maintenance and management of mitigation land through the establishment of a long-term funding mechanism such as an endowment. If deemed appropriate by CDFW, conservation species credits may also be purchased at a CDFW-approved conservation bank.

To ensure that the Project avoids impacts to burrowing owl, a qualified avian biologist shall complete a take avoidance survey no less than 14 days prior to initiating ground disturbing activities using the recommended methods described in the Staff Report on Burrowing Owl Mitigation (CDFG, 2012). Burrowing owls may recolonize a site after only a few days. Time lapses between Project activities trigger subsequent take avoidance surveys including but not limited to a final survey conducted within 24 hours prior to ground disturbance. ~~is identified during the non-breeding season (September 1 through January 31), then a 50-meter buffer will be established by the biological monitor. Construction within the buffer will be avoided until a qualified biologist determines that burrowing owl is no longer present or until a CDFW-approved exclusion plan has been implemented. The buffer distance may be reduced if noise attenuation buffers such as hay bales are placed between the occupied burrow and construction activities.~~

~~• If burrowing owl is identified during the breeding season (February 1 through August 31), then an appropriate buffer will be established by the biological monitor in accordance with the Staff Report on Burrowing Owl Mitigation (CDFG 2012). Construction within the buffer will be avoided until a qualified biologist determines that burrowing owl is no longer present or until young have fledged. The buffer distance may be reduced in consultation with CDFW if noise attenuation buffers such as hay bales are placed between the occupied burrow and construction activities.~~

IV. Editorial Comments and/or Suggestions

In the Environmental Checklist Form on page 9, number 10 identifies, "Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.)." CDFW is not listed as a public agency whose approval is required despite the presence of resources subject to Fish and Game Code section 1602. CDFW suggests the department is added to the list as the MND states there is potential impact to these resources.

The MND identified the Project would have no impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFW or U.S. Fish and Wildlife Service and identifies ephemeral streams as state or federally protected wetlands. CDFW notes that impacts to ephemeral streams would be most appropriately evaluated as riparian habitat rather than wetlands.

Mitigation Measure BIO-9 is missing in the list of other mitigation measures, CDFW's comment letter has recommended edits to the MND that will add BIO-9 in addition to others.

On page 57, CDFW recommends section "f" should be edited to state, "The project site is located ~~in~~ **on land adjacent to** BLM Renewable Energy Development Focus Areas **and**

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Areas of Critical Environmental Concern." As the Project site is privately owned and not leased BLM-managed land, a DRECP designation does not apply.

The mitigation measure proposed in BIO-2(now recommended by CDFW to be BIO-10) does not specify the Project Biologist is required to be on-site during all ground disturbing activities, which is when most impact will occur to biological resources. CDFW recommends the lead agency require a Project Biologist on-site during all ground disturbance. Additionally, CDFW recommends the lead agency ensures the Project biologist is qualified and has experience conducting the species-specific surveys required for this Project, and monitoring of species present on site.

The mitigation measure proposed in BIO-2 (now recommended by CDFW to be BIO-12) regarding wildlife entrapment appears to refer to Project activities and areas that are more correlated with a quarry project (quarrying and processing/handling areas). CDFW recommends the lead agency remove this language as it is likely erroneously provided in the measure.

The mitigation measure proposed in BIO-2 (now recommended by CDFW to be BIO-13) mentions use of rodenticides. The measure mentions off-site project facilities and activities. As the MND does not include off-site project facilities or activities, CDFW recommends this measure be edited for clarity.

The mitigation measures in BIO-2 that reference Waters of the US (now recommended by CDFW to be BIO-18) should also mention areas subject to Fish and Game Code section 1602. As written in the MND, only federal regulation is being considered. Such activities would warrant notification to CDFW.

CDFW provides suggested language to mitigation measures in BIO-2 that reference firearms and pets (now recommended by CDFW to be BIO-19).

CDFW provides suggested language to mitigation measures in BIO-2 that reference injured and dead wildlife (now recommended by CDFW to be BIO-22).

The mitigation measure proposed in BIO-2 (now recommended by CDFW to be BIO-24) for fugitive dust abatement mentions retention ponds. CDFW recommends retention ponds be eliminated from any site plans to remove potential risk to biological resources and minimize impacts to resources subject to Fish and Game Code section 1602.

On page 16, site access is described to have 30-feet wide roads. CDFW recommends reconsideration of the widths of the road to minimum need (single width road with turn outs) as wide roads are unnecessary for the operation and maintenance period which is majority of the life of the project.

CDFW is concerned that a confidential Cultural Resources report (Appendix E1) may have been inadvertently provided for public review. CDFW recommends the lead agency replace the MND documents provided to Office of Planning and Research, State Clearinghouse.

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations. (Pub. Resources Code, § 21003, subd. (e).) Accordingly, please report any special status species and natural communities detected

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during Project surveys to the California Natural Diversity Database (CNDDB). The CNNDB field survey form can be filled out and submitted online at the following link: https://wildlife.ca.gov/Data/CNDDB/Submitting-Data. The types of information reported to CNDDB can be found at the following link: https://www.wildlife.ca.gov/Data/CNDDB/Plants-and-Animals.

ENVIRONMENTAL DOCUMENT FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of environmental document filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the environmental document filing fee is required in order for the underlying project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.)

CONCLUSION

CDFW appreciates the opportunity to comment on the MND to assist ICPDS in identifying and mitigating Project impacts on biological resources.

Questions regarding this letter or further coordination should be directed to Austin Gutierrez, Environmental Scientist, at (909) 544-2525 or Austin.Gutierrez@Wildlife.ca.gov.

Sincerely,

DocuSigned by:
Alisa Ellsworth
84F8B9273EAC480...
Alisa Ellsworth
Environmental Program Manager

Attachments

Attachment A. Draft Mitigation Monitoring and Reporting Program and Draft Recommendations

ec: Office of Planning and Research, State Clearinghouse, Sacramento

REFERENCES

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Attachment A

North Star 3 Solar and Battery Storage Project
MITIGATED NEGATIVE DECLARATION
SCH# 2024060955

Draft Mitigation Monitoring and Reporting Program (MMRP) and Draft Recommendations

CDFW provides the following language to be incorporated into the MMRP for the Project.

Biological Resources (BIO)		
Biological (BIO) Mitigation Measure	**Implementation Schedule**	**Responsible Party**
BIO-1. Rare Plant Surveys: Prior to initiating ground disturbance, three botanical field surveys shall be conducted that are floristic in nature (i.e., identifying all plant species to the taxonomic level necessary to determine rarity), and inclusive of areas proposed for disturbance and indirectly impacted by the Project. The surveys shall be conducted by a qualified botanist or qualified biologist in accordance with the USFWS Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants (USFWS 1996); the CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW 2018); and the CNPS Botanical Survey Guidelines (CNPS 2001). If any special-status species are observed during botanical field surveys the Project shall be designed to reduce impacts to these species through the establishment of buffers, to the extent feasible. Buffer distances will be determined by the qualified botanist or biologist, typically 50 feet or greater from an identified special-status plant species, unless the qualified botanist or biologist determines a reduced buffer would suffice to avoid impacts to the species. All special-status plant species identified on site shall be mapped with a submeter GPS device and depicted on a site-specific aerial photograph and topographic map and included on any construction, grading, fuel modification, or other pertinent plans. If avoidance of special-status plant species is not feasible, a Special-Status Plant Relocation Plan shall be developed and implemented. The	Prior to any ground- or vegetation-disturbing activities	Project Biologist and Project proponent

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Special-Status Plant Relocation Plan shall address mitigation for special-status plants, including topsoil salvage to preserve seed bank and management of salvaged topsoil; seed collection, storage, possible nursery propagation, and planting; salvage and planting of bulbs as feasible; location of on-site receptor sites; land protection instruments for receptor areas; and funding mechanisms. The Special-Status Plant Relocation Plan shall include methods, monitoring, reporting, success criteria, adaptive management, and contingencies for achieving success. The Project proponent shall mitigate the loss of the plant(s) through the purchase of mitigation credits from a CDFW-approved bank or land acquisition and conservation at a minimum 2:1 (replacement to impact) ratio for occupied habitat should success criteria not be met, or presence of the species is assumed based on suitable habitat acreage within the Project area. Note that a higher ratio may be warranted if the proposed mitigation lands are located far away from the Project site or are not occupied by or available to special-status species.		
BIO-2. Minimization of Impacts to Migratory Birds, Bats, and Raptors: To reduce indirect impacts on migratory birds, bats, and raptors, the project shall comply with APLIC 2012 Guidelines for overhead utilities, as appropriate, to minimize avian collisions with transmission facilities (APLIC 2012). All electrical components on the project site shall either be underground or the transmission lines and poles will follow design plans recommended by APLIC (i.e., installing covers over the insulator and conductor on the center phase, installing phase covers over all three insulators and conductors for three phase transmission lines, lowering and/or replacing the crossarm with a longer cross arm on pole-top pin constructions), or utilizing link marking devices (e.g., aerial marker spheres, spirals, or suspended devices).	During entire Project	Project proponent

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BIO-4. Burrowing Owl Avoidance, Minimization, and Mitigation: Four breeding season surveys for burrowing owl shall be completed prior to project construction by a qualified avian biologist. Surveys shall be conducted as detailed within Appendix D of the Staff Report on Burrowing Owl Mitigation (California Department of Fish and Game [CDFG] 2012). This survey shall include 100 percent coverage of the Project site. A report summarizing the breeding season surveys including all requirement for survey reports shall be submitted to CDFW for review and approval. If burrowing owl or sign thereof is not detected, no further action is necessary. If burrowing owl, active burrowing owl burrows, or sign thereof are found, the qualified avian biologist shall prepare and implement a plan for avoidance, minimization, and mitigation measures to be reviewed and approved by CDFW prior to commencing Project activities. The plan shall propose mitigation for permanent impacts to nesting, loss of foraging habitat, occupied and satellite burrows and/or burrowing owl habitat such that the habitat acreage, number of burrows and burrowing owls impacted are replaced with permanent conservation of similar vegetation communities to provide for burrowing owl nesting, foraging, wintering, and dispersal comparable to or better than that of the impact area. The mitigation land shall be sufficiently large acreage with presence of fossorial mammals. The mitigation lands may require habitat enhancements including enhancement or expansion of burrows for breeding, shelter, and dispersal opportunity, and remove or control of population stressors. Permanent protection of mitigation land shall be through a conservation easement deeded to a nonprofit conservation organization or public agency with a conservation mission. The Project proponent shall develop and implement a mitigation land management plan to address long-term ecological sustainability and	Prior to any ground- or vegetation-disturbing activities	Project Biologist and Project proponent

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maintenance of the site for burrowing owls, and funding for the maintenance and management of mitigation land through the establishment of a long-term funding mechanism such as an endowment. If deemed appropriate by CDFW, conservation species credits may also be purchased at a CDFW-approved conservation bank. To ensure that the Project avoids impacts to burrowing owl, a qualified avian biologist shall complete a take avoidance survey no less than 14 days prior to initiating ground disturbing activities using the recommended methods described in the Staff Report on Burrowing Owl Mitigation (CDFG, 2012). Burrowing owls may recolonize a site after only a few days. Time lapses between Project activities trigger subsequent take avoidance surveys including but not limited to a final survey conducted within 24 hours prior to ground disturbance.		
BIO-6. Flat-Tailed Horned Lizard and Colorado Desert Fringe-toed Lizard: Prior to Project activities, surveys for presence/absence of flat-tailed horned lizard (FTHL) and Colorado Desert Fringe-toed Lizard (CDFTL) shall be conducted using parallel, linear routes that are evenly spaced in areas of suitable habitat and be performed by a qualified Project Biologist. For FTHLs, each transect shall be 10 meters apart. On each transect, FTHLs, sign of FTHLs (i.e., scat or tracks), and harvester ant mounds shall be surveyed. If FTHL or sign is located while surveying, the biologist shall pause, scan the immediate area, follow the tracks (if present), and scan the immediate vicinity of the tracks, scat, and/or ant mound observed. Three surveys shall be conducted, spaced two weeks apart during April through September. Surveys will be conducted when surface temperatures in the sun exceed 85°F. Scat surveys shall not be conducted for at least 12 days after heavy rainstorms, or strong winds of an intensity sufficient	Prior to any ground- or vegetation-disturbing activities	Project Biologist and Project proponent

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to move a considerable amount of sand across roads. For CDFTL, each transect shall be spaced 5 meters apart. One surveyor shall focus on habitat/substrate 30-40 meters in front, while one surveyor focuses on the area 2-10 meters in front. Surveys shall be conducted only when winds are 10mph or less and it is not raining. Up to six surveys shall be conducted over the same area on separate days by a qualified biologist between April and September when ground temperature in sun exceeds 85°F. Project proponent shall provide the results of the surveys for both species to CDFW prior to start of Project activities. If FTHL or CDFTL are present, the following minimization and mitigation measures shall apply: • During Project activities, the Project Biologist shall check areas of active disturbance at least hourly. Prior to construction, a qualified Project Biology shall clear the area of FTHL or CDFTL. During construction, a Project Biologist shall be present in each area of active surface disturbance throughout the workday from initial clearing to Project completion. FTHL and CDFTL will be moved out of harm's way during all construction activities and will be conducted by two or more biological monitors when construction activities are being conducted in suitable habitat. To the extent feasible, methods to find FTHL and CDFTL will be designed to achieve a maximal capture rate and will include, but not be limited to using strip transects, tracking, and raking around shrubs. During construction, the minimum survey effort will be 30 minutes per acre. • Occupied habitat shall be mitigated at a 1:1 ratio (1 acre of mitigation for every acre of impact) through off-site acquisition of FTHL and CDFTL		

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habitat of equal or greater quality that is conserved and managed in perpetuity. Proposed mitigation lands shall be approved by CDFW.		
BIO-8. Aquatic Resources Regulatory Permitting: Project-related impacts that will occur to the riparian areas or areas subject to Fish and Game Code section 1602 shall be mitigated at a minimum of 2:1 ratio (two acres of mitigation for every impact to one acre of resource). The Project proponent shall obtain all necessary regulatory permits for resources under the jurisdiction of the USACE, CDFW, and/or RWQCB prior to the impact occurring. Refer to the Aquatic Resource Delineation Report or the North Star 3 Project (Appendix D of this Initial Study) for preliminary determination of regulatory limits of areas that may be regulated by USACE, CDFW, or RWQCB. Permitting includes preparation and submittal of a Pre-Construction Notification under Section 404 of the federal CWA, an Application for Water Quality Certification under Section 401 of the federal CWA and a notification of Lake or Streambed Alteration under Section 1600 of the California Fish and Game Code. A completed CEQA document, and Notice of Determination, will be necessary to submit along with the applications. Other items such as finalized project plans, quantities of fill material, supporting technical studies, etc., are also submitted along with the applications. As a part of this process, the project must also identify and approve mitigation through the respective agencies.	Prior to any ground- or vegetation-disturbing activities	Project proponent
BIO-9. Site Access: All Project access shall occur through the entrance designated from Highway 86 to avoid impacts to sensitive species occurring on BLM-managed land adjacent to the Project area.	During entire Project	Project proponent
BIO-10. Project Biologist: The Project proponent shall designate a Project Biologist who shall be responsible for overseeing compliance with protective	Prior to any ground- or vegetation-disturbing activities	Project proponent

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measures for biological resources during vegetation clearing and work activities within and adjacent to areas of native habitat. The Project Biologist shall be familiar with the local habitats, plants, and wildlife, and have experience performing all necessary surveys and monitoring for biological resources present on site. The Project Biologist shall also maintain communications with the Contractor to ensure that issues relating to biological resources are appropriately and lawfully managed and shall monitor construction. The Project Biologist shall monitor all ground disturbing activities within construction areas, including activities during nesting bird season (generally February 1 to September 15), vegetation removal, the implementation of Best Management Practices (BMPs), and installation of security fencing to protect native species. The Project Biologist shall ensure that all wildlife and regulatory agency permit requirements, conservation measures, and general avoidance and minimization measures are properly implemented and followed.		
BIO-11. Project Site Delineation: The boundaries of all areas to be newly disturbed (including solar facility areas, staging areas, access roads, and sites for temporary placement of construction materials and spoils) shall be delineated with stakes and flagging prior to disturbance. All disturbances, vehicles, and equipment shall be confined to the flagged areas. Stockpiling of material shall only be allowed within established work areas.	Prior to any ground- or vegetation-disturbing activities	Project Biologist and Project proponent
BIO-12. Wildlife Entrapment Avoidance: No potential wildlife entrapments (e.g., trenches, bores) shall be left uncovered overnight. Any uncovered pitfalls will be excavated to 3:1 slopes at the ends to provide wildlife escape ramps. Alternatively, man-made ramps may be installed. Covered pitfalls will be covered completely to prevent access by small mammals or reptiles. To avoid wildlife entrapment (including birds), all pipes or other construction	During entire Project	Project Biologist and Project proponent

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materials or supplies shall be covered or capped in storage or laydown areas, and at the end of each construction workday No pipes or tubing of sizes or inside diameters ranging from 1 to 10 inches shall be left open either temporarily or permanently.		
BIO-13. Rodenticide: No anticoagulant rodenticides, such as Warfarin and related compounds (indandiones and hydroxycoumarins), shall be used within the Project site or in support of any other Project activities	During entire Project	Project Biologist and Project proponent
BIO-14. Trash Abatement: All trash and food-related waste shall be placed in self-closing containers and removed regularly from the site to prevent overflow. Workers shall not feed wildlife.	During entire Project	Project Biologist and Project proponent
BIO-15. Project Site Speed Limit: To minimize the likelihood for vehicle strikes on wildlife, speed limits shall not exceed 15 miles per hour when driving on access roads. All vehicles required for O&M must remain on designated access/maintenance roads.	During entire Project	Project Biologist and Project proponent
BIO-16. Artificial Lighting: Avoid nighttime construction lighting or if nighttime construction cannot be avoided, use shielded directional lighting pointed downward and towards the interior of the project sites, thereby avoiding illumination of adjacent natural areas and the night sky.	During entire Project	Project proponent
BIO-17. Equipment Mufflers: All construction equipment used for the projects shall be equipped with properly operating and maintained mufflers.	During entire Project	Project proponent
BIO-18. Hazardous Substances: Hazardous materials and equipment stored overnight, including small amounts of fuel to refuel hand-held equipment, shall be stored within secondary containment when within 50 feet of open water or resources subject to Fish and Game Code section 1602 to the fullest extent practicable. Secondary containment shall consist of a ring of sandbags around each piece of stored	During entire Project	Project proponent

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equipment/structure. A plastic tarp/visqueen lining with no seams shall be placed under the equipment and over the edges of the sandbags, or a plastic hazardous materials secondary containment unit shall be utilized by the Contractor. The Contractor will be required to conduct vehicle refueling in upland areas where fuel cannot enter waters of the U.S. or areas subject to Fish and Game Code section 1602, and in areas that do not have potential to support federally threatened or endangered species. Any fuel containers, repair materials, including creosote-treated wood, and/or stockpiled material that is left on site overnight, shall be secured in secondary containment within the work area and staging/assembly area and covered with plastic at the end of each workday. In the event that no activity is to occur in the work area for the weekend and/or a period of time greater than 48 hours, the Contractor shall ensure that all portable fuel containers are removed from the project site. All equipment shall be maintained in accordance with the manufacturer's recommendations and requirements. Equipment and containers shall be inspected daily for leaks. Should a leak occur, contaminated soils and surfaces will be cleaned up and disposed of following the guidelines identified in the Stormwater Pollution Prevention Plan or equivalent, Materials Safety Data Sheets, and any specifications required by other permits issued for the project. The Contractor shall utilize off-site maintenance and repair shops as much as possible for maintenance and repair of equipment. If maintenance of equipment must occur onsite, fuel/oil pans, absorbent pads, or appropriate containment will be used to capture spills/leaks within all areas. Maintenance of equipment shall occur in upland areas where fuel cannot enter waters of the U.S. or areas subject to Fish and Game Code section 1602, and in areas that do not have potential to support federally threatened or endangered species.		

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BIO-19. Firearms and Pets: Project personnel and any other individuals associated with the Project are prohibited from bringing any firearms or dogs on the Project Area during, except those in the possession of authorized security personnel or local, state, or federal law enforcement officials, dogs that may be used to aid in official and approved monitoring procedures/protocols, or service dogs under Title II and Title III of the American with Disabilities Act. Open fires and pets shall be prohibited at all work locations and access roads. Smoking shall be prohibited along the Project alignment.	During entire Project	Project proponent
BIO-20. Best Management Practices: Appropriate BMPs shall be used by the Contractor to control erosion and sedimentation and to capture debris and contaminants from construction to prevent their deposition in waterways. Erosion and sediment control devices used for the proposed project, including fiber rolls and bonded fiber matrix, shall be made from biodegradable materials such as jute, with no plastic mesh, to avoid creating a wildlife entanglement hazard.	During entire Project	Project proponent
BIO-21. Cross-Country Vehicle Use: Cross-country vehicle and equipment use outside of approved designated work areas and access roads shall be prohibited to prevent unnecessary ground and vegetation disturbance.	During entire Project	Project proponent
BIO-22. Injured or Dead Wildlife: Any injured or dead wildlife encountered during Project-related activities shall be reported to the Project Biologist, biological monitor, CDFW, or a CDFW-approved veterinary facility as soon as possible to report the observation and determine the best course of action. For special-status species, the Project Biologist shall notify via email or phone the County, USFWS, and/or CDFW, as appropriate, within 24 hours of the discovery.	During entire Project	Project Biologist and Project proponent

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BIO-23. Checking Beneath Vehicles: The ground beneath all parked equipment and vehicles shall be inspected for wildlife before moving.	During entire Project	Project proponent
BIO-24. Fugitive Dust Abatement: Water applied to dirt roads and construction areas for dust abatement shall be used the minimal amount needed to meet safety and air quality standards to prevent the formation of puddles, which could attract wildlife. Pooled rainwater or floodwater shall be removed to avoid attracting wildlife to the active work areas.	During entire Project	Project proponent
BIO-25. Invasive Plants: The Contractor shall actively manage the spread of invasive and nonnative plants by implementing weed control activities, including, but not limited to, cleaning equipment and inspecting equipment prior to transport to the sites and cleaning of tires and underside of equipment prior to leaving the site, vacuuming and cleaning the interior of vehicles and heavy equipment that have been used off-site before bringing them to the Project site, clean by pressure washing, washing in hot water, freezing, or bleaching personal gear and clothing, including footwear, that have been worn offsite before bringing them to the Project site, and not transporting soil or other fill material from off-site locations to the Project area unless they are certified weed free. The introduction of exotic, nonnative, weed, and/or invasive plant species will be avoided and controlled wherever possible, and may be achieved through physical or chemical removal and prevention, limiting the size of any vegetation and/or ground disturbance to the absolute minimum, and limiting ingress and egress to defined routes. Preventing exotic plants from entering the site via vehicular sources will include measures such as cleaning vehicles coming into and going from the site. Any use of herbicide for chemical removal of invasive and nonnative plants shall only use herbicides containing a harmless	During entire Project	Project proponent

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dye and registered with the California Department of Pesticide Regulation (DPR). All herbicides shall be applied in accordance with regulations set by the DPR. All herbicides shall be used according to label instructions. Labeled instructions of the herbicide used shall be made available to CDFW upon request. No herbicide application when winds are greater than five (5) miles per hour.		
BIO-26. Desert Kit Fox and American Badger. Prior to the beginning of surface disturbance, the Project Biologist shall conduct a pre-Project 10-meter transect survey (or reduced based on topography and vegetation), to attain 100% visual coverage within the Project area and a minimum 200-meter buffer to determine the presence or absence of desert kit fox and/or American badger individuals, dens, and sign. If potential dens are located, they shall be monitored by the Project Biologist. Trail cameras may be used to assist with observation but shall not be the sole basis upon which the status is determined. The Project proponent shall provide the results of the survey to CDFW prior to start of Project activities. Project proponent shall provide a determination if active dens can be avoided and buffered from Project activities to prevent take and disturbance with the survey results. Should active dens be present within the Project area that cannot be avoided with an adequate buffer, the Project proponent shall reschedule Project activities or submit a monitoring and passive relocation plan for CDFW's review and approval. No disturbance or passive relocation of active dens may take place during the breeding season or when juveniles are dependent on parental care.	Prior to any ground- or vegetation-disturbing activities	Project Biologist and Project proponent
BIO-27. Avoidance of Mojave-Sonoran Desert Dunes: To avoid permanent impacts to the Mojave-Sonoran Desert Dunes, a sensitive natural community, the Project proponent shall fully avoid dunes found within and adjacent to the Project site. If necessary, the Project site boundary shall be adjusted to comply	During entire Project	Project proponent

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with full avoidance with an appropriate buffer. If impacts to dune habitat is not feasible, the Project proponent shall mitigate for the permanent impacts at a minimum 2:1 (2 acres of mitigation for every 1 acre of impact). Mitigation shall include: offsite land acquisition that is conserved and managed in perpetuity for the natural community; payment of an in-lieu fee to a conservation organization; and/or restoration, creation, rehabilitation, enhancement, or other types of habitat improvement.		

