PROJECT REPORT

TO: ENVIRONMENTAL EVALUATION COMMITTEE **AGENDA DATE: November 16, 2023**
FROM: PLANNING & DEVELOPMENT SERVICES **AGENDA TIME: 1:30PM / No.1**

PROJECT TYPE: Apex Energy Solutions, LLC / Holtville Peaker BESS Project CUP#22-0029 / IS#22-0048 SUPERVISOR DIST # 5

LOCATION: 2275 Melon Road APN: 045-570-087-000

Holtville, CA PARCEL SIZE: 17.23-AC

GENERAL PLAN (existing) Urban Area GENERAL PLAN (proposed) N/A

ZONE (existing) M-1-U (Light Industrial, Urban Area Overlay) ZONE (proposed) N/A

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: 11-16-2023

INITIAL STUDY: # 22-0048

☐ 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	Quechan Indian Tribe, City of Holtville, DTSC-Imperial CUPA, CEO's Office & IID	

REQUESTED ACTION:

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Initial Study

Holtville Peaker Battery Energy Storage System Project

Initial Study #22-0048

Conditional Use Permit #22-0029

Imperial County, CA

October 2023

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

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Contents

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Tables

Figures

Appendices

Introduction

A. Purpose

This document is a ☐ policy-level; ☒ project-level Initial Study for evaluation of potential environmental impacts resulting with the proposed Holtville Peaker Battery Energy Storage System 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 Holtville Peaker Battery Energy Storage System 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 Holtville Peaker Battery Energy Storage System (BESS) 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.

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

Environmental Checklist Form

3. **Project Title:** Holtville Battery Energy Storage System (BESS) Project
4. **Lead Agency Name and Address:** Imperial County Planning & Development Services Department, 801 Main Street, El Centro, CA 92243
5. **Contact Person and Phone Number:** Gerardo Quero, Planner I, 442-265-1748
6. **Project Location:** The project site is located on one privately-owned parcel (Assessor Parcel No. (APN) 045-570-087-000). APN No. 045-570-087-000 encompasses approximately 17.2 acres in the eastern portion of Imperial County, California (Figure 1). The project site is vacant and disturbed and was previously developed for an industrial/agricultural related use. The site is located immediately west of the City of Holtville city boundary, and within the City's Sphere of Influence (Figure 2). The site is located approximately 8 miles north of Interstate 8. Adjacent roadways providing local vehicular access to the project site include East Alamo Road, adjacent to the northern boundary of the parcel, and Melon Road, adjacent to the eastern boundary of the parcel (Figure 3).
7. **Project Sponsor's Name and Address:** Apex Energy Solutions, LLC, 750 W. Main Street, El Centro, CA 92243
8. **General Plan Designation:** Urban Area
9. **Zoning:** Light Industrial within Urban Area of Holtville (M-1 U)
10. **Description of Project:** The proposed project consists of issuance of a conditional use permit (CUP) to allow for the construction and operation of a 100-megawatt (MW) BESS (i.e., peaker plant) within a Light Industrial zone (M-1). The project would include development of a BESS facility that would connect to the existing Imperial Irrigation District's (IID) 92-kilovolt (kV) "E" Line. The BESS facility would include battery containers and storage sites, a control room, on-site substation, and associated facilities surrounded by fencing in the south-central portion of the parcel, with the remainder of the parcel used for temporary construction access and staging. The conceptual site plan proposes to locate the facility at the southern boundary of the project site, with the BESS facility, including the fenced in area set back from the north, west and east property lines (varies depending on direction). Figure 4**Error! Reference source not found.** provides an overview of the major project components. Figure 5**Error! Reference source not found.** depicts the distances of the major project components to the site's property lines. Figure 6 **Error! Reference source not found.** depicts the site plan.

    The project will require an on-site switching station to loop in-and-out of the IID "E" line. The point of interconnection to the existing IID "E" line is located immediately adjacent to the east of the site along Melon Road. Alternatively, the project would require a 92-kV gen-tie into the existing Holtville substation, should adequate space be available at the substation. Access to the facility is proposed from Melon Road.
11. **Surrounding Land Uses and Setting: Briefly describe the project's surroundings:**

    The project site is surrounded by residential development located in unincorporated Imperial County to the north and east. Also, residential development located within the jurisdiction of the City of Holtville is located east of the project, east of Melon Road (Figure 3). Scattered commercial and industrial development is located to the south.
12. **Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.):**

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- California Regional Water Quality Control Board, Colorado River Basin Region
- Imperial County Air Pollution Control District
- Imperial County Public Works Department

13. **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, the Campo Band of Mission Indians and Quechan Indian Tribe. These tribes were sent an Assembly Bill (AB) 52 consultation request letter on June 1, 2023 for a 30-day review ending on June 30, 2023 to request a consultation meeting. On June 1, 2023, the Quechan Indian Tribe responded via e-mail that they do not wish to comment on the project.

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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CALIFORNIA DEPARTMENT OF FISH AND GAME DE MINIMIS IMPACT FINDING:

☑Yes ☐No

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

for [signature]

Jim Minnick, Director of Planning/EEC Chairman

11-16-2023

Date:

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Project Summary

Project Location

The project site is located on one privately-owned parcel (APN 045-570-087-000). APN No. 045-570-087-000 encompasses approximately 17.2 acres in the eastern portion of Imperial County, California (Figure 1). The project site is vacant and disturbed and was previously developed for an industrial/agricultural related use. The project site is located immediately west of the City of Holtville city boundary, and within the City's Sphere of Influence (SOI) (Figure 2). The site is located approximately 8 miles north of Interstate 8. Adjacent roadways providing local vehicular access to the project site include East Alamo Road to the north, and Melon Road to the east.

Project Components

Apex Energy Solutions, LLC (project applicant) proposes to construct and operate a 100 MW BESS (i.e., peaker plant) on the southern portion of the 17.2-acre site immediately west of the City of Holtville city boundary, and within the City's SOI. The portion of the project site to be developed is shown in Figure 4 (area delineated with pink boundary line within the interior of the project site boundaries). The proposed project consists of three primary components: 1) BESS; 2) substation; and 3) an interconnection line to IID's existing "E" Line located immediately east along Melon Road. These three components together are collectively referred to as the "proposed project" or "project." These project components are described in detail below and depicted on Figure 4. Figure 5**Error! Reference source not found.** depicts the distances of the major project components to the site's property lines. Figure 6**Error! Reference source not found.** depicts the site plan.

As shown in Figure 5,**Error! Reference source not found.** the conceptual site plan proposes setbacks to the north, west and east property lines (varies depending on direction). These setbacks would serve as space buffers so the project components would be located away from existing and planned residential uses, to the maximum extent feasible.

Battery Energy Storage System

As shown in Figure 4 through Figure 6, the proposed project's BESS facility would include battery containers and storage sites, a 10-foot by 15-foot control room, 20,000 gallon water tank for fire suppression, on-site substation (discussed below), and associated facilities surrounded by fencing in the south-central portion of the parcel, with the remainder of the parcel used for temporary construction access and staging. The project would include 13 Sungrow Model SC5000UD-MV-US inverters surrounded by 176 Sungrow Model ST2752UX-US BESS containers each consisting of 48 battery units.

Substation

The dimensions of the proposed substation would be approximately 100 feet by 100 feet and would be located east of the BESS containers. The proposed substation would be unstaffed and automated. The California Building Code and the IEEE 693, Recommended Practices for Seismic Design of Substations, will be followed for the substation's design, structures, and equipment.

Gen-tie Line

The project will require an on-site switching station to loop in-and-out of the IID "E" line. The point of interconnection to the existing IID "E" line is located immediately adjacent to the east of the site along Melon Road. Alternatively, the project would require a 92-kV gen-tie into the existing Holtville substation, should adequate space be available at the substation.

Site Access

Access to the BESS facility is proposed from East Alamo Road. An encroachment permit will be obtained from the Imperial County Public Works Department for access from East Alamo Road. No new road crossings of any IID lateral canals or drains are proposed.

Construction

Construction is anticipated to be completed in approximately eight months. The following provides the proposed project's construction phases and approximate duration of each phase:

- Site Preparation – 3 weeks
- Grading/Trenching – 10 weeks
- Foundations/Equipment Installation/Wiring/Commissioning – 19 weeks

Operations

Once fully constructed, the project would be operated on an unstaffed basis and be monitored remotely, with periodic on-site personnel visitations for security, maintenance and system monitoring. The project applicant would install video and intrusion surveillance on the project site. Therefore, no full-time site personnel would be required on-site during operations. Any required planned maintenance activities would generally consist of equipment inspection and replacement and would be scheduled to avoid peak load periods. Any unplanned maintenance would be responded to as needed, depending on the event.

Environmental Setting

The project site is located west of the City of Holtville's city boundary and within the City's SOI (Figure 2). The project parcel is vacant and disturbed. IID's 92-kV "E" Line is located immediately adjacent to the east of the project site along Melon Road. The project site is surrounded by residential development to north, east, and west. Residential development located within the jurisdiction of the City of Holtville is located east of the project, east of Melon Road and are zoned Single Family (R-1). To the south, the entire parcel is also zoned Light Industrial within Urban Area of Holtville (M-1 U). The properties to the west and north are zoned Limited Agriculture Urban (A-1 U) and Medium Commercial Urban (C-2 U), and the property to the northeast is zoned Low Density Residential Urban (R-1 U).

Figure 1. Regional Location

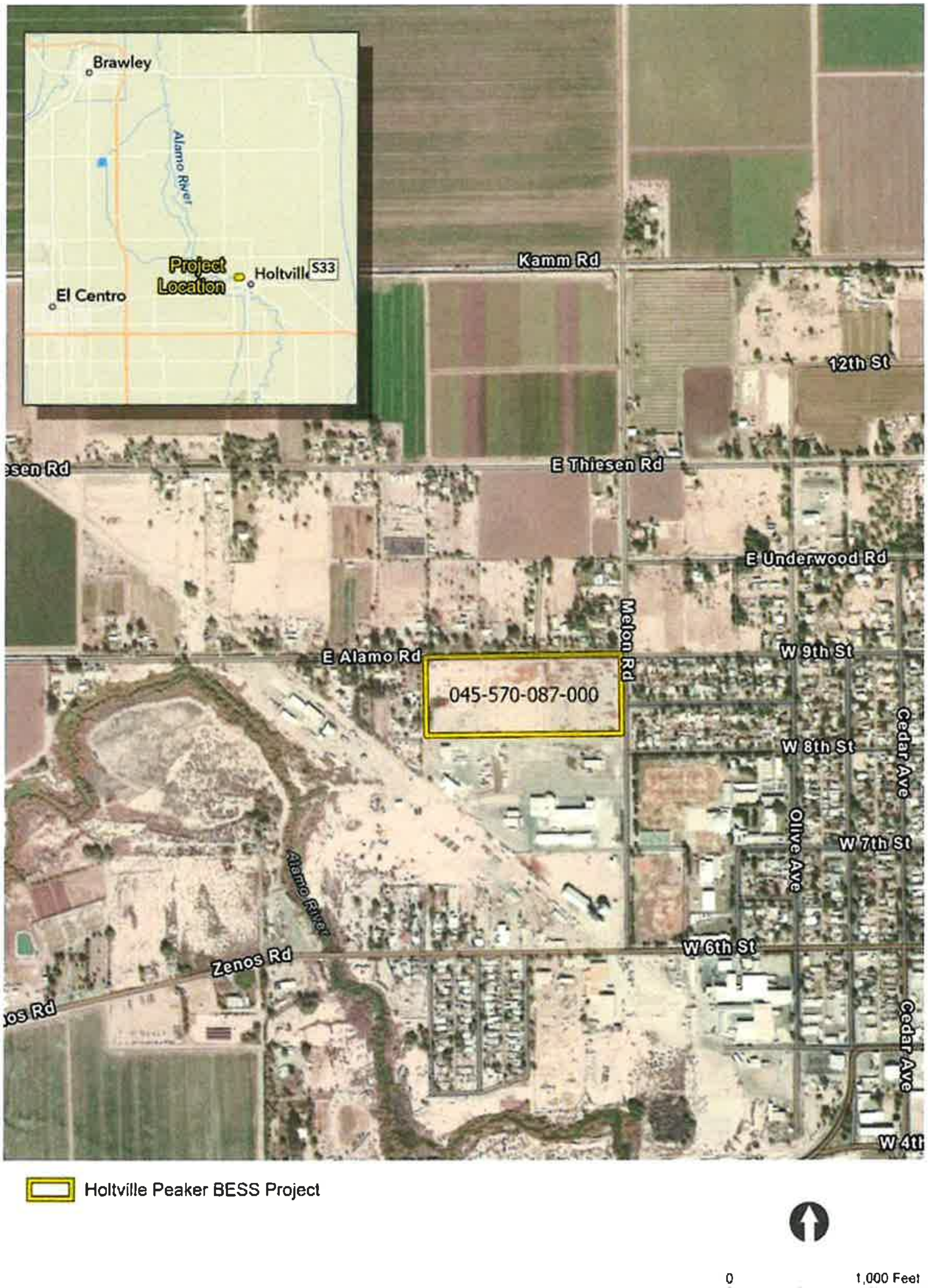

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Figure 2. City of Holtville Jurisdictional Boundary and Sphere of Influence

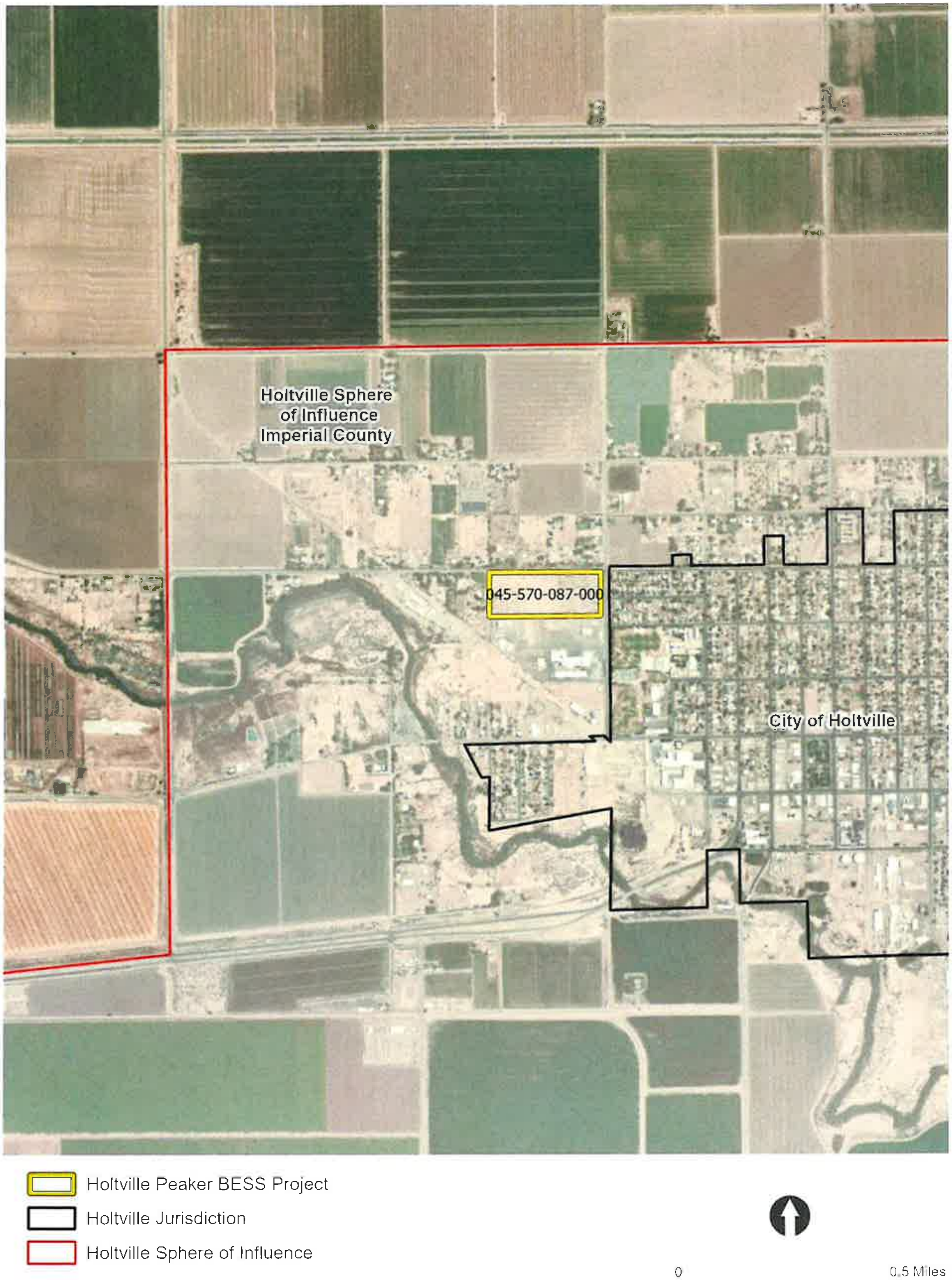

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Figure 3. Local Vicinity

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Figure 4. Project Components