California Program Office
P.O. Box 401, Folsom, California 95763 | 916-313-5800
www.defenders.org

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JUL 30 2024
IMPERIAL COUNTY
PLANNING & DEVELOPMENT SERVICES

July 25, 2024

Jim Minnick, Director
Imperial County Planning and Development Services Department
801 Main Street
El Centro, CA 92243
Delivered via email to: jimminnick@co.imperial.ca.us

RE: Mitigated Negative Declaration – North Star 3 Solar and Battery Storage Project (SCH 2024060955)

Dear Mr. Minnick,

Thank you for the opportunity to provide comments in response to the Initial Study/Mitigated Negative Declaration (IS/MND) for the proposed North Star 3 Solar and Battery Storage Project (Project). Defenders of Wildlife (Defenders) is dedicated to protecting all wild animals and plants in their natural communities and has nearly 2.1 million members and supporters in the United States, with more than 316,000 residing in California.

Defenders strongly supports generation of electricity from renewable energy sources. A low-carbon energy future is critical for California's economy, communities and environment. Achieving this future—and how we achieve it—is critical for protecting California's internationally treasured wildlife, landscapes and diverse habitats. We believe transitioning to a renewable energy future need not exacerbate the ongoing extinction crisis by thoughtfully planning projects while protecting habitat critical to species.

The proposed Project is a solar photovoltaic facility that would generate 100 MW of renewable energy and includes a 200 MW battery storage system. The proposed Project site is 585 acres of land within Imperial County near the western edge of the Salton Sea. The site is located at the transition between vacant desert land and agricultural lands. Additionally, it is partially located on and adjacent to the Bureau of Land Management's (BLM) Salton Sea Hazardous Area of Critical Environmental Concern (ACEC) immediately to the north and east of the proposed Project site.

We offer the following comments on the IS/MND for the Project:

1. **Protocol Surveys**
   The MND states that a biological reconnaissance survey was conducted on October 25 and 26, 2022; however, no species-specific protocol-level surveys were conducted before the

development of the MND. Findings cannot be made without species-specific protocol-level surveys as they are necessary to provide thorough and accurate results that support informed decision-making and enable the identification of appropriate mitigation and avoidance measures for each species. To proceed without conducting species-specific protocol-level surveys is folly, as it is impossible to fully identify the risk of significant impact. If the project is discovered to have a significant impact with the application of mitigation measures as a result of the surveys, the development of an environmental impact report (EIR) would be required. Therefore, species-specific surveys should be conducted to ensure the development of the MND is appropriate instead of the development of an EIR.

Given the Project site contains sensitive biological resources, the biological resources surveys must adhere to wildlife agency-approved species-specific protocols and must identify the appropriate avoidance, minimization and mitigation measures based on survey results. If habitat management (HM) lands are deemed appropriate due to survey results, the HM lands must contain suitable habitat for the species and be managed in perpetuity by a qualified conservation organization as defined by CA Civil Code Section 815.3. Alternatively, credits could be purchased in a California Department of Fish and Wildlife (CDFW) approved mitigation bank.

If special-status species are observed on-site, we recommend consultation with CDFW and the US Fish and Wildlife Service for the need to obtain an Incidental Take Permit.

a. **Burrowing Owl (BUOW)**

Suitable BUOW habitat is present throughout the proposed Project's survey area, and one burrow was observed in the southeastern portion during the 2022 reconnaissance survey. The MND states that focused burrowing owl surveys will occur and will follow CDFW guidelines. This is not an adequate survey protocol for BUOW, as the failure to conduct protocol-level species-specific surveys before the development of the MND and associated mitigation measures does not support informed decision-making and findings cannot be made; protocol-level surveys must be completed before the development of the MND. Defenders requests conducting protocol-level surveys that adhere to the *Burrowing Owl Survey Protocol and Mitigation Guidelines*[1] and the *Staff Report on Burrowing Owl Mitigation*.[2] Three or more surveys must be conducted during daylight, with each visit occurring at least three weeks apart during the breeding season.

b. **Crotch's Bumble Bee (CBB)**

CBB is a candidate species for listing under the California Endangered Species Act, and such, must be accorded protection as if they were listed. The Project is located within the

[1] California Burrowing Owl Consortium. 1993. *Burrowing Owl Survey Protocol and Mitigation Guidelines.*

[2] California Department of Fish and Game. 2012. *Staff Report on Burrowing Owl Mitigation.*

historical range[3] of the species and, therefore, may occur; however, the MND fails to mention CBB and does not examine the potential impacts. Defenders request CBB surveys be conducted in accordance with CDFW's methods as outlined in *Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species*.[4]

c. **Flat-Tailed Horned Lizard (FTHL)**
The MND acknowledges that the creosote bush scrub and white bursage scrub located on the Project site provides suitable habitat for the FTHL and has a potential to occur. We request surveys for FTHL be performed that, at a minimum, conforms to the current survey standards established in the *Flat-tailed Horned Lizard Rangewide Management Strategy*.[5]

d. **Palm Springs Pocket Mouse (PSPM)**
The Project site contains creosote bush scrub and white bursage scrub that is considered suitable PSMP habitat and the species has a moderate potential to occur. Defenders requests consultation with CDFW to establish the appropriate survey methodologies.

2. **Capture/Relocation Plan for FTHL**
If protocol-level FTHL surveys find sign of the species, we recommend the development of a Capture/Relocation Plan for FTHL in consultation with CDFW. In comments recently submitted by CDFW, the agency has requested the plan include a preconstruction survey and monitoring methods, capture and relocation methods, and suitable relocation areas.[6] Additionally, we request including avoidance, minimization and mitigation measures. The plan should be available to the interested public for comment prior to finalization.

3. **Nighttime Construction and Speed Limit**
BIO-2 establishes a 15 miles per-hour speed limit for the Project site and also states that nighttime construction lighting should be avoided. We recommend that nighttime construction be avoided altogether, not simply nighttime construction lighting. Prohibiting nighttime construction avoids and minimizes impacts to sensitive species that are most active at night and, therefore, more vulnerable to construction and traffic-related incidents. If construction must be conducted at night, the speed limit should be reduced to 10 miles per hour.

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[3] California Department of Fish and Wildlife. 2023. *Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species.*
[4] Ibid.
[5] Flat-tailed Horned Lizard Interagency Coordinating Committee. 2003. *Flat-tailed Horned Lizard Rangewide Management Strategy, 2003 Revision.*
[6] California Department of Fish and Wildlife. 2023. *Glamis Specific Plan (Project) Draft Environmental Impact Report (DEIR) SCH 2020100348.*

4. **BUOW Buffers**

BIO-4 establishes a 50-meter buffer if BUOW is identified from September 1 through January 31. The measure continues and states that if a BUOW is identified from February 1 through August 31, the appropriate buffer will be established in accordance with the *Staff Report on Burrowing Owl Mitigation*. This is insufficient as the buffer should be in accordance year-round with the *Staff Report on Burrowing Owl Mitigation*. If the species or sign is observed, the avoidance buffers must be established in concurrence with the guidelines[7], as depicted below:

Table 1: Burrowing Owl Avoidance Buffers

Location	Time of Year	Level of Disturbance		
		Low	Med	High
Nesting Sites	April 1—Aug 15	200 meters	500 meters	500 meters
Nesting Sites	Aug 16—Oct 15	200 meters	200 meters	500 meters
Nesting Sites	Oct 16—Mar 31	50 meters	100 meters	500 meters

If occupied burrows are observed, we recommend artificial replacement burrows at a ratio of 1:1.[8] Furthermore, we recommend consultation with CDFW to establish an appropriate ratio for BUOW HM lands. If it is impossible to adhere to the recommended buffers and avoidance, Defenders would like to emphasize that burrow exclusion is not considered a take avoidance, minimization or mitigation method.[9] However, if burrow exclusion is necessary, Defenders recommends consultation with CDFW.

5. **ACEC Impacts**

The MND acknowledges the project is partially located within and adjacent to the BLM Salton Sea Hazardous ACEC. The Management Plan for the ACEC states the overarching goal includes protecting and preserving cultural and biological resources. The objectives include maintaining habitat that potentially supports special status plant species, avoiding significant adverse impacts on wetland and riparian areas, and conserving habitat that potentially supports the presence of Special Status Species, including the Colorado Valley woodrat, FTHL, Crissal Thrasher, Le Conte's Thrasher, Loggerhead Shrike, and Southern Leopard Frog.[10]

The MND fails to provide any analysis of this project's impacts on the ACEC's objectives. Therefore, it is unclear if mitigation is sufficient to reduce impacts below a level of significance. Without a thorough discussion of project impacts on the ACEC and the ACEC's listed objectives, there is a possibility for a fair argument that the Project may result in significant impacts on the ACEC. Defenders recommend that the MND include an analysis and discussion of project impacts

[7] Ibid.
[8] California Burrowing Owl Consortium. 1993. *Burrowing Owl Survey Protocol and Mitigation Guidelines.*
[9] California Department of Fish and Game. 2012. *Staff Report on Burrowing Owl Mitigation.*
[10] Bureau of Land Management. 2015. *Salton Sea Hazardous ACEC Management Plan.*

on the ACEC and the ACEC objectives listed within the Management Plan. If impacts to the ACEC cannot be mitigated to a less than significant level, then an EIR must be prepared in accordance with the statute.

Furthermore, the MND states consultation with BLM will be required should any listed plant or wildlife species be found to occur. Given the project overlaps with BLM land, we recommend consultation with BLM during the establishment of mitigation measures to ensure impacts are mitigated to a less than significant level.

Conclusion

Thank you once again for the opportunity to provide comments on the IS/MND for the North Star 3 Solar and Battery Storage Project and for considering our comments. If you have any questions, please contact me at 408-603-4694 or via email at smarkowska@defenders.org.

Respectfully submitted,

Sophia Markowska

Sophia Markowska
Senior California Representative

COUNTY OF IMPERIAL

DEPARTMENT OF PUBLIC WORKS

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IMPERIAL COUNTY
PLANNING & DEVELOPMENT SERVICES

Imperial County Planning & Development Services
Mr. Jim Minnick, Director
801 Main Street
El Centro, CA 92243

Attention: Gerardo Quero, Planner II

SUBJECT: **CUP 23-0007 & 23-0008 Apex Energy Solutions, LLC - Northstar 3**
Located at 4580 W US Highway 86, Salton City, CA
APN 017-350-027

Dear Mr. Minnick:

This letter is in response to your submittal received by this Department on December 22, 2023 for the above-mentioned project. The applicant is proposing a General Plan Amendment 23-0002, Zone Change 23-0002, Conditional Use Permits 23-0007 & 23-0008 and Initial Study 23-0007 for the construction and operation of a 100-megawatt solar photovoltaic energy generation project and a 200-megawatt battery storage project and associated on-site transmissions line.

Department staff has reviewed the package information and the following comments shall be Conditions of Approval:

1. The Applicant shall furnish a Drainage and Grading Plan/Study to provide for property grading and drainage control, which shall also include prevention of sedimentation of damage to off-site properties. The Study/Plan shall be submitted to the Department of Public Works for review and approval. The applicant shall implement the approved plan. Employment of the appropriate Best Management Practices (BMP's) should be included (Per Imperial County Code of Ordinances, Chapter 12.10.020 B).
2. Easements shall be obtained for those portions of the projects situated on land owned by persons other than the Applicant (such as transmission/connection lines). Executed and recorded easements shall be provided to the Public Works Department prior to issuance of a building permit.
3. Access to sites shall be completed from public roads. The Applicant shall obtain written approval from any private owners or other agencies for the use of any non-public roads to access the sites. A copy of such written approval shall be submitted to this Department prior to the approval of grading plans.
4. A lot merger or lot tie will be required.
5. The project shall coordinate with the Bureau of Land Management for any portion of the project within their jurisdiction.
6. Should access to the site be provided from Imperial County roads, street improvements shall be required per Section 12.10.020 – Street Improvement Requirements of Imperial County Ordinance.

INFORMATIVE:

The following items are for informational purposes only. The Applicant is responsible to determine if the enclosed items affect the subject project.

- The following items are for informational purposes only. The Developer is responsible to determine if the enclosed item7s affect the subject project.
- All solid and hazardous waste shall be disposed of in approved solid waste disposal sites in accordance with existing County, State and Federal regulations (Per Imperial County Code of Ordinances, Chapter 8.72).
- The project may require a National Pollutant Discharge Elimination System (NPDES) permit and Notice of Intent (NOI) from the Regional Water Quality Control Board (RWQCB) prior county approval of onsite grading plan (40 CFR 122.28).
- A Transportation Permit may be required from road agency(s) having jurisdiction over the haul route(s) for any hauls of heavy equipment and large vehicles which impose greater than legal loads and/or dimensions on riding surfaces, including bridges. (Per Imperial County Code of Ordinances, Chapter 12.10.020 B).
- As this project proceeds through the planning and the approval process, additional comments and/or requirements may apply as more information is received.
- If any construction would be proposed along property lines (fences, grading, structures, driveways, etc.) the following will apply:
    - Corner record is required to be filed with the county surveyor prior to construction for monuments:
        - § 8771. (b) When monuments exist that control the location of subdivisions, tracts, boundaries, roads, streets, or highways, or provide horizontal or vertical survey control, the monuments shall be located and referenced by or under the direction of a licensed land surveyor or licensed civil engineer legally authorized to practice land surveying, prior to the time when any streets, highways, other rights-of-way, or easements are improved, constructed, reconstructed, maintained, resurfaced, or relocated, and a corner record or record of survey of the references shall be filed with the county surveyor.
    - A second corner record is required to be filed with the county surveyor for monuments:
        - § 8771. (c) A permanent monument shall be reset in the surface of the new construction or a witness monument or monuments set to perpetuate the location if any monument could be destroyed, damaged, covered, disturbed, or otherwise obliterated, and a corner record or record of survey shall be filed with the county surveyor prior to the recording of a certificate of completion for the project. Sufficient controlling monuments shall be retained or replaced in their original positions to enable property, right-of-way and easement lines, property corners, and subdivision and tract boundaries to be reestablished without devious surveys necessarily originating on monuments differing from those that currently control the area

Should you have any questions, please do not hesitate to contact this office. Thank you for the opportunity to review and comment on this project.

Respectfully,

Atondo V.

Veronica Atondo, P.E., P.L.S.
Deputy Director of Public Works - Engineering

ATTACHMENT "K"

RESPONSE TO COMMENTS

Responses to Comments

NorthStar 3 Solar Energy Generation and Battery Storage Project

Initial Study/Mitigated Negative Declaration

Initial Study #23-0007/SCH #2024060955

General Plan Amendment #23-0002

Zone Change #23-0002

Conditional Use Permits #23-0007 and #23-0008

Imperial County, CA

November 2024

Prepared for

County of Imperial
801 Main Street
El Centro, CA 92243

Prepared by

HDR
591 Camino de la Reina
Suite 300
San Diego, CA 92108

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1 Introduction

Pursuant to CEQA Guidelines Section 15074(b), "Prior to approving a project, the decision-making body of the lead agency shall consider the proposed negative declaration or mitigated negative declaration together with any comments received during the public review process." This document provides the comments received during the public review process along with responses, that will be considered by the County of Imperial decision-making bodies when considering whether or not to approve the proposed North Star 3 Solar and Battery Storage Project. The project involves the following discretionary approvals by the County:

- General Plan Amendment #23-0002
- Zone Change #23-0002
- Conditional Use Permits #23-0007 and #23-0008

The proposed project consists of three primary components: 1) 100-megawatt (MW) solar photovoltaic (PV) facility; 2) 200-MW battery energy storage system (BESS); and 3) on-site transmission line to connect to the Imperial Irrigation District's (IID) existing 161kV "L" Line.

2 Comments and Responses to Comment Letters

This section contains responses to all comment letters received on the Draft Initial Study/Mitigated Negative Declaration (IS/MND). Five comment letters were received during the comment period, which began on June 21, 2024, and closed on July 25, 2024. A copy of each letter with bracketed comment numbers on the right margin is followed by the response for each comment as indexed in the letter. The comment letters are listed in Table 1.

Table 1. Comments Received

Letter	Commenter	Date
State Agency		
S1	California Department of Transportation	July 25, 2024
S2	Department of Fish and Wildlife	July 25, 2024
Local Agency		
L1	Imperial County Air Pollution Control District	July 22, 2024
L2	Imperial Irrigation District	July 24, 2024
L3	Imperial County Department of Public Works	August 7, 2024
Organization		
O1	Defenders of Wildlife	July 25, 2024

2.1 State Agency Comments

Letter S1

CALIFORNIA STATE TRANSPORTATION AGENCY GAVIN NEWSOM, GOVERNOR

California Department of Transportation

DISTRICT 11
4050 TAYLOR STREET, MS-240
SAN DIEGO, CA 92110
(619) 985-1587 | FAX (619) 688-4299 TTY 711
www.dot.ca.gov

July 25, 2024

11-IMP-86
PM 47.093
NorthStar 3 Solar Energy Site
MND/ SCH# 2024060955

Mr. Gerardo Quero
Planner II
Imperial County Planning and Development Services
801 Main Street
El Centro, CA 92243

Dear Mr. Quero

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the Mitigated Negative Declaration (MND) for the NorthStar 3 Solar Energy Site Project located near State Route 86 (SR-86). The mission of Caltrans is to provide a safe and reliable transportation network that serves all people and respects the environment. The Local Development Review (LDR) Program reviews land use projects and plans to ensure consistency with our mission and state planning priorities.

Safety is one of Caltrans' strategic goals. Caltrans strives to make the year 2050 the first year without a single death or serious injury on California's roads. We are striving for more equitable outcomes for the transportation network's diverse users. To achieve these ambitious goals, we will pursue meaningful collaboration with our partners. We encourage the implementation of new technologies, innovations, and best practices that will enhance the safety on the transportation network. These pursuits are both ambitious and urgent, and their accomplishment involves a focused departure from the status quo as we continue to institutionalize safety in all our work.

S1-1

We look forward to working with the County of Imperial (County) in areas where the County and Caltrans have joint jurisdiction to improve the transportation network and connections between various modes of travel, with the goal of improving the experience of those who use the transportation system.

Comment S1: California Department of Transportation

S1-1 This comment is an introductory comment which summarizes the proposed project and Caltrans' overall goal of safety and prioritization of projects that improve accessibility in underserved communities. This comment does not address the adequacy of the IS/MND. As such, no further response is necessary.

Mr. Quero, Planner II
July 25, 2024
Page 2

Caltrans has the following comments:

The following comments below were previously included in the Caltrans letter dated February 01, 2024, and were not addressed by the applicant. The unaddressed comments are listed below for Hydraulics and Design:

Hydraulics

- Please provide preliminary grading plans, include contour grading at 0.1-foot intervals.
- Please provide a hydrology and hydraulics study for the proposed project. Include existing and proposed conditions.
- Please show how the parcels will be accessed. Please clarify if a driveway or a private road will be constructed. Provide a preliminary design showing these improvements.
- Provide a site plan showing the existing Caltrans SR-86 centerline stationing, Caltrans' Right-of-Way (R/W), existing drainage facilities, and proposed project improvements.

S1-2

Design

Near the NorthStar 3 Solar project footprint, Caltrans has 2 planned projects on SR-86:
PID 1123000001 (IMP-086-25/67.8) Broadband project installing fiber optic conduit.
PID 1122000280 (IMP-086-34.8/64.1) Bridge Preservation.

At the planned project access point (what was formerly Sandy Beach Road), a culvert is present under the intersection. If heavy loads, beyond what SR-86 is designed to bear, are planned for transport, future coordination may be needed to avoid damage to State facilities during construction.

S1-3

Environmental

We recommend that this project specifically identifies and assesses potential impacts caused by the project or impacts from mitigation efforts that occur within Caltrans' that includes impacts to the natural environment, infrastructure (highways/roadways/on- and off-ramps) and appurtenant features (lighting/signs/guardrail/slopes). Caltrans is interested in the analysis for any work identified in Caltrans' R/W and any additional mitigation measures identified for the Final Environmental Document.

S1-4

It is recommended that the project is designed and abides by local MS4 (Municipal Separate Storm Sewer System) Permit requirements.

S1-5

"Provide a safe and reliable transportation network that serves all people and respects the environment"

S1-2 The project applicant is responsible for providing the following for approval by the County:

- Preliminary Grading Plans
- Hydrology/Hydraulics Study
- Site Plan with Parcels

The applicant would be responsible for preparation of these studies in accordance with provisions specific in this comment, should a Caltrans encroachment permit be required for project implementation.

S1-3 The County acknowledges the Caltrans projects identified in this comment (Project ID #1123000001 and Project ID #1122000280) and that they are located in the vicinity of the proposed project. As required by general Conditional Use Permit conditions of approval, the applicant is required to coordinate with all applicable agencies, including Caltrans as it relates to the construction of the proposed project.

S1-4 The County acknowledges Caltrans' role as a Responsible Agency with respect to the proposed project because an encroachment permit may be required. Item 12 on page 9 of the Final Initial Study has been revised to list Caltrans under "Other public agencies whose approval is required":

- California Department of Transportation Encroachment Permit

	The traffic report (Appendix J of the IS/MND) identifies that Caltrans has adopted procedures to oversee construction activities on and around its facilities. The Caltrans Construction Manual (Caltrans 2020a) describes best practices for construction activities, including personnel and equipment safety requirements, temporary traffic control, signage, and other requirements aimed at reducing construction-related hazards and constructing projects safely and efficiently. Any work proposed on Caltrans facilities would be required to abide by these requirements. **S1-5** Prior to construction and grading activities, the project applicant is required to file a Notice of Intent with the SWRCB to comply with the General NPDES Construction Permit and prepare a Stormwater Pollution Prevention Plan.

Should elements of the project and/or mitigation measures change to effect Caltrans' R/W, we would then have discretionary authority of a portion of the project that is in Caltrans' R/W through the form of an encroachment permit process. Caltrans will continue our coordination efforts to ensure that it can use your environmental documentation for our subsequent environmental compliance with the encroachment permit process.

An encroachment permit will be required for any work within the Caltrans' R/W prior to construction. As part of the encroachment permit process, the applicant must provide approved final environmental documents for this project, corresponding technical studies, and necessary regulatory and resource agency permits. Specifically, California Environmental Quality Act (CEQA) determination or exemption. The supporting documents must address all environmental impacts within the Caltrans' R/W, and address any impacts from avoidance and/or mitigation measures. S1-6

Landscape Architecture

The following comments below were previously included in the Caltrans letter dated January 18, 2024, and were not addressed by the applicant. The unaddressed comments are listed below:

Section 4.5 Mitigation Measures of the Visual Resources Assessment states no mitigation measures are required:

"The analysis, in this section, shows less than significant impact for the four criteria. Therefore, no mitigation measures are required."

As a condition of approval, the project should list visual impact minimization measures that will be project features. Below is a list of visual impact minimization measures that are listed in the Visual Impact Assessment. These measures should be incorporated in the project: S1-7

- Solar PV panels are constructed of dark-colored (usually blue or black) materials and are covered with anti-reflective coatings.
- Project perimeter fencing is 6 ft. high chain link fence with secured access gates will include wooden slats to screen the property. The slat color would blend with natural desert colors.
- Project lighting is hooded and oriented downward so as not to spill over into adjacent parcels.
- The project includes non-reflective matte surfaces on solar arrays, BESS and gen-tie line.

S1-6 The project applicant will be responsible for coordinating with Caltrans and obtaining an encroachment permit for the proposed project, including CEQA compliance and provision of final CEQA documentation and supporting technical studies to Caltrans. Impacts and corresponding mitigation measures associated with construction of the proposed project, including any improvements needed for site access that would require an encroachment permit, are addressed in the IS/MND, and the environmental findings and mitigation measures would apply.

S1-7 Although no mitigation measures required as part of the IS/MND and the Visual Resources Assessment, outlined within the CUP for the proposed project the following standard site-specific conditions are required regard aesthetics:

(A) The Permittee shall design and maintain all buildings and equipment enclosures to have exterior surfaces with neutral, non-reflective colors.