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Figure 5. Distances of Project Components to Property Lines

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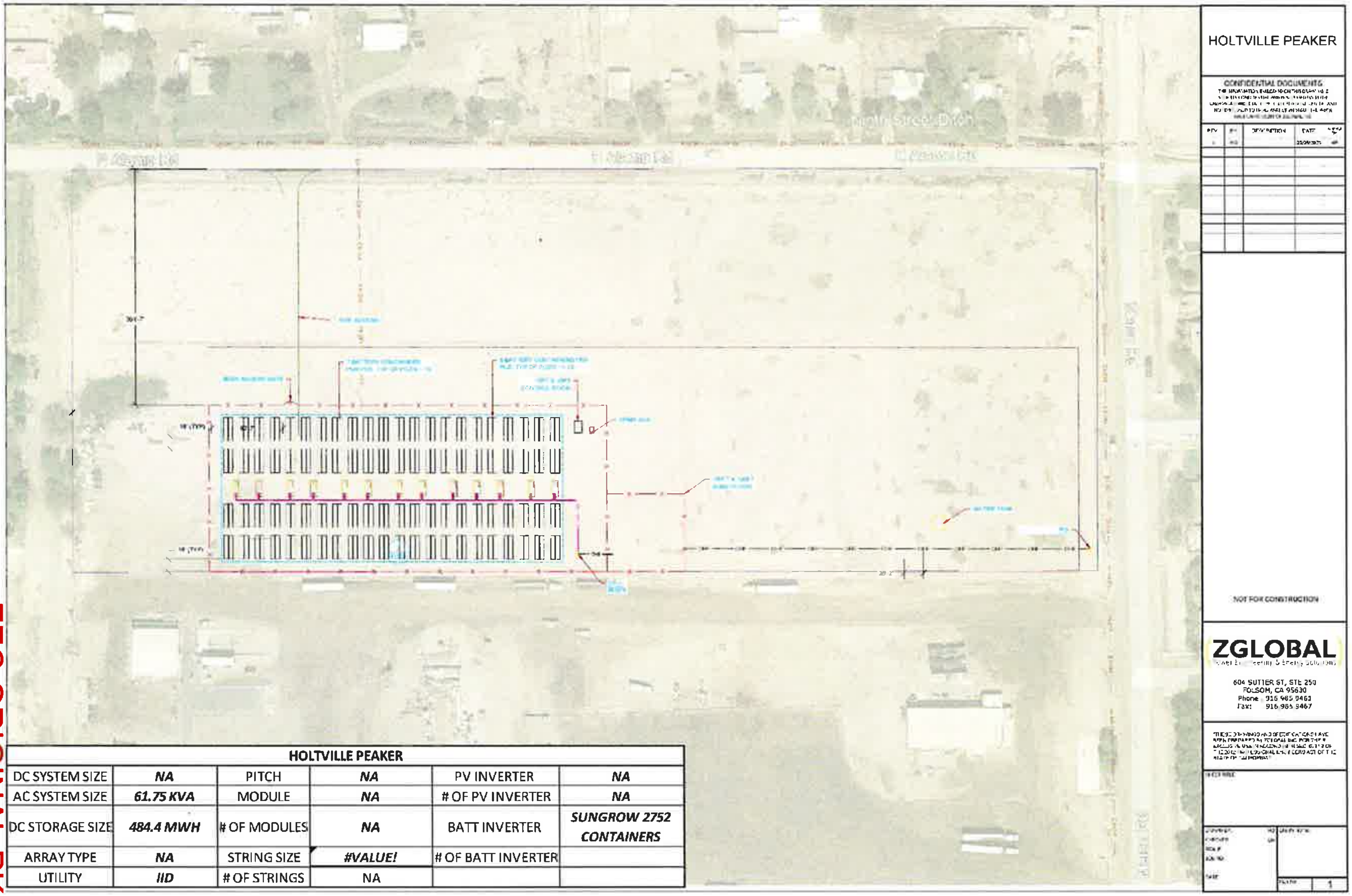
Figure 6. Site Plan



HOLTVILLE PEAKER					
DC SYSTEM SIZE	*NA*	PITCH	*NA*	PV INVERTER	*NA*
AC SYSTEM SIZE	*61.75 KVA*	MODULE	*NA*	# OF PV INVERTER	*NA*
DC STORAGE SIZE	*484.4 MWH*	# OF MODULES	*NA*	BATT INVERTER	*SUNGROW 2752 CONTAINERS*
ARRAY TYPE	*NA*	STRING SIZE	*#VALUE!*	# OF BATT INVERTER	
UTILITY	*IID*	# OF STRINGS	NA		

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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.

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

a) **No Impact.** The project site is not located within an area containing a scenic vista designated by the County's General Plan (County of Imperial 2016). Therefore, the proposed project would not have a substantial adverse effect on a scenic vista and no impact is identified.

b) **No Impact.** According to the Conservation and Open Space Element, no State scenic highways have been designated in Imperial County (County of Imperial 2016). 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. The nearest road segment considered eligible for a State scenic highway designation is the portion of State Route 78 (SR 78) near Ysabel and Route 86 near Julian (California Department of Transportation 2018). The project site is located over 30 miles southeast of SR 78; therefore, the project site would not be visible from SR 78. No impacts to scenic resources within any state scenic highways would occur.

c) **Less than Significant Impact.** The project site is located on a vacant, and previously-disturbed parcel within an urbanized area. The proposed project involves the construction of a BESS facility including battery containers and storage sites, a control room, and associated facilities which will be enclosed by chain-link fencing. Construction of the project would result in a minor change in the existing visual character of the project site and surrounding area. There are no existing scenic resources on the project site; however, the site is surrounded by residential uses to the north, east, and west. The battery containers and fencing would be the most prominently visible portion of the project from the residences surrounding the project site. However, as shown in the conceptual site plan, the facility will be located in the

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southern portion of the project site, with the BESS facility, including the fenced in area set back from the north, east, and west property lines (refer to Figure 5) decreasing the visual prominence of the project from adjacent roadways and residential areas. 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 does not include the addition of substantial lighting or glare producing components. Ambient lighting and glare in the nearby areas would not significantly increase above existing conditions because minimal lighting is proposed, would be low scale (in and around buildings primarily for security purposes) and would be setback from residential areas. Temporary construction lighting would be used for illuminating the project site during construction. Following the completion of construction, any construction lighting would be disassembled and removed from the site. This impact is less than significant.

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 2022). The project site is designated as Urban and Built-Up Land by the DOC. Therefore, the proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use and no impact is identified.

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b) **No Impact.** The project site is currently zoned M-1 (Light Industrial) 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. 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 on-site 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.

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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 Analysis for the Holtville Peaker BESS Project* prepared by RECON Environmental, Inc. This report is provided as Appendix A 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, 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 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.

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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 provides an analysis of potential impacts during construction of the project followed by an analysis of potential impacts during operation of the project.

Construction

Air quality impacts related to construction were calculated using the latest CalEEMod 2022.1 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 the construction schedule and equipment mix, are described in the project's air quality analysis (Appendix A of this Initial Study).

It should be noted that default settings for CalEEMod include an assumption for roads within Imperial County to be only 50 percent paved. During construction, vehicles traveling to and from the project site would not traverse unpaved roads (i.e., roads are paved in the project vicinity that would provide access to the site). However, it should be noted that Imperial County roadways do experience higher levels of entrained roadway dust. To account for these dust emissions, ICAPCD recommends modeling 90 percent paved roads during construction activities.

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 5 acres or more for non-residential developments or 10 acres or more in size for residential developments. The project footprint consists of 8.4 acres of the 17.2-acre project site, which would exceed the 5 acres. Other portions of the project site may be used for staging areas. 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 and/or washed at delivery site after removal of bulk material.

EEC ORIGINAL PKG

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 5 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. Sources of construction-related emissions include:

- Fugitive dust from grading activities;
- Exhaust emissions form construction equipment;
- Application of chemical coatings (paints, stains, sealants, etc.); and
- Exhaust and fugitive dust emissions from on-road vehicles (trips by workers, delivery trucks, and material-hauling trucks).

Predicted maximum daily emissions associated with project construction are summarized in Table 1. The emissions summarized in Table 1 account for a 50 percent reduction in dust due to daily watering, but do not account for any other emission reductions from any other standard or discretionary measure for dust control or construction equipment. 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. Maximum Daily Construction Air Pollutant Emissions

Emission Source	Maximum Daily Emissions (Pounds)					
	ROG	NOx	CO	SO_x	PM_{10}	$PM_{2.5}$
Site Preparation	4	36	34	<1	59	11
Grading/Trenching	2	18	20	<1	45	7
Foundations/Installation/ Wiring/Commissioning	1	12	16	<1	70	7
Max Daily Emissions	**4**	**36**	**34**	**<1**	**70**	**11**
Significance Threshold	*75*	*100*	*550*	-	*150*	-
Exceeds Threshold?	No	No	No	-	No	-

Source: Appendix A of this Initial Study

Operation

Operation-related sources of air pollutant emissions include the direct emission of criteria pollutants. Common direct emission sources associated with typical projects include mobile sources such as project-generated traffic, area sources such as the use of landscaping equipment, and energy sources such as the combustion of natural gas.

The maximum daily pollutants calculated for operations are shown in Table 2. As shown in Table 2, the proposed project would not exceed ICAPCD thresholds during operations. As such, operations-related emissions would be less than significant for the proposed project.

Table 2. Maximum Daily Operations Air Pollutant Emissions

Emission Source	Maximum Daily Emissions (Pounds					
	ROG	NOx	CO	SOx	PM_{10}	$PM_{2.5}$
Mobile Sources	<1	<1	<1	<1	3	<1
Area Sources	2	<1	2	<1	<1	<1
Energy Sources	<1	<1	<1	<1	<1	<1
Total Operations	**2**	**<1**	**3**	**<1**	**3**	**<1**
Significance Threshold	137	137	550	150	150	550
Exceeds Threshold?	No	No	No	No	No	No

Source: Appendix A of this Initial Study

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

ICAPCD Conditions of Approval

ICAPCD has reviewed the CUP application for the proposed project and the following Conditions of Approval will be required as part of the CUP. Compliance with these conditions will occur during construction and operations.

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Construction Conditions of Approval:

A. Submit a construction equipment list by Make, Model, Horsepower and actual usage to the Air District on a monthly basis to determine the level of NO_x emissions. Should NO_x emissions exceed the construction NO_x emissions then the applicant will need to abide by Policy 5 of the ICAPCD's CEQA Air Quality Handbook.

B. An Enhanced Dust Control Plan must be submitted for approval by the ICAPCD to assure that fugitive emissions do not cross property lines.

Operational Conditions of Approval:

A. Should the need for back-up power become necessary, the project will submit an Authority to Construct (ATC) Permit to ICAPCD.

B. The project will include a Health Risk Assessment as part of the ATC Permit submittal.

C. A buffer should be established to keep emergency fugitive emissions from impacting the surrounding community.

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).

As shown in Table 1, project construction would not exceed the applicable regional emissions thresholds. The project would implement all standard and discretionary measures for PM_{10} control and standard measures for construction combustion equipment. As shown in Table 2, operation of the project would result in minimal emissions that would be less than the applicable thresholds for all criteria pollutants. Therefore, project construction and operations would not result in a cumulatively considerable net increase in emissions of ozone, PM_{10}, or $PM2_{.5}$, and impacts would be considered less than significant.

c) **Less than Significant Impact**. As shown in Figure 5the project parcel is surrounded by residential uses to the north, east, and west. The residential uses to the north are located approximately 233 feet away from the project area to be developed (area delineated with pink boundary line within the interior of the project site boundaries) and approximately 321 feet away from the proposed BESS. The residential uses to the west are located approximately 179 feet away from the proposed BESS. The residential uses to the east are located approximately 514 feet away from the proposed substation and project site boundary.

<u>Diesel Particulate Matter</u>

Construction of the project and associated infrastructure would result in short-term diesel exhaust emissions from on-site heavy-duty equipment. Construction of the project would result in the generation of diesel-exhaust DPM emissions from the use of off-road diesel equipment required for site preparation and grading, and other construction activities and on-road diesel equipment used to bring materials to and from the project site. Generation of DPM from construction projects typically occurs in a single area for a short period. Construction is anticipated to last for approximately one year.

EEC ORIGINAL PKG

According to the Office of Environmental Health Hazard Assessment (OEHHA), health risk assessments, which determine the exposure of sensitive receptors to toxic emissions, should be based on a 30-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the project (Appendix A of this Initial Study). Thus, if the duration of proposed construction activities near any specific sensitive receptor were eight months, the exposure would be 2 percent (8 months divided by 30 years) of the total exposure period used for health risk calculation. Further, the project would implement the standard measures for construction combustion equipment summarized above in Response III. a). In addition, all construction equipment would be subject to the CARB In-Use Off-Road Diesel-Fueled Fleets Regulation, which limits unnecessary idling to 5 minutes, requires all construction fleets to be labeled and reported to CARB, bans Tier 0 equipment, and phases out Tier 1 and 2 equipment (thereby replacing fleets with cleaner equipment), and requires that fleets comply with Best Available Control Technology requirements. Therefore, due to the limited duration of construction activities, implementation of standard measures for construction combustion equipment, and compliance to the In-Use Off-Road Diesel-Fueled Fleets Regulation, DPM generated by the project is not expected to create conditions where the probability is greater than 10 in 1 million of contracting cancer for the Minimally Exposed Individual or to generate ground-level concentrations of non-carcinogenic toxic air contaminants (TACs) that exceed a Hazard Index greater than 1 for the Maximally Exposed Individual. Therefore, project construction would not expose sensitive receptors to substantial pollutant concentration, and impacts would be less than significant.

Carbon Monoxide Hot Spots

A CO hot spot is an area of localized CO pollution that is caused by severe vehicle congestion on major roadways, typically near intersections. CO hot spots have the potential to violate state and federal CO standards at intersections, even if the broader basin is in attainment for federal and state levels.

The Sacramento Metropolitan Air Quality Management District developed a screening threshold in 2011, which states that any project involving an intersection experiencing 31,600 vehicles per hour or more will require detailed analysis. In addition, the Bay Area Air Quality Management District developed a screening threshold in 2010, which states that any project involving an intersection experiencing 44,000 vehicles per hour would require detailed analysis. No intersections in the vicinity of the project carry this substantial amount of traffic. Additionally, there are no signalized intersections in the vicinity of the project site. Traffic generated by the project would not result in any heavily congested intersections. Thus, the project is not anticipated to result in a CO hot spot.

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

Therefore, implementation of the proposed project would not expose sensitive receptors to substantial pollutant concentrations, and impacts would be less than significant.

d) **Less than Significant Impact.** 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 and temporary 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. Therefore, odors generated during construction would not adversely affect a substantial number of people to odor emissions.

The ICAPCD CEQA Air Quality Handbook provides screening level distances for potential odor sources. If a project is proposed within one mile of a wastewater treatment plant,

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sanitary landfill, composting station, feedlot, asphalt plant, painting, and coating operation, or rendering plant, a potential odor problem may result (Appendix A of this Initial Study). The project does not include the construction of any of these uses. Energy storage facilities are not known to emit odors during operation. Project operation would include occasional inspection and maintenance. These operational activities are not known to emit odors. Therefore, operational impacts related to odor would also 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 Resources Survey for the Holtville Peaker BESS Project* prepared by RECON Environmental, Inc. (RECON). This report is provided as Appendix B of this Initial Study.