(B) The Permittee shall design and install lighting at construction storage yards and staging areas, such that light bulbs and reflectors are not visible from public viewing areas; lighting does not create reflected glare; and illumination of the Project facilities, vicinity, and nighttime sky is minimized.

(C) Lighting shall be designed so exterior light fixtures are hooded, with lights directed downward or toward the area to be illuminated and so that backscatter to the nighttime sky is minimized. The design of the lighting shall be such that the luminescence or light source is shielded to minimize light trespass outside the Project boundary.

	(D) All lighting shall be of minimum necessary brightness consistent with worker safety and OSHA requirements. (E) High illumination areas not occupied on a continuous basis shall have switches or motion detectors to light the area only when occupied.

- The lifespan of the proposed project is 20 years. The site will be fully restored after closure.

S1-8

Glare

The proximity of the project site to SR-86 raises some concerns regarding potential glare that could pose a potential risk to motorists traveling on SR-86. The project's potential glare characteristics should be considered as part of the County's Permit approval. Caltrans would want to ensure that all lighting, including reflected sunlight and reflected night lighting, within this project should be placed and/or shielded so as not to be hazardous to vehicles traveling on SR-86.

S1-9

System Planning

Please see the following planned Caltrans projects for consideration due to possible impacts at the proposed project site:

- Caltrans is planning a Middle-Mile Broadband project (*EA 4B018*) to add conduit, fiber optic cable, and supporting elements by trenching in the State Right-of-Way (R/W) along SR-86 with construction scheduled for 2025.
- Caltrans is planning a Pavement Rehabilitation project (*EA 43194*) on SR-86 with construction scheduled for 2029.

S1-10

Hauling

Caltrans has discretionary authority with respect to highways under its jurisdiction and may, upon application and if good cause appears, issue a special permit to operate or move a vehicle or combination of vehicles or special mobile equipment of a size or weight of vehicle or load exceeding the maximum limitations specified in the California Vehicle Code. The Caltrans Transportation Permits Issuance Branch is responsible for the issuance of these special transportation permits for oversize/overweight vehicles on the State Highway network. Additional information is provided online at: http://www.dot.ca.gov/trafficops/permits/index.html

S1-11

Noise

The applicant must be informed that in accordance with 23 Code of Federal Regulations (CFR) 772, Caltrans is not responsible for existing or future traffic noise impacts associated with the existing configuration of SR-86.

S1-12

S1-8 The projected lifespan of the proposed project is 25 to 30 years. At the end of the CUP term, the owner of the project may choose to enter into a modified CUP, update technology and re-commission, or decommission and remove the generating facility and its components. Upon decommissioning, the site could be converted to other uses in accordance with applicable land use regulations in effect at that time.

S1-9 The project applicant would adhere to Title 9, Division 17, Chapter 2: Specific Standards for all Renewable Energy Projects, of the County's Zoning Ordinance regarding lighting for safety and security. The County acknowledges the potential glare impacts associated with the proposed project and will be considered as part of the County's Permit approval process. The solar panels type proposed are not highly reflective and as depicted in the proposed site plan, are proposed to be setback a minimum of 100 feet from the edge of pavement from the SR-86.

S1-10 Please refer to response to comment S1-3. As required by general Conditional Use Permit conditions of approval, the applicant is required to coordinate with all applicable agencies, including Caltrans as it relates to the construction of the proposed project.

S1-11 The County acknowledges Caltrans' authority with respect to highways under Caltrans jurisdiction including that permits may be required for movement of certain vehicles or mobile equipment that are considered oversize/overweight vehicles. Compliance with applicable state agency permits, including that of oversize/overweight vehicles, is included as a condition of approval of the Conditional Use Permit. This

	comment does not address the adequacy of the IS/MND. As such, no further response is necessary. **S1-12** The County acknowledges that Caltrans is not responsible for existing or future traffic noise impacts associated with the existing configuration of SR-86.

Right-of-Way

Per Business and Profession Code 8771, perpetuation of survey monuments by a licensed land surveyor is required, if they are being destroyed by any construction.

It is also understood by our agency that no new utility crossings on State facilities will occur as a result of this project. However, any work performed within Caltrans' R/W will require discretionary review and approval by Caltrans and an encroachment permit will be required for any work within the Caltrans' R/W prior to construction.

Additional information regarding encroachment permits may be obtained by visiting the website at https://dot.ca.gov/programs/traffic-operations/ep. Projects with the following:

- require a Caltrans Encroachment Permit.
- have completed the Caltrans Local Development Review (LDR) process.
- have an approved environmental document.

are to submit documents for Quality Management Assessment Process (QMAP) process via email to D11.QMAP.Permits@dot.ca.gov. Early coordination with Caltrans is strongly advised for all encroachment permits.

If you have any questions or concerns, please contact Charlie Lecourtois, LDR Coordinator, at (619) 985-4766 or by e-mail sent to Charlie.Lecourtois@dot.ca.gov.

Sincerely,

Kimberly D. Dodson

KIMBERLY D. DODSON, GISP
Branch Chief
Local Development Review

S1-13

S1-14

S1-13 This comment is noted regarding survey monuments. Please refer to preceding response to comment S1-11 regarding Caltrans discretionary review and CEQA compliance.

S1-14 The County acknowledges and appreciates the contact information provided and will provide this information to the project applicant.

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Letter S2

State of California – Natural Resources Agency — GAVIN NEWSOM, Governor

DEPARTMENT OF FISH AND WILDLIFE — CHARLTON H. BONHAM, Director
Inland Deserts Region
3602 Inland Empire Boulevard, Suite C-220
Ontario, CA 91764
www.wildlife.ca.gov

July 25, 2024

Gerardo Quero
Planner II
Imperial County Planning & Development Services Department
801 Main Street
El Centro, CA 92243
ICPDSCommentLetters@co.imperial.ca.us

North Star 3 Solar and Battery Storage Project (PROJECT)
MITIGATED NEGATIVE DECLARATION (MND)
SCH# 2024060955

Dear Mr. Minnick:

The California Department of Fish and Wildlife (CDFW) received a Notice of Intent to Adopt an MND from Imperial County Planning & Development Services Department (ICPDS) for the Project pursuant the California Environmental Quality Act (CEQA) and CEQA Guidelines.[1] S2-1

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

CDFW ROLE

CDFW is California's **Trustee Agency** for fish and wildlife resources and holds those resources in trust by statute for all the people of the State. (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a).) CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. (*Id.*, § 1802.) Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources. S2-2

CDFW is also submitting comments as a **Responsible Agency** under CEQA. (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381.) CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority. (Fish & G. Code, § 1600 et seq.) Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), S2-3

[1] CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000

Comment S2: Department of Fish and Wildlife

S2-1 Comment noted. This comment does not address the adequacy of the IS/MND. As such, no further response is necessary.

S2-2 The County acknowledges CDFW's role as a Trustee Agency and its potential role as a Responsible Agency associated with the proposed project. Item 12 on pages 9 and 10 of the Final Initial Study has been revised to list CDFW under "Other public agencies whose approval is required":

- California Department of Fish and Wildlife – Trustee Agency (Public Resources Code §21070)/Responsible Agency (Public Resources Code §21069)

Mitigation Measures proposed in the IS/MND require coordination with the CDFW with respect to both potential impacts to protected species (e.g., Mitigation Measures BIO-1, BIO-2, BIO-4, BIO-5, BIO-6, BIO-7 and BIO-8), as well as the potential for a Section 1600 Streambed Alteration Agreement (Mitigation Measure B-10). These measures have also been revised in part, or replaced in these responses to comments in order to address CDFW's comments. In compliance with CEQA Guideline Section 15074.1. Substitution of Mitigation Measures in a Proposed Mitigated Negative Declaration, the County will hold a public hearing on the project, which will include consideration of the substituted or otherwise modified measures (Section 15074.1(b)(1) and will adopt equivalency findings (Section 15074.1(b)(2)).

	S2-3 The County acknowledges CDFW's potential role as a Responsible Agency pursuant to CEQA Guideline 15381. Please refer to response to comment S2-2.

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the project proponent may seek related take authorization as provided by the Fish and Game Code.

PROJECT DESCRIPTION SUMMARY

Proponent: Apex Energy Solutions, LLC
Objective: The objective of the Project is to construct and operate a 100-Megawatt (MW) solar photovoltaic (PV) energy generation facility, a 200-MW Battery Energy Storage System (BESS), and an on-site transmission line connection to the existing Imperial Irrigation District's 161-Kilovolt "L" Line which traverses the Project site. Primary Project activities include construction and operation of a 100-MW PV energy generation facility and a 200-MW BESS facility.
Location: The Project is located approximately 9 miles southeast of the town of Salton City in Imperial County, Assessor's Parcel Numbers 017-350-031, 017-350-030, and 017-350-027, Latitude 33.181000, Longitude -115.880750. The nearest cross streets are Salton Sea Road and Highway 86.
Timeframe: Construction is expected to be 12 to 18 months in duration.

S2-4

COMMENTS AND RECOMMENDATIONS

CDFW notes there is a lack of appropriate biological resource surveys and supporting documentation provided in the MND, therefore it is unclear how some of the proposed mitigation measures or proposed project revisions will be able to reduce the Project's potentially substantial adverse effect on biological resources to less than significant with mitigation incorporated. Without the environmental baseline adequately evaluated, many of the mitigation measures proposed require surveys to be able to identify and quantify biological resources that will be impacted by the project at a later date. CDFW notes that baseline surveys should have already been conducted and included in the environmental document, and appropriate mitigation for on-site resources should have been included in the MND, as deferment does not allow the development of effective mitigation measures.

S2-5

CDFW offers the comments and recommendations below to assist ICPDS in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. Editorial comments or other suggestions may also be included to improve the document.

I. Project Description and Related Impact Shortcoming

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 CDFW or USFWS?

COMMENT 1:

Section: IV. Biological Resources **Page:** 57

S2-6

Issue: The MND identified the Project's substantial adverse effect on candidate, sensitive, or special status species as less than significant with mitigation incorporated. The MND includes a mitigation measure for sensitive species on Bureau of Land Management (BLM)-managed Land despite the project occurring on private land.

Specific impact: The Project Description describes regional site access from State Route 82, local vehicular site access from Salton Sea Road, as well as the proposed

S2-4 This comment provides a summary of the proposed project and does not raise an issue related to the adequacy of the Draft IS/MND. As such, no further response is necessary.

S2-5 As described in the IS/MND and Appendix C and D, a series of biological surveys, data collection and mapping was conducted in order to establish the baseline for the project and the basis for recommendation of appropriate mitigation measures to reduce impacts to a level less than significant. As described in the biological resources technical report, biologists conducted the biological reconnaissance survey by walking the entire Survey Area to determine the vegetation communities and wildlife habitats present. The biologists documented the plant and animal species present in the Survey Area and assessed the conditions within the Survey Area for their potential to provide habitat for special-status plant and wildlife species, including those from the literature review. Biologists collected the data in the field utilizing ArcGIS™ Field Maps on a device (smartphone or tablet) connected to a Global Positioning System (GPS) unit and on datasheets. ECORP recorded the date, species, notes on location and habitat, behavior (if applicable), and coordinates in instances where a special-status species was observed. Additionally, the biologists recorded locations of incidentally observed sensitive species using ArcGIS™ Field Maps on a GPS-capable device (smartphone or tablet).

Biologists took photographs during the survey to provide visual representation of the various vegetation communities within the Survey Area and examined the Survey Area to assess its potential to facilitate wildlife movement or function as a movement corridor for wildlife throughout the region.

	Biologists recorded plant and wildlife species, including any special-status species that were observed during the survey. Biologists conducted vegetation mapping in consideration of Protocols for *Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW 2018). A botanist utilized the high-resolution drone imagery, as well as performed ground truthing in the field during the biological reconnaissance survey to map vegetation communities. Information from the literature review and observations in the field, was utilized to generate a list of special-status plant and animal species that have potential to occur within the Survey Area. Biologists assessed special-status species reported for the region in the literature review or for which suitable habitat occurs in the Survey Area for their potential to occur within the Survey Area. The mapped vegetation communities are provided on IS/MND Figure 5. Based on this information, recommendations in the form of mitigation measures have been incorporated into the IS/MND, and revised in these responses to comments, that will reduce potential impacts to biological resources to a level less than significant. Please refer to responses to comments S2-6 through S2-47.

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point of connection to the electrical grid on-site. However, BIO-10 (hereto referred to as BIO-9, as the document lacks a BIO-9 between BIO-8 and BIO-10) states that impacts to habitat within land managed by the BLM could take place during construction activities if workers from the Project do not stay on BLM roads. The Phase I ESA report, Air Quality and Greenhouse Gas Emission Assessment, Energy Consumption Assessment, Noise Impact Assessment, and Visual Resources Impact Assessment, all state that the Project site access is through Highway 86 with no mention of Salton Sea Road. CDFW is concerned with the lack of consistency between these documents regarding site access.

The Project description should clarify which road will be used for site access in order to determine if significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources could occur. The document states that the Project location is within the Desert Renewable Energy Conservation Plan (DRECP) area, a plan only applicable to projects occurring on BLM-managed land. According to shapefiles provided by the BLM, the Project site is located between parcels of BLM-managed land as well as land designated to the DRECP. Clarification is needed regarding the statement that impacts may occur on BLM land when the project site nor its access roads appear to occur on BLM land.

S2-6 cont.

Why impact would occur: The documents provided lack information about which access road, either the Salton Sea Road through BLM-managed land, or the state Highway 86 for Project site entrance, would be used. The Phase I ESA Report states that the Project site entrance will be off of Highway 86 with a posted security gate. If the Salton Sea Road through BLM-managed land is used, impacts to special status species on BLM-managed land could occur.

Evidence impact would be significant: The MND has not analyzed impacts to BLM-managed land, nor has it explained if the project will use any roads within BLM-managed land. Several portions of the document have established that the access to the worksite is through Highway 86. BIO-2 (hereby separated into separate Mitigation Measures BIO-10 through BIO-24) states that any areas within the Project site will be delineated. As the entirety of the Project (including vehicle access and staging areas) can be contained within the boundaries of the Project site outside of BLM-managed land, CDFW is uncertain whether the mitigation measure regarding impacts on BLM-managed land or access to BLM-managed land via Salton Sea Road is necessary and requests clarification.

S2-7

Recommended Potentially Feasible Mitigation Measure(s) (Regarding Environmental Setting and Related Impact Shortcoming)

Mitigation Measure: BIO-9

To reduce impacts to less than significant: CDFW recommends BIO-9 be changed to the following measure to avoid impacts to sensitive species on BLM-managed land, which were not evaluated by the MND.

S2-8

BIO-9. ~~Minimization of Impacts to Sensitive Species on BLM Land.~~ ~~All vehicles shall stay on designated roads within BLM land to minimize impacts to habitat. Coordination with a qualified biologist shall occur prior to the staging of equipment and placement of temporary or permanent structures within BLM land. Additionally, a biologist shall demarcate temporary and permanent workspaces in the field prior to the commencement of construction-related activities. Construction plans shall incorporate measures to minimize and avoid impacts to habitats within this area. Tires shall be~~

S2-6 Mitigation Measure BIO-9 was corrected in the Final IS/MND to have the correct nomenclature. Additionally, no BLM right-of-way approvals are required to implement the proposed project. Regional access would be provided by SR-86 and local site access would be provided by Salton Sea Road.

S2-7 No BLM right-of-way approvals are required to implement the proposed project as the entirety of the project (including vehicle access and staging areas) would be contained within the boundaries of the project site.

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~~cleaned prior to entering BLM lands to control introduction of invasive plant species.~~
Site Access: All Project access shall occur through the entrance designated from Highway 86 to avoid impacts to sensitive species occurring on BLM-managed land adjacent to the Project area.

II. Environmental Setting and Related Impact Shortcoming

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 CDFW or USFWS?

COMMENT 2:

Section: IV. Biological Resources **Page** 48

Issue: CDFW is concerned that the MND has not accurately described or fully established the biological resources present onsite, limiting the CEQA Lead Agency's and CDFW's ability to analyze the Project's potential impacts, avoidance, and/or mitigation measures on candidate, sensitive, or special status species. The MND relies on field reconnaissance surveys of the Project area that were conducted on October 25 and 26, 2022 and just focused on documenting the potential habitat to support special-status plant species. BIO-1 conditions a pre-construction rare plant survey to be performed prior to the start of construction, particularly focusing on areas that may support special status species.

Specific impact: The Biological Resources Technical Report for the Project included a reconnaissance survey to identify potential habitat for special status plants which was only performed once, over a two-day period, during drought conditions. As noted in BIO-1, only one of the five special status plant species with high potential to occur within the Project site per the MND has a fall blooming period. The reconnaissance survey was performed during an inappropriate time of year for the other four species and did not follow the *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW, March 2018). Without protocol surveys, potential Project impacts to candidate, sensitive, or special status species may be mischaracterized, resulting in avoidable, unminimized, or unmitigated impacts not analyzed by the MND.

Why impact would occur: The MND and accompanying Biological Technical Resources Report for the Project does not have sufficient information as to whether there's suitable habitat and potential impacts to Orcutt's woody-aster, Harwood's milkvetch, gravel milkvetch, Abrams' spurge, and Torrey's boxthorn. A reconnaissance survey is too general in nature to accurately characterize the biological baseline conditions on which the MND must base its analysis concerning potentially significant impacts. Botanical surveys were not performed, rather a habitat assessment. The Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (CDFW, March 2018) state botanical field surveys need to be conducted when plants will be both evident and identifiable, with the timing and number of visits considered to determine presence of special status species and floristic diversity. Multiple surveys during the season may be warranted to capture floristic diversity (CDFW, 2018). Habitats, such as desert plant communities that have annual and short-lived perennial plants as major floristic components, may require yearly surveys to accurately document baseline conditions for purposes of impact assessment (CDFW, 2018). Focused surveys limited to certain habitats and species

S2-8 cont.

S2-9

S2-8 Mitigation Measure BIO-9 was revised accordingly for Site Access. Mitigation Measure BIO-9 has been revised as follows:

> **BIO-9 Site Access.** All project access shall occur through the entrance designed from SR-86 to avoid impacts to sensitive species occurring on BLM-managed land adjacent to the project area.

S2-9 The IS/MND indicates that protocol plant species surveys were not conducted due to the seasonal restrictions and therefore, Mitigation Measures BIO-1 through BIO-3 were proposed to address the potential impacts to candidate, sensitive, or special status species. These measures have been modified and/or replaced in order to address CDFW's comments related to this issue. Please refer to response to comment S2-11.

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"are not considered floristic in nature and are not adequate to identify all plants in a project area to the level necessary to determine if they are special status plants" (CDFW, March 2018).

Also, BIO-1 defers mitigation by requiring a mitigation plan or additional avoidance and minimization measures to be developed and implemented at a later date should the need be identified through focused preconstruction surveys. All mitigation and avoidance and minimization measures incorporated to bring impacts to species to less than significant should be contained within the MND. The timing of mitigation strategies described, such as seed collection, could be hindered by the timing associated with project development and deadlines, drafting of the plan or measures, and/or insufficient number of surveys. Additionally, mitigation strategies developed at a later date may not be effective to reduce impacts to less than significant, as the requirements are not contained within the MND to ensure compliance. As such, without an appropriate baseline and impact analyses provided in the MND, CDFW is concerned any plans developed per BIO-1 may not appropriately mitigate the impact to present species as determined by the MND.

S2-9 cont.

Evidence impact would be significant: Given the presence of potentially suitable habitat, Project impacts to the species identified above are possible and the MND should incorporate avoidance, minimization, and mitigation measures for each species based on an assumption of presence or based on focused surveys, following professionally accepted methods (protocol level surveys), and incorporated in the MND. Sensitive plant species are listed under the CESA as threatened, or endangered, or proposed candidates for listing; designated as rare under the Native Plant Protection Act; or plants that otherwise meet the definition of rare, threatened, or endangered species under CEQA. Plants constituting California Rare Plant Ranks 1A, 1B, 2A, and 2B generally meet the criteria of a CESA-listed species and should be considered as an endangered, rare or threatened species for the purposes of CEQA analysis. Take of any CESA-listed species is prohibited except as authorized by state law (Fish and Game Code, §§ 2080 & 2085). Fish and Game Code Sections 1900–1913 includes provisions that prohibit the take of endangered and rare plants from the wild and a salvage requirement for landowners.

S2-10

Recommended Potentially Feasible Mitigation Measure(s) (Regarding Environmental Setting and Related Impact Shortcoming)

Mitigation Measure: BIO-1

To reduce impacts to less than significant: CDFW recommends botanical field surveys following the *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW, March 2018) be conducted by qualified personnel annually prior to the start of construction. One botanical field survey may be insufficient to detect plants that are not evident and identifiable every year, therefore CDFW recommends multiple surveys. Appropriate surveys will identify the species present to allow development of effective mitigation measures. CDFW provides editorial suggestions to BIO-1, provided below, that are recommended to be incorporated into the mitigation measure.

BIO-1. Rare Plant Surveys: Prior to initiating ground disturbance, **three** ~~rare plant~~ **botanical field** surveys shall be conducted that are **floristic in nature (i.e., identifying all plant species to the taxonomic level necessary to determine rarity), and inclusive of areas proposed for disturbance and indirectly impacted by the Project** ~~conducted within suitable habitat within the Survey Area during the appropriate~~

S2-11

S2-10 The County agrees that the potential impact to rare plants is significant. The Draft IS/MND identifies the potential impact to plant species as significant and requires mitigation measures to reduce the impact to a level less than significant. Please refer to IS/MND page 49. Additionally, please refer to response to comment S2-11.

S2-11 The County agrees that, with incorporation of the editorial suggestions to Mitigation Measure BIO-1, as identified by CDFW in this comment, potential impacts to rare plants will be mitigated to a level less than significant. Mitigation Measure BIO-1 has been revised as follows:

BIO-1 Rare Plant Surveys: Prior to initiating ground disturbance, three rare plant botanical field surveys shall be conducted that are floristic in nature (i.e., identifying all plant

	species to the taxonomic level necessary to determine rarity), and inclusive of areas proposed for disturbance and indirectly impacts by the Project. conducted within suitable habitat within the Survey Area during the appropriate blooming period for the Orocopia sage (approximately March through April), Harwood's milk-vetch (approximately January through May), and Munz's cholla (approximately May). The surveys shall be conducted by a qualified botanist or qualified biologist in accordance with the USFWS Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants (USFWS 1996); the CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW 2018); and the CNPS Botanical Survey Guidelines (CNPS 2001). If any special-status species are observed during the rare plant botanical field surveys, the location of the individual plant or population will be recorded with a submeter GPS device for mapping purposes. The project shall be designed to reduce impacts to these species through the establishment of buffers, to the extent feasible. Buffer distances will be determined by the qualified botanist or biologist, typically 50 feet or greater from an identified special-status plant species, unless the qualified botanist or biologist determines a reduced buffer would suffice to avoid impacts to the species. All special status plant species identified on site shall be mapped with a submeter GPS device and depicted on a site-specific aerial photograph and topographic map and included on any construction, grading, fuel modification, or other pertinent plans. Consultation with CDFW may be required to develop a mitigation plan or additional avoidance and minimization measures if project-related impacts to rare plants within the project site are unavoidable. If avoidance of special-status plant species is

	not feasible, a Special-Status Plant Relocation Plan shall be developed and implemented. The Special-Status Plant Relocation Plan shall address mitigation for special-status plants, including topsoil salvage to preserve seed bank and management of salvaged topsoil; seed collection, storage, possible nursery propagation, and planting; salvage and planting of bulbs as feasible; location of on-site receptor sites; land protection instruments for receptor areas; and funding mechanisms. The Special-Status Plant Relocation Plan shall include methods, monitoring, reporting, success criteria, adaptive management, and contingencies for achieving success. Mitigation measures that may be implemented if the species is observed include establishing a no-disturbance buffer around locations of individuals or a population, salvage or seed collection, and additional monitoring requirements. The Project proponent shall mitigate the loss of the plant(s) through the purchase of mitigation credits from a CDFW-approved bank or land acquisition and conservation at a minimum 2:1 (replacement to impact) ratio for occupied habitat should success criteria not be met, or presence of the specific is assumed based on suitable habitat acreage within the Project area. Note that a higher ratio may be warranted if the proposed mitigation lands are located far away from the Project site.