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a) **Less than Significant with Mitigation Incorporated.** RECON biologists conducted a general biological survey of the project site on October 19, 2022. Prior to conducting field surveys, RECON also conducted a search of existing biological data for the project site, including a review of biological databases for sensitive plant and animal species reported within two miles of the project site, and a review of the site's physical characteristics (e.g., location, elevation, soils/substrate, topography). Databases included the California Natural Diversity Database (California Department of Fish and Wildlife [CDFW] 2022 and the U.S. Fish and Wildlife Service (USFWS) All Species Occurrences Database (USFWS 2022a). In addition, a review of the National Wetlands Inventory was conducted to identify any potential wetlands or water resources present in the vicinity of the project site (USFWS 2022b).

Based on the database search, there are four sensitive wildlife species and no sensitive plant species known from a 2-mile radius surrounding the project site; however, there are no known recent occurrences of sensitive species closer than 0.5-mile. One sensitive species, burrowing owl (*Athene cunicularia*) was determined to have low potential to occur within the project vicinity. In addition, migratory birds and nesting birds have potential to occur within the biological survey area.

Plants

No sensitive plants were detected at the time of general biological survey of the project site, and none are expected to occur given the disturbed nature of the project site and soils. In addition, the lack of adjacent or nearby native habitat further reduced the likelihood of sensitive plants occurring within the biological survey area. Based on these considerations, the proposed project would result in no impact on sensitive plant species.

Wildlife

Burrowing Owl. No burrowing owl individuals or any sign of burrowing owl activity were detected within or adjacent to the biological survey area. While the biological survey area contains flat, open habitat suitable for foraging, the project site lacks burrows and burrow surrogates for nesting. The potential for this species to occur is low given the level of dense residential development in the immediate vicinity of the biological survey area, lack of potentially suitable burrows, and intermittent patches of tall vegetation. Although, burrowing owls were not present on the project site during the field survey, they may be present at the start of project construction. This species is known to occur within the Imperial Valley area and portions of the project site contain suitable low-lying vegetation. Indirect impacts to burrowing owls could also result if they are present in the lands surrounding the project site and project construction produces dust, noise, or other disturbances to this species. Mitigation Measure BIO-1 would avoid take and reduce potential impacts to this species to below a level of significance by requiring pre-construction surveys and establishing avoidance buffers.

Migratory and Nesting Birds. The majority of survey area, including the bare ground and ornamental vegetation found within the urban/developed lands and disturbed land, has potential to support migratory and nesting bird species. Urban adapted species, in particular, have been known to nest within ornamental vegetation, while several ground nesting species have the potential to nest within the open areas found within the disturbed land and urban/developed lands within the survey area. Direct impacts to migratory and nesting birds may occur if construction activities (i.e., clearing, grubbing, grading) occur during the Colorado Desert nesting season of January 15 to July 15. Mitigation Measure BIO-2 would avoid take and reduce potential impacts to below a level of significance by requiring pre-construction surveys and establishing buffer zones.

Mitigation Measure:

BIO-1 **Western Burrowing Owl.** Prior to any vegetation clearing, grading, or construction, a pre-construction survey and a pre-construction take avoidance survey shall be conducted within the project footprint, plus 500 feet. Per the Staff Report on Burrowing Owl Mitigation (CDFW 2012), take avoidance surveys require an initial survey no less than 14 days prior to the start of ground disturbance activities and a final survey conducted within 24 hours of ground disturbance. If burrowing owls are detected, the CDFW must be notified within 48 hours and avoidance measures and/or mitigation would be required.

If active burrowing owl burrows are identified within the potential impact area, the project shall avoid disturbing active burrowing owl burrows (nesting sites) and burrowing owl individuals. Buffers shall be established around occupied burrows in accordance with guidance provided in the CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012) based on the proposed level of disturbance. For low disturbance projects, initial set back distances for avoidance of active burrows shall be 200 meters (approximately 656 feet) from April 1 to October 15, and 50 meter (164 feet) from October 16 to March 31. Exceptions can be made to the avoidance distance for areas with natural (hills, trees) or artificial (buildings, walls) barriers in place. The final avoidance buffer shall be at the discretion of the biologist. If, after consideration of a reduced buffer, an adequate avoidance buffer cannot be provided between an occupied burrow and required ground-disturbing activities, then passive relocation activities during the non-breeding season (September 1 through January 31) may be authorized in consultation with CDFW, which would include preparation, approval, and implementation of a Burrowing Owl Exclusion Plan in accordance with protocol described in the CDFW Staff Report on Burrowing Owl Mitigation.

BIO-2 **Migratory and Nesting Birds.** Prior to any vegetation clearing, grading, or construction, a pre-construction survey for nesting birds shall be conducted if the project is initiated during the Colorado Desert nesting season, which is generally defined as January 15 to July 15. The nesting bird survey shall be conducted by a qualified biologist and occur no more than seven days prior to vegetation removal. If active bird nests are confirmed to be present during the pre-construction survey, a buffer zone will be established by a qualified biologist until a qualified biologist has verified that the young have fledged, or the nest has otherwise become inactive.

b) **No Impact.** The project site is vacant and disturbed. The project site supports two vegetation communities/land cover types: disturbed land and urban/developed land. The urban/developed land consists of paved and unpaved roads, shoulders, and ornamental vegetation including Mexican palo verde and honey mesquite. The area of disturbed land on the project site includes open areas with little to no vegetation cover and a few soil and debris piles. The project footprint (area to be impacted by the project) does not contain riparian habitat or designated sensitive natural communities. Therefore, the proposed project would have no impact to riparian habitat or sensitive natural communities.

c) **No Impact.** The project site does not contain wetlands. Therefore, implementation of the proposed project would not have a substantial adverse effect on federally protected wetlands or waters as defined by Section 404 of the Clean Water Act. No impact is identified for this issue area.

d) **No Impact.** The project site is vacant and disturbed. The area of disturbed land on the project site includes open areas with little to no vegetation cover and a few soil and debris piles. Due to the surrounding area of the project being urbanized and the presence of industrial and residential uses in the project vicinity, there is currently limited connectivity for wildlife and therefore, wildlife movement is not expected within the project area. No impact would occur.

e) **Less than Significant Impact.** The proposed project would not conflict with any local policies or ordinances protecting biological resources. As discussed above, Mitigation Measures BIO-1 and BIO-2 would reduce potential impacts to burrowing owls and migratory and nesting birds to a less than significant level. Therefore, this impact is considered less than significant.

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f) **No Impact.** The project site is not located in a Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Implementation of the proposed project would result in no impact associated with the potential to conflict with local conservation plans.

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 Report for the Holtville Peaker BESS Project* prepared by RECON. This study is provided as Appendix C of this Initial Study.

a) **No Impact.** Prior to the cultural resources survey conducted by RECON, a records search was requested from the California Historical Resources Information System, South Coastal Information Center (SCIC) to identify any previously recorded cultural resources within a one-mile radius of the project area. Additionally, on October 20, 2022, a RECON archaeologist and a Native American monitor from Red Tail Environmental conducted a pedestrian survey of the project area.

<u>Sacred Lands File Search</u>

On October 17, 2022, a letter was sent to the Native American Heritage Commission (NAHC) requesting a search of their Sacred Lands File (SLF) to identify spiritually significant and/or sacred sites or traditional use areas in the project vicinity. The NAHC was also asked to provide a list of local Native American tribes, bands, or individuals that may have concerns or interests regarding cultural resources potentially occurring within the project area. The NAHC SLF search results response was received on December 12, 2022 with positive results.

<u>Records Search</u>

The SCIC records search indicated that there have been 16 cultural investigations conducted within one mile of the project site, one of which includes the project site. The records search also indicated 12 historic-era cultural resources situated within one mile of the project site. These cultural resources are comprised of a park with associated community center, a canal, a government building, a single-family property, a bridge, three concrete foundations, and four trash scatters. None of the previously recorded cultural resources were mapped to be within the project area.

<u>Pedestrian Survey</u>

No significant or potentially significant prehistoric or historic cultural resources were observed during the pedestrian survey of the project area.

<u>Impacts</u>

The SCIC records search was negative for the project area and returned only historic-era resources within the requested search area of one mile. Furthermore, no significant or potentially significant prehistoric or historic cultural resources were observed during the

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pedestrian survey of the project area. The possibility of intact buried significant cultural resources being present within the project site is considered low due to past agriculture disturbance of the project site.

Based on the distance from known resources, disturbance from past agricultural activities, and the negative results of the SCIC survey, the proposed project would have no impact on historical resources.

b) **Less than Significant Impact with Mitigation Incorporated.** As described above, no evidence of cultural resources was identified on the project site during the survey. The property has undergone disturbance from past agricultural activities and grading in past decades. These agricultural activities have likely disturbed the surface and subsurface of the project area, destroying any intact potential prehistoric or historic-era cultural resources. The potential of finding a buried archaeological site during construction is considered low. However, like all construction projects in the state, the possibility exists. This potential impact is considered significant. Implementation of Mitigation Measure CR-1 would reduce the potential impact associated with the inadvertent discovery of archaeological resources to a level less than significant.

Mitigation Measure:

CR-1 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 Department. 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 applicant shall retain the services of a qualified professional archaeologist, meeting the Secretary of the Interior’s Standards for a Qualified Archaeologist, to 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.

c) **Less than Significant Impact with Mitigation Incorporated.** During the 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-2 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-2 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

a) **Less than Significant Impact.** The proposed project would provide energy storage. The use of energy associated with the proposed project includes both construction and operational activities. Construction activities consume energy through the use of heavy construction equipment and truck and worker traffic. The proposed project will use energy-conserving construction equipment, including standard mitigation measures for construction combustion equipment recommended in the ICAPCD CEQA Air Quality Handbook. The use of better engine technology, in conjunction with the ICAPCD's standard mitigation measures will reduce the amount of energy used for the project. The proposed project would involve storage of power from the IID grid during non-peak electricity usage, so that it can be released back into the grid during peak periods, allowing for resiliency on the electrical grid. 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. This is considered a less than significant impact.

b) **Less than Significant Impact.** As described above, the proposed project would involve purchase of power during off-peak energy use, and release of power back into the electrical grid during peak use periods, allowing for energy resiliency. The project's source of energy could be from traditional energy sources, as well as renewable if such electricity is a component of the electrical load on the IID K line. The proposed project would not conflict with or obstruct a state or local plan for renewable energy of energy efficiency. This is considered a less than significant impact.

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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?	☐	☒	☐	☐

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Impact Analysis

ai) **No Impact.** According to the DOC's California Earthquake Hazards Zone Application (EQ Zapp), 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 (California DOC n.d.). However, an earthquake fault zone associated with the Rico Fault is located approximately 0.13-mile southwest 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, no impact would occur.

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. As previously mentioned above, no active faults are underlaying the project site, however, the Rico Fault and its associated earthquake fault zone is located approximately 0.13-mile southwest of the project site. All structures and onsite facilities would be designed in accordance with the most recent 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 considered to be 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. All four conditions may exist to some degree at the project site; however, the project site is not located in an area susceptible to liquefaction hazards (California DOC n.d.). Additional geotechnical investigation would be required in order to assess the risk of liquefaction in the project area.

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 located in a relatively flat portion of Imperial County and is not identified as an area at risk of landslide (County of Imperial 1997). 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.

Lateral Spreading. 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 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.

Liquefaction. As described in Response VII. aiii) above, the project site is not located in an area susceptible to liquefaction hazards (California DOC n.d.). Additional geotechnical investigation would be required in order to assess the risk of liquefaction in the project area. 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.

Collapse. The potential for collapse to occur on the project site has not yet been determined. Additional geotechnical investigation would be required in order to assess the risk of collapse 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 collapse. A less than significant impact is identified for this issue area.

d) **Less than Significant Impact.** According to the United States Department of Agriculture's Web Soil Survey, soils mapped on the project site include 115-Imperial Glenbar silty clay loams, wet, 0 to 2 percent slopes (USDA n.d.). In general, much of the near surface soils within the project site consist of silty clay and clays having a moderate to high expansion potential. Unless properly mitigated, shrink-swell soils could exert additional pressure on buried structures producing shrinkage cracks that could allow water infiltration and compromise the integrity of backfill material. These conditions could be worsened if structural facilities are constructed directly on expansive soil materials.

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 recent 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 Geologic Map of California – San Diego-El Centro Sheet, the project site is underlain by Quaternary lake deposits (Ql) (Jennings, C.W. 1962). The project site is located in the Imperial Valley which 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 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 encountered 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 *Greenhouse Gas Analysis* prepared by RECON. This report is provided as Appendix D 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.

The project site is located within the Salton Sea Air Basin, regulated by the ICAPCD. To date the ICAPCD has not adopted GHG emission 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)).

Due to the climate and land use patterns, the Antelope Valley AQMD and Mojave Desert APCD are air districts that are most similar to the ICAPCD's jurisdiction. As outlined in the Antelope Valley AQMD's 2016 California Environmental Quality Act (CEQA) and Federal Conformity Guidelines and Mojave Desert APCD's 2016 California Environmental Quality Act (CEQA) and Federal Conformity Guidelines, the two air districts both recommend use of a GHG emissions significance threshold of 100,000 short tons of CO_2e per year (90,718 CO_2e). Projects with emissions that exceed this threshold are required to incorporate mitigation sufficient to reduce emissions to less than this significance threshold or must incorporate all feasible mitigation. In absence of adopted GHG significance thresholds, the threshold of 90,718 CO_2e is an appropriate CEQA significance threshold for the assessment of GHG emissions for the purposes of this project.

The following analysis is broken out by a discussion of potential impacts during construction and operation of the project. The CalEEMod 2022.1 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 D of this Initial Study.

<u>Construction</u>

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).

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Table 3 summarizes the specific 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.

Table 3. Construction Phases and Equipment

Equipment	Quantity	Daily Operation Time (hours)
Site Preparation (3 weeks)		
Rubber Tired Dozers	3	8
Tractors/Loaders/Backhoes	4	8
Grading/Trenching (10 weeks)		
Grader	1	8
Excavator	1	8
Rubber Tired Dozer	1	8
Tractors/Loaders/Backhoes	3	8
Foundations/Installation/Wiring/Commissioning (19 weeks)		
Crane	1	7
Forklifts	3	8
Generator Set	1	8
Tractors/Loaders/Backhoes	3	7
Welder	1	8

Source: Appendix D of this Initial Study

As shown in Table 4, the project would generate approximately 8 metric tons of CO_2e annualized over the lifetime of the project.

Table 4. Construction-Related GHG Emissions

Year	GHG Emissions (MT CO_2e)
2024	239
Amortized Over 30 Years	**8**

Source: Appendix D of this Initial Study

Operation

Once the BESS facility is 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. To account for these trips, a total of one round trip (two one-way trips) was modeled per weekday with a default trip length of 20 miles.

As shown in Table 5, the project buildout operations including amortized construction emissions would generate approximately 417 metric tons of CO_2e per year, which is below the significance threshold of 90,718 metric tons of CO_2e per year. Therefore, the project's GHG impact would be less than significant.

Table 5. Total GHG Emissions

Source	GHG Emissions (MT CO_2e)
Mobile	4

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Energy	402
Area	1
Water	0
Solid Waste	0
Refrigerants	2
Construction	8
Project Total GHG Emissions	**417**
Screening Threshold	**90,718**
Exceeds Screening Threshold of 90,718 MT of CO_2e / Year?	**No**

Source: Appendix D of this Initial Study

b) **Less than Significant Impact.** The proposed project would not conflict with any adopted plans, policies, or regulations adopted for the purpose of reducing GHG emissions. As discussed above in Response VIII. a), the project-generated GHG emissions would not exceed GHG significance thresholds. 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

a) **Less than Significant Impact.** Vehicles and equipment used for construction would contain or require the temporary 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)

EEC ORIGINAL PKG

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.

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.** 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, Cal/OSHA requirements, the Hazardous Waste Control Act, the 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.

Protection would be provided as part of the project design by housing the battery units in enclosed structures to provide containment should a fire break out or for potential spills. Any potential fire risk that the traditional lithium-ion cells have will most likely be caused by over-charging or through short circuit due to age. Fire protection systems for battery systems would be designed in accordance with standards and requirements for energy storage system including, but not limited to the following:

National Fire Protection Association
- 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.

Occupational Safety and Health Administration
- 29 CFR 1910.134(g)(4)

California Fire Code
- Chapter 12 section 1206 Electrical Energy Storage System

EEC ORIGINAL PKG

- Chapter 9 Fire Protection and Life Safety System

The general approach to fire mitigation at the project site would be prevention of an incident, followed by attempts to isolate and control the incident to the immediately affected equipment. The proposed project would use the TESLA or equal battery system. Due to the use of the TESLA or equal battery system, fire protection in the event of a fire will be to protect the surrounding areas. The TESLA system is designed to melt within their containers. Extinguishing the battery fires are not recommended as this would prolong the fire and smoke.

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, a less than significant impact would occur.

c) **Less than Significant Impact.** The project site is located within 0.25 mile of Holtville High School and Sam Webb Continuation High. 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, Cal/OSHA requirements, the Hazardous Waste Control Act, the CalARP Program, and the California Health and Safety Code. Compliance with these measures would reduce any potential risk or impact to nearby schools. This impact is considered less than significant.

d) **No Impact.** Database searches were conducted on July 24, 2023 for potential hazardous sites located on, or within one-quarter mile of the project site using the California Department of Toxic Substances Control's EnviroStor Database and State Water Resources Control Board's Geotracker database. These databases are an online search and Geographic Information System (GIS) tool for identifying sites that have known contamination or sites for which there may be reasons to further investigate. No reported cases were found on the project site and no active sites were located within one-quarter mile of the project site (California Department of Toxic Substances Control 2023; State Water Resources Control Board 2023). 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 2 miles of a public airport. The nearest airport is the Holtville Airport located over 6 miles northeast of the project site. 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 and immediately west of the City of Holtville's city boundary. 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. The nearest fire hazard severity zone is classified as moderate and located over 35 miles west to the project site (California Department of Forestry and Fire Protection 2022). 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.** No known or reasonably expected surface water quality issues are anticipated to result from implementation of the proposed project. 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

EEC ORIGINAL PKG

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) **No Impact.** The proposed project will not involve the use of groundwater. Water to be used during project-related construction activities will be limited to the amount necessary to conduct dust control activities. During construction, construction water would be brought to the site for soil conditioning and dust suppression. Dewatering activities are not anticipated to be performed as part of the project. As a result, the proposed project would not impede groundwater recharge and no impact would occur.

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) **Less than Significant Impact.** According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (Map Number 06025C1734C), the project site is located within Zone X, which is an area determined to be outside of the 0.2 percent annual chance of a flood (FEMA 2021). The project site is located approximately 0.15 mile east of a Special Flood Hazard Area, Zone AE, which is an area subject to inundation by the 1% annual chance flood (100-year flood zone) (FEMA 2020).

The proposed access road would not involve the addition of structures which could impede or redirect flood flows. In addition, the proposed access road would be constructed with an all-weather surface allowing runoff to continue to percolate into the ground. Therefore, the proposed access road would not 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 impede or redirect flood flows, and impacts would be less than significant.

d) **No Impact.** The project site is located over 100 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 over 25 miles northwest 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 low

EEC ORIGINAL PKG

and therefore, 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. No impact would occur.

e) **Less than Significant Impact.** The proposed project will not involve the use of groundwater. Water to be used during project-related construction activities will be limited to the amount necessary to conduct dust control activities. During construction, construction water would be brought to the site for soil conditioning and dust suppression. Dewatering activities are not anticipated to be performed as part of the project. 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 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) **Less than Significant Impact.** The project site is located on a vacant parcel within an urbanized area immediately west of the City of Holtville's city boundary, and within the City's Sphere of Influence. The project site is surrounded by residential development to the north, east, and west. Residential development located within the jurisdiction of the City of Holtville is located east of the project, east of Melon Road. The proposed project does not involve project components that could physically divide an established community. Therefore, implementation of the proposed project would not divide an established community and no impact would occur.

b) **No Impact.** The project's consistency with applicable land use plans, policies, and regulations is evaluated below.

County of Imperial Land Use Ordinance. The project site is located on a vacant parcel within an urbanized area immediately west of the City of Holtville's city boundary, and within the City's Sphere of Influence. Until annexed, development within the Sphere of Influence is guided by the Urban Area land use classification of the 2008 Imperial County General Plan. The project site is zoned Light Industrial within Urban Area of Holtville (M-1 U). The proposed BESS facility will be conducted pursuant to Conditions of Approval of a CUP that has been applied for with Imperial County Planning and Development Services. According to Title 9, Division 5, Chapter 15, the following uses are permitted in the M-1 zone subject to approval of a CUP from Imperial County:

i) Battery Storage

jj) Major facilities relating to the generation and transmission of electrical energy, provided such facilities are not, under state or federal law, to be approved exclusively by an agency, or agencies of the state and/or federal governments, and provided that such facilities shall be approved subsequent to coordination and review with the Imperial Irrigation District for electrical matters. Such uses shall include, but not 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/230kV/161kV)

Therefore, with approval of the CUP, the proposed project would not conflict with the County of Imperial Land Use 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 to the project site are construction sand and gravel (County of Imperial 1997). The project does not propose any extraction and thus loss of availability of these mineral resources. 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.

EEC ORIGINAL PKG

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 Analysis* prepared by RECON. This report is provided as Appendix E of this Initial Study.

a) **Less than Significant Impact.**

Existing noise levels at the project site were measured on February 3, 2023. Measurement 1 was located at the northern project boundary, approximately 50 feet south of Alamo Road. The main source of noise at this location was vehicle traffic on Alamo Road. Secondary sources of noise included bird vocalizations, barking dogs, and a distant siren. Noise levels were measured for 15 minutes. The average measured noise level was 55.9 dB(A) Leq.

Measurement 2 was located at the western project boundary, approximately 50 feet east of the dirt road. The main source of noise at this location was vehicle traffic on Alamo Road. Secondary sources of noise included bird vocalizations, barking dogs, and roosters. Noise levels were measured for 15 minutes. The average measured noise level was 48.9 dB(A) Leq.

Measurement 3 was located at the eastern project boundary, approximately 50 feet west of Melon Road. The main source of noise at this location was vehicle traffic on Melon Road. Secondary sources of noise included vehicle traffic on Alamo Road, bird vocalizations, and hammering. Noise levels were measured for 15 minutes. The average measured noise level was 52.4 dB(A) Leq.

<u>Construction</u>

Construction activities associated with the project would include site preparation, grading, excavation, and foundation work for the placement of the BESS storage containers and inverters. Project construction noise would be generated by diesel engine-driven construction equipment. Noise impacts from construction are a function of the noise generated by equipment, the location and sensitivity of nearby land uses, and the timing and

EEC ORIGINAL PKG

duration of the noise-generating activities. The loudest activities associated with the proposed project would be those associated with site preparation and grading. Construction noise levels were calculated assuming the simultaneous use of the following three pieces of equipment: a grader, a loader, and a water truck. Water truck noise levels were assumed to be equivalent to a dump truck. Although more construction equipment would be present onsite, not all would be used at the same time. Simultaneous use of this equipment would generate an average hourly noise level of 84.3 dBA L_{eq} at 50 feet, which is equivalent to a sound power level of 115.9 dBA L_{pw}.

Noise associated with project construction would potentially result in short-term impacts to surrounding properties. The project is surrounded by residential and industrial uses. The nearest sensitive receptors are the residential uses located north, west, and east of the project site. Construction noise levels were calculated based on the simultaneous use of a grader, loader, and water truck. Noise levels were modeled at a series of 20 receivers located at the adjacent properties. The results are summarized in Table 6. Modeled receiver locations and construction noise contours are shown in Figure 7.

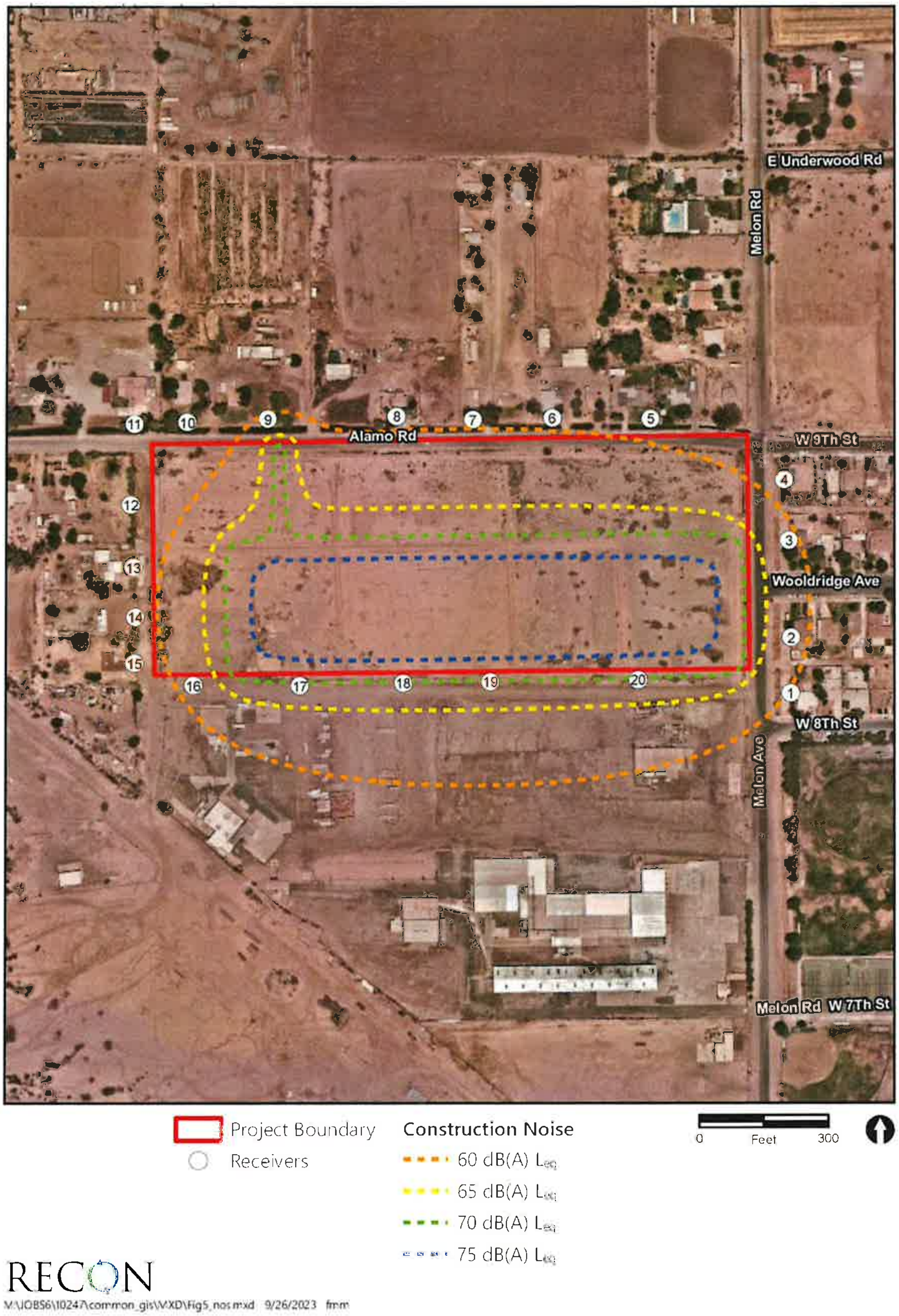
As shown, construction noise levels are not anticipated to exceed the County's construction noise level limit of 75 dB(A) Leq at the adjacent properties. Construction activities would only occur during the times allowable by the City and County Municipal Codes (7 a.m. to 7 p.m., Monday through Friday, and 9 a.m. to 5 p.m. Saturday). No construction activities that generate impulsive noise levels would be required. Although the existing adjacent residences would be exposed to construction noise levels that could be heard above ambient conditions, the exposure would be temporary. Therefore, project construction would not exceed noise level limits established in the County's Municipal Code and would only occur during the daytime hours, and temporary increases in noise levels during construction would be less than significant.

Table 6. Construction Noise Levels

Receiver	Zoning/Jurisdiction	Construction Noise Level (dBA L_{eq})
1	R-1 (Single Family)/City	60
2	R-1 (Single Family)/City	61
3	R-1 (Single Family)/City	61
4	R-1 (Single Family)/City	59
5	A-1 U (Limited Agriculture Urban)/County	59
6	C-2 U (Medium Commercial Urban)/County	59
7	A-1 U (Limited Agriculture Urban)/County	60
8	A-1 U (Limited Agriculture Urban)/County	59
9	A-1 U (Limited Agriculture Urban)/County	61
10	A-1 U (Limited Agriculture Urban)/County	57
11	A-1 U (Limited Agriculture Urban)/County	56
12	A-1 U (Limited Agriculture Urban)/County	57
13	A-1 U (Limited Agriculture Urban)/County	58
14	A-1 U (Limited Agriculture Urban)/County	59
15	A-1 U (Limited Agriculture Urban)/County	58
16	M-1 U (Light Industrial Urban)/County	62
17	M-1 U (Light Industrial Urban)/County	69
18	M-1 U (Light Industrial Urban)/County	70
19	M-1 U (Light Industrial Urban)/County	70
20	M-1 U (Light Industrial Urban)/County	70

Source: Appendix E of this Initial Study

Figure 7. Construction Noise Contours



Source: Appendix E of this Initial Study

EEC ORIGINAL PKG

Operation

The County General Plan Noise Element identifies property line noise level limits that apply to noise generation from one property to an adjacent property (excluding construction noise). As stated in the Noise Element, the property line noise level limits imply the existence of a sensitive receptor on the adjacent, or receiving, property. In the absence of a sensitive receptor, an exception or variance to the standards may be appropriate.

County Code of Ordinances Title 9, Division 7: Noise Abatement and Control, specifies noise level limits. Noise level limits are summarized in Table 7. Noise level limits do not apply to construction equipment.

Table 7. Imperial County Property Line Noise Limits

Zone	Time	One-Hour Average Sound Level [dB(A) L_{eq}]
Residential: All R-1	7:00 a.m. to 10:00 p.m.	50
	10:00 p.m. to 7:00 a.m.	45
Residential: All R-2, R-3, R-4 and all other residential	7:00 a.m. to 10:00 p.m.	55
	10:00 p.m. to 7:00 a.m.	50
All Commercial	7:00 a.m. to 10:00 p.m.	60
	10:00 p.m. to 7:00 a.m.	55
Manufacturing, all other industrial, including agricultural and extraction industry	(anytime)	70
General Industrial Zones	(anytime)	75

Source: Appendix E of this Initial Study

The project site and the property to the south are zoned M-1 U (Light Industrial Urban), the properties to the west and north are zoned A-1 U (Limited Agriculture Urban) and C-2 U (Medium Commercial Urban), and the property to the northeast is zoned R-1 U (Low Density Residential Urban). The properties to the east are within City boundaries and have a City zoning designation of R-1 (Single Family). Note that for the purposes of this analysis, the County noise level limits for R-1 residential uses were applied to these City properties.

The primary noise sources onsite would be the inverters and the BESS containers. Noise levels for operations were modeled at a series of 20 receivers located at the adjacent properties similar to construction. Future projected noise levels are summarized in Table 8. Modeled receiver locations and operational noise contours are shown in Figure 8.

As shown in Table 8, operational noise levels would not exceed the applicable noise level limits at the adjacent properties. Further, Section 17.10.150 of the City's Municipal Code states noise levels shall not exceed five decibels above the ambient noise level of the area. As previously mentioned above, the ambient noise level on the project site ranged from 48.9 to 55.9 dB(A) Leq. Operational noise levels at the City properties (Receivers 1 through 4) would not exceed five decibels above the ambient noise level. Therefore, project operation would not result in noise levels that exceed City or County standards, and operational noise impacts would be less than significant.