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~~blooming period for the Orcutt's woody aster (March through April), Harwood's milkvetch (January through May), gravel milkvetch (February through June), Abrams' spurge (August through November), and Torrey's boxthorn (approximately March through June).~~ The surveys shall be conducted by a **qualified** botanist or qualified biologist in accordance with the USFWS Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants (USFWS 1996); the CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW 2018); and the CNPS Botanical Survey Guidelines (CNPS 2001). If any special-status species are observed during the ~~rare plant~~ **botanical field** surveys~~, the location of the individual plant or population will be recorded with a submeter GPS device for mapping purposes.~~ **the Project shall be designed to reduce impacts to these species through the establishment of buffers, to the extent feasible. Buffer distances will be determined by the qualified botanist or biologist, typically 50 feet or greater from an identified special-status plant species, unless the qualified botanist or biologist determines a reduced buffer would suffice to avoid impacts to the species. All special-status plant species identified on site shall be mapped with a submeter GPS device and depicted on a site-specific aerial photograph and topographic map and included on any construction, grading, fuel modification, or other pertinent plans.** ~~Consultation with CDFW may be required to develop a mitigation plan or additional avoidance and minimization measures if project-related impacts to rare plants within the project site are unavoidable.~~ **If avoidance of special-status plant species is not feasible, a Special-Status Plant Relocation Plan shall be developed and implemented. The Special-Status Plant Relocation Plan shall address mitigation for special-status plants, including topsoil salvage to preserve seed bank and management of salvaged topsoil; seed collection, storage, possible nursery propagation, and planting; salvage and planting of bulbs as feasible; location of on-site receptor sites; land protection instruments for receptor areas; and funding mechanisms. The Special-Status Plant Relocation Plan shall include methods, monitoring, reporting, success criteria, adaptive management, and contingencies for achieving success.** ~~Mitigation measures that may be implemented if the species is observed include establishing a no disturbance buffer around locations of individuals or a population, salvage or seed collection, and additional monitoring requirements.~~ **The Project proponent shall mitigate the loss of the plant(s) through the purchase of mitigation credits from a CDFW-approved bank or land acquisition and conservation at a minimum 2:1 (replacement to impact) ratio for occupied habitat should success criteria not be met, or presence of the species is assumed based on suitable habitat acreage within the Project area. Note that a higher ratio may be warranted if the proposed mitigation lands are located far away from the Project site.**

S2-11 cont.

COMMENT 3:

Section: IV. Biological Resources **Page:** 97

Issue: The Project occurs within the range of the desert kit fox (*Vulpes macrotis*), a protected species pursuant to Title 14 of the California Code of Regulations section 460, which prohibits the take of the species at any time, as well as the American badger (*Taxidea taxus*), a Species of Special Concern (SSC). CDFW recommends surveys, following appropriate methodology, be conducted over all areas proposed to be directly or indirectly affected by the Project to determine presence/absence.

Specific impact: The staging of construction equipment, vehicles, and any foot traffic may result in the collapse of occupied burrows and result in the direct mortality and/or

S2-12

S2-12 The IS/MND indicates that the project site is located within the range of the desert kit fox. Although no sign of desert kit fox was observed, implementation of Mitigation Measures BIO-2 and BIO-3 would reduce potential impacts on special-status wildlife species to a level less than significant, including the potential impact to desert kit fox. These

	measures have been modified and/or replaced in order to address CDFW's comments related to this issue. Please refer to IS/MND page 49 and 50. Additionally, please refer to response to comment S2-13.

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injury to desert kit fox and American badger. Project construction and activities may result in the injury or mortality of desert kit fox and American badger.

Why impact would occur: The impact analysis identified desert kit fox as a special-status species with high potential to occur on the Project site and the American badger as a special-status species with a moderate potential to occur on the Project site. However, CDFW is concerned that an impact analysis of said species was not properly established as there have been no surveys conducted for presence, absence, or sign of presence of desert kit fox and American badger.

S2-12 cont.

Evidence impact would be significant: The desert kit fox is protected from take (See Cal. Code Regs., tit. 14, § 460). American badger is a SSC and protected from take without appropriate licensure (See Cal. Code Regs., tit. 14, § 461). CEQA provides protection for not only CESA-listed species, but for any species including but not limited to SSC which can be shown to meet the criteria for State listing. American badger is SSC that meets the CEQA definition of rare, threatened, or endangered species (CEQA Guidelines, § 15380).

Recommended Potentially Feasible Mitigation Measure(s) (Regarding Environmental Setting and Related Impact Shortcoming)

To reduce impacts to less than significant:
Mitigation Measure: BIO-25

To reduce impacts to less than significant:

CDFW recommends that surveys following appropriate methodology be conducted over all areas proposed to be directly or indirectly affected by the Project to determine the presence or absence of this species and the number of desert kit fox and American badger that are present, as well as document sign of presence. This survey may be combined with a burrowing owl breeding survey should each burrow be evaluated for each species and documented.

If desert kit fox or American badger are found or have the potential to occupy the Project site due to the presence of sign, CDFW recommends the lead agency require species-specific avoidance, minimization, and monitoring measures aimed at avoiding direct impacts to desert kit fox and American badger. Avoidance and minimization measures should include pre-activity surveys following appropriate survey methods, including procedures used to classify identified dens as inactive dens, active and potentially active dens, and active natal dens, and methods utilized to quantify and locate single or paired animals. The measures should also include detailed monitoring requirements and methods of exclusion/passive relocation to be conducted, and methods and timing of den excavation. CDFW recommends the following mitigation measure be added to the MND.

S2-13

BIO-26. Desert Kit Fox and American Badger: Prior to the beginning of surface disturbance, the Project Biologist shall conduct a pre-Project 10-meter transect survey (or reduced based on topography and vegetation), to attain 100% visual coverage within the Project area and a minimum 200-meter buffer to determine the presence or absence of desert kit fox and/or American badger individuals, dens, and sign. If potential dens are located, they shall be monitored by the Project Biologist. Trail cameras may be used to assist with observation but shall not be the sole basis upon which the status is determined. The Project proponent shall provide the results of the survey to CDFW prior to start of Project activities.

S2-13 The County agrees that, with incorporation of the CDFW recommended Mitigation Measure BIO-26, as identified by CDFW in this comment, potential impacts to Desert Kit Fox and American Badger will be mitigated to a level less than significant. Mitigation Measure BIO-26 has been added as follows:

BIO-26 Desert Kit Fox and American Badger: Prior to the beginning of surface disturbance, the Project Biologist shall conduct a pre-Project 10-meter transect survey (or reduced based on topography and vegetation), to attain 100% visual coverage within the Project area and a minimum 200-meter buffer to determine the presence or absence of desert kit fox and/or American badger individuals, dens, and sign. If potential dens are located, they shall be monitored by the Project Biologist. Trail cameras may be used to assist with observation but shall not be the sole basis upon which the status is determined. The Project proponent shall provide the results of the survey to CDFW prior to start of Project

	activities. Project proponent shall provide a determination if active dens can be avoided and buffered from Project activities to prevent take and disturbance with the survey results. Should active dens be present within the Project area that cannot be avoided with an adequate buffer, the Project proponent shall reschedule Project activities or submit a monitoring and passive relocation plan for CDFW's review and approval. No disturbance or passive relocation of active dens may take place during the breeding season or when juveniles are dependent on parental care.

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Project proponent shall provide a determination if active dens can be avoided and buffered from Project activities to prevent take and disturbance with the survey results. Should active dens be present within the Project area that cannot be avoided with an adequate buffer, the Project proponent shall reschedule Project activities or submit a monitoring and passive relocation plan for CDFW's review and approval. No disturbance or passive relocation of active dens may take place during the breeding season or when juveniles are dependent on parental care.

S2-13 cont.

Comment 4:

Section: IV. Biological Resources **Page:** 55

Issue: Flat-tailed horned lizard is a CDFW ranked SSC found adjacent to the Project site (California Natural Diversity Database (CNDDB), 2009). Colorado Desert fringe-toed lizard is a CDFW ranked SCC with a high probability of being found on site. Appropriate surveys to determine each species presence within the Project site were not performed. The MND states the Project has high potential to impact each species. Additionally, mitigation for each species is not proposed, and avoidance and minimization measures are proposed to be developed at a later date.

Specific Impact: Impact to flat-tailed horned lizard, Colorado Desert fringe-toed lizard, and habitat disturbance resulting from Project activities may occur through: installation and maintenance of utility structures, such as transmission lines and cable lines; habitat disturbance from installation of towers, construction, and use of access routes to utility sites; road constructed to maintain or build utilities may cause a proliferation of new access roads into previously undisturbed areas, resulting in off-site habitat disturbance; and indirect but potentially large impact are avian predators (Common ravens, loggerhead shrikes, etc.) utilizing transmission lines and towers to more effectively prey upon flat-tailed horned lizards (Flat-tailed Horned Lizard Rangewide Management Strategy, 2003). Habitat for the Colorado Desert fringe-toed lizard is impacted by fragmentation due to development, conversion to agriculture, and degraded by off-road vehicle use (Zeiner, 2000).

S2-14

Evidence impact would be significant: The Flat-tailed horned lizard is a designated sensitive species by BLM and SSC by CDFW. In 1994, BLM, CDFW, United States Bureau of Reclamation, Arizona Department of Game and Fish, and USFWS developed the foundation that would be the Memorandum of Understanding for the conservation agreement and management plan for the flat-tailed horned lizard, which has a declining population due to habitat fragmentation from agricultural development, urbanization, utilities, energy and mineral extraction, and other forms of land development. The Project site is directly across Highway 86 from the Ocotillo Wells State Vehicular Recreational Area Research Area (Ocotillo Wells RA) which has confirmed presence of the species since 2008. In addition, CNDDB confirmed Flat-tailed horned sightings adjacent to the Project site on the same side of Highway 86. Presence of the species in the immediate vicinity suggests the Project has potential to impact flat-tailed horned lizards. The Colorado Desert fringe-toed lizard is designated as a SSC by CDFW. CEQA provides protection for not only CESA-listed species, but for any species including but not limited to SSC which can be shown to meet the criteria for State listing. Colorado Desert fringe-toed lizard is SSC that meets the CEQA definition of rare, threatened, or endangered species (CEQA Guidelines, § 15380).

S2-15

Recommended Potentially Feasible Mitigation Measure(s) (Regarding Mitigation Measure or Alternative and Related Impact Shortcoming):

S2-16

S2-14 The County acknowledges the potential impacts that could occur with regard to flat-tailed horned lizards and is accounted for in the Draft IS/MND on page 49 and 50.

S2-15 The County agrees that the potential impact to the flat-tailed horned lizard is significant. The Draft IS/MND identifies the potential impact to this species as significant and requires mitigation measures to reduce the impact to a level less than significant. Please refer to IS/MND page 50. Additionally, please refer to response to comment S2-17.

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To reduce impacts to less than significant:

CDFW is concerned with mitigation measure BIO-6 covering several different special-status species, as each species listed in the measure has different survey, mitigation, minimization, and avoidance methods. It is recommended that BIO-6 focuses solely on the flat-tailed horned lizard and Colorado Desert fringe-toed lizard.

Additionally, CDFW is concerned no mitigation is proposed for each species, despite the Project's location adjacent to the flat-tailed horned lizard Ocotillo Wells RA and the West Mesa Management Area which is an area where impacts are mitigated at a 3:1 to 6:1 ratio (for every one acre of impact, 3-6 acres of mitigation is required). As mitigation for the flat-tailed horned lizard is difficult to obtain, CDFW recommends the lead agency determine if full avoidance may be necessary prior to Project activities if species presence is determined and cannot be adequately mitigated.

S2-16 cont.

Mitigation Measure: BIO-6

To reduce impacts to less than significant:

BIO-6. Flat-Tailed Horned Lizard and Colorado Desert Fringe-toed Lizard: Prior to Project activities, surveys for presence/absence of flat-tailed horned lizard (FTHL) and Colorado Desert Fringe-toed Lizard (CDFTL) shall be conducted using parallel, linear routes that are evenly spaced in areas of suitable habitat and be performed by a qualified Project Biologist.

For FTHLs, each transect shall be 10 meters apart. On each transect, FTHLs, sign of FTHLs (i.e., scat or tracks), and harvester ant mounds shall be surveyed. If FTHL or sign is located while surveying, the biologist shall pause, scan the immediate area, follow the tracks (if present), and scan the immediate vicinity of the tracks, scat, and/or ant mound observed. Three surveys shall be conducted, spaced two weeks apart during April through September. Surveys will be conducted when surface temperatures in the sun exceed 86°F. Scat surveys shall not be conducted for at least 12 days after heavy rainstorms, or strong winds of an intensity sufficient to move a considerable amount of sand across roads.

For CDFTL, each transect shall be spaced 5 meters apart. One surveyor shall focus on habitat/substrate 30-40 meters in front, while one surveyor focuses on the area 2-10 meters in front. Surveys shall be conducted only when winds are 10mph or less and it is not raining. Up to six surveys shall be conducted over the same area on separate days by a qualified biologist between April and September when ground temperature in sun exceeds 86°F.
Project proponent shall provide the results of the surveys for both species to CDFW prior to start of Project activities.

S2-17

If FTHL or CDFTL are present, the following minimization and mitigation measures shall apply:

- **During Project activities, the Project Biologist shall check areas of active disturbance at least hourly. Prior to construction, a qualified Project Biologist shall clear the area of FTHL or CDFTL. During construction, a Project Biologist shall be present in each area of active surface disturbance throughout the workday from initial clearing to Project completion. FTHL and CDFTL will be moved out of harm's way during all construction activities and will be conducted by two or more biological**

S2-16 Please refer to response to comment S2-15.

S2-17 The County agrees that, with incorporation of the CDFW recommended modifications to Mitigation Measure BIO-6, as identified by CDFW in this comment, potential impacts to flat-tailed horned lizard and Colorado Desert Fringe-toed Lizard will be mitigated to a level less than significant.

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monitors when construction activities are being conducted in suitable habitat. To the extent feasible, methods to find FTHL and CDFTL will be designed to achieve a maximal capture rate and will include, but not be limited to using strip transects, tracking, and raking around shrubs. During construction, the minimum survey effort will be 30 minutes per acre.

- **Occupied habitat shall be mitigated at a 1:1 ratio (1 acres of mitigation for every acre of impact) through off-site acquisition of FTHL and CDFTL habitat of equal or greater quality that is conserved and managed in perpetuity. Proposed mitigation lands shall be approved by CDFW.**

~~A pre-construction survey shall be conducted for special-status wildlife species within all areas of potential permanent and temporary disturbance. The pre-construction survey shall take place no more than 14 days prior to the start of ground-disturbing activities. The pre-construction surveys shall take place regardless of breeding season timing and shall focus on identifying the presence of special-status wildlife species present within the Survey Area or that were identified as having a high/moderate potential to occur on the site. These species include, but are not limited to, flat-tailed horned lizard, Colorado Desert fringe-toed lizard, burrowing owl, desert kit fox, and American badger. Should any special status species be identified during the pre-construction survey, consultation to develop suitable avoidance and minimization measures with the appropriate agency (USFWS, CDFW) may need to be undertaken.~~

S2-17 cont.

Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW or USFWS?

COMMENT 5:

Section: IV. Biological Resources **Page:** 55-56

Issue: The MND does not include, but should include a jurisdictional delineation of all ephemeral stream features potentially subject to notification for Lake and Streambed Agreement pursuant Fish and Game Code section 1602. The *Aquatic Resource Delineation Report for the North Ster 3 Project* (Appendix D) may include this information but is missing from the MND. Additionally, BIO-9 defers mitigation to be determined by the regulatory agencies and states mitigation may occur on-site.

Specific impact: The MND states there is a total of 23.32 acres of areas subject to Fish and Game Section 1602 within the Project's study area that have potential to be impacted. CDFW cannot accurately determine if the acreage provided in the MND for impact analysis is accurate as no supporting document or figures were provided. Additionally, the MND does not identify the mitigation that will reduce impacts to less than significant for the purposes of CEQA.

S2-18

Why impact would occur: CDFW was unable to analyze the jurisdictional delineation and provide comment as the pertinent attachment was missing from the MND. Additionally, there were no figures to depict the location of the resources. The jurisdictional delineation and proposed site plan should be used to identify what impacts would occur and develop a mitigation measure that defines the appropriate mitigation. As currently written, the mitigation measure BIO-8 is a conditional measure and states, "if project related impacts occur... a regulatory permit... is needed prior to the impact occurring". Deferring mitigation to a regulatory permit does not reduce impacts to resources to less than significant for the purposes of CEQA. Additionally, it is also

S2-18 The Count agrees that project activities may result in potential impacts to ephemeral stream features in the project area. Please refer to response to comment S2-20 for revisions made to Mitigation Measure BIO-8.

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unclear how on-site mitigation could occur and to what extent it will reduce impacts to less than significant.

Evidence impact would be significant: Project activities may cause substantial diversion or obstruction of natural flow of streams, substantially change the bed, bank, and channels of streams, and/or deposit or disposal of material into streams in the Project area. For any such activities, the Project Applicant should provide written notification per Fish and Game Code section 1602. Project activities subject to notification are not described in the MND, and there is potential that resource presence is not appropriately quantified in the MND. So CDFW is unable to adequately review the Project pertaining to the department's lake and streambed alteration regulatory authority (Fish & G. Code, § 1600 et seq.).

S2-19

Recommended Potentially Feasible Mitigation Measure(s) (Regarding Mitigation Measure or Alternative and Related Impact Shortcoming)

Mitigation Measure: BIO-8

To reduce impacts to less than significant:
CDFW recommends the MND include a jurisdictional delineation to identify stream resources subject to Fish and Game Code section 1602. Should the Project be unable to avoid impacts to stream resources, the Project applicant will need to notify CDFW per Fish and Game Code section 1602. Fish and Game Code section 1602 requires any entity to notify CDFW prior to commencing any activity that may do one or more of the following: substantially divert or obstruct the natural flow of any river, stream, or lake; substantially change or use any material from the bed, channel or bank of any river, stream, or lake; or deposit debris, waste or other materials that could pass into any river, stream, or lake. Please note that "any river, stream or lake" includes those that are episodic (i.e., those that are dry for periods of time) as well as those that are perennial (i.e., those that flow year-round). This includes ephemeral streams, desert washes, and watercourses with a subsurface flow similar to those referenced above. CDFW provides editorial comments to BIO-8 below.

S2-20

BIO-8. Aquatic Resources Regulatory Permitting: ~~If p~~ Project-related impacts **that will** occur to the riparian areas **or areas subject to Fish and Game Code section 1602 shall be mitigated at a minimum of 2:1 ratio (two acres of mitigation for every impact to one acre of resource). The Project proponent shall obtain all necessary regulatory permits for resources** ~~that may also fall~~ under the jurisdiction of the USACE, CDFW, and/or RWQCB~~, a regulatory permit with those agencies is needed~~ prior to the impact occurring. Refer to the Aquatic Resource Delineation Report or the North Star 3 Project (Appendix D of this Initial Study) for preliminary determination of regulatory limits ~~that~~ **of** areas that may be regulated by USACE, CDFW, or RWQCB. Permitting includes preparation and submittal of a Pre-Construction Notification under Section 404 of the federal CWA, an Application for Water Quality Certification under Section 401 of the federal CWA and a notification of Lake or Streambed Alteration under Section 1600 of the California Fish and Game Code. A completed CEQA document, and Notice of Determination, will be necessary to submit along with the applications. Other items such as finalized project plans, quantities of fill material, supporting technical studies, etc., are also submitted along with the applications. As a part of this process, the project must also identify and approve mitigation through the respective agencies.

Mitigation ~~can~~ **shall** include: ~~onsite or~~ offsite ~~options or~~ **land acquisition that is conserved and managed in perpetuity for the resource;** ~~could include,~~ payment of

S2-19 The County agrees that the potential impact to aquatic resources is significant. The IS/MND identifies the potential impact as significant and requires mitigation measures to reduce the impact to a level less than significant. Please refer to IS/MND page 58. Additionally, please refer to response to comment S2-20.

S2-20 The County agrees that, with incorporation of the CDFW recommended modifications to Mitigation Measure BIO-8, as identified by CDFW in this comment, potential impacts related to aquatic resources will be mitigated to a level less than significant. Mitigation Measure BIO-8 has been modified as follows:

BIO-8 **Aquatic Resources Regulatory Permitting.** ~~If p~~ Project-related impacts that will occur to the riparian areas or areas subject to Fish and Game Code Section 1602, shall be mitigated at a minimum of 2:1 ratio (two acres of mitigation for every impact to one acre of resource). The project proponent shall obtain all necessary regulatory permits for resources ~~that may also fall~~ under the jurisdiction of the USACE, CDFW, and/or RWQCB~~, a regulatory permit with those agencies is needed~~ prior to the impact occurring. Refer to the *Aquatic Resource Delineation Report for the North Star 3 Project* (Appendix D of this Initial Study) for preliminary determination of regulatory

	limits that areas that may be regulated by USACE, CDFW, or RWQCB. Permitting includes preparation and submittal of a Pre-Construction Notification under Section 404 of the federal CWA, an Application for Water Quality Certification under Section 401 of the federal CWA and a Notification of Lake or Streambed Alteration under Section 1600 of the California Fish and Game Code. A completed CEQA document, and Notice of Determination, will be necessary to submit along with the applications. Other items such as finalized project plans, quantities of fill material, supporting technical studies, etc., are also submitted along with the applications. As a part of this process, the project must also identify and approve mitigation through the respective agencies. Mitigation ~~can~~ shall include ~~onsite or offsite options or~~ land acquisition that is conserved and managed in perpetuity for the resource; ~~could include~~ payment of an in-lieu fee to a conservation organization; and/or. ~~Types of mitigation can include~~ restoration, creation, rehabilitation, enhancement, or other types of habitat improvement. T~~ypically, t~~he type of mitigation and final acreage of mitigation ~~is negotiated~~ shall be approved by ~~with~~ the regulatory agencies during the permitting process.

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an in-lieu fee to a conservation organization; **and/or**. ~~Types of mitigation can include~~ restoration, creation, rehabilitation, enhancement, or other types of habitat improvement. ~~Typically, t~~**T**he type of mitigation and **final** acreage of mitigation is ~~negotiated~~ **shall be approved by** ~~with~~ the regulatory agencies during the permitting process.

S2-20 cont.

COMMENT 6:

Section: IV. Biological Resources **Page:** 55

Issue: When evaluating impacts to Mojave-Sonoran Desert Dunes, the MND states, "The amount of this vegetation community that may be permanently removed is minor (0.18 acre in total). The project proponent would avoid impacts to Mojave-Sonoran Desert [dunes] occurring within the project site. Therefore, no impact would occur." CDFW finds this evaluation of impact to be unclear.

Specific impact: The MND states there is a potential for permanent removal of 0.18 acres of a state rarity rank S3 natural community, then states the impact will be avoided in the following sentence. The MND should be clear if the Project will have an impact on the sparsely vegetated sensitive natural community defined by herbs and subshrubs with intermittent seasonal annuals and scattered perennials, found in active dunes, partially stabilized dunes, stabilized dunes, and sand fields (CNPS, 2024).

S2-21

Why impact would occur: The MND does not propose any clear avoidance measures nor mitigation to bring the impact to less than significant should the potential impact occur.

Evidence impact would be significant: Natural communities ranked S1 through S3 are considered sensitive communities to be addressed in the environmental review processes of CEQA.

S2-22

Recommended Potentially Feasible Mitigation Measure(s) (Regarding Mitigation Measure or Alternative and Related Impact Shortcoming)

Mitigation Measure: BIO-28

To reduce impacts to less than significant: CDFW recommends the Project be sited to avoid all 0.18 acres of Mojave-Sonoran Desert dunes. Additionally, CDFW recommends there be an appropriate buffer for avoidance between the Project boundary and the transition of habitat due to the temporal variability in landscape shapes and patterns and shifting natures of the community. This will also avoid frequent need of operation and maintenance activities to rectify built up sand on the proposed security fencing. Also to make the intent of avoidance clearer, CDFW proposes inclusion of the following mitigation measure in the MND.

S2-23

BIO-27. Avoidance of Mojave-Sonoran Desert Dunes: To avoid permanent impacts to the Mojave-Sonoran Desert Dunes, a sensitive natural community, the Project proponent shall fully avoid dunes found within and adjacent to the Project site. If necessary, the Project site boundary shall be adjusted to comply with full avoidance with an appropriate buffer. If impacts to dune habitat is not feasible, the Project proponent shall mitigate for the permanent impacts at a minimum 2:1 (2 acres of mitigation for every 1 acre of impact). Mitigation shall include: offsite land acquisition that is conserved and managed in perpetuity for the natural community; payment of an in-lieu fee to a conservation organization; and/or

S2-21 Th County agrees that the potential impact to natural communities is significant. Please refer to response to comment S2-22 and S2-23.

S2-22 Please refer to IS/MND page 58. The text states therein that Mojave-Sonoran Desert dunes has a state rarity ranking of S3.2, indicating it is vulnerable in California. Therefore, the County agrees that communities ranked S1 through S3 should be addressed in the environmental review.

S2-23 The County agrees that, with incorporation of the CDFW recommended Mitigation Measure BIO-27, as identified by CDFW in this comment, potential impacts to natural communities, specifically Mojave-Sonoran Desert dunes, will be mitigated to a level less than significant. Mitigation Measure BIO-27 has been added as follows:

BIO-27 Avoidance of Mojave-Sonoran Desert Dunes: To avoid permanent impacts to the Mojave-Sonoran Desert Dunes, a sensitive natural community, the project proponent

	shall fully avoid dunes found within and adjacent to the project site. If necessary, the project site boundary shall be adjusted to comply with full avoidance with an appropriate buffer. If impacts to dune habitat is not feasible, the project proponent shall mitigate for the permanent impacts at a minimum 2:1 (2 acres of mitigation for every 1 acre of impact). Mitigation shall include: off-site land acquisition that is conserved and managed in perpetuity for the natural community; payment of an in-lieu fee to a conservation organization; and/or restoration, creation, rehabilitation, enhancement, or other types of habitat improvement.

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restoration, creation, rehabilitation, enhancement, or other types of habitat improvement.

S2-23 cont.

III. Mitigation Measure or Alternative and Related Impact Shortcoming

Would the Project interfere substantially with movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede use of native wildlife nursery sites?

COMMENT 7:

Section: IV. Biological Resources **Page:** 50

Issue: CDFW appreciates the inclusion of BIO-2's mention of migratory bird powerline collision risk and the project's intent to minimize collisions by following the 2012 Avian Power Line Interaction Committee's Reducing Avian Collisions with Power Lines guidelines. However, CDFW considers the Mitigation Measure to be lacking information on specifics for how these protections will take place.

S2-24

Specific impact: The protection options given are to bury the electrical components where feasible or protect lines. Burying electrical components is only feasible/applicable if lines contain voltage less than 345kV, and dependent on variables such as type of cable, land use patters, soil conditions, regulatory acceptance, outage risks and reliability requirements, termination facility requirements, length and operating limits, and other environmental concerns. The variables listed make burying lines rarely feasible (APLIC 2012). The mitigation measure also does not list specific details on how the electrical components will be protected.

Why impact would occur: Collisions of birds and powerlines are more likely to occur in migratory waterfowl, which are a large portion of the Pacific Flyway known to migrate through the area in which the Project is located, and raptors.

Evidence impact would be significant: Migratory waterfowl, such as Gaviformes, Pelecaniformes, Ciconiiformes, Anseriformes, and Podicipediformes, are all common families found along the Pacific Flyway, and birds associated with powerline collisions (Bevanger, 1998). Falconiformes and Strigiformes are also more susceptible to powerline collision. All bird families listed above are protected by the USFWS Migratory Bird Treaty Act, while Falconiformes and Strigiformes are protected by Fish and Game Code sections 3503 and 3503.5.

S2-25

Recommended Potentially Feasible Mitigation Measure(s) (Regarding Mitigation Measure or Alternative and Related Impact Shortcoming)

Mitigation Measure: BIO-2

To reduce impacts to less than significant:

BIO-2. Minimization of Impacts to Migratory Birds, Bats, and Raptors: To reduce indirect impacts on migratory birds, bats, and raptors, the project shall comply with APLIC 2012 Guidelines for overhead utilities, as appropriate, to minimize avian collisions with transmission facilities (APLIC 2012). All electrical components on the project site shall either be underground or **the transmission lines and poles will follow design plans recommended by APLIC (i.e., installing covers over the insulator and conductor on the center phase, installing phase covers over all**

S2-26

S2-24 The IS/MND concludes that the proposed project has the potential to result in an impact related to avian collision. As indicated on IS/MND page 50, direct impacts to nesting avian species include injury, mortality, loss of young, and nest failure. Implementation of Mitigation Measure BIO-2 would reduce potential impacts to bat species to a level less than significant. This mitigation measure has been modified and/or replaced in order to address CDFW's comments related to this issue. Please refer to response to comment S2-26.

S2-25 The County agrees that the potential collision impact to avian species is significant. The Draft IS/MND identifies the potential impact as significant and requires mitigation measures to reduce the impact to a level less than significant. Please refer to IS/MND page 50. Additionally, please refer to response to comment S2-26.

S2-26 The County agrees that, with incorporation of the CDFW recommended modifications to Mitigation Measure

	BIO-2, as identified by CDFW in this comment, potential impacts related to bird collision will be mitigated to a level less than significant. Mitigation Measure BIO-2 has been modified as follows: **BIO-2: General Impact Avoidance and Minimization Measures.** Minimization of Impacts to Migratory Birds, Bats, and Raptors: To reduce indirect impacts on migratory birds, bats, and raptors, the project shall comply with APLIC 2012 Guidelines for overhead utilities, as appropriate, to minimize avian collisions with transmission facilities (APLIC 2012). All electrical components on the project site shall either be underground or the transmission lines and poles will follow design plans recommended by APLIC (i.e., installing covers over the insulator and conductor on the center phase, installing phase covers over all three insulators and conductors for three phase transmission lines, lowering and/or replacing the crossarm with a longer cross arm on pole-top pin constructions), or utilizing link marking devices (e.g., aerial marker spheres, spirals, or suspended devices). protected so that there will be no exposure to wildlife and therefore no potential for electrocution.

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three insulators and conductors for three phase transmission lines, lowering and/or replacing the crossarm with a longer cross arm on pole-top pin constructions), or utilizing link marking devices (e.g., aerial marker spheres, spirals, or suspended devices). ~~protected so that there will be no exposure to wildlife and therefore no potential for electrocution.~~ S2-26 cont.

Multiple Biological Resource Environmental Issue Areas

COMMENT 8:

Section: IV. Biological Resources **Page:** 50-53

Issue: CDFW is concerned with the length and number of topics provided in BIO-2 General Impact Avoidance and Minimization Measures, as well as their ability to reduce impacts to biological resources to less than significant.

Specific impact: The Mitigation Measure written for BIO-2 is not focused and too general. Each of the measures included in BIO-2 should be separated into its own mitigation measure and compiled into a Mitigation Monitoring Reporting Plan (MMRP) for enforceability and compliance by on-site personnel during Project activities S2-27

Why impact would occur: Mitigation measures given should be focused on a singular issue per measure, as opposed to listing several general measures. The purpose of mitigation and minimization measures is to reduce the impact of a project to less than significant for each separate issue or biological resource that is anticipated to be impacted.

Evidence impact would be significant: A blanket measure covering many topics is less effective in being properly tracked in an MMRP, as each measure is required to be checked individually for compliance and may have a different party responsible for its compliance, depending on the subject of the measure. S2-28

Recommended Potentially Feasible Mitigation Measure(s) (Regarding Mitigation Measure or Alternative and Related Impact Shortcoming)

To reduce impacts to less than significant:

Mitigation Measure: BIO-10 - BIO-24

CDFW provides the following renumbering of mitigation measures as well as editorial comments explained in Section IV. Editorial Comments and/or Suggestions below.

Mitigation Measure BIO-10. Project Biologist: The Project proponent shall designate a Project Biologist who shall be responsible for overseeing compliance with protective measures for biological resources during vegetation clearing and work activities within and adjacent to areas of native habitat. The Project Biologist shall be familiar with the local habitats, plants, and wildlife, **and have experience performing all necessary surveys and monitoring for biological resources present on site**. The Project Biologist shall also maintain communications with the Contractor to ensure that issues relating to biological resources are appropriately and lawfully managed and shall monitor construction. The Project Biologist shall monitor **all ground disturbing** activities within construction areas, **including activities** during nesting bird season (generally February 1 to September 15), ~~such as~~ vegetation removal, the implementation of Best Management Practices (BMPs), and installation of security S2-29

S2-27 Mitigation Measure BIO-2 was modified as described in response to comment S2-26.

S2-28 Please refer to response to comment S2-26.

S2-29 The County agrees that, with incorporation of the CDFW recommended modifications to Mitigation Measure BIO-2 and specific measures BIO-10 through BIO-24, as identified by CDFW in this comment, potential impacts related to biological resources will be mitigated to a level less than significant. The following measures are considered replacement measures for previously-proposed Mitigation Measure BIO-2:

BIO-10: Project Biologist: The Project proponent shall designate a Project Biologist who shall be responsible for overseeing compliance with protective measures for biological resources during vegetation clearing and work

	activities within and adjacent to areas of native habitat. The Project Biologist shall be familiar with the local habitats, plants, and wildlife, and have experience performing all necessary surveys and monitoring for biological resources present on site. The Project Biologist shall also maintain communications with the Contractor to ensure that issues relating to biological resources are appropriately and lawfully managed and shall monitor construction. The Project Biologist shall monitor all ground disturbing activities within construction areas, including activities during nesting bird season (generally February 1 to September 15), such as vegetation removal, the implementation of Best Management Practices (BMPs), and installation of security fencing to protect native species. The Project Biologist shall ensure that all wildlife and regulatory agency permit requirements, conservation measures, and general avoidance and minimization measures are properly implemented and followed. BIO-11: Project Site Delineation: The boundaries of all areas to be newly disturbed (including solar facility areas, staging areas, access roads, and sites for temporary placement of construction materials and spoils) shall be delineated with stakes and flagging prior to disturbance. All disturbances, vehicles, and equipment shall be confined to the flagged areas. Stockpiling of material shall only be allowed within established work areas. BIO-12: Wildlife Entrapment Avoidance: No potential wildlife entrapments (e.g., trenches, bores) shall be left

	uncovered overnight. Any uncovered pitfalls will be excavated to 3:1 slopes at the ends to provide wildlife escape ramps. Alternatively, man-made ramps may be installed. Covered pitfalls will be covered completely to prevent access by small mammals or reptiles. To avoid wildlife entrapment (including birds), all pipes or other construction materials or supplies shall be covered or capped in storage or laydown areas, and at the end of each construction workday in construction, quarrying and processing/handling areas. No pipes or tubing of sizes or inside diameters ranging from 1 to 10 inches shall be left open either temporarily or permanently. BIO-13: Rodenticide: No anticoagulant rodenticides, such as Warfarin and related compounds (indandiones and hydroxycoumarins), shall be used within the project site, on off-site project facilities and activities, or in support of any other project activities. BIO-14: Trash Abatement: All trash and food-related waste shall be placed in self-closing containers and removed regularly from the site to prevent overflow. Workers shall not feed wildlife.

	BIO-15: Project Site Speed Limit: To minimize the likelihood for vehicle strikes on wildlife, speed limits shall not exceed 15 miles per hour when driving on access roads. All vehicles required for O&M must remain on designated access/maintenance roads. BIO-16: Artificial Lighting: Avoid nighttime construction lighting or if nighttime construction cannot be avoided, use shielded directional lighting pointed downward and towards the interior of the project sites, thereby avoiding illumination of adjacent natural areas and the night sky. BIO-17: Equipment Mufflers: All construction equipment used for the projects shall be equipped with properly operating and maintained mufflers. BIO-18: Hazardous Substances: Hazardous materials and equipment stored overnight, including small amounts of fuel to refuel hand-held equipment, shall be stored within secondary containment when within 50 feet of open water or resources subject to Fish and Game Code section 1602 to the fullest extent practicable. Secondary containment shall consist of a ring of sandbags around each piece of stored equipment/structure. A plastic tarp/visqueen lining with no seams shall be placed under the equipment and over the edges of the sandbags, or a plastic hazardous materials secondary containment unit shall be utilized by the Contractor.

	The Contractor will be required to conduct vehicle refueling in upland areas where fuel cannot enter waters of the U.S. or areas subject to Fish and Game Code section 1602, and in areas that do not have potential to support federally threatened or endangered species. Any fuel containers, repair materials, including creosote-treated wood, and/or stockpiled material that is left on site overnight, shall be secured in secondary containment within the work area and staging/assembly area and covered with plastic at the end of each workday. In the event that no activity is to occur in the work area for the weekend and/or a period of time greater than 48 hours, the Contractor shall ensure that all portable fuel containers are removed from the project site. All equipment shall be maintained in accordance with the manufacturer's recommendations and requirements. Equipment and containers shall be inspected daily for leaks. Should a leak occur, contaminated soils and surfaces will be cleaned up and disposed of following the guidelines identified in the Stormwater Pollution Prevention Plan or equivalent, Materials Safety Data Sheets, and any specifications required by other permits issued for the project. The Contractor shall utilize off-site maintenance and repair shops as much as possible for maintenance and repair of equipment. If maintenance of equipment must occur onsite, fuel/oil pans, absorbent pads, or appropriate containment will be used to capture spills/leaks within all areas. Where feasible, maintenance of equipment shall occur in upland areas where fuel cannot enter waters of the U.S. or areas subject to Fish and Game Code section 1602, and in areas that do not have potential to support federally threatened or endangered species.

	BIO-19: Firearms and Pets: Project personnel and any other individuals associated with the Project are prohibited from bringing any firearms or dogs on the Project Area during, except those in the possession of authorized security personnel or local, state, or federal law enforcement officials, dogs that may be used to aid in official and approved monitoring procedures/protocols, or service dogs under Title II and Title III of the American with Disabilities Act. Firearms, open fires, and pets shall be prohibited at all work locations and access roads. Smoking shall be prohibited along the Project alignment. BIO-20: Best Management Practices: Appropriate BMPs shall be used by the Contractor to control erosion and sedimentation and to capture debris and contaminants from construction to prevent their deposition in waterways. Erosion and sediment control devices used for the proposed project, including fiber rolls and bonded fiber matrix, shall be made from biodegradable materials such as jute, with no plastic mesh, to avoid creating a wildlife entanglement hazard. BIO-21: Cross-country Vehicle Use: Cross-country vehicle and equipment use outside of approved designated work areas and access roads shall be prohibited to prevent unnecessary ground and vegetation disturbance.

	BIO-22: Injured or Dead Wildlife: Any injured or dead wildlife encountered during project-related activities shall be reported to the Project Biologist, biological monitor, CDFW, or a CDFW-approved veterinary facility as soon as possible to report the observation and determine the best course of action. For special-status species, the Project Biologist shall notify by phone or email the County, USFWS, and/or CDFW, as appropriate, within 24 hours of the discovery. BIO-23: Checking Beneath Vehicles: The ground beneath all parked equipment and vehicles shall be inspected for wildlife before moving. BIO-24: Fugitive Dust Abatement: Water applied to dirt roads and construction areas for dust abatement shall be used the minimal amount needed to meet safety and air quality standards to prevent the formation of puddles, which could attract wildlife. Pooled rainwater or floodwater within retention basins shall be removed to avoid attracting wildlife to the active work areas.

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fencing to protect native species. The Project Biologist shall ensure that all wildlife and regulatory agency permit requirements, conservation measures, and general avoidance and minimization measures are properly implemented and followed.

Mitigation Measure BIO-11. Project Site Delineation: The boundaries of all areas to be newly disturbed (including solar facility areas, staging areas, access roads, and sites for temporary placement of construction materials and spoils) shall be delineated with stakes and flagging prior to disturbance. All disturbances, vehicles, and equipment shall be confined to the flagged areas. Stockpiling of material shall only be allowed within established work areas.

Mitigation Measure BIO-12. Wildlife Entrapment Avoidance: No potential wildlife entrapments (e.g., trenches, bores) shall be left uncovered overnight. Any uncovered pitfalls will be excavated to 3:1 slopes at the ends to provide wildlife escape ramps. Alternatively, man-made ramps may be installed. Covered pitfalls will be covered completely to prevent access by small mammals or reptiles.

To avoid wildlife entrapment (including birds), all pipes or other construction materials or supplies shall be covered or capped in storage or laydown areas, and at the end of each **construction** workday ~~in construction, quarrying and processing/handling areas~~. No pipes or tubing of sizes or inside diameters ranging from 1 to 10 inches shall be left open either temporarily or permanently.

Mitigation Measure BIO-13. Rodenticide: No anticoagulant rodenticides, such as Warfarin and related compounds (indandiones and hydroxycoumarins), shall be used within the Project site~~, on-off-site project facilities and activities,~~ or in support of any other Project activities.

Mitigation Measure BIO-14. Trash Abatement: All trash and food-related waste shall be placed in self-closing containers and removed regularly from the site to prevent overflow. Workers shall not feed wildlife.

Mitigation Measure BIO-15. Project Site Speed Limit: To minimize the likelihood for vehicle strikes on wildlife, speed limits shall not exceed 15 miles per hour when driving on access roads. All vehicles required for O&M must remain on designated access/maintenance roads.

Mitigation Measure BIO-16. Artificial Lighting: Avoid nighttime construction lighting or if nighttime construction cannot be avoided, use shielded directional lighting pointed downward and towards the interior of the project sites, thereby avoiding illumination of adjacent natural areas and the night sky.

Mitigation Measure BIO-17. Equipment Mufflers: All construction equipment used for the projects shall be equipped with properly operating and maintained mufflers.

Mitigation Measure BIO-18. Hazardous Substances: Hazardous materials and equipment stored overnight, including small amounts of fuel to refuel hand-held equipment, shall be stored within secondary containment when within 50 feet of open water **or resources subject to Fish and Game Code section 1602** to the fullest extent practicable. Secondary containment shall consist of a ring of sandbags around each piece of stored equipment/structure. A plastic tarp/visqueen lining with no seams shall be placed under the equipment and over the edges of the sandbags, or a plastic hazardous materials secondary containment unit shall be utilized by the Contractor. The Contractor will be required to conduct vehicle refueling in upland areas where fuel

S2-29 cont.

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cannot enter waters of the U.S. **or areas subject to Fish and Game Code section 1602,** and in areas that do not have potential to support federally threatened or endangered species. Any fuel containers, repair materials, including creosote-treated wood, and/or stockpiled material that is left on site overnight, shall be secured in secondary containment within the work area and staging/assembly area and covered with plastic at the end of each workday. In the event that no activity is to occur in the work area for the weekend and/or a period of time greater than 48 hours, the Contractor shall ensure that all portable fuel containers are removed from the project site. All equipment shall be maintained in accordance with the manufacturer's recommendations and requirements. Equipment and containers shall be inspected daily for leaks. Should a leak occur, contaminated soils and surfaces will be cleaned up and disposed of following the guidelines identified in the Stormwater Pollution Prevention Plan or equivalent, Materials Safety Data Sheets, and any specifications required by other permits issued for the project. The Contractor shall utilize off-site maintenance and repair shops as much as possible for maintenance and repair of equipment. If maintenance of equipment must occur onsite, fuel/oil pans, absorbent pads, or appropriate containment will be used to capture spills/leaks within all areas. ~~Where feasible,~~ **m**Maintenance of equipment shall occur in upland areas where fuel cannot enter waters of the U.S. **or areas subject to Fish and Game Code section 1602,** and in areas that do not have potential to support federally threatened or endangered species.

Mitigation Measure BIO-19. Firearms and Pets: Project personnel and any other individuals associated with the Project are prohibited from bringing any firearms or dogs on the Project Area during, except those in the possession of authorized security personnel or local, state, or federal law enforcement officials, dogs that may be used to aid in official and approved monitoring procedures/protocols, or service dogs under Title II and Title III of the American with Disabilities Act. ~~Firearms,~~ Open fires, and pets shall be prohibited at all work locations and access roads. Smoking shall be prohibited along the Project alignment.

S2-29 cont.

Mitigation Measure BIO-20. Best Management Practices: Appropriate BMPs shall be used by the Contractor to control erosion and sedimentation and to capture debris and contaminants from construction to prevent their deposition in waterways. Erosion and sediment control devices used for the proposed project, including fiber rolls and bonded fiber matrix, shall be made from biodegradable materials such as jute, with no plastic mesh, to avoid creating a wildlife entanglement hazard.

Mitigation Measure BIO-21. Cross-Country Vehicle Use: Cross-country vehicle and equipment use outside of approved designated work areas and access roads shall be prohibited to prevent unnecessary ground and vegetation disturbance.

Mitigation Measure BIO-22. Injured or Dead Wildlife: Any injured or dead wildlife encountered during Project-related activities shall be reported to the Project Biologist, biological monitor, CDFW, or a CDFW-approved veterinary facility as soon as possible to report the observation and determine the best course of action. For special-status species, the Project Biologist shall notify **via email or phone** the County, USFWS, and/or CDFW, as appropriate, within 24 hours of the discovery.

Mitigation Measure BIO-23. Checking Beneath Vehicles: The ground beneath all parked equipment and vehicles shall be inspected for wildlife before moving.

Mitigation Measure BIO-24. Fugitive Dust Abatement: Water applied to dirt roads and construction areas for dust abatement shall be used the minimal amount needed to

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meet safety and air quality standards to prevent the formation of puddles, which could attract wildlife. Pooled rainwater or floodwater ~~within retention basins~~ shall be removed to avoid attracting wildlife to the active work areas. S2-29 cont.

COMMENT 9:

Section: IV. Biological Resources **Page:** 50

Issue: CDFW appreciated the inclusion of a mitigation measure for avoidance and minimization of invasive species in BIO-2 General Impact Avoidance and Minimization Measures.

Specific Impact: CDFW is concerned with the effectiveness of the measure at avoiding and minimizing introduction of invasive plant species to Project Site. S2-30

Why Impact Would Occur: The measure included the use of chemical removal but gave no conditions or guidelines to follow in the event that herbicides will be used on the Project site. The potential to transport seeds onto the site is also included, but the measures to limit that potential are lacking.

Evidence Impact Would Be Significant: Use of chemical removal is regulated by the California Department of Pesticide Regulation and requires guidelines be met. Without the guidelines of properly preventing the transport of invasive seed onto the Project site, the potential for seed transport increases. S2-31

Recommended Potentially Feasible Mitigation Measure(s) (Regarding Mitigation Measure or Alternative and Related Impact Shortcoming:

Mitigation Measure: BIO-25

To reduce impacts to less than significant: CDFW recommends the following edits to the mitigation measure for avoidance and minimization of invasive species.

BIO-25. Invasive Plants: The Contractor shall actively manage the spread of **invasive and nonnative plants** ~~noxious weeds~~ by implementing weed control activities, including, but not limited to, cleaning equipment and inspecting equipment prior to transport to the sites and cleaning of tires and **underside of** equipment prior to leaving the site, **vacuuming and cleaning the interior of vehicles and heavy equipment that have been used off-site before bringing them to the Project site, clean by pressure washing, washing in hot water, freezing, or bleaching personal gear and clothing, including footwear, that have been worn offsite before bringing them to the Project site, and not transporting soil or other fill material from off-site locations to the Project area unless they are certified weed free.** The introduction of exotic, nonnative, weed, and/or invasive plant species will be avoided and controlled wherever possible, and may be achieved through physical or chemical removal and prevention, limiting the size of any vegetation and/or ground disturbance to the absolute minimum, and limiting ingress and egress to defined routes. Preventing exotic plants from entering the site via vehicular sources will include measures such as cleaning vehicles coming into and going from the site. **Any use of herbicide for chemical removal of invasive and nonnative plants shall only use herbicides containing a harmless dye and registered with the California Department of Pesticide Regulation (DPR). All herbicides shall be applied in accordance with regulations set by the DPR. All herbicides shall be used according to label instructions. Labeled instructions of the herbicide used shall be made available to CDFW upon** S2-32

S2-30 The IS/MND concludes that the proposed project has the potential to result in indirect impacts including potential introduction of invasive/nonnative species (see IS/MND page 50). Implementation of Mitigation Measure BIO-25 would reduce potential impacts to aquatic resources to a level less than significant. This mitigation measure has been modified and/or otherwise replaced in order to address CDFW's comments related to this issue. Please refer to response to comment S2-31.

S2-31 The County agrees that the potential indirect impact as a result of invasive species is significant. The Draft IS/MND identifies the potential indirect impact as significant and requires mitigation measures to reduce the impact to a level less than significant. Please refer to response to comment S2-32.