Conclusion

Based on the preceding analysis, the project is not anticipated to generate construction of operational noise levels that exceed the applicable noise limits. Therefore, the project's noise impact is considered less than significant.

EEC ORIGINAL PKG

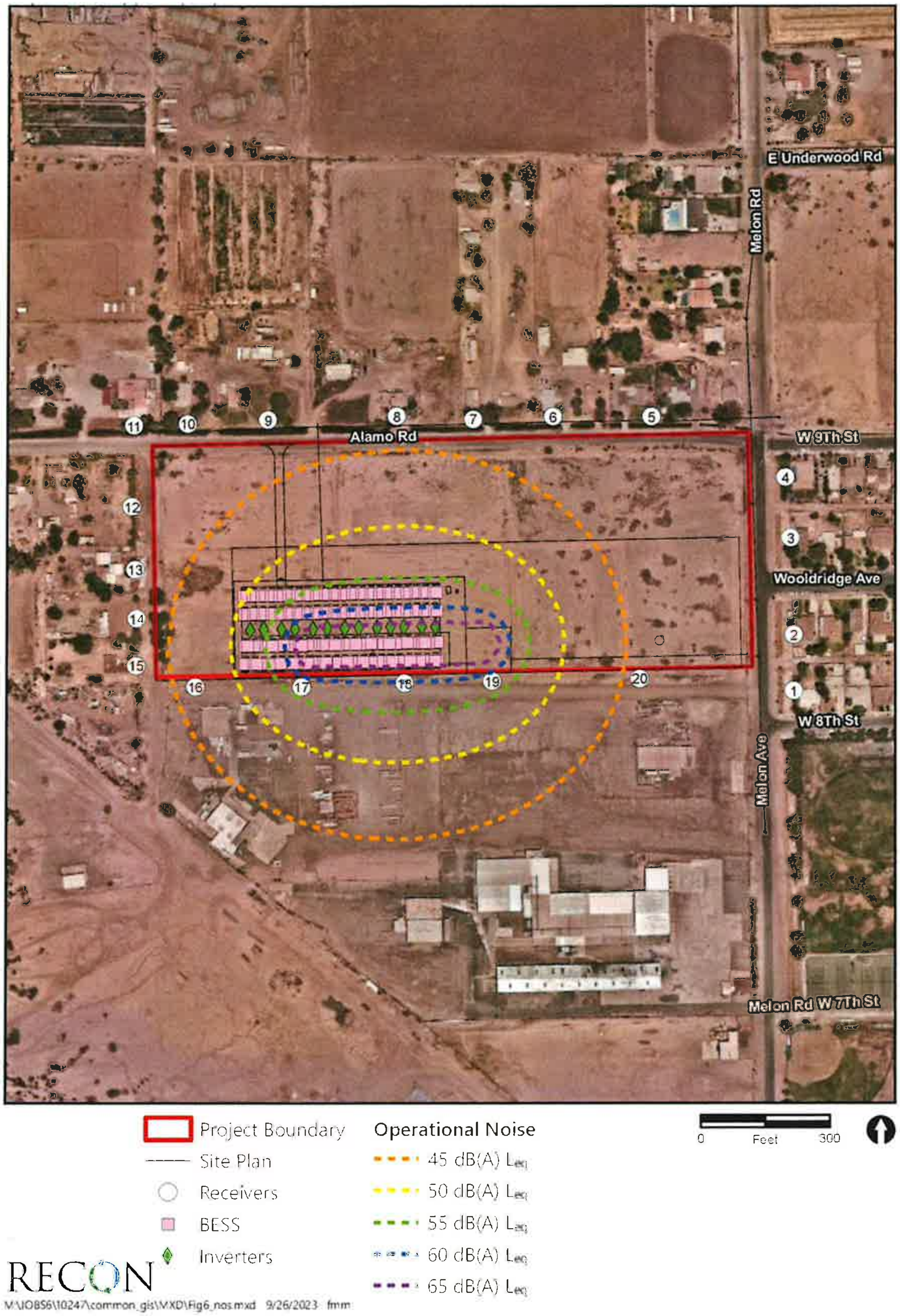
Table 8. Operational Noise Levels

Receiver	Zoning/Jurisdiction	Noise Level Limit Daytime/Nighttime (dBA L_{eq})	Operational Noise Level (dBA L_{eq})
1	R-1 (Single Family)/City	50/45	38
2	R-1 (Single Family)/City	50/45	38
3	R-1 (Single Family)/City	50/45	38
4	R-1 (Single Family)/City	50/45	37
5	A-1 U (Limited Agriculture Urban)/County	70/70	39
6	C-2 U (Medium Commercial Urban)/County	60/55	42
7	A-1 U (Limited Agriculture Urban)/County	70/70	43
8	A-1 U (Limited Agriculture Urban)/County	70/70	43
9	A-1 U (Limited Agriculture Urban)/County	70/70	42
10	A-1 U (Limited Agriculture Urban)/County	70/70	41
11	A-1 U (Limited Agriculture Urban)/County	70/70	39
12	A-1 U (Limited Agriculture Urban)/County	70/70	41
13	A-1 U (Limited Agriculture Urban)/County	70/70	42
14	A-1 U (Limited Agriculture Urban)/County	70/70	43
15	A-1 U (Limited Agriculture Urban)/County	70/70	43
16	M-1 U (Light Industrial Urban)/County	70/70	51
17	M-1 U (Light Industrial Urban)/County	70/70	58
18	M-1 U (Light Industrial Urban)/County	70/70	58
19	M-1 U (Light Industrial Urban)/County	70/70	51
20	M-1 U (Light Industrial Urban)/County	70/70	43

Source: Appendix E of this Initial Study

EEC ORIGINAL PKG

Figure 8. Operational Noise Contours



Source: Appendix E of this Initial Study

EEC ORIGINAL PKG

b) **Less than Significant Impact.** Groundborne vibration could originate from earth movement during the construction phase of the proposed project. However, significant vibration is typically associated with activities such as blasting or the use of pile drivers, neither of which would be required during project construction. The proposed project would be expected to comply with all applicable requirements for long-term operation, as well as with measures to reduce excessive groundborne vibration to ensure that the proposed project would not expose persons or structures to excessive groundborne vibration. Therefore, a less than significant impact has been identified for this issue area.

c) **No Impact.** The project site is not located within 2 miles of a public airport. The nearest airport is the Holtville Airport located more than 6 miles northeast 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 BESS facility on a vacant and disturbed parcel. 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 proposed BESS facility. 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.

EEC ORIGINAL PKG

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 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, there will be a water storage tank to provide a minimum of 20,000 gallons of water for firefighting use onsite. 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 project site is approximately .67 miles from the Imperial County Sheriff's Office Holtville Station. The City of Holtville is a contract city for the Imperial County Sheriff's Office; however, the project site is not under the jurisdictional responsibility of the Holtville Station. The nearest station for a response to the project site is the El Centro Station, which is approximately 11 miles from the project site.

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.

The project applicant will coordinate with the Imperial County Sheriff's Department on conditions of approval as part of the CUP to ensure the proposed project would not result in a significant impact on police protection services. Conditions of approval could include the preparation of a detailed/safety plan, installation of adequate lighting, fencing, and safety measure to prevent or deter criminal activity, and installation of surveillance cameras at the project site. With adherence to the conditions of approval as part of the CUP, no impact would occur.

EEC ORIGINAL PKG

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 8 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 for security, maintenance, and system monitoring. 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 8 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 for security, maintenance, and system monitoring. 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 8 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 for security, maintenance, and system monitoring. 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.

EEC ORIGINAL PKG

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

a) **Less than Significant Impact.** Interstate 8 provides regional access to the project site and is located approximately 8 miles north of the project. Adjacent roadways providing local vehicular access to the project site include East Alamo Road to the north and Melon Road to the east. Construction of the project would be temporary, and the traffic volumes generated by construction would be minor. Once the proposed BESS facility is operational, there would be no increase in automobile trips to the area. While it is anticipated that the proposed BESS facility would require periodic maintenance, maintenance would be minimal requiring a negligible amount of traffic trips on an annual basis. Therefore, the potential for the proposed project to cause an increase in traffic to the existing traffic load and capacity of the street system would be negligible and this is considered a less than significant impact.

The project site is located immediately west of the City of Holtville city boundary in Imperial County. According to the Imperial County Transportation Commission (ICTC) Regional Active Transportation Plan, the City of Holtville is currently proposing an active transportation project (ATP) to implement bicycle infrastructure improvements in accordance with the City of Holtville's Complete Streets Plan, City of Holtville Bicycle Master Plan, and Imperial County's Bicycle Master Plan Update (ICTC 2022).

New bicycle facilities in the ATP for the City of Holtville are proposed along Melon Road, adjacent to the project parcel. However, the ATP has no determined schedule and is not funded (ICTC 2023). Furthermore, the proposed project would not require any roadway modifications to Melon Road and would not preclude future bicycle facilities from being constructed.

In addition, there are no existing public transportation facilities or pedestrian facilities in close proximity to the project site. Therefore, the proposed project would result in a less than significant impact related to 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

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travel associated with a project. Construction of the project would be temporary, and the traffic volumes generated by construction would be minor. Given the nature of the project, after construction, there would be a nominal amount of vehicle trips generated by the project. Once the proposed BESS facility is operational, there would be no increase in automobile trips to the area. While it is anticipated that the proposed BESS facility would require periodic maintenance, maintenance would be minimal requiring a negligible amount of traffic trips on an annual basis. Therefore, the proposed project would result in a less than significant VMT impact.

c) **Less than Significant Impact.** The proposed project does not include any alteration to the existing public road network. The proposed access road would be designed to accommodate trucks delivering heavy equipment and ingress and egress for maintenance vehicles for the BESS facility. The proposed access road would not be open to the public and would be maintained as long as the proposed project is being constructed or in use. Once the BESS facility is retired or abandoned, the access road would be returned to pre-project conditions. This impact is considered less than significant.

d) **Less than Significant 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 result in inadequate emergency access and this impact is considered less than significant.

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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.** 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, the County provided notification of the proposed project to the Campo Band of Mission Indians and Quechan Indian Tribe on June 1, 2023. The County requested for tribes to provide any information regarding any Traditional Cultural Properties, Sacred Sites, resource collecting areas, or any other areas of concern known to occur in the project area. On June 1, 2023, the Quechan Indian Tribe responded via e-mail that they do not wish to comment on the proposed project. The Campo Band of Mission Indians did not provide a response within the 30-day review period. Therefore, the project is not anticipated to cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC 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 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 PRC Section 5024.1, and, per the criteria set forth in Section 5024.1, considering the significance of the resource to a California Native American tribe. Therefore, no impact would occur.

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. The project's water use would be limited to the construction phase, and no infrastructure would be required to provide water to the project site. Water will be obtained from IID canals in conformance with IID construction water acquisition requirements. Water will be picked up from the source and delivered to the project site by a water truck which will be capable of carrying approximately 4,000 gallons. The proposed BESS facility would not generate wastewater that would need to be treated by a wastewater treatment facility. Storm water control would be implemented for the project site and access road. Due to the lack of public utilities and services available within the project site, and the lack of need to provide expanded services to accommodate the project, impacts are considered less than significant.

b) **Less than Significant Impact.** The project's water use would be limited to grading and dust control during the construction phase. Water will be obtained from IID canals in conformance

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with IID construction water acquisition requirements. Water will be picked up from the source and delivered to the project site by a water truck which will be capable of carrying approximately 4,000 gallons. Operation of the BESS facility would not require significant amount of water and would be limited to general maintenance activities. Therefore, 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. Onsite 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. There are several solid waste facilities within Imperial County and solid waste will be disposed of using a locally-licensed waste hauling service, most likely Allied Waste. Trash would likely be hauled to the Calexico Solid Waste Site (13-AA-0004) located in Calexico. The Calexico Solid Waste Site has approximately 1,561,235 cubic yards of remaining capacity and is estimated to remain in operation through 2179. (CalRecycle 2023). Therefore, there is ample landfill capacity in the County to receive the minor amount of solid waste generated by construction and operation of the proposed project. A less than significant impact is identified for this issue area.

e) **Less than Significant Impact.** The proposed project 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 well 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.** 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. The nearest fire hazard severity zone is classified as moderate and located over 35 miles west to the project site (California Department of Forestry and Fire Protection 2022). 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

As described in Response IV. a) above, burrowing owls were not present on the project site during the field survey; however suitable nesting and foraging habitat is present and they may be present at the start of project construction. If burrowing owls are present, project construction could result in take or other direct impacts. Indirect impacts to burrowing owls could also result if they are present in the lands surrounding the project site and project construction produces dust, noise, or other disturbances to this species. Mitigation Measure BIO-1 would avoid take and reduce potential impacts to this species to below a level of significance by requiring pre-construction surveys and establishing avoidance buffers. The loss of burrowing owl foraging habitat would be less than significant given the abundance of suitable foraging habitat in the lands surrounding the project site and throughout the region.

As described in Response IV. b) above, migratory and nesting birds have potential to occur within the project area due to suitable nesting grounds within ornamental vegetation. If migratory and nesting birds are present, project construction could result in direct impacts during the Colorado Desert nesting season (January 15 to July 15). Indirect impacts to migratory and nesting birds could also result if they are present in the lands surrounding the project site and project construction produces dust, noise, or other disturbances to this species. Mitigation Measure BIO-2 would avoid take and reduce potential impacts to this species to below a level of significance by requiring pre-construction surveys and establishing buffer zones.

Cultural Resources

As described in Response V. b) above, the potential of finding a buried archaeological site during construction is considered low. However, like all construction projects in the state, the possibility exists. This potential impact is considered significant. Implementation of Mitigation Measure CR-1 would reduce the potential impact associated with the inadvertent discovery of archaeological resources 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. This potential impact is considered significant. Implementation of Mitigation Measure CR-2 would ensure that the potential impact on previously unknown human remains does not rise to a 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, agricultural and forestry resources, air quality, 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 and traffic, and utilities and service systems.

The proposed project would have potential impacts that are significant on the following resources areas: biological resources, cultural resources and geology and soils. 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

Gerardo Quero, Planner I

HDR

Tim Gnibus, Principal

Sharyn Del Rosario Hidalgo, Project Manager

Regan Del Rosario, Environmental Planner

Benjamino Volta, Cultural Resources Project Manager

Daniel Leonard, Senior Cultural Resources Specialist

Aaron Newton, Biologist 2

Sharon Jacob, Geographic Information Systems Analyst

Katherine Turner, Document Production Administrator

Technical Report Preparers

RECON Environmental, Inc.

- Air Quality Analysis
- Biological Resources Survey
- Cultural Resources Report
- Greenhouse Gas Analysis
- Noise Analysis

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:

NA ☐ 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.

11-16-2023

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

11-16-2023

Date

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COMMENT LETTERS

EEC ORIGINAL PKG

Gerardo Quero

From:	Aimee Trujillo
Sent:	Thursday, 1 June, 2023 2:03 PM
To:	Jill McCormick
Cc:	Gerardo Quero
Subject:	RE: [EXTERNAL]:CUP22-0029 Request for Comments

Good afternoon,

Thank You for your response.

Aimee Trujillo
Office Assistant III
Imperial County Planning & Development Services
801 Main Street
El Centro, CA 92243
(442) 265-1736
(442) 265-1735 (Fax)
aimeetrujillo@co.imperial.ca.us

From: Jill McCormick <historicpreservation@quechantribe.com>
Sent: Thursday, June 1, 2023 12:17 PM
To: Aimee Trujillo <aimeetrujillo@co.imperial.ca.us>
Subject: RE: [EXTERNAL]:CUP22-0029 Request for Comments

This email is to inform you that we do not wish to comment on this project.

Thank you,
H. Jill McCormick, M.A.