S2-32 The County agrees that, with incorporation of the CDFW recommended modifications to Mitigation Measure BIO-25, as identified by CDFW in this comment, potential impacts related to invasive species will be mitigated to a level less than significant. Mitigation Measure BIO-25 has been modified as follows:

BIO-25: Invasive Plants: The Contractor shall actively manage the spread of invasive and nonnative plants ~~noxious weeds~~ by implementing weed control activities, including, but not limited

	to, cleaning equipment and inspecting equipment prior to transport to the sites and cleaning of tires and underside of equipment prior to leaving the site, vacuuming and cleaning the interior of vehicles and heavy equipment that have been used off-site before bringing them to the Project site, clean by pressure washing, washing in hot water, freezing, or bleaching personal gear and clothing, including footwear, that have been worn offsite before bringing them to the Project site, and not transporting soil or other fill material from off-site locations to the Project area unless they are certified weed free. The introduction of exotic, nonnative, weed, and/or invasive plant species will be avoided and controlled wherever possible, and may be achieved through physical or chemical removal and prevention, limiting the size of any vegetation and/or ground disturbance to the absolute minimum, and limiting ingress and egress to defined routes. Preventing exotic plants from entering the site via vehicular sources will include measures such as cleaning vehicles coming into and going from the site. Any use of herbicide for chemical removal of invasive and nonnative plants shall only use herbicides containing a harmless dye and registered with the California Department of Pesticide Regulation (DPR). All herbicides shall be applied in accordance with regulations set by the DPR. All herbicides shall be used according to label instructions. Labeled instructions of the herbicide used shall be made available to CDFW upon request. No herbicide application when winds are greater than five (5) miles per hour.

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S2-32 cont.

request. No herbicide application when winds are greater than five (5) miles per hour.

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 CDFW or USFWS?

COMMENT 10:

Section: IV. Biological Resources **Page:** 54

Issue: The Project may impact burrowing owl, a California Species of Special Concern (SSC). Breeding surveys and non-breeding surveys were not performed for burrowing owl, therefore, the MND has not established an environmental baseline for this species. BIO-4 conditions a pre-construction survey to be performed to determine species presence of burrowing owl following the *Staff Report on Burrowing Owl Mitigation* (CDFG, March 2012). CDFW considers the BIO-4 to be an avoidance measure rather than a mitigation measure.

S2-33

Specific impact: Mitigation Measure BIO-4 does not address the high potential for species presence or the potential burrow identified during the biological reconnaissance survey. Additionally, the MND did not analyze the Project's impact on the species nor did it identify mitigation requirements for the loss of nesting burrows, satellite burrows, foraging habitat, dispersal and migration habitat, wintering habitat, and habitat linkages.

Why impact would occur: The MND lacks sufficient information to determine whether the site is occupied by the species and whether there would be a significant impact, as the environmental baseline for the species is based on one reconnaissance survey that lacks the temporal consideration of species occupancy and their use of the surrounding landscape for survival. The mitigation measure only requires buffering individuals, then either excluding the species from the burrow or waiting for the species to leave the burrow after breeding season. Burrowing owls are dependent on burrows at all times of the year for survival and/or reproduction, evicting them from nesting, roosting, and satellite burrows may lead to direct and indirect impacts or take. Loss of access to burrows will likely result in varying levels of increased stress on burrowing owls and could depress reproduction, increase predation, increase energetic costs, and introduce risks posed by having to find and compete for available burrows (CDFG, 2012). CDFW considers habitat to be occupied when at least one burrowing owl, or its sign at or near a burrow entrance, is observed within the last three years (CDFG, 2012).

S2-34

Evidence impact would be significant: Take, possession or destruction of individual burrowing owls, their nests and eggs is prohibited under Fish and Game Code sections 3503, 3503.5 and 3513. Eviction of burrowing owls is a potentially significant impact under CEQA and mitigation must be roughly proportional to the level of impacts, including cumulative impacts, in accordance with the provisions of CEQA (CEQA Guidelines, §§ 15126.4(a)(4)(B), 15064, 15065, and 16355). As stated in the *Staff Report on Burrowing Owl Mitigation* (CDFG, 2012), "the current scientific literature supports the conclusion that mitigation for permanent habitat loss necessitates replacement with an equivalent or greater habitat area for breeding, foraging, wintering, dispersal, presence of burrows, burrow surrogates, presence of fossorial mammal dens, well drained soils, and abundant and available prey within close proximity to the burrow".

S2-33 The IS/MND concludes that the proposed project has the potential to impact burrowing owl. As indicated on IS/MND page 50, highly suitable habitat for burrowing owl is present throughout most of the Survey Area. Additionally, numerous occurrences of burrowing owl within five miles of the Survey Area have been documented in the CNDDB. Implementation of Mitigation Measures BIO-2 through BIO-7 would reduce potential impacts on special-status wildlife species to a level less than significant, including the potential impact to burrowing owl. These measures have been modified and/or replaced in order to address CDFW's comments related to this issue. Please refer to response to comment S2-34.

S2-34 The County agrees that the potential impact to burrowing owl is significant. The Draft IS/MND identifies the potential impact to this species as significant and requires mitigation measures to reduce the impact to a level less than significant. Please refer to IS/MND page 50. Additionally, please refer to response to comment S2-35.

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Additionally, the California Fish and Game Commission has received a formal petition to change the status of burrowing owls to threatened or endangered which could potentially make take of this species under purview of CESA should the species become a candidate species later this year.

S2-34 cont.

Recommended Potentially Feasible Mitigation Measure(s) (Regarding Mitigation Measure or Alternative and Related Impact Shortcoming)

Mitigation Measure: BIO-4

To reduce impacts to less than significant:

CDFW recommends surveys be performed per the guidance of the *Staff Report on Burrowing Owl Mitigation* (CDFG, 2012), assess the impact within the MND, and update the proposed mitigation measure to include avoidance, minimization, and mitigation for burrowing owls identified on-site, and these same measures be applied to any individuals found during take avoidance surveys as conditions by the proposed mitigation measure. CDFW recommends the guidance of mitigating impacts to burrowing owls in the Staff Report on Burrowing Owl Mitigation (CDFG, 2012) be followed, including (a) permanent impacts to nesting, occupied and satellite burrows and/or burrowing owl habitat such that the habitat acreage, number of burrows and burrowing owls impacted are replaced with permanent conservation of similar vegetation communities (grassland, scrublands, desert, urban, and agriculture) to provide for burrowing owl nesting, foraging, wintering, and dispersal (i.e., during breeding and non-breeding seasons) comparable to or better than that of the impact area, and (b) sufficiently large acreage, and presence of fossorial mammals.

Due to the potential for the species to become a candidate under CESA, the impact analysis and appropriate mitigation measures within the MND are needed to support the issuance of any incidental take permit should the project proponent need to seek take authorization as provided by the Fish and Game Code.

S2-35

BIO-4. Burrowing Owl Avoidance, ~~and~~ Minimization, **and Mitigation:** ~~Take avoidance (pre-construction)~~ **Four breeding season** surveys for burrowing owl shall be completed prior to project construction **by a qualified avian biologist**. Surveys shall be conducted as detailed within Appendix D of the Staff Report on Burrowing Owl Mitigation (California Department of Fish and Game [CDFG] 2012). **This survey shall include 100 percent coverage of the Project site. A report summarizing the breeding season surveys including all requirement for survey reports shall be submitted to CDFW for review and approval.** If burrowing owl **or sign thereof** is not detected, **no further action is necessary.** ~~construction may proceed.~~

If burrowing owl, **active burrowing owl burrows, or sign thereof are found, the qualified avian biologist shall prepare and implement a plan for avoidance, minimization, and mitigation measures to be reviewed and approved by CDFW prior to commencing Project activities. The plan shall propose mitigation for permanent impacts to nesting, loss of foraging habitat, occupied and satellite burrows and/or burrowing owl habitat such that the habitat acreage, number of burrows and burrowing owls impacted are replaced with permanent conservation of similar vegetation communities to provide for burrowing owl nesting, foraging, wintering, and dispersal comparable to or better than that of the impact area. The mitigation land shall be sufficiently large acreage with presence of fossorial mammals. The mitigation lands may require habitat enhancements including enhancement or expansion of burrows for breeding, shelter, and dispersal**

S2-35 The County agrees that, with incorporation of the CDFW recommended modifications to Mitigation Measure BIO-4, as identified by CDFW in this comment, potential impacts to burrowing owl will be mitigated to a level less than significant. Mitigation Measure BIO-4 has been modified as follows:

BIO-4: Burrowing Owl Avoidance, and Minimization, and Mitigation: ~~Take avoidance (pre-construction)~~ Four breeding season surveys for burrowing owl shall be completed prior to project construction by a qualified avian biologist. Surveys shall be conducted as detailed within Appendix D of the Staff Report on Burrowing Owl Mitigation (California Department of Fish and Game [CDFG] 2012). This survey shall include 100 percent coverage of the Project site. A report summarizing the breeding season surveys including all requirement for survey reports shall be submitted to CDFW for review and approval. If burrowing owl or sign thereof is not detected, no further action is necessary. construction may proceed.

If burrowing owl, active burrowing owl burrows, or sign thereof are found, the qualified avian biologist shall prepare and implement a plan for avoidance, minimization, and mitigation measures to be reviewed and approved by CDFW prior to commencing Project activities. The plan shall propose mitigation for permanent impacts to nesting, loss of foraging habitat, occupied and satellite burrows and/or burrowing owl

	habitat such that the habitat acreage, number of burrows and burrowing owls impacted are replaced with permanent conservation of similar vegetation communities to provide for burrowing owl nesting, foraging, wintering, and dispersal comparable to or better than that of the impact area. The mitigation land shall be sufficiently large acreage with presence of fossorial mammals. The mitigation lands may require habitat enhancements including enhancement or expansion of burrows for breeding, shelter, and dispersal opportunity, and remove or control of population stressors. Permanent protection of mitigation land shall be through a conservation easement deeded to a nonprofit conservation organization or public agency with a conservation mission. The project proponent shall develop and implement a mitigation land management plan to address long-term ecological sustainability and maintenance of the site for burrowing owls, and funding for the maintenance and management of mitigation land through the establishment of a long-term funding mechanism such as an endowment. If deemed appropriate by CDFW, conservation species credits may also be purchased at a CDFW-approved conservation bank. To ensure that the Project avoids impacts to burrowing owl, a qualified avian biologist shall complete a take avoidance survey no less than 14 days prior to initiating ground disturbing activities using the recommended methods described in the Staff Report on Burrowing Owl Mitigation (CDFG, 2012). Burrowing owls may recolonize a site after only a few days. Time lapses between Project activities trigger subsequent take avoidance surveys including but not limited to a final survey conducted within 24 hours prior to ground disturbance. is identified during the non-breeding season

	(September 1 through January 31), then a 5O-meter buffer will be established by the biological monitor. Construction within the buffer will be avoided until a qualified biologist determines that burrowing owl is no longer present or until a CDFW-approved exclusion plan has been implemented. The buffer distance may be reduced if noise attenuation buffers such as hay bales are placed between the occupied burrow and construction activities.

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opportunity, and remove or control of population stressors. Permanent protection of mitigation land shall be through a conservation easement deeded to a nonprofit conservation organization or public agency with a conservation mission. The Project proponent shall develop and implement a mitigation land management plan to address long-term ecological sustainability and maintenance of the site for burrowing owls, and funding for the maintenance and management of mitigation land through the establishment of a long-term funding mechanism such as an endowment. If deemed appropriate by CDFW, conservation species credits may also be purchased at a CDFW-approved conservation bank.

To ensure that the Project avoids impacts to burrowing owl, a qualified avian biologist shall complete a take avoidance survey no less than 14 days prior to initiating ground disturbing activities using the recommended methods described in the Staff Report on Burrowing Owl Mitigation (CDFG, 2012). Burrowing owls may recolonize a site after only a few days. Time lapses between Project activities trigger subsequent take avoidance surveys including but not limited to a final survey conducted within 24 hours prior to ground disturbance. ~~Is identified during the non-breeding season (September 1 through January 31), then a 50-meter buffer will be established by the biological monitor. Construction within the buffer will be avoided until a qualified biologist determines that burrowing owl is no longer present or until a CDFW-approved exclusion plan has been implemented. The buffer distance may be reduced if noise attenuation buffers such as hay bales are placed between the occupied burrow and construction activities.~~

~~• If burrowing owl is identified during the breeding season (February 1 through August 31), then an appropriate buffer will be established by the biological monitor in accordance with the Staff Report on Burrowing Owl Mitigation (CDFG 2012). Construction within the buffer will be avoided until a qualified biologist determines that burrowing owl is no longer present or until young have fledged. The buffer distance may be reduced in consultation with CDFW if noise attenuation buffers such as hay bales are placed between the occupied burrow and construction activities.~~

S2-35 cont.

IV. Editorial Comments and/or Suggestions

In the Environmental Checklist Form on page 9, number 10 identifies, "Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.)." CDFW is not listed as a public agency whose approval is required despite the presence of resources subject to Fish and Game Code section 1602. CDFW suggests the department is added to the list as the MND states there is potential impact to these resources.

The MND identified the Project would have no impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFW or U.S. Fish and Wildlife Service and identifies ephemeral streams as state or federally protected wetlands. CDFW notes that impacts to ephemeral streams would be most appropriately evaluated as riparian habitat rather than wetlands.

S2-36

Mitigation Measure BIO-9 is missing in the list of other mitigation measures, CDFW's comment letter has recommended edits to the MND that will add BIO-9 in addition to others.

On page 57, CDFW recommends section "f" should be edited to state, "The project site is located ~~in~~ **on land adjacent to** BLM Renewable Energy Development Focus Areas **and**

S2-36 Please refer to response to comment S2-2.

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Areas of Critical Environmental Concern." As the Project site is privately owned and not leased BLM-managed land, a DRECP designation does not apply. S2-36 cont.

The mitigation measure proposed in BIO-2(now recommended by CDFW to be BIO-10) does not specify the Project Biologist is required to be on-site during all ground disturbing activities, which is when most impact will occur to biological resources. CDFW recommends the lead agency require a Project Biologist on-site during all ground disturbance. Additionally, CDFW recommends the lead agency ensures the Project biologist is qualified and has experience conducting the species-specific surveys required for this Project, and monitoring of species present on site. S2-37

The mitigation measure proposed in BIO-2 (now recommended by CDFW to be BIO-12) regarding wildlife entrapment appears to refer to Project activities and areas that are more correlated with a quarry project (quarrying and processing/handling areas). CDFW recommends the lead agency remove this language as it is likely erroneously provided in the measure. S2-38

The mitigation measure proposed in BIO-2 (now recommended by CDFW to be BIO-13) mentions use of rodenticides. The measure mentions off-site project facilities and activities. As the MND does not include off-site project facilities or activities, CDFW recommends this measure be edited for clarity. S2-39

The mitigation measures in BIO-2 that reference Waters of the US (now recommended by CDFW to be BIO-18) should also mention areas subject to Fish and Game Code section 1602. As written in the MND, only federal regulation is being considered. Such activities would warrant notification to CDFW. S2-40

CDFW provides suggested language to mitigation measures in BIO-2 that reference firearms and pets (now recommended by CDFW to be BIO-19). S2-41

CDFW provides suggested language to mitigation measures in BIO-2 that reference injured and dead wildlife (now recommended by CDFW to be BIO-22). S2-42

The mitigation measure proposed in BIO-2 (now recommended by CDFW to be BIO-24) for fugitive dust abatement mentions retention ponds. CDFW recommends retention ponds be eliminated from any site plans to remove potential risk to biological resources and minimize impacts to resources subject to Fish and Game Code section 1602. S2-43

On page 16, site access is described to have 30-feet wide roads. CDFW recommends reconsideration of the widths of the road to minimum need (single width road with turn outs) as wide roads are unnecessary for the operation and maintenance period which is majority of the life of the project. S2-44

CDFW is concerned that a confidential Cultural Resources report (Appendix E1) may have been inadvertently provided for public review. CDFW recommends the lead agency replace the MND documents provided to Office of Planning and Research, State Clearinghouse. S2-45

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations. (Pub. Resources Code, § 21003, subd. (e).) Accordingly, please report any special status species and natural communities detected S2-46

S2-37 Recommended changes to Mitigation Measure BIO-2 (now Mitigation Measure BIO-10) have been made and are incorporated into the Mitigation Monitoring and Reporting Program (MMRP).

S2-38 Recommended changes to Mitigation Measure BIO-2 (now Mitigation Measure BIO-12) have been made and are incorporated into the MMRP.

S2-39 Recommended changes to Mitigation Measure BIO-2 (now Mitigation Measure BIO-13) have been made and are incorporated into the MMRP.

S2-40 Recommended changes to Mitigation Measure BIO-2 (now Mitigation Measure BIO-18) have been made and are incorporated into the MMRP.

S2-41 Recommended changes to Mitigation Measure BIO-2 (now Mitigation Measure BIO-19) have been made and are incorporated into the MMRP.

S2-42 Recommended changes to Mitigation Measure BIO-2 (now Mitigation Measure BIO-22) have been made and are incorporated into the MMRP.

S2-43 Recommended changes to Mitigation Measure BIO-2 (now Mitigation Measure BIO-24) have been made and are incorporated into the MMRP.

S2-44 Roads would be constructed up to 30 feet wide. Final design will adhere to the general Conditional Use Permit conditions of approval and the applicant is required to

	coordinate with all applicable agencies, including Caltrans as it relates to the construction of the proposed project. **S2-45** The County acknowledges CDFW's concern. All documents will be resubmitted to applicable agencies. **S2-46** Information requested in this comment will be submitted to the link provided.

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during Project surveys to the California Natural Diversity Database (CNDDB). The CNNDB field survey form can be filled out and submitted online at the following link: https://wildlife.ca.gov/Data/CNDDB/Submitting-Data. The types of information reported to CNDDB can be found at the following link: https://www.wildlife.ca.gov/Data/CNDDB/Plants-and-Animals.

S2-46 cont.

ENVIRONMENTAL DOCUMENT FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of environmental document filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the environmental document filing fee is required in order for the underlying project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.)

S2-47

CONCLUSION

CDFW appreciates the opportunity to comment on the MND to assist ICPDS in identifying and mitigating Project impacts on biological resources.

Questions regarding this letter or further coordination should be directed to Austin Gutierrez, Environmental Scientist, at (909) 544-2525 or Austin.Gutierrez@Wildlife.ca.gov.

S2-48

Sincerely,

Alisa Ellsworth
Environmental Program Manager

Attachments

Attachment A. Draft Mitigation Monitoring and Reporting Program and Draft Recommendations

ec: Office of Planning and Research, State Clearinghouse, Sacramento

REFERENCES

Avian Power Line Interaction Committee (APLIC). 2012. Reducing Avian Collisions and Powerlines. The State of the Art in 2012. aplic.org

Bevanger, K. 1994. Bird interactions with utility structures: collision and electrocution, causes and mitigation measures. Ibis 136: 412-425.

California Natural Diversity Database. 2009. California Natural Diversity Database

CNPS. 2024. A Manual of California Vegetation, Online Edition. http://www.cnps.org/cnps/vegetation/; searched on 22, July, 2024. California Native Plant Society, Sacramento, CA.

Department of Fish and Game. 2012. Staff Report on Burrowing Owl Mitigation.

S2-47 The applicable CDFW filing fees will be paid at the time the Notice of Determination (NOD) is filed with the County Clerk pursuant to Public Resources Code Section 21089.

S2-48 The County appreciates CDFW's review and comments regarding the North Star 3 project.

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Zeiner, D.C., W.F. Laudenslayer, Jr., K.E. Mayer, and M. White, eds. March 2000. California's Wildlife. Vol. I-III. California Depart. of Fish and Game, Sacramento, California

Flat-tailed Horned Lizard Interagency Coordinating Committee. 2003. Flat-tailed Horned Lizard Rangewide Management Strategy 2003 Revision; An Arizona-California Conservation Strategy.

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Letter S2
Attachment A

Attachment A

North Star 3 Solar and Battery Storage Project
MITIGATED NEGATIVE DECLARATION
SCH# 2024060955

Draft Mitigation Monitoring and Reporting Program (MMRP) and Draft Recommendations

CDFW provides the following language to be incorporated into the MMRP for the Project.

Biological Resources (BIO)		
Biological (BIO) Mitigation Measure	**Implementation Schedule**	**Responsible Party**
BIO-1. Rare Plant Surveys: Prior to initiating ground disturbance, three botanical field surveys shall be conducted that are floristic in nature (i.e., identifying all plant species to the taxonomic level necessary to determine rarity), and inclusive of areas proposed for disturbance and indirectly impacted by the Project. The surveys shall be conducted by a qualified botanist or qualified biologist in accordance with the USFWS Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants (USFWS 1996); the CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW 2018); and the CNPS Botanical Survey Guidelines (CNPS 2001). If any special-status species are observed during botanical field surveys the Project shall be designed to reduce impacts to these species through the establishment of buffers, to the extent feasible. Buffer distances will be determined by the qualified botanist or biologist, typically 50 feet or greater from an identified special-status plant species, unless the qualified botanist or biologist determines a reduced buffer would suffice to avoid impacts to the species. All special-status plant species identified on site shall be mapped with a submeter GPS device and depicted on a site-specific aerial photograph and topographic map and included on any construction, grading, fuel modification, or other pertinent plans. If avoidance of special-status plant species is not feasible, a Special-Status Plant Relocation Plan shall be developed and implemented. The	Prior to any ground- or vegetation-disturbing activities	Project Biologist and Project proponent

LETTER S2 Attachment

The recommended modifications and/or replacement to proposed mitigation measures have been identified in the preceding responses to comments. The mitigation measures have been incorporated into the MMRP for the proposed project.

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Special-Status Plant Relocation Plan shall address mitigation for special-status plants, including topsoil salvage to preserve seed bank and management of salvaged topsoil; seed collection, storage, possible nursery propagation, and planting; salvage and planting of bulbs as feasible; location of on-site receptor sites; land protection instruments for receptor areas; and funding mechanisms. The Special-Status Plant Relocation Plan shall include methods, monitoring, reporting, success criteria, adaptive management, and contingencies for achieving success. The Project proponent shall mitigate the loss of the plant(s) through the purchase of mitigation credits from a CDFW-approved bank or land acquisition and conservation at a minimum 2:1 (replacement to impact) ratio for occupied habitat should success criteria not be met, or presence of the species is assumed based on suitable habitat acreage within the Project area. Note that a higher ratio may be warranted if the proposed mitigation lands are located far away from the Project site or are not occupied by or available to special-status species.		
BIO-2. Minimization of Impacts to Migratory Birds, Bats, and Raptors: To reduce indirect impacts on migratory birds, bats, and raptors, the project shall comply with APLIC 2012 Guidelines for overhead utilities, as appropriate, to minimize avian collisions with transmission facilities (APLIC 2012). All electrical components on the project site shall either be underground or the transmission lines and poles will follow design plans recommended by APLIC (i.e., installing covers over the insulator and conductor on the center phase, installing phase covers over all three insulators and conductors for three phase transmission lines, lowering and/or replacing the crossarm with a longer cross arm on pole-top pin constructions), or utilizing link marking devices (e.g., aerial marker spheres, spirals, or suspended devices).	During entire Project	Project proponent

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BIO-4. Burrowing Owl Avoidance, Minimization, and Mitigation: Four breeding season surveys for burrowing owl shall be completed prior to project construction by a qualified avian biologist. Surveys shall be conducted as detailed within Appendix D of the Staff Report on Burrowing Owl Mitigation (California Department of Fish and Game [CDFG] 2012). This survey shall include 100 percent coverage of the Project site. A report summarizing the breeding season surveys including all requirement for survey reports shall be submitted to CDFW for review and approval. If burrowing owl or sign thereof is not detected, no further action is necessary. If burrowing owl, active burrowing owl burrows, or sign thereof are found, the qualified avian biologist shall prepare and implement a plan for avoidance, minimization, and mitigation measures to be reviewed and approved by CDFW prior to commencing Project activities. The plan shall propose mitigation for permanent impacts to nesting, loss of foraging habitat, occupied and satellite burrows and/or burrowing owl habitat such that the habitat acreage, number of burrows and burrowing owls impacted are replaced with permanent conservation of similar vegetation communities to provide for burrowing owl nesting, foraging, wintering, and dispersal comparable to or better than that of the impact area. The mitigation land shall be sufficiently large acreage with presence of fossorial mammals. The mitigation lands may require habitat enhancements including enhancement or expansion of burrows for breeding, shelter, and dispersal opportunity, and remove or control of population stressors. Permanent protection of mitigation land shall be through a conservation easement deeded to a nonprofit conservation organization or public agency with a conservation mission. The Project proponent shall develop and implement a mitigation land management plan to address long-term ecological sustainability and	Prior to any ground- or vegetation-disturbing activities	Project Biologist and Project proponent

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maintenance of the site for burrowing owls, and funding for the maintenance and management of mitigation land through the establishment of a long-term funding mechanism such as an endowment. If deemed appropriate by CDFW, conservation species credits may also be purchased at a CDFW-approved conservation bank. To ensure that the Project avoids impacts to burrowing owl, a qualified avian biologist shall complete a take avoidance survey no less than 14 days prior to initiating ground disturbing activities using the recommended methods described in the Staff Report on Burrowing Owl Mitigation (CDFG, 2012). Burrowing owls may recolonize a site after only a few days. Time lapses between Project activities trigger subsequent take avoidance surveys including but not limited to a final survey conducted within 24 hours prior to ground disturbance.		
BIO-6. Flat-Tailed Horned Lizard and Colorado Desert Fringe-toed Lizard: Prior to Project activities, surveys for presence/absence of flat-tailed horned lizard (FTHL) and Colorado Desert Fringe-toed Lizard (CDFTL) shall be conducted using parallel, linear routes that are evenly spaced in areas of suitable habitat and be performed by a qualified Project Biologist. For FTHLs, each transect shall be 10 meters apart. On each transect, FTHLs, sign of FTHLs (i.e., scat or tracks), and harvester ant mounds shall be surveyed. If FTHL or sign is located while surveying, the biologist shall pause, scan the immediate area, follow the tracks (if present), and scan the immediate vicinity of the tracks, scat, and/or ant mound observed. Three surveys shall be conducted, spaced two weeks apart during April through September. Surveys will be conducted when surface temperatures in the sun exceed 85°F. Scat surveys shall not be conducted for at least 12 days after heavy rainstorms, or strong winds of an intensity sufficient	Prior to any ground- or vegetation-disturbing activities	Project Biologist and Project proponent

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to move a considerable amount of sand across roads. For CDFTL, each transect shall be spaced 5 meters apart. One surveyor shall focus on habitat/substrate 30-40 meters in front, while one surveyor focuses on the area 2-10 meters in front. Surveys shall be conducted only when winds are 10mph or less and it is not raining. Up to six surveys shall be conducted over the same area on separate days by a qualified biologist between April and September when ground temperature in sun exceeds 85°F. Project proponent shall provide the results of the surveys for both species to CDFW prior to start of Project activities. If FTHL or CDFTL are present, the following minimization and mitigation measures shall apply: • During Project activities, the Project Biologist shall check areas of active disturbance at least hourly. Prior to construction, a qualified Project Biology shall clear the area of FTHL or CDFTL. During construction, a Project Biologist shall be present in each area of active surface disturbance throughout the workday from initial clearing to Project completion. FTHL and CDFTL will be moved out of harm's way during all construction activities and will be conducted by two or more biological monitors when construction activities are being conducted in suitable habitat. To the extent feasible, methods to find FTHL and CDFTL will be designed to achieve a maximal capture rate and will include, but not be limited to using strip transects, tracking, and raking around shrubs. During construction, the minimum survey effort will be 30 minutes per acre. • Occupied habitat shall be mitigated at a 1:1 ratio (1 acre of mitigation for every acre of impact) through off-site acquisition of FTHL and CDFTL		

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habitat of equal or greater quality that is conserved and managed in perpetuity. Proposed mitigation lands shall be approved by CDFW.		
BIO-8. Aquatic Resources Regulatory Permitting: Project-related impacts that will occur to the riparian areas or areas subject to Fish and Game Code section 1602 shall be mitigated at a minimum of 2:1 ratio (two acres of mitigation for every impact to one acre of resource). The Project proponent shall obtain all necessary regulatory permits for resources under the jurisdiction of the USACE, CDFW, and/or RWQCB prior to the impact occurring. Refer to the Aquatic Resource Delineation Report or the North Star 3 Project (Appendix D of this Initial Study) for preliminary determination of regulatory limits of areas that may be regulated by USACE, CDFW, or RWQCB. Permitting includes preparation and submittal of a Pre-Construction Notification under Section 404 of the federal CWA, an Application for Water Quality Certification under Section 401 of the federal CWA and a notification of Lake or Streambed Alteration under Section 1600 of the California Fish and Game Code. A completed CEQA document, and Notice of Determination, will be necessary to submit along with the applications. Other items such as finalized project plans, quantities of fill material, supporting technical studies, etc., are also submitted along with the applications. As a part of this process, the project must also identify and approve mitigation through the respective agencies.	Prior to any ground- or vegetation-disturbing activities	Project proponent
BIO-9. Site Access: All Project access shall occur through the entrance designated from Highway 86 to avoid impacts to sensitive species occurring on BLM-managed land adjacent to the Project area.	During entire Project	Project proponent
BIO-10. Project Biologist: The Project proponent shall designate a Project Biologist who shall be responsible for overseeing compliance with protective	Prior to any ground- or vegetation-disturbing activities	Project proponent

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measures for biological resources during vegetation clearing and work activities within and adjacent to areas of native habitat. The Project Biologist shall be familiar with the local habitats, plants, and wildlife, and have experience performing all necessary surveys and monitoring for biological resources present on site. The Project Biologist shall also maintain communications with the Contractor to ensure that issues relating to biological resources are appropriately and lawfully managed and shall monitor construction. The Project Biologist shall monitor all ground disturbing activities within construction areas, including activities during nesting bird season (generally February 1 to September 15), vegetation removal, the implementation of Best Management Practices (BMPs), and installation of security fencing to protect native species. The Project Biologist shall ensure that all wildlife and regulatory agency permit requirements, conservation measures, and general avoidance and minimization measures are properly implemented and followed.		
BIO-11. Project Site Delineation: The boundaries of all areas to be newly disturbed (including solar facility areas, staging areas, access roads, and sites for temporary placement of construction materials and spoils) shall be delineated with stakes and flagging prior to disturbance. All disturbances, vehicles, and equipment shall be confined to the flagged areas. Stockpiling of material shall only be allowed within established work areas.	Prior to any ground- or vegetation-disturbing activities	Project Biologist and Project proponent
BIO-12. Wildlife Entrapment Avoidance: No potential wildlife entrapments (e.g., trenches, bores) shall be left uncovered overnight. Any uncovered pitfalls will be excavated to 3:1 slopes at the ends to provide wildlife escape ramps. Alternatively, man-made ramps may be installed. Covered pitfalls will be covered completely to prevent access by small mammals or reptiles. To avoid wildlife entrapment (including birds), all pipes or other construction	During entire Project	Project Biologist and Project proponent

Docusign Envelope ID: 33F3AD47-7237-48EC-B202-271A818AF4DA

materials or supplies shall be covered or capped in storage or laydown areas, and at the end of each construction workday No pipes or tubing of sizes or inside diameters ranging from 1 to 10 inches shall be left open either temporarily or permanently.		
BIO-13. Rodenticide: No anticoagulant rodenticides, such as Warfarin and related compounds (Indandiones and hydroxycoumarins), shall be used within the Project site or in support of any other Project activities	During entire Project	Project Biologist and Project proponent
BIO-14. Trash Abatement: All trash and food-related waste shall be placed in self-closing containers and removed regularly from the site to prevent overflow. Workers shall not feed wildlife.	During entire Project	Project Biologist and Project proponent
BIO-15. Project Site Speed Limit: To minimize the likelihood for vehicle strikes on wildlife, speed limits shall not exceed 15 miles per hour when driving on access roads. All vehicles required for O&M must remain on designated access/maintenance roads.	During entire Project	Project Biologist and Project proponent
BIO-16. Artificial Lighting: Avoid nighttime construction lighting or if nighttime construction cannot be avoided, use shielded directional lighting pointed downward and towards the interior of the project sites, thereby avoiding illumination of adjacent natural areas and the night sky.	During entire Project	Project proponent
BIO-17. Equipment Mufflers: All construction equipment used for the projects shall be equipped with properly operating and maintained mufflers.	During entire Project	Project proponent
BIO-18. Hazardous Substances: Hazardous materials and equipment stored overnight, including small amounts of fuel to refuel hand-held equipment, shall be stored within secondary containment when within 50 feet of open water or resources subject to Fish and Game Code section 1602 to the fullest extent practicable. Secondary containment shall consist of a ring of sandbags around each piece of stored	During entire Project	Project proponent

Docusign Envelope ID: 33F3AD47-7237-48EC-B202-271A818AF4DA

equipment/structure. A plastic tarp/visqueen lining with no seams shall be placed under the equipment and over the edges of the sandbags, or a plastic hazardous materials secondary containment unit shall be utilized by the Contractor. The Contractor will be required to conduct vehicle refueling in upland areas where fuel cannot enter waters of the U.S. or areas subject to Fish and Game Code section 1602, and in areas that do not have potential to support federally threatened or endangered species. Any fuel containers, repair materials, including creosote-treated wood, and/or stockpiled material that is left on site overnight, shall be secured in secondary containment within the work area and staging/assembly area and covered with plastic at the end of each workday. In the event that no activity is to occur in the work area for the weekend and/or a period of time greater than 48 hours, the Contractor shall ensure that all portable fuel containers are removed from the project site. All equipment shall be maintained in accordance with the manufacturer's recommendations and requirements. Equipment and containers shall be inspected daily for leaks. Should a leak occur, contaminated soils and surfaces will be cleaned up and disposed of following the guidelines identified in the Stormwater Pollution Prevention Plan or equivalent, Materials Safety Data Sheets, and any specifications required by other permits issued for the project. The Contractor shall utilize off-site maintenance and repair shops as much as possible for maintenance and repair of equipment. If maintenance of equipment must occur onsite, fuel/oil pans, absorbent pads, or appropriate containment will be used to capture spills/leaks within all areas. Maintenance of equipment shall occur in upland areas where fuel cannot enter waters of the U.S. or areas subject to Fish and Game Code section 1602, and in areas that do not have potential to support federally threatened or endangered species.		

Docusign Envelope ID: 33F3AD47-7237-48EC-B202-271A818AF4DA

BIO-19. Firearms and Pets: Project personnel and any other individuals associated with the Project are prohibited from bringing any firearms or dogs on the Project Area during, except those in the possession of authorized security personnel or local, state, or federal law enforcement officials, dogs that may be used to aid in official and approved monitoring procedures/protocols, or service dogs under Title II and Title III of the American with Disabilities Act. Open fires and pets shall be prohibited at all work locations and access roads. Smoking shall be prohibited along the Project alignment.	During entire Project	Project proponent
BIO-20. Best Management Practices: Appropriate BMPs shall be used by the Contractor to control erosion and sedimentation and to capture debris and contaminants from construction to prevent their deposition in waterways. Erosion and sediment control devices used for the proposed project, including fiber rolls and bonded fiber matrix, shall be made from biodegradable materials such as jute, with no plastic mesh, to avoid creating a wildlife entanglement hazard.	During entire Project	Project proponent
BIO-21. Cross-Country Vehicle Use: Cross-country vehicle and equipment use outside of approved designated work areas and access roads shall be prohibited to prevent unnecessary ground and vegetation disturbance.	During entire Project	Project proponent
BIO-22. Injured or Dead Wildlife: Any injured or dead wildlife encountered during Project-related activities shall be reported to the Project Biologist, biological monitor, CDFW, or a CDFW-approved veterinary facility as soon as possible to report the observation and determine the best course of action. For special-status species, the Project Biologist shall notify via email or phone the County, USFWS, and/or CDFW, as appropriate, within 24 hours of the discovery.	During entire Project	Project Biologist and Project proponent

Docusign Envelope ID: 33F3AD47-7237-48EC-B202-271A818AF4DA

BIO-23. Checking Beneath Vehicles: The ground beneath all parked equipment and vehicles shall be inspected for wildlife before moving.	During entire Project	Project proponent
BIO-24. Fugitive Dust Abatement: Water applied to dirt roads and construction areas for dust abatement shall be used the minimal amount needed to meet safety and air quality standards to prevent the formation of puddles, which could attract wildlife. Pooled rainwater or floodwater shall be removed to avoid attracting wildlife to the active work areas.	During entire Project	Project proponent
BIO-25. Invasive Plants: The Contractor shall actively manage the spread of invasive and nonnative plants by implementing weed control activities, including, but not limited to, cleaning equipment and inspecting equipment prior to transport to the sites and cleaning of tires and underside of equipment prior to leaving the site, vacuuming and cleaning the interior of vehicles and heavy equipment that have been used off-site before bringing them to the Project site, clean by pressure washing, washing in hot water, freezing, or bleaching personal gear and clothing, including footwear, that have been worn offsite before bringing them to the Project site, and not transporting soil or other fill material from off-site locations to the Project area unless they are certified weed free. The introduction of exotic, nonnative, weed, and/or invasive plant species will be avoided and controlled wherever possible, and may be achieved through physical or chemical removal and prevention, limiting the size of any vegetation and/or ground disturbance to the absolute minimum, and limiting ingress and egress to defined routes. Preventing exotic plants from entering the site via vehicular sources will include measures such as cleaning vehicles coming into and going from the site. Any use of herbicide for chemical removal of invasive and nonnative plants shall only use herbicides containing a harmless	During entire Project	Project proponent

Docusign Envelope ID 33F3AD47-7237-48EC-B202-271A818AF4DA

dye and registered with the California Department of Pesticide Regulation (DPR). All herbicides shall be applied in accordance with regulations set by the DPR. All herbicides shall be used according to label instructions. Labeled instructions of the herbicide used shall be made available to CDFW upon request. No herbicide application when winds are greater than five (5) miles per hour.		
BIO-26. Desert Kit Fox and American Badger. Prior to the beginning of surface disturbance, the Project Biologist shall conduct a pre-Project 10-meter transect survey (or reduced based on topography and vegetation), to attain 100% visual coverage within the Project area and a minimum 200-meter buffer to determine the presence or absence of desert kit fox and/or American badger individuals, dens, and sign. If potential dens are located, they shall be monitored by the Project Biologist. Trail cameras may be used to assist with observation but shall not be the sole basis upon which the status is determined. The Project proponent shall provide the results of the survey to CDFW prior to start of Project activities. Project proponent shall provide a determination if active dens can be avoided and buffered from Project activities to prevent take and disturbance with the survey results. Should active dens be present within the Project area that cannot be avoided with an adequate buffer, the Project proponent shall reschedule Project activities or submit a monitoring and passive relocation plan for CDFW's review and approval. No disturbance or passive relocation of active dens may take place during the breeding season or when juveniles are dependent on parental care.	Prior to any ground- or vegetation-disturbing activities	Project Biologist and Project proponent
BIO-27. Avoidance of Mojave-Sonoran Desert Dunes: To avoid permanent impacts to the Mojave-Sonoran Desert Dunes, a sensitive natural community, the Project proponent shall fully avoid dunes found within and adjacent to the Project site. If necessary, the Project site boundary shall be adjusted to comply	During entire Project	Project proponent

with full avoidance with an appropriate buffer. If impacts to dune habitat is not feasible, the Project proponent shall mitigate for the permanent impacts at a minimum 2:1 (2 acres of mitigation for every 1 acre of impact). Mitigation shall include. offsite land acquisition that is conserved and managed in perpetuity for the natural community; payment of an in-lieu fee to a conservation organization; and/or restoration, creation, rehabilitation, enhancement, or other types of habitat improvement.		

End of Letter S2 Attachment A

2.2 Local Agency Comments

Letter L1

150 SOUTH NINTH STREET
EL CENTRO, CA 92243-2850

TELEPHONE: (442) 265-1800
FAX: (442) 265-1799

AIR POLLUTION CONTROL DISTRICT

RECEIVED
By Imperial County Planning & Development Services at 8:27 am, Jul 26, 2024

July 22, 2024

Jim Minnick, Director
Imperial County Planning & Development Services
801 Main Street
El Centro, CA 92243

SUBJECT: Notice of Intent for a Mitigated Negative Declaration for General Plan Amendment 23-0002, Zone Change 23-0002, Conditional Use Permit 23-0007 & 23-0008 and Initial Study 23-0007 – Apex Energy Solutions

Dear Mr. Minnick:

The Imperial County Air Pollution Control District (Air District) would like to thank you for the opportunity to review and comment on the Notice of Intent (NOI) for a Mitigated Negative Declaration (MND) for General Plan Amendment (GPA) 23-0002, Zone Change (ZC) 23-0002, and Conditional Use Permits (CUP) 23-0007 & 23-0008, and Initial Study (IS) 23-0007 regarding the proposed construction and operation of a 100 Megawatt (MW) solar photovoltaic (PV) energy generation system and a 200 MW battery energy storage system (BESS) (Project). The Project is located on approximately 585 acres at 4580 West US Highway 86, Salton City also identified with Assessor's Parcel Numbers 017-350-027, 017-350-030, & 017-350-031. L1-1

The Air District previously provided comments for the project before in a letter dated January 18, 2024, in the previous letter the Air District informed the applicant that the Air District was unable to concur with the Air Quality Analysis (AQA) and CalEEMod as presented if the applicant revised to the document and models to address the concerns of the Air District the updated AQA and CalEEMod would be reviewed again. The Air District also provided the following resolutions the project must comply with in order to ensure the project remains below significant impact levels and for the Air District to concur with the less than significant determination with the current AQA: L1-2

- Submit an **Enhanced Construction Dust Control Plan** to the Air District for review and approval.

AN EQUAL OPPORTUNITY / AFFIRMATIVE ACTION EMPLOYER

Comment L1: Imperial County Air Pollution Control District

L1-1 This comment is an introductory comment that provides a summary of the proposed project. This comment does not address the adequacy of the IS/MND. As such, no further response is necessary.

L1-2 Comment noted. The requirements identified in this comment for submittal of the Enhanced Construction Dust Control Plan, Operational Dust Control Plan, and Equipment List are identified on IS/MND pages 38 through 39. These requirements will be included as Conditions of Approval of the Conditional Use Permit.

- Submit an **Operational Dust Control Plan** to the Air District for review and approval.
  - Will require site visit to finalize.

- Submit an **Equipment List** periodically during construction to the Air District for review.
  - The list must be in Excel Format and include make, model, year, id/serial number(s), type, tier, horsepower, and actual dates and hours used.
    - Typically submitted electronically on a monthly basis.
  - The Air District will calculate NO_x emissions using Equipment Lists once construction is completed to verify NO_x thresholds were not exceeded.
    - In the event an exceedance is determined the project may become subject to Policy 5 requirements.

L1-2 cont.

At the time of writing the Air District has not received an updated AQA or CalEEMod, therefore, the Air District concludes the project will comply with the above conditions. The Air District requests the applicant submit a formal letter of commitment to the Air District certifying the project will comply with all conditions and the Air District request the conditions be included as conditions of the CUP.

L1-3

The Air District reminds the applicant the project will need to comply with all Air District rules and regulation and emphasizes Regulation VIII, a collection of rules designed to maintain fugitive dust emissions below 20% visual opacity.

L1-4

Finally, the Air District requests a copy of the draft CUP for review prior to recording.

L1-5

For your convenience, the Air District's rules and regulations are available via the web at https://apcd.imperialcounty.org/rules-and-regulations/. Please feel free to call our office at (442) 265-1800 or contact us through email to setup a discussion regarding the project or if you have any additional questions or concerns.

L1-6

Respectfully,

Ismael Garcia
Environmental Coordinator

Reviewed by,
Monica Soucier

L1-3 The conditions referenced in this comment letter will be included in the Conditions of Approval for the CUP. Further, a Condition will be included in the CUP that requires the applicant to submit a formal letter of commitment to the ICAPCD that the project will comply with the CUP conditions of approval related to air quality.

L1-4 Comment noted. These requirements are identified starting on page 36 of the IS/MND.

L1-5 The County will provide the ICAPCD with the draft CUP (including Conditions of Approval) prior to recordation.

L1-6 Comment noted.

Letter L2

IID

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July 24, 2024

RECEIVED
By Imperial County Planning & Development Services at 8:23 am, Jul 24, 2024

Mr. Gerardo Quero
Planner II
Planning & Development Services Department
County of Imperial
801 Main Street
El Centro, CA 92243

SUBJECT: NOI for the Preparation of an MND for the NorthStar 3 Solar Energy and BESS Project; GPA23-0002/ZC23-0002/CUP23-0007/CUP23-0008/IS23-0007

Dear Mr. Quero:

On June 18, 2924, the Imperial Irrigation District received from the Imperial County Planning & Development Services Department, the Notice Intent for the preparation of a Mitigated Negative Declaration for the NorthStar 3 Solar Energy and Battery Energy Storage System project; General Plan Amendment No. 23-0002, Zone Change No. 23-0002, Conditional Use Permit No. 23-0007, Condltional Use Permit No. 23-0008, Initial Study No. 23-0007. The applicant, Apex Energy Solution, LLC; proposes the construction and operation of a 100MW PV energy generation facility, a 200MW battery storage system. The nearly 585-acre project site is located at 4580 W. Hwy. 86, Salton City, CA (APNs 017-350-027, -030, -031). L2-1

The IID has reviewed the project information and in addition to the comments provided in the January 4, 2024 district letter (see attached), has the following observations:

1. The applicant will be required to provide and bear all costs associated with acquisition of rights of way, easements, and infrastructure relocations deemed necessary to accommodate street or road improvements imposed by the municipality or County.

2. Due to projects dropping out of the district's Interconnection queue, previously completed IID system impact and facility studies for the NorthStar 3 Solar Energy and BESS project are no longer valid, and the project had to be restudied. The project is currently going through the IID study process. Consequently, to properly assess for potential project impacts and determine if the project will require or result in the relocation or construction of new or expanded electric power facilities, the construction or relocation of which could cause significant environmental effects, these studies will have to be performed. Any system improvements or L2-2

IMPERIAL IRRIGATION DISTRICT • PO BOX [illegible] • IMPERIAL, CA 92251

Comment L2: Imperial Irrigation District

L2-1 Comment noted. It is acknowledged that the applicant is responsible for costs associated with the acquisition of rights of way, easements, and infrastructure relocations deemed necessary to accommodate street or road improvements imposed by the municipality or County. street or road improvements. This comment does not raise an issue related to the adequacy of the IS/MND, as such, no further response is necessary.

L2-2 Comment noted. It is acknowledged that any system improvements or mitigation identified in an updated IID system impact and facility study in order to accommodate the proposed project will need to be assessed should such identified improvements not be already addressed in the IS/MND.

mitigation identified in such studies to accommodate the project shall be the responsibility of the applicant proponent and should be included as part of the project for environmental assessment purposes. L2-2 cont.

3. Furthermore, the project proposes to tap into the L Line. However, currently the line is at or near capacity and all project proponents planning to interconnect to this line have been required to reinitiate the interconnection process. L2-3

4. Notwithstanding the previous comment, preliminary study results indicate that the applicant will be required to provide IID with a new switching station to interconnect to the IID system. The land which the switching station is to be built on shall be conveyed to IID in fee simple ownership. IID banks and power line corridors re not public roadways, and IID does not guarantee accessibility or conditions suitable for all traffic or emergency vehicles. All access points to the switching station shall be connected to a public road or granted by easement. Access to the switching station shall consist of 2 access roads to enter the site. Access roads shall have a minimum of 30' wide and must be capable to handle heavy trucks without deformation and provide sufficient turning radius. The switching station and land requirements shall conform to IID substation standard RGSTD-1001 and the Final North Star 3 system impact and facility studies. L2-4

Should you have any questions, please do not hesitate to contact me at 760-482-3609 or at dvargas@iid.com. Thank you for the opportunity to comment on this matter. L2-5

Respectfully,

Donald Vargas
Compliance Administrator II

Enclosure

Jamie Asbury – General Manager
Mike Pacheco – Manager, Water Dept.
Matthew H Smelser – Manager, Energy Dept
Geoffrey Holbrook – General Counsel
Michael P. Kemp – Superintendent General, Fleet Services and Reg. & Environ. Compliance
Laura Cervantes. – Supervisor, Real Estate
Jessica Humes – Environmental Project Mgr. Sr., Water Dept.

L2-3 The project applicant acknowledges that reinitiation for the interconnection process is required.

L2-4 Comment noted. The project applicant will be required to coordinate with IID with respect to the new 161 kV switching station and access requirements.

L2-5 Comment noted.