Quechan Indian Tribe
Historic Preservation Officer
P.O. Box 1899
Yuma, AZ 85366-1899
Office: 760-572-2423
Cell: 928-261-0254
E-mail: historicpreservation@quechantribe.com

GREAT SEAL
TOGETHER WE PROGRESS
FT. YUMA QUECHAN INDIANS

From: Aimee Trujillo <aimeetrujillo@co.imperial.ca.us>
Sent: Thursday, June 01, 2023 11:47 AM
To: Rachel Garewal <RachelGarewal@co.imperial.ca.us>; Sandra Mendivil <SandraMendivil@co.imperial.ca.us>; Jolene Dessert <JoleneDessert@co.imperial.ca.us>; Belen Leon <BelenLeon@co.imperial.ca.us>; Ana L Gomez <analgomez@co.imperial.ca.us>; Margo Sanchez <MargoSanchez@co.imperial.ca.us>; Monica Soucier <MonicaSoucier@co.imperial.ca.us>; Jesus Ramirez <JesusRamirez@co.imperial.ca.us>; Rosa Lopez <RosaLopez@co.imperial.ca.us>; John Hawk <johnhawk@co.imperial.ca.us>; Rosa Lopez <RosaLopez@co.imperial.ca.us>; Vanessa Ramirez <VanessaRamirez@co.imperial.ca.us>; Jeff Lamoure <JeffLamoure@co.imperial.ca.us>; Mario Salinas <MarioSalinas@co.imperial.ca.us>; Jorge Perez <JorgePerez@co.imperial.ca.us>; Alphonso Andrade <AlphonsoAndrade@co.imperial.ca.us>; Salvador Flores <SalvadorFlores@co.imperial.ca.us>; Robert Malek <RobertMalek@co.imperial.ca.us>; Guillermo Mendoza <GuillermoMendoza@co.imperial.ca.us>; rbenavidez@icso.org; rkelley@icso.org; Andrew Loper <AndrewLoper@co.imperial.ca.us>; John Gay <JohnGay@co.imperial.ca.us>; Fred Miramontes <fmiramontes@icso.org>; Donald Vargas - IID <DVargas@IID.com>; nwells@holtville.ca.gov; celso@husd.net; Robert Krug <Robert.Krug@dtsc.ca.gov>; jmesa@campo-nsn.gov; Jill McCormick <historicpreservation@quechantribe.com>; Gabby Emerson <tribalsecretary@quechantribe.com>; holtvillenews@aol.com
Cc: Jim Minnick <JimMinnick@co.imperial.ca.us>; Michael Abraham <MichaelAbraham@co.imperial.ca.us>; Diana Robinson <DianaRobinson@co.imperial.ca.us>; Gerardo Quero <gerardoquero@co.imperial.ca.us>; Aimee Trujillo <aimeetrujillo@co.imperial.ca.us>; John Robb <JohnRobb@co.imperial.ca.us>; Laryssa Alvarado <laryssaalvarado@co.imperial.ca.us>; Melina Rizo <melinarizo@co.imperial.ca.us>; Rosa Soto <RosaSoto@co.imperial.ca.us>; Valerie Grijalva <ValerieGrijalva@co.imperial.ca.us>; Kamika Mitchell <kamikamitchell@co.imperial.ca.us>
Subject: [EXTERNAL]:CUP22-0029 Request for Comments

Good morning,

Please see attached Request for Comments packet for **CUP22-0029**, APN **045-570-087** {2275 Melon Rd., Holtville CA 92250} **Holtville Peaker BESS Facility.**

Comments are due by **June 30th 2023 at 5:00PM.**

In an effort to increase the efficiency at which information is distributed and reduce paper usage, the Request for Comments packet is being sent to you via this email.

Should you have any questions, please feel free to contact Gerardo Quero at (442) 265-1736, or submit your comment letters to ICPDScommentletters@co.imperial.ca.us.

Thank you,

Aimee Trujillo
Office Assistant III
Imperial County Planning & Development Services
801 Main Street
El Centro, CA 92243
(442) 265-1736
(442) 265-1735 (Fax)
aimeetrujillo@co.imperial.ca.us

IMPERIAL COUNTY CALIFORNIA

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

June 27, 2023

Gerardo Quero, Planner I
I.C. Planning & Development Services Department
801 Main Street
El Centro, CA 92243

Re: CUP#22-0029 Holtville Peaker BESS Facility

Dear Mr. Quero,

Our department received and reviewed documents pertaining to Conditional Use Permit #22-0029 for applicant Holtville Peaker BESS Facility. The applicant proposes to construct a 100 MW energy storage facility (Peaker Plant) using Battery Energy Storage Systems (BESS) to be situated on a 17-acre Light Industrial (M-1-U) zoned lot at 2275 Melon Rd., Holtville, CA 92250.

Should the project require movement of plant material into Imperial County, the applicant must follow the requirements for movement of plant material into Imperial County from other counties or from out of state. The applicant can contact our Pest Detection and Eradication Division for any questions regarding the quarantines of movement of plant material, as there are several quarantines that must be observed. Please contact CDFA Nursery Services Program for requirements regarding movement of cannabis nursery stock and nursery license. Please refer to the handouts attached to find about quarantine requirements and failure to comply penalties.

If you or the applicant has any question, please contact me at 442-265-1500.

Respectfully,

Rachel Garewal

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

June 21, 2023

Landscaper/Nursery

This letter is to remind you of the requirements you must follow for movement of plant material into Imperial County. There are many quarantines which must be observed. The most complex is for the glassy-winged sharpshooter and detailed directions for compliance follow. However, there are a few other quarantines that you should be aware of and they are listed at the end of this letter.

There is a State Interior Quarantine in place to prevent artificial movement of the glassy-winged sharpshooter (GWSS). The GWSS is a hardy insect which feeds on many common landscape plants and crops. It carries and spreads *Xylella fastidiosa*, a bacterium which is deadly to many plants. Imperial County is the only Southern California County that is not infested with the glassy-winged sharpshooter, and is designated as an enforcing county.

A summary of the quarantine requirements for entry of GWSS-host nursery stock from infested counties:

- Nursery stock must be purchased from a nursery that is under Compliance Agreement with the Agricultural Commissioner's office in that County. The plants should enter Imperial County with paperwork that includes the GWSS Compliance Agreement Number stamp, the required blue tag (see below), and Certificate of Quarantine Compliance (CQC) if applicable.

- Every shipment of nursery stock from an infested county must be accompanied by a Warning Hold for Inspection Certificate also known as a blue tag. As stated on the blue tag, this requires the receiver to hold the shipment off sale upon arrival and call our office for an inspection. It is very important that we be notified immediately upon arrival of the plant shipment. You must not commingle the new shipment with previously-released nursery stock until released by our office. Our office hours are Monday through Friday, 8:00 AM to 5:00 PM. Please call as early as possible. If you intend to bring in plants on a Saturday or Holiday, you must notify our office in advance.

- Landscapers that have their own growing ground or holding yard where they store nursery stock are required to be licensed as a nursery. Landscapers that do not hold or store that stock prior to its delivery to the planting site do not need a license.

- All landscapers must comply with the requirements listed above for every shipment brought into the County. You also must hold the stock at its destination (preferably away from other plants) and call our office for an inspection - you may not plant any of the nursery stock until the plants have been inspected and released by our office. If you are buying and transporting nursery stock into Imperial County, it is your responsibility to obtain the required documents from the origin nursery and call for the inspection upon arrival.

- For every shipment, you must have a proof of ownership document for the nursery stock.

(442) 265-1500 | fax (442) 265-5708 | agcom@co.imperial.ca.us | agcom.imperialcounty.org

Penalties for failure to comply with the quarantine requirements listed above:

- Any violation of quarantine requirements is an infraction punishable by a fine of $1,000 for the first offense. For a second or subsequent offense within three years, the violation is punishable as a misdemeanor (Food and Ag Code, Section 5309).

- In lieu of any civil action, the Agricultural Commissioner may levy a civil penalty for up to $2,500 for each violation (Food and Ag Code, Section 5311).

- In addition to any other action taken, any violation of these requirements may be liable civilly in an amount not to exceed $10,000 for each violation (Food and Ag Code, Section 5310).

- Anyone that negligently or intentionally violates any quarantine regulation and imports a GWSS-infested plant that results in an infestation, or the spread of an infestation, may be civilly liable in an amount up to $25,000 for each violation (Food and Ag Code, Section 5028(c)).

Other restricted plant materials (If you intend to bring in any of the following commodities from outside Imperial County please contact us before the shipment date):

- Citrus species – All Citrus species are restricted from most locations within California.

- Phoenix palms – All palms of the Phoenix genus (this includes *Phoenix roebelinii*, a common landscape plant) originating in California are prohibited, unless it is from certain portions of Riverside County.

- Florida nursery stock- Must comply with California State Interior Quarantine CCR. 3271 Burrowing and Reniform Nematodes, RIFA federal Quarantine and other quarantines may apply.

- Arizona nursery stock- Must comply with California State Interior Quarantine CCR. 3261 Ozonium Root Rot.

- Also, if you intend to remove any plants from the soil and ship them out of Imperial County you must be certified free from Ozonium Root Rot. To do so you must be part of our program and you should contact our office.

If you have any questions please contact our office at (442) 265-1500.

Sincerely,

Nelson Perez
Deputy Agricultural Commissioner
Pest Detection and Eradication

EEC ORIGINAL PKG

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

RECEIVED

JUN 29 2023

IMPERIAL COUNTY
PLANNING & DEVELOPMENT SERVICES

June 29, 2023

TO: Gerardo Quero, Planning and Development Services Department

FROM: Rosa Lopez, Executive Office

SUBJECT: Request for Comments – Holtville Peaker BESS Facility Project / CUP22-0029, APN 045-570-087

The County of Imperial Executive Office is responding to a request for comments: Holtville Peaker BESS Facility Project / CUP22-0029, APN 045-570-087. 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.

EEC ORIGINAL PKG

150 SOUTH NINTH STREET
EL CENTRO, CA 92243-2850

AIR POLLUTION CONTROL DISTRICT

TELEPHONE: (442) 265-1800
FAX: (442) 265-1799

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JUN 30 2023
IMPERIAL COUNTY
PLANNING & DEVELOPMENT SERVICES

June 30, 2023

Jim Minnick
Planning & Development Services Director
801 Main Street
El Centro, CA 92243

SUBJECT: Conditional Use Permit (CUP) 22-0029 Holtville Peaker BESS Facility

Dear Mr. Minnick:

First and foremost, the Imperial County Air Pollution Control District (Air District) appreciates the opportunity to review and comment on the application for Conditional Use Permit (CUP) #22-0029 regarding the construction of a 100-megawatt (MW) Energy Storage Facility (Project). The Project as proposed is a Battery Energy Storage System (BESS) intended to provide power during peak usage by buying power off an existing grid and selling it back into the grid. While there is some evidence that energy storage systems provide a more resilient energy infrastructure the expectation of the transition from fossil fuels to renewable energy is still unclear. Case in point the Project analyzed here.

There are some concerns that the Air District has and the following comments are meant to address the concerns.

1) The location of the BESS is surrounded by sensitive receptors
2) While the Air Quality analysis (including the Green House Gas (GHG) analysis) mentioned the sensitive receptors there was not attempt to address worst case scenarios

Thus, the following comments are broken down into two categories, construction and operations.

For construction emissions the Air District noted that the CalEEMod analysis made changes to defaults that did not provide a sufficient buffer should the analyzed schedule for construction shorten or the equipment fleet increase.

Therefore, the Air District is requesting that the Project, in addition to adhering to all the standard and enhanced mitigation measures found in the Imperial County Air Pollution Control District CEQA Handbook (Handbook), adhere to the following conditions for the protection of the surrounding community.

1) Submit a construction equipment list by Make, Model, Horsepower and actual usage to the Air District on a monthly basis to determine the level of NOx emissions. Should NOx emissions exceed the construction NOx emissions then the applicant will need to abide by Policy 5.
2) An Enhanced Dust Control Plan must be submitted for approval by the Air District to assure that fugitive emissions do not cross property lines.

For operational emissions, the Air District has noted that other BESS have encountered circumstances where the entire facility or portions of the facility are disconnected from transmission systems. In these instances, the BESS has had no other option but to engage in the use of emergency back-up generators to supply auxiliary power to the facility operations itself. Neither the GHG analysis nor the Air Quality analysis took into account the possibility for these events and the use of back-up power to serve control room systems and HVAC systems.

Therefore, the Air District is requesting that the Project, adhere to the following conditions for the protection of the surrounding community.

1) Should the need for back-up power become necessary, the Project will submit an Authority to Construct Permit to the Air Pollution Control District.
2) The Project will include a Health Risk Assessment as part of the ATC submittal.
3) A buffer should be established to keep emergency fugitive emissions from impacting the surrounding community

Finally, the Air District notes that the Project is purchasing power from the IID grid not from a renewable source, i.e. a solar farm. Section 4.2.2 of the GHG analysis correctly describes the type of power the BESS will be storing, both fossil fuel derived power and renewable power. Unless the Project intends to connect directly to a renewable source, then the Project, at best, is simply a storage facility allowing for resiliency as opposed to providing "renewable" energy.

For your convenience, the Air District's rules and regulations can be accessed online at https://apcd.imperialcounty.org/rules-and-regulations. Should you have any questions or concerns please feel free to contact the Air District for assistance at (442) 265-1800.

Respectfully,

Monica N Soucier

Monica N Soucier
APC Division Manager

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June 30, 2023

Mr. Gerardo Quero
Planner I
Planning & Development Services Department
County of Imperial
801 Main Street
El Centro, CA 92243

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JUN 30 2023
IMPERIAL COUNTY
PLANNING & DEVELOPMENT SERVICES

SUBJECT: Holtville Peaker, LLC BESS Project; CUP22-0029

Dear Mr. Quero:

On June 1, 2023, the Imperial Irrigation District received from the Imperial County Planning & Development Services Department, a request for agency comments on the Holtville Peaker, LLC BESS Project; Conditional Use Permit No. 22-0029. The applicant, Apex Solutions, LLC, proposes to develop a 100MW battery energy storage facility on a 17-acre site located at the southwest corner of Alamo Road and Melon Road in Holtville, CA (APN 045-570-087-000). The project proposes to interconnect to the IID system via an existing power line.

The IID has reviewed the application and has the following comments:

1. The project is in the early stages of the interconnection process, and as of this date the district has yet to perform any transmission planning studies, consequently impacts to IID infrastructure or any new or upgraded IID facilities that may be necessary to accommodate the project's interconnection to the electrical grid have not been identified.

2. CUP application document shows some discrepancies with the information provide to the district: the project is proposing a 60MW BESS yet the application mentions 100MW, the proposed interconnection point is at IID's 92kV "E" line and the application alludes to an IID xxx line.

3. However, assuming there are no issues identified in the planning studies with the point of interconnection at IID's 92kV "E" line, the project would require, at minimum, a new switching station to loop in-and-out of the "E" line (most likely at the project site), or a 92kV gen-tie into Holtville substation if there is adequate space.

4. For Distribution-rated electrical service to the project, the applicant should be advised to contact Joel Lopez, IID project development service planner, at (760) 482-3444 or e-mail Mr. Lopez at jflopez@iid.com to initiate the customer service application process. In addition to submitting a formal application (available for download at http://www.iid.com/home/showdocument?id=12923), the applicant will be required to submit an AutoCAD file of site plan, complete set of approved electrical plans stamped by engineers who are registered in the State of California, which should include electrical panel size and panel location, operating voltage and 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.

5. 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.

6. 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.

7. 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.

8. 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.

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

Sergio Quiroz – Interim General Manager
Mike Pacheco – Manager, Water Dept.
Jamie Asbury – Manager, Energy Dept.
Matthew H Smelser – Deputy Mgr. Energy Dept.
Daryl Buckley – Mgr. of Distribution Srvcs. & Maint. Oprtns., 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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IMPERIAL COUNTY SHERIFF'S OFFICE
FRED MIRAMONTES
SHERIFF-CORONER-MARSHAL

Chief Deputy Ryan Kelley
328 Applestill Road
El Centro, Ca. 92243
(442) 265-2003
rkelley@icso.org

July 6, 2023

Imperial County Planning & Development Services
801 Main Street
El Centro, Ca. 92243
(442) 265-1736

Planning & Development Services,

The Imperial County Sheriff's Office is the Chief Law Enforcement agency in Imperial County. The Sheriff's Office provides general law enforcement, detention and court services for the residents, business owners and visitors of Imperial County.