Letter L2 Attachment

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January 4, 2024

Mr. Gerardo Quero
Planner II
Planning & Development Services Department
County of Imperial
801 Main Street
El Centro, CA 92243

SUBJECT: NorthStar 3 Solar Energy and BESS Project; GPA23-0002/ZC23-0002/CUP23-0007/CUP23-0008/IS23-0007

Dear Mr. Quero:

On December 22, 2023, the Imperial Irrigation District received from the Imperial County Planning & Development Services Department, a request for agency comments on the NorthStar 3 Solar Energy and Battery Energy Storage System project; General Plan Amendment No. 23-0002, Zone Change No. 23-0002, Conditional Use Permit No. 23-0007, Conditional Use Permit No. 23-0008, Initial Study No. 23-0007. The applicant, Apex Energy Solution, LLC; proposes the construction and operation of a 100MW PV energy generation facility, a 200MW battery storage system. The project will interconnect to the IID 161kV L transmission line via an approximately 0.75-mile gen-tie line. The nearly 585-acre project site is located at 4580 W. Hwy. 86, Salton City, **CA** (APNs 017-350-027, -030, -031).

L2 Attach. 1

1. There are a few mentions of MW output throughout the project documentation that don't seem to align. The project's Interconnection Request application submitted to the IID indicates a 100MW PV and 100 BESS facility.

2. If the project requires electrical service, the applicant should be advised to contact Gabriel Ramirez, IID project development service planner, at (760) 339-9257 or e-mail Mr. Ramirez at gramirez@iid.com to initiate the customer service application process. In addition to submitting a formal application (available for download at the district website http://www.iid.com/home/showdocument?id=12923), the applicant will be required to submit an AutoCAD file of site plan, approved electrical plans, electrical panel size and panel location, operating voltage, electrical loads, project schedule, and the applicable fees, permits, easements and environmental compliance documentation pertaining to the provision of electrical service to the project. The applicant shall be responsible for all costs and mitigation measures related to providing electrical service to the project.

L2 Attach. 2

IMPERIAL IRRIGATION DISTRICT · P.O. BOX 937 · IMPERIAL, CA 92251

L2 Attach. 1

Proposed megawatts are as indicated in the IS Project Description – 100 MW PV facility and 200 MW BESS (see Initial Study page 9).

L2 Attach. 2 The requirements identified in this comment are required as conditions of approval of the NorthStar 3 CUP. Specifically, referenced is the "Agreement for Conditional Use Permit #23-0005" General Condition G-25 Permits of Other Agencies Incorporated, and Special Condition S-23 IID Condition requirements.

3. Electrical capacity is limited in the project area. A circuit study may be required. Any system improvements or mitigation identified in the circuit study to enable the provision of electrical service to the project shall be the financial responsibility of the applicant. L2 Attach. 3

4. Applicant shall provide a surveyed legal description and an associated exhibit certified by a licensed surveyor for all rights of way deemed by IID as necessary to accommodate the project electrical infrastructure. Rights-of-Way and easements shall be in a form acceptable to and at no cost to IID for installation, operation, and maintenance of all electrical facilities. L2 Attach. 4

5. Any construction or operation on IID property or within its existing and proposed right of way or easements including but not limited to: surface improvements such as proposed new streets, driveways, parking lots, landscape; and all water, sewer, storm water, or any other above ground or underground utilities; will require an encroachment permit, or encroachment agreement (depending on the circumstances). A copy of the IID encroachment permit application and instructions for its completion are available at https://www.iid.com/about-iid/department-directory/real-estate. The IID Real Estate Section should be contacted at (760) 339-9239 for additional information regarding encroachment permits or agreements. No foundations or buildings will be allowed within IID's right of way. L2 Attach. 5

6. Any new, relocated, modified or reconstructed IID facilities required for and by the project (which can include but is not limited to electrical utility substations, electrical transmission and distribution lines, water deliveries, canals, drains, etc.) need to be included as part of the project's California Environmental Quality Act (CEQA) and/or National Environmental Policy Act (NEPA) documentation, environmental impact analysis and mitigation. Failure to do so will result in postponement of any construction and/or modification of IID facilities until such time as the environmental documentation is amended and environmental impacts are fully analyzed. Any and all mitigation necessary as a result of the construction, relocation and/or upgrade of IID facilities is the responsibility of the project proponent. L2 Attach. 6

7. When the time comes for the project to go through the CEQA process and address the environmental factors to be assessed, pursuant to the checklist in Appendix G of the CEQA guidelines, to correctly evaluate the potential impacts related to the environmental factor "XIX. UTILITIES AND SERVICE SYSTEMS" and determine the appropriate compliance action, a circuit study/distribution impact study, facility study, and/or system impact study will have to be performed to establish if the project will require or result in the relocation or construction of new or expanded electric power facilities, the construction or relocation of which could cause significant environmental effects. L2 Attach. 7

L2 Attach. 3 The requirements identified in this comment are required as conditions of approval of the NorthStar 3 CUP. Specifically, referenced is the "Agreement for Conditional Use Permit #23-0005" General Condition G-25 Permits of Other Agencies Incorporated, and Special Condition S-23 IID Condition requirements.

L2 Attach. 4 Please refer to response to comment L2 Attach.2.

L2 Attach. 5 It is acknowledged that any work performed within IID right of way would require an encroachment permit subject to IID approval as identified in this comment.

L2 Attach. 6 The County acknowledges that any mitigation necessary as a result of the construction, relocation and/or upgrade of IID facilities is the responsibility of the project proponent (i.e., project applicant). The project applicant will coordinate with IID as necessary to avoid impacts to IID facilities and obtain necessary approvals from IID to construct and operate the project.

L2 Attach. 7 The project has been evaluated in the IS/MND as described in the project description. This includes connection to the existing IID "L" Line. Any improvements needed that were not evaluated as part of the proposed project in the IS/MND would need to be evaluated pursuant to CEQA.

Gerardo Quero
January 4, 2024
Page 3

8. The project is in the early stages of the IID interconnection process, the district has yet to perform a System Impact Study at this point. Thus, the IID infrastructure that may be necessary to accommodate the project has not been identified. However, assuming there are no issues with the point of interconnection at IID's 161kV "L" line, at minimum, a new switching station, most likely built on the project's property, to loop in-and-out the "L" line with a short gen-tie into the switching station would be required.

L2 Attach. 8

Should you have any questions, please do not hesitate to contact me at 760-482-3609 or at dvargas@iid.com. Thank you for the opportunity to comment on this matter.

L2 Attach. 9

Respectfully,

Donald Vargas
Compliance Administrator II

Jamie Asbury – General Manager
Mike Pacheco – Manager, Water Dept.
Matthew H Smelser – Manager, Energy Dept.
Geoffrey Holbrook – General Counsel
Michael P. Kemp – Superintendent General, Field Services and Reg. & Environ. Compliance
Laura Cervantes, – Supervisor, Real Estate
Jessica Humes – Environmental Project Mgr. Sr., Water Dept.

L2 Attach. 8 Comment noted. Consistent with this comment, the project proposes to connect to IID's 161kV L-Line, which is addressed in the IS/MND.

L2 Attach. 9 Comment noted.

Letter L3

Public Works works for the Public

COUNTY OF IMPERIAL
DEPARTMENT OF PUBLIC WORKS
155 S. 11th Street
El Centro, CA 92243
Tel: (442) 265-1818
Fax: (442) 265-1858
Follow Us:
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https://twitter.com/CountyDpw/

August 7, 2024

Imperial County Planning & Development Services
Mr. Jim Minnick, Director
801 Main Street
El Centro, CA 92243

Attention: Gerardo Quero, Planner II

SUBJECT: **CUP 23-0007 & 23-0008 Apex Energy Solutions, LLC - Northstar 3**
Located at 4580 W US Highway 86, Salton City, CA
APN 017-350-027

Dear Mr. Minnick:

This letter is in response to your submittal received by this Department on December 22, 2023 for the above-mentioned project. The applicant is proposing a General Plan Amendment 23-0002, Zone Change 23-0002, Conditional Use Permits 23-0007 & 23-0008 and Initial Study 23-0007 for the construction and operation of a 100-megawatt solar photovoltaic energy generation project and a 200-megawatt battery storage project and associated on-site transmissions line. L3-1

Department staff has reviewed the package information and the following comments shall be Conditions of Approval:

1. The Applicant shall furnish a Drainage and Grading Plan/Study to provide for property grading and drainage control, which shall also include prevention of sedimentation of damage to off-site properties. The Study/Plan shall be submitted to the Department of Public Works for review and approval. The applicant shall implement the approved plan. Employment of the appropriate Best Management Practices (BMP's) should be included (Per Imperial County Code of Ordinances, Chapter 12.10.020 B).
2. Easements shall be obtained for those portions of the projects situated on land owned by persons other than the Applicant (such as transmission/connection lines). Executed and recorded easements shall be provided to the Public Works Department prior to issuance of a building permit. L3-2
3. Access to sites shall be completed from public roads. The Applicant shall obtain written approval from any private owners or other agencies for the use of any non-public roads to access the sites. A copy of such written approval shall be submitted to this Department prior to the approval of grading plans. L3-3
4. A lot merger or lot tie will be required. L3-4
5. The project shall coordinate with the Bureau of Land Management for any portion of the project within their jurisdiction. L3-5
6. Should access to the site be provided from Imperial County roads, street improvements shall be required per Section 12.10.020 – Street Improvement Requirements of Imperial County Ordinance. L3-6

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Comment L3: Imperial County Department of Public Works

L3-1 The project applicant acknowledges and will provide a Drainage and Grading Plan for the Department of Public Works to review and approval. The project applicant shall adhere to the County's Code of Ordinances, Chapter 12.10.020 B.

L3-2 As required by general Conditional Use Permit conditions of approval, the applicant is required to coordinate with all applicable agencies, including the Public Works Department and Caltrans as it relates to the construction of the proposed project.

L3-3 Please refer to response to comment L3-2. In addition, the applicant will obtain written approval from any private owners if necessary.

L3-4 Comment noted.

L3-5 No BLM right-of-way approvals are required to implement the proposed project as the entirety of the project

	(including vehicle access and staging areas) would be contained within the boundaries of the project site. **L3-6** The project applicant shall adhere to the County's Code of Ordinances, Chapter 12.10.020.

INFORMATIVE:

The following items are for informational purposes only. The Applicant is responsible to determine if the enclosed items affect the subject project.

- The following items are for informational purposes only. The Developer is responsible to determine if the enclosed item7s affect the subject project.
- All solid and hazardous waste shall be disposed of in approved solid waste disposal sites in accordance with existing County, State and Federal regulations (Per Imperial County Code of Ordinances, Chapter 8.72).
- The project may require a National Pollutant Discharge Elimination System (NPDES) permit and Notice of Intent (NOI) from the Regional Water Quality Control Board (RWQCB) prior county approval of onsite grading plan (40 CFR 122.28).
- A Transportation Permit may be required from road agency(s) having jurisdiction over the haul route(s) for any hauls of heavy equipment and large vehicles which impose greater than legal loads and/or dimensions on riding surfaces, including bridges. (Per Imperial County Code of Ordinances, Chapter 12.10.020 B).
- As this project proceeds through the planning and the approval process, additional comments and/or requirements may apply as more information is received.
- If any construction would be proposed along property lines (fences, grading, structures, driveways, etc.) the following will apply:
  - Corner record is required to be filed with the county surveyor prior to construction for monuments:
    - § 8771. (b) When monuments exist that control the location of subdivisions, tracts, boundaries, roads, streets, or highways, or provide horizontal or vertical survey control, the monuments shall be located and referenced by or under the direction of a licensed land surveyor or licensed civil engineer legally authorized to practice land surveying, prior to the time when any streets, highways, other rights-of-way, or easements are improved, constructed, reconstructed, maintained, resurfaced, or relocated, and a corner record or record of survey of the references shall be filed with the county surveyor.
  - A second corner record is required to be filed with the county surveyor for monuments:
    - § 8771. (c) A permanent monument shall be reset in the surface of the new construction or a witness monument or monuments set to perpetuate the location if any monument could be destroyed, damaged, covered, disturbed, or otherwise obliterated, and a corner record or record of survey shall be filed with the county surveyor prior to the recording of a certificate of completion for the project. Sufficient controlling monuments shall be retained or replaced in their original positions to enable property, right-of-way and easement lines, property corners, and subdivision and tract boundaries to be reestablished without devious surveys necessarily originating on monuments differing from those that currently control the area

L3-7

L3-7 The County acknowledges and appreciates the contact information provided and will provide this information to the project applicant.

Should you have any questions, please do not hesitate to contact this office. Thank you for the opportunity to review and comment on this project.

L3-8

Respectfully,

Atondo V.
Veronica Atondo, P.E., P.L.S.
Deputy Director of Public Works - Engineering

L3-8 Comment noted.

2.3 Organization Comments

Letter O1

California Program Office
P.O. Box 401, Folsom, California 95763 | 916-313-5800
www.defenders.org

July 25, 2024

Jim Minnick, Director
Imperial County Planning and Development Services Department
801 Main Street
El Centro, CA 92243
Delivered via email to: jimminnick@co.imperial.ca.us

RE: Mitigated Negative Declaration – North Star 3 Solar and Battery Storage Project (SCH 2024060955)

Dear Mr. Minnick,

Thank you for the opportunity to provide comments in response to the Initial Study/Mitigated Negative Declaration (IS/MND) for the proposed North Star 3 Solar and Battery Storage Project (Project). Defenders of Wildlife (Defenders) is dedicated to protecting all wild animals and plants in their natural communities and has nearly 2.1 million members and supporters in the United States, with more than 316,000 residing in California.

Defenders strongly supports generation of electricity from renewable energy sources. A low-carbon energy future is critical for California's economy, communities and environment. Achieving this future—and how we achieve it—is critical for protecting California's internationally treasured wildlife, landscapes and diverse habitats. We believe transitioning to a renewable energy future need not exacerbate the ongoing extinction crisis by thoughtfully planning projects while protecting habitat critical to species. Intro.

The proposed Project is a solar photovoltaic facility that would generate 100 MW of renewable energy and includes a 200 MW battery storage system. The proposed Project site is 585 acres of land within Imperial County near the western edge of the Salton Sea. The site is located at the transition between vacant desert land and agricultural lands. Additionally, it is partially located on and adjacent to the Bureau of Land Management's (BLM) Salton Sea Hazardous Area of Critical Environmental Concern (ACEC) immediately to the north and east of the proposed Project site.

We offer the following comments on the IS/MND for the Project:

1. **Protocol Surveys**
   The MND states that a biological reconnaissance survey was conducted on October 25 and 26, 2022; however, no species-specific protocol-level surveys were conducted before the O1-1

Comment O1: Defenders of Wildlife

INTRO This comment is an introductory comment and does not address the adequacy of the Draft IS/MND; therefore, no further response is necessary.

O1-1 Please refer to responses to comments S2-1 through S2-47. Proposed mitigation measures have been revised to address comments provided by the CDFW in order to ensure impacts to biological resources will be mitigated to a level less than significant in accordance with wildlife agency approved protocols.

development of the MND. Findings cannot be made without species-specific protocol-level surveys as they are necessary to provide thorough and accurate results that support informed decision-making and enable the identification of appropriate mitigation and avoidance measures for each species. To proceed without conducting species-specific protocol-level surveys is folly, as it is impossible to fully identify the risk of significant impact. If the project is discovered to have a significant impact with the application of mitigation measures as a result of the surveys, the development of an environmental impact report (EIR) would be required. Therefore, species-specific surveys should be conducted to ensure the development of the MND is appropriate instead of the development of an EIR.

Given the Project site contains sensitive biological resources, the biological resources surveys must adhere to wildlife agency-approved species-specific protocols and must identify the appropriate avoidance, minimization and mitigation measures based on survey results. If habitat management (HM) lands are deemed appropriate due to survey results, the HM lands must contain suitable habitat for the species and be managed in perpetuity by a qualified conservation organization as defined by CA Civil Code Section 815.3. Alternatively, credits could be purchased in a California Department of Fish and Wildlife (CDFW) approved mitigation bank.

If special-status species are observed on-site, we recommend consultation with CDFW and the US Fish and Wildlife Service for the need to obtain an Incidental Take Permit.

O1-1a

a. **Burrowing Owl (BUOW)**

Suitable BUOW habitat is present throughout the proposed Project's survey area, and one burrow was observed in the southeastern portion during the 2022 reconnaissance survey. The MND states that focused burrowing owl surveys will occur and will follow CDFW guidelines. This is not an adequate survey protocol for BUOW, as the failure to conduct protocol-level species-specific surveys before the development of the MND and associated mitigation measures does not support informed decision-making and findings cannot be made; protocol-level surveys must be completed before the development of the MND. Defenders requests conducting protocol-level surveys that adhere to the *Burrowing Owl Survey Protocol and Mitigation Guidelines*[1] and the *Staff Report on Burrowing Owl Mitigation*.[2] Three or more surveys must be conducted during daylight, with each visit occurring at least three weeks apart during the breeding season.

O1-1b

b. **Crotch's Bumble Bee (CBB)**

CBB is a candidate species for listing under the California Endangered Species Act, and such, must be accorded protection as if they were listed. The Project is located within the

[1] California Burrowing Owl Consortium. 1993. *Burrowing Owl Survey Protocol and Mitigation Guidelines.*
[2] California Department of Fish and Game. 2012. *Staff Report on Burrowing Owl Mitigation.*

O1-1a In response to address CDFW's comments regarding potential burrowing owl impacts, the proposed burrowing owl Mitigation Measure BIO-4 does include the provision to follow the Staff Report on Burrowing Owl Mitigation (CDFG, 2012). However, Mitigation Measure BIO-4 has been modified to incorporate suggested changes by CDFW which would reduce potential impacts to a level less than significant. Please refer to response to comment S2-35.

O1-1b Mitigation Measure BIO-6 has been modified to be Mitigation Measure BIO-28 and includes the text revision as follows:

"… and Crotch's bumblebee. Surveys for Crotch's bumblebee shall be conducted in accordance with CDFW's methods as outlined in *Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species.*"

historical range[3] of the species and, therefore, may occur; however, the MND fails to mention CBB and does not examine the potential impacts. Defenders request CBB surveys be conducted in accordance with CDFW's methods as outlined in *Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species.*[4]

O1-1b cont.

c. **Flat-Tailed Horned Lizard (FTHL)**
The MND acknowledges that the creosote bush scrub and white bursage scrub located on the Project site provides suitable habitat for the FTHL and has a potential to occur. We request surveys for FTHL be performed that, at a minimum, conforms to the current survey standards established in the *Flat-tailed Horned Lizard Rangewide Management Strategy.*[5]

O1-1c

d. **Palm Springs Pocket Mouse (PSPM)**
The Project site contains creosote bush scrub and white bursage scrub that is considered suitable PSMP habitat and the species has a moderate potential to occur. Defenders requests consultation with CDFW to establish the appropriate survey methodologies.

O1-1d

2. **Capture/Relocation Plan for FTHL**
If protocol-level FTHL surveys find sign of the species, we recommend the development of a Capture/Relocation Plan for FTHL in consultation with CDFW. In comments recently submitted by CDFW, the agency has requested the plan include a preconstruction survey and monitoring methods, capture and relocation methods, and suitable relocation areas.[6] Additionally, we request including avoidance, minimization and mitigation measures. The plan should be available to the interested public for comment prior to finalization.

O1-2

3. **Nighttime Construction and Speed Limit**
BIO-2 establishes a 15 miles per-hour speed limit for the Project site and also states that nighttime construction lighting should be avoided. We recommend that nighttime construction be avoided altogether, not simply nighttime construction lighting. Prohibiting nighttime construction avoids and minimizes impacts to sensitive species that are most active at night and, therefore, more vulnerable to construction and traffic-related incidents. If construction must be conducted at night, the speed limit should be reduced to 10 miles per hour.

O1-3

[3] California Department of Fish and Wildlife. 2023. *Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species.*
[4] Ibid.
[5] Flat-tailed Horned Lizard Interagency Coordinating Committee. 2003. *Flat-tailed Horned Lizard Rangewide Management Strategy, 2003 Revision.*
[6] California Department of Fish and Wildlife. 2023. *Glamis Specific Plan (Project) Draft Environmental Impact Report (DEIR) SCH 2020100348.*

O1-1c In response to address CDFW's comments regarding potential FTHL impacts, Mitigation Measure BIO-6 has been modified to incorporate suggested changes by CDFW which would reduce potential impacts related to FTHL impacts to a level less than significant. Please refer to response to comment S2-17.

O1-1d Please refer to IS/MND page 50. The County acknowledges the suitable habitat for the palm springs pocket mouse. With implementation of Mitigation Measures BIO-2, BIO-3, and BIO-6, potential impacts would be reduced to a level less than significant.

O1-2 Please refer to response to comment O1-1c.

O1-3 Please refer to response to comments S1-7 and S2-29. However, it is unlikely that nighttime lighting would be required for the proposed project as no nighttime work is proposed nor anticipated.

4. **BUOW Buffers**

BIO-4 establishes a 50-meter buffer if BUOW is identified from September 1 through January 31. The measure continues and states that if a BUOW is identified from February 1 through August 31, the appropriate buffer will be established in accordance with the *Staff Report on Burrowing Owl Mitigation*. This is insufficient as the buffer should be in accordance year-round with the *Staff Report on Burrowing Owl Mitigation*. If the species or sign is observed, the avoidance buffers must be established in concurrence with the guidelines[7], as depicted below:

Table 1: Burrowing Owl Avoidance Buffers

Location	Time of Year	Level of Disturbance		
		Low	Med	High
Nesting Sites	April 1—Aug 15	200 meters	500 meters	500 meters
Nesting Sites	Aug 16—Oct 15	200 meters	200 meters	500 meters
Nesting Sites	Oct 16—Mar 31	50 meters	100 meters	500 meters

If occupied burrows are observed, we recommend artificial replacement burrows at a ratio of 1:1.[8] Furthermore, we recommend consultation with CDFW to establish an appropriate ratio for BUOW HM lands. If it is impossible to adhere to the recommended buffers and avoidance, Defenders would like to emphasize that burrow exclusion is not considered a take avoidance, minimization or mitigation method.[9] However, if burrow exclusion is necessary, Defenders recommends consultation with CDFW.

O1-4

5. **ACEC Impacts**

The MND acknowledges the project is partially located within and adjacent to the BLM Salton Sea Hazardous ACEC. The Management Plan for the ACEC states the overarching goal includes protecting and preserving cultural and biological resources. The objectives include maintaining habitat that potentially supports special status plant species, avoiding significant adverse impacts on wetland and riparian areas, and conserving habitat that potentially supports the presence of Special Status Species, including the Colorado Valley woodrat, FTHL, Crissal Thrasher, Le Conte's Thrasher, Loggerhead Shrike, and Southern Leopard Frog.[10]

The MND fails to provide any analysis of this project's impacts on the ACEC's objectives. Therefore, it is unclear if mitigation is sufficient to reduce impacts below a level of significance. Without a thorough discussion of project impacts on the ACEC and the ACEC's listed objectives, there is a possibility for a fair argument that the Project may result in significant impacts on the ACEC. Defenders recommend that the MND include an analysis and discussion of project impacts

O1-5

[7] Ibid.
[8] California Burrowing Owl Consortium. 1993. *Burrowing Owl Survey Protocol and Mitigation Guidelines.*
[9] California Department of Fish and Game. 2012. *Staff Report on Burrowing Owl Mitigation.*
[10] Bureau of Land Management. 2015. *Salton Sea Hazardous ACEC Management Plan.*

O1-4 Please refer to response to comment S2-35. Mitigation Measure BIO-4 has been modified in order to address comments from CDFW and to be consistent with the *Staff Report on Burrowing Owl Mitigation.*

O1-5 As originally proposed, transmission line would have traversed BLM managed lands subject to the ACEC; however, the alignment of this component was adjusted to avoid BLM lands. Therefore, the proposed project is not located within the ACEC as it is located entirely on private lands, and is therefore, not subject to ACEC requirements. The ACEC applies to public lands managed by the BLM. Should the proposed project need any approvals by BLM for implementation, then compliance with ACEC would be required.

on the ACEC and the ACEC objectives listed within the Management Plan. If impacts to the ACEC cannot be mitigated to a less than significant level, then an EIR must be prepared in accordance with the statute.

Furthermore, the MND states consultation with BLM will be required should any listed plant or wildlife species be found to occur. Given the project overlaps with BLM land, we recommend consultation with BLM during the establishment of mitigation measures to ensure impacts are mitigated to a less than significant level.

O1-5 cont.

Conclusion

Thank you once again for the opportunity to provide comments on the IS/MND for the North Star 3 Solar and Battery Storage Project and for considering our comments. If you have any questions, please contact me at 408-603-4694 or via email at smarkowska@defenders.org.

O1-6

Respectfully submitted,

Sophia Markowska

Sophia Markowska
Senior California Representative

O1-6 Comment noted.



November 2024