The proposed project site is located within the Imperial County Sheriff's Office jurisdiction. The project is located at 2275 Melon Road in Holtville, California (APN 045-570-087). The site is approximately .67 miles from the Imperial County Sheriff's Office Holtville Station. The City of Holtville is a contract city for the Imperial County Sheriff's Office, however, the project site is not the jurisdictional responsibility of the Holtville Station. The nearest station for a response to the project site is the El Centro Station, which is approximately 11 miles from the project site.

The applicant is proposing to construct a 100MW Energy Storage Facility (Peaker Plant) using Battery Energy Storage Systems (BESS) to be situated on a 17-acre Industrial (M-1-U) zoned lot. The lot is approximately 1,000 feet from the Holtville High School.

The Imperial County Sheriff's Office provides services to similar facilities. Calls for service can vary from burglaries, vandalisms, thefts and trespassing. Calls can result in arrests of offenders for felony property crimes. Some investigations require extensive follow up from our criminal investigations division and our scientific investigations unit. The Imperial County Sheriff's Office is committed to facilities operating in our area of responsibility and will deploy every resource available to assist in the apprehension and prosecution of those responsible for these crimes.

The Imperial County Sheriff's Office requests that the below conditions be incorporated onto the Holtville Peaker BESS Facility Conditional Use Permit #22-0029. This request is in consideration of the potential hazards to the Imperial County Sheriff's Office employees associated with responding to calls for service originating at this facility:

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1. The Imperial County Sheriff's Office request that a detailed security/safety plan and diagram be included and approved by the county prior to any activity on the premises.
2. Provide training to ICSO employees on safety procedures and emergency response protocols to ensure the safety of our employees in response to an event or unforeseen emergency at an energy storage facility. Procedures shall be detailed in the safety/security plan for the project site.
3. Install adequate lighting, fencing and safety measures to prevent or deter criminal activity.
4. Install license plate reading cameras at all ingress and regress locations at the project site and grant access to the Imperial County Sheriff's Office to review the data collected. It is requested that these cameras be included in the security plan.
5. Install surveillance cameras at the project site to allow for 24/7, three hundred and sixty degree remote viewing capabilities and recording of activity on the 17-acre lot. It is requested that the surveillance cameras be included in the security plan.

The Sheriff's Office feels that this project would create a significant impact and there are safety concerns for Sheriff's Office personnel and members of our community. As first responders to emergency situations, the Sheriff's Office would deploy our resources from the Holtville Station in the event of a threat to public safety. If there is an increase for calls for service as a result of this project and the Sheriff's Office maintains its current personnel allocations, funding and equipment, service levels may drop below acceptable levels or industry standards for the residents of the County and the City of Holtville.

The Imperial County Sheriff's Office is available to discuss our concerns with the advancement of CUP #22-0029. If you have any questions, please contact the Imperial County Sheriff's Office at (442)265-2002.

Sincerely,

Chief Deputy Ryan Kelley

Valerie Grijalva

From:	Krug, Robert@DTSC <Robert.Krug@dtsc.ca.gov>
Sent:	Monday, July 10, 2023 1:57 PM
To:	Aimee Trujillo; celso@husd.net
Cc:	Michael Abraham; Gerardo Quero; Diana Robinson; John Robb; Kamika Mitchell; Laryssa Alvarado; Rosa Soto; Valerie Grijalva
Subject:	RE: CUP22-0029 Request for Comments

My comments:
Do they have any Hazardous Materials over the regulated threshold?
Will they generate Hazardous Waste?
Will they have petroleum Aboveground Storage Tank(s) greater than regulated threshold? Example, a diesel generator.
Will they have any petroleum Underground Storage Tanks?
Will they be a CalARP facility?
Basically, will they be in the CUPA program? If so, then they must create a CERS account prior to operating.

Also, are they next to or near a school, housing, or any other sensitive areas?
If the batteries catch fire, will they need to evacuate nearby areas due to the toxic chemicals being released into the air and then potentially deposited on the surrounding land?
What is their response, mitigation, and remediation plans for this potential scenario?
If it is unmanned, how will this facility be secure and any needed response actions be immediately communicated and responded to?
Bob

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JUL 10 2023
IMPERIAL COUNTY
PLANNING & DEVELOPMENT SERVICES

Robert Krug
Supervisor / Senior Environmental Scientist
Department of Toxic Substances Control
Imperial CUPA
627 Wake Avenue
El Centro, CA 92243
Robert.Krug@dtsc.ca.gov
(760) 336-8919 Work
(760) 457-7376 Cell

From: Aimee Trujillo <aimeetrujillo@co.imperial.ca.us>
Sent: Monday, July 10, 2023 10:19 AM
To: celso@husd.net; Krug, Robert@DTSC <Robert.Krug@dtsc.ca.gov>
Cc: Michael Abraham <MichaelAbraham@co.imperial.ca.us>; Gerardo Quero <gerardoquero@co.imperial.ca.us>; Diana Robinson <DianaRobinson@co.imperial.ca.us>; Aimee Trujillo <aimeetrujillo@co.imperial.ca.us>; John Robb <JohnRobb@co.imperial.ca.us>; Kamika Mitchell <kamikamitchell@co.imperial.ca.us>; Laryssa Alvarado <laryssaalvarado@co.imperial.ca.us>; Rosa Soto <RosaSoto@co.imperial.ca.us>; Valerie Grijalva <ValerieGrijalva@co.imperial.ca.us>
Subject: CUP22-0029 Request for Comments

Good morning,

Please see attached Request for Comments packet for **CUP22-0029**, APN **045-570-087** {2275 Melon Rd., Holtville CA 92250} **Holtville Peaker BESS Facility.**

Please feel free to submit any comments.

In an effort to increase the efficiency at which information is distributed and reduce paper usage, the Request for Comments packet is being sent to you via this email.

Should you have any questions, please feel free to contact Gerardo Quero at (442) 265-1736, or submit your comment letters to ICPDScommentletters@co.imperial.ca.us.

Thank you,

Aimee Trujillo
Office Assistant III
Imperial County Planning & Development Services
801 Main Street
El Centro, CA 92243
(442) 265-1736
(442) 265-1735 (Fax)
aimeetrujillo@co.imperial.ca.us

From: Aimee Trujillo
Sent: Thursday, June 1, 2023 11:47 AM
To: Rachel Garewal <RachelGarewal@co.imperial.ca.us>; Sandra Mendivil <SandraMendivil@co.imperial.ca.us>; Jolene Dessert <JoleneDessert@co.imperial.ca.us>; Belen Leon <BelenLeon@co.imperial.ca.us>; Ana L Gomez <analgomez@co.imperial.ca.us>; Margo Sanchez <MargoSanchez@co.imperial.ca.us>; Monica Soucier <MonicaSoucier@co.imperial.ca.us>; Jesus Ramirez <JesusRamirez@co.imperial.ca.us>; Rosa Lopez <RosaLopez@co.imperial.ca.us>; John Hawk <johnhawk@co.imperial.ca.us>; Rosa Lopez <RosaLopez@co.imperial.ca.us>; Vanessa Ramirez <VanessaRamirez@co.imperial.ca.us>; Jeff Lamoure <JeffLamoure@co.imperial.ca.us>; Mario Salinas <MarioSalinas@co.imperial.ca.us>; Jorge Perez <JorgePerez@co.imperial.ca.us>; Alphonso Andrade <AlphonsoAndrade@co.imperial.ca.us>; Salvador Flores <SalvadorFlores@co.imperial.ca.us>; Robert Malek <RobertMalek@co.imperial.ca.us>; Guillermo Mendoza <GuillermoMendoza@co.imperial.ca.us>; rbenavidez@icso.org; rkelley@icso.org; Andrew Loper <AndrewLoper@co.imperial.ca.us>; John Gay <JohnGay@co.imperial.ca.us>; Fred Miramontes <fmiramontes@icso.org>; Donald Vargas - IID <DVargas@IID.com>; nwells@holtville.ca.gov; celso@husd.net; Robert Krug <Robert.Krug@dtsc.ca.gov>; jmesa@campo-nsn.gov; Jill McCormick <historicpreservation@quechantribe.com>; Jordan D. Joaquin <tribalsecretary@quechantribe.com>; holtvillenews@aol.com
Cc: Jim Minnick <JimMinnick@co.imperial.ca.us>; Michael Abraham <MichaelAbraham@co.imperial.ca.us>; Diana Robinson <DianaRobinson@co.imperial.ca.us>; Gerardo Quero <gerardoquero@co.imperial.ca.us>; Aimee Trujillo <aimeetrujillo@co.imperial.ca.us>; John Robb <JohnRobb@co.imperial.ca.us>; Laryssa Alvarado <laryssaalvarado@co.imperial.ca.us>; Melina Rizo <melinarizo@co.imperial.ca.us>; Rosa Soto <RosaSoto@co.imperial.ca.us>; Valerie Grijalva <ValerieGrijalva@co.imperial.ca.us>; Kamika Mitchell <kamikamitchell@co.imperial.ca.us>
Subject: CUP22-0029 Request for Comments

Good morning,

Please see attached Request for Comments packet for **CUP22-0029**, APN **045-570-087** {2275 Melon Rd., Holtville CA 92250} **Holtville Peaker BESS Facility.**

Comments are due by **June 30th 2023 at 5:00PM.**

In an effort to increase the efficiency at which information is distributed and reduce paper usage, the Request for Comments packet is being sent to you via this email.

Should you have any questions, please feel free to contact Gerardo Quero at (442) 265-1736, or submit your comment letters to ICPDScommentletters@co.imperial.ca.us.

Thank you,

Aimee Trujillo
Office Assistant III
Imperial County Planning & Development Services
801 Main Street
El Centro, CA 92243
(442) 265-1736
(442) 265-1735 (Fax)
aimeetrujillo@co.imperial.ca.us

COUNTY OF IMPERIAL

DEPARTMENT OF PUBLIC WORKS

155 S. 11th Street
El Centro, CA
92243

Tel: (442) 265-1818
Fax: (442) 265-1858

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July 12, 2023

Mr. Jim Minnick, Director
Planning & Development Services Department
801 Main Street
El Centro, CA 92243

RECEIVED
JUL 12 2023
IMPERIAL COUNTY
PLANNING & DEVELOPMENT SERVICES

Attention: Gerardo Quero, Planner I

SUBJECT: CUP 22-0029 Holtville Peaker BESS Facility
Located on 15 W HWY 98, Calexico, CA 92231
APN's 058-180-001

Dear Mr. Minnick:

This letter is in response to your submittal received by this department on June 1, 2023 for the above mentioned project. The applicant proposes to construct a 100 MW Energy Storage Facility (Peaker Plant) using Battery Energy Storage Systems (BESS) to be situated on a 17-acre Light Industrial (M-1-U) zoned lot adjacent to city limits of the City of Holtville.

Department staff has reviewed the package information and the following comments shall be Conditions of Approval:

1. The Developer is to provide a full half width ROW along Alamo Road. Any power poles along Alamo need to be placed outside the future ROW, north of Alamo. Alamo Road is classified as Major Collector - four (4) lanes, requiring eighty four feet (84) of right of way, being forty two (42) feet from existing centerline. It is required that sufficient right of way be provided to meet this road classification. (As directed by Imperial County Board of Supervisors per Minute Order #6 dated 11/22/1994 per the Imperial County Circulation Element Plan of the General Plan).

2. Melon Road is classified as Local Road / Residential – two (2) lanes, requiring sixty feet (60) of right of way, being thirty (30) feet from existing centerline. It is required that sufficient right of way be provided to meet this road classification. (As directed by Imperial County Board of Supervisors per Minute Order #6 dated 11/22/1994 per the Imperial County Circulation Element Plan of the General Plan).

3. A Drainage and Grading Plan shall be prepared by a California Licensed Civil Engineer in the State of California to provide for property grading and drainage control, which shall also include prevention of sedimentation of damage to off-site properties. Said plan shall be completed per the Engineering Design Guidelines Manual for the Preparation and Checking of Street Improvement, Drainage, and Grading Plans within Imperial County. The Drainage and Grading Plan shall be submitted to this department for review and approval. The applicant shall implement

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the approved plan. Employment of the appropriate Best Management Practices (BMP's) shall be included.

4. A Commercial driveway from Alamo Rd to existing edge of pavement to County Right-of-Way / Property Line will be required per County of Imperial Department of Public Works Engineering Design Guidelines Manual – Rural Concrete Driveway for street with no curb Dwg. No. 410B.

5. The Site Plan shall be revised per County of Imperial standards. The one provided is difficult to determine the full scope of work. The guidelines can be found at: https://publicworks.imperialcounty.org/forms-and-guidelines/

6. The property lines shall be accurately depicted on the site plan by a person properly licensed by the State of California to practice Land Surveying. Per section 8762(b) of the Professional Land Surveyors' Act, it may be necessary to file a record of survey with the County Recorder of Imperial County.

7. The Developer shall be responsible for the rehabilitation of Alamo Road along the frontage of the site. Such rehabilitation shall include a 1" grind and 1" A.C. pavement overlay across the full width of Alamo Road from the existing Holtville City Limits at Melon Road to an approximate distance of 1,360 feet west of the city limits. The Developer shall prepare engineering plans for the rehabilitation of the road. Such plans shall be prepared by a Civil Engineer registered in the State of California and be submitted to this Department for review and approval. Any other improvements associated with this project (e.g., access driveway) shall be included in the plans.

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,

By: David Dale

David Dale, PE, PLS
Assistant Public Works Director, County Surveyor

Gerardo Quero

From:	Krug, Robert@DTSC <Robert.Krug@dtsc.ca.gov>
Sent:	Monday, 14 August, 2023 4:36 PM
To:	Gerardo Quero
Cc:	Diana Robinson; Michael Abraham
Subject:	RE: CUP22-0029 Request for Comments

CAUTION: This email originated outside our organization; please use caution.

Hi Gerardo,
I'm interested in the materials in the batteries that will be used on-site. What potential dangers they pose, if any, especially since there are sensitive populations nearby. Any potential dangers will need to be addressed in their site management plan, have emergency response equipment, and what actions to take to mitigate any toxic release. They say they will do this once the permit is issued to Planning.

For the CUPA, they must be in our program if they meet certain program element criteria, then we will inspect them for regulatory compliance for the program elements we manage. They state they will not be in the CUPA program, so they will not be inspected by us. However, we may visit them to verify that once they are operating.
Bob

Robert Krug
Supervisor / Senior Environmental Scientist
Department of Toxic Substances Control
Imperial CUPA
627 Wake Avenue
El Centro, CA 92243
Robert.Krug@dtsc.ca.gov
(760) 336-8919 Work
(760) 457-7376 Cell

From: Gerardo Quero <gerardoquero@co.imperial.ca.us>
Sent: Monday, August 14, 2023 2:03 PM
To: Krug, Robert@DTSC <Robert.Krug@dtsc.ca.gov>
Cc: Diana Robinson <DianaRobinson@co.imperial.ca.us>; Michael Abraham <MichaelAbraham@co.imperial.ca.us>
Subject: RE: CUP22-0029 Request for Comments

Good afternoon Mr. Krug,
Checking if your agency was going to have any comments in reference to this particular project in order to incorporate them as part of the Initial Study?
Any questions, please let me know.

Regards and thanks in advance.

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Gerardo A. Quero
Planner I
Imperial County Planning
& Development Services
801 Main Street
El Centro, CA 92243
Phone (442) 265-1736

From: Krug, Robert@DTSC <Robert.Krug@dtsc.ca.gov>
Sent: Thursday, 3 August, 2023 12:20 PM
To: Gerardo Quero <gerardoquero@co.imperial.ca.us>
Cc: Diana Robinson <DianaRobinson@co.imperial.ca.us>; Michael Abraham <MichaelAbraham@co.imperial.ca.us>
Subject: RE: CUP22-0029 Request for Comments

Ok thanks,
Bob

Robert Krug
Supervisor / Senior Environmental Scientist
Department of Toxic Substances Control
Imperial CUPA
627 Wake Avenue
El Centro, CA 92243
Robert.Krug@dtsc.ca.gov
(760) 336-8919 Work
(760) 457-7376 Cell

From: Gerardo Quero <gerardoquero@co.imperial.ca.us>
Sent: Wednesday, August 2, 2023 11:42 AM
To: Krug, Robert@DTSC <Robert.Krug@dtsc.ca.gov>
Cc: Diana Robinson <DianaRobinson@co.imperial.ca.us>; Michael Abraham <MichaelAbraham@co.imperial.ca.us>
Subject: FW: CUP22-0029 Request for Comments

Good morning Mr. Krug,
Below you will find answers provided from the applicant to the set of questions CUPA had for the applicant in reference to this project.
Hopefully this answers will give you a clearer picture of the project itself to generate CUPA comments
Should you have any questions, please feel free to contact us.

Regards and thanks in advance

EEC ORIGINAL PKG

Gerardo A. Quero
Planner I
Imperial County Planning
& Development Services
801 Main Street
El Centro, CA 92243
Phone (442) 265-1736

From: jurgheuberger@gmail.com <jurgheuberger@gmail.com>
Sent: Wednesday, 2 August, 2023 11:36 AM
To: Gerardo Quero <gerardoquero@co.imperial.ca.us>
Cc: Diana Robinson <DianaRobinson@co.imperial.ca.us>; David Black <DavidBlack@co.imperial.ca.us>
Subject: RE: CUP22-0029 Request for Comments

Gerardo

Please see my response below……for both

Jurg

From: Gerardo Quero <gerardoquero@co.imperial.ca.us>
Sent: Wednesday, August 2, 2023 11:26 AM
To: jurgheuberger@gmail.com
Cc: Diana Robinson <DianaRobinson@co.imperial.ca.us>; David Black <DavidBlack@co.imperial.ca.us>; Michael Abraham <MichaelAbraham@co.imperial.ca.us>
Subject: FW: CUP22-0029 Request for Comments

Good morning Mr. Jurg,
Below you will find a set of questions that Imperial CUPA has prior to providing any comments in reference to this project.
Also, I would like to know if you could contact RECON to check if a response (letter) from NAHC was ever received for positive or negative results on the project's APN as part of the Cultural Study performed.
Any questions, please feel free to contact me. **We have put in a request to RECON and should have an answer for you later today or tomorrow….**

Regards and thanks in advance

Gerardo A. Quero
Planner I
Imperial County Planning
& Development Services
801 Main Street
El Centro, CA 92243
Phone (442) 265-1736

From: Krug, Robert@DTSC <Robert.Krug@dtsc.ca.gov>
Sent: Monday, 10 July, 2023 1:57 PM

EEC ORIGINAL PKG

To: Aimee Trujillo <aimeetrujillo@co.imperial.ca.us>; celso@husd.net
Cc: Michael Abraham <MichaelAbraham@co.imperial.ca.us>; Gerardo Quero <gerardoquero@co.imperial.ca.us>; Diana Robinson <DianaRobinson@co.imperial.ca.us>; John Robb <JohnRobb@co.imperial.ca.us>; Kamika Mitchell <kamikamitchell@co.imperial.ca.us>; Laryssa Alvarado <laryssaalvarado@co.imperial.ca.us>; Rosa Soto <RosaSoto@co.imperial.ca.us>; Valerie Grijalva <ValerieGrijalva@co.imperial.ca.us>
Subject: RE: CUP22-0029 Request for Comments

CAUTION: This email originated outside our organization; please use caution.

My comments:
Do they have any Hazardous Materials over the regulated threshold? **NO**
Will they generate Hazardous Waste? **NO**
Will they have petroleum Aboveground Storage Tank(s) greater than regulated threshold? Example, a diesel generator. **NO**
Will they have any petroleum Underground Storage Tanks? **NO**
Will they be a CalARP facility? **NO**
Basically, will they be in the CUPA program? If so, then they must create a CERS account prior to operating. **To our knowledge we will not be a CUPA regulated facility**

Also, are they next to or near a school, housing, or any other sensitive areas? **The high school is about two blocks to the southeast.**
If the batteries catch fire, will they need to evacuate nearby areas due to the toxic chemicals being released into the air and then potentially deposited on the surrounding land? **These batteries melt down but comment noted**
What is their response, mitigation, and remediation plans for this potential scenario? **If and when the permit is approved and prior to construction we generally have to submit such a plan and will do so**
If it is unmanned, how will this facility be secure and any needed response actions be immediately communicated and responded to? **This site is remotely controlled, monitored and operated at 24/7. It is also fully secured via fencing.**
Bob

Robert Krug
Supervisor / Senior Environmental Scientist
Department of Toxic Substances Control
Imperial CUPA
627 Wake Avenue
El Centro, CA 92243
Robert.Krug@dtsc.ca.gov
(760) 336-8919 Work
(760) 457-7376 Cell

From: Aimee Trujillo <aimeetrujillo@co.imperial.ca.us>
Sent: Monday, July 10, 2023 10:19 AM
To: celso@husd.net; Krug, Robert@DTSC <Robert.Krug@dtsc.ca.gov>
Cc: Michael Abraham <MichaelAbraham@co.imperial.ca.us>; Gerardo Quero <gerardoquero@co.imperial.ca.us>; Diana Robinson <DianaRobinson@co.imperial.ca.us>; Aimee Trujillo <aimeetrujillo@co.imperial.ca.us>; John Robb <JohnRobb@co.imperial.ca.us>; Kamika Mitchell <kamikamitchell@co.imperial.ca.us>; Laryssa Alvarado <laryssaalvarado@co.imperial.ca.us>; Rosa Soto <RosaSoto@co.imperial.ca.us>; Valerie Grijalva <ValerieGrijalva@co.imperial.ca.us>
Subject: CUP22-0029 Request for Comments

Good morning,

Please see attached Request for Comments packet for **CUP22-0029**, APN **045-570-087** {2275 Melon Rd., Holtville CA 92250} **Holtville Peaker BESS Facility.**

Please feel free to submit any comments.

In an effort to increase the efficiency at which information is distributed and reduce paper usage, the Request for Comments packet is being sent to you via this email.

Should you have any questions, please feel free to contact Gerardo Quero at (442) 265-1736, or submit your comment letters to ICPDScommentletters@co.imperial.ca.us.

Thank you,

Aimee Trujillo
Office Assistant III
Imperial County Planning & Development Services
801 Main Street
El Centro, CA 92243
(442) 265-1736
(442) 265-1735 (Fax)
aimeetrujillo@co.imperial.ca.us

From: Aimee Trujillo
Sent: Thursday, June 1, 2023 11:47 AM
To: Rachel Garewal <RachelGarewal@co.imperial.ca.us>; Sandra Mendivil <SandraMendivil@co.imperial.ca.us>; Jolene Dessert <JoleneDessert@co.imperial.ca.us>; Belen Leon <BelenLeon@co.imperial.ca.us>; Ana L Gomez <analgomez@co.imperial.ca.us>; Margo Sanchez <MargoSanchez@co.imperial.ca.us>; Monica Soucier <MonicaSoucier@co.imperial.ca.us>; Jesus Ramirez <JesusRamirez@co.imperial.ca.us>; Rosa Lopez <RosaLopez@co.imperial.ca.us>; John Hawk <johnhawk@co.imperial.ca.us>; Rosa Lopez <RosaLopez@co.imperial.ca.us>; Vanessa Ramirez <VanessaRamirez@co.imperial.ca.us>; Jeff Lamoure <JeffLamoure@co.imperial.ca.us>; Mario Salinas <MarioSalinas@co.imperial.ca.us>; Jorge Perez <JorgePerez@co.imperial.ca.us>; Alphonso Andrade <AlphonsoAndrade@co.imperial.ca.us>; Salvador Flores <SalvadorFlores@co.imperial.ca.us>; Robert Malek <RobertMalek@co.imperial.ca.us>; Guillermo Mendoza <GuillermoMendoza@co.imperial.ca.us>; rbenavidez@icso.org; rkelley@icso.org; Andrew Loper <AndrewLoper@co.imperial.ca.us>; John Gay <JohnGay@co.imperial.ca.us>; Fred Miramontes <fmiramontes@icso.org>; Donald Vargas - IID <DVargas@IID.com>; nwells@holtville.ca.gov; celso@husd.net; Robert Krug <Robert.Krug@dtsc.ca.gov>; jmesa@campo-nsn.gov; Jill McCormick <historicpreservation@quechantribe.com>; Jordan D. Joaquin <tribalsecretary@quechantribe.com>; holtvillenews@aol.com
Cc: Jim Minnick <JimMinnick@co.imperial.ca.us>; Michael Abraham <MichaelAbraham@co.imperial.ca.us>; Diana Robinson <DianaRobinson@co.imperial.ca.us>; Gerardo Quero <gerardoquero@co.imperial.ca.us>; Aimee Trujillo <aimeetrujillo@co.imperial.ca.us>; John Robb <JohnRobb@co.imperial.ca.us>; Laryssa Alvarado <laryssaalvarado@co.imperial.ca.us>; Melina Rizo <melinarizo@co.imperial.ca.us>; Rosa Soto <RosaSoto@co.imperial.ca.us>; Valerie Grijalva <ValerieGrijalva@co.imperial.ca.us>; Kamika Mitchell <kamikamitchell@co.imperial.ca.us>
Subject: CUP22-0029 Request for Comments

Good morning,

EEC ORIGINAL PKG

Please see attached Request for Comments packet for **CUP22-0029**, APN **045-570-087** {2275 Melon Rd., Holtville CA 92250} **Holtville Peaker BESS Facility.**

Comments are due by **June 30th 2023 at 5:00PM.**

In an effort to increase the efficiency at which information is distributed and reduce paper usage, the Request for Comments packet is being sent to you via this email.

Should you have any questions, please feel free to contact Gerardo Quero at (442) 265-1736, or submit your comment letters to ICPDScommentletters@co.imperial.ca.us.

Thank you,

Aimee Trujillo
Office Assistant III
Imperial County Planning & Development Services
801 Main Street
El Centro, CA 92243
(442) 265-1736
(442) 265-1735 (Fax)
aimeetrujillo@co.imperial.ca.us

CITY OF HOLTVILLE

121 West Fifth Street
Civic Center · Holtville, California 92250 · (760) 356-2912
"The Carrot Capitol of the World"

August 15, 2023

Imperial County
Planning & Development Services
801 Main Street
El Centro, CA 92243

SUBJECT: Proposed 100 MW Energy Storage Facility (Peaker Plant) using Battery Energy Storage Systems (BESS) at 2275 Melon Road (APN: 045-570-087)

To whom it may concern:

On August 2, 2023, the City of Holtville received from the Imperial County Planning & Development Services, a request for agency comments on a proposed 100 MW Energy Storage Facility (Peaker Plant) using Battery Energy Storage Systems (BESS) at 2275 Melon Road, outside of the City of Holtville limits (APN: 045-570-087)

The City has reviewed the application and has the following comments:

1. The proposed project site is located within the Sphere of Influence of the City of Holtville. The Land Use Element of the City of Holtville General Plan classifies the project site as (LDR) Low-Density Residential. Thus, the proposed project is not consistent with the General Plan, as the LDR zone is designated for the development of low-density single-family dwellings, accessory buildings, and other uses compatible with and oriented toward serving low density single-family neighborhoods.

   Likewise, the surrounding properties are zoned (R-1) Single-Family by the City of Holtville Zoning Code and (LDR) Low-Density Residential by the General Plan. The development of the energy storage system should be analyzed by the County and appropriate Conditions of Approval be instituted to ensure compatibility with existing and planned uses. Appropriate Conditions of Approval should include requirements to minimize visual impacts by providing sufficient screening through landscaping. Additional Conditions of Approval should also include space buffering so that the battery systems and overhead lines are located as far away from existing and planned uses.

   It should also be noted that the property on the northeast corner of Melon and Alamo Roads was recently annexed into the City of Holtville. The project includes the development of 152 multi-family residential units. Again, appropriate Conditions of Approval shall be instituted to ensure compatibility.

   Further, the City recently approved a 50MW Battery Energy Storage System (BESS) at the southwestern corner of Melon Road and 6th Street. The City understands the need for Battery Energy Storage Systems and approved the 6th Street BESS because the surrounding land uses are industrial and are appropriate in that location. The site at Melon and Alamo is not appropriate because of the surrounding residential land uses. The project proponent should examine other more appropriate sites. If the project is to be approved at this location, Conditions of Approval shall be incorporated as previously mentioned to ensure compatibility.

2. The Circulation Element of the City of Holtville General Plan classifies Melon Road and East Alamo Road as arterial roadways. Figure C-4 depicts complete arterial street cross sections containing two (2) 8' vehicle parking spaces, two (2) 4' bike lanes, and four (4) 10' vehicle lanes. Thus, the total curb-to-curb distance must be 64'. Additionally, a minimum of 10' sidewalk is required on both sides of the road. Melon Road and East Alamo Road currently contain a 25' street cross section with no paved sidewalks. The Applicant shall need to dedicate the necessary property along the north and east boundary of the subject site to comply with the required 84' arterial complete street cross section of Melon Road and East Alamo Road.

3. Approximately 75% of stormwater runs to the northwest portion of the City of Holtville and Sphere of Influence, where East Alamo Road and Melon Road intersect, northeast of the project site. The accumulation of stormwater within the project site may be detrimental to the energy storage facility and surrounding neighborhoods. The applicant shall not release stormwater to the City streets if a buildup of stormwater develops on-site during a significant storm event. Elevating the property can be recommended to prevent stormwater runoff into the neighboring single-family homes. In addition, the applicant may need to elevate the battery containers to prevent any on-site hazards.

4. The Imperial County Fire Department and the Holtville Fire Department participate in the California Fire Service and Rescue Emergency Mutual Aid System. Per section IX.13 of the Mutual Aid Plan, the appropriate local Fire and Rescue Administrator shall provide mutual aid resources when requested by the Operational (County) Area Fire and Rescue coordinator to the extent of their availability without unreasonably depleting their own resources. The nearest County Fire Station is located in Heber which is approximately 14 miles from the project site. Thus, the Holtville Fire Department will be the primary first responder due to its proximity being approximately 1 mile from the site.

   Points of access such as gates and entrances at the project site shall comply with the Holtville Fire Department Standards. Additional requirements regarding safety and medical first responders may be implemented by the City of Holtville Fire Department. Insufficient data has been provided per the submitted site plans to address any more specific comments regarding fire or medical issues. Medical emergency issues may become a point of concern if a medical emergency employee is required to work/respond at the energy storage facility. A Fire and Emergency Response plan must be reviewed, approved, and filed with the Holtville Fire Department.

   It appears that domestic water and sanitary sewer services are not required for this project, but should they be needed, there is an existing 10" water line and 8" sewer line on Melon Road. If the project is to connect to City services, City standards shall apply. Additional requirements for the Imperial County Local Area Formation Commission (ICLAFCO) may apply.

   Should you have any questions, please do not hesitate to contact me at (760) 337-3883 or at mamarillas@theholtgroup.net. Thank you for the opportunity to comment on this matter.

Sincerely,

Melany Amarillas
Assistant Planner
The Holt Group, Inc

Reviewed by,

Jeorge Galvan, AICP
Consultant City Planner

EEC ORIGINAL PKG

ADMINISTRATION / TRAINING
1078 Dogwood Road
Heber, CA 92249

Administration
Phone: (442) 265-6000
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 2:10 pm, Sep 07, 2023

August 25, 2023

RE: Conditional Use Permit #22-0029
Holtville Peaker BESS (Battery Energy Storage Systems)
2275 Melon Rd., Holtville, CA 92250
APN: 045-570-087

Imperial County Fire Department Fire Prevention Bureau would like to thank you for the opportunity to review and comment on the Holtville Peaker BESS Facility, CUP#22-0029.

The project description is to construct a 100 MW Energy Storage Facility using Battery Energy Storage Systems (BESS) on 17 Acres lot adjacent to the city limits of the City of Holtville CA 92250.

Imperial County Fire Department has the following comments in regards to the application:

Project Description notes*: There will be water storage pond or tank to provide a minimum of 20,000 gallons of water for firefighting use. Additional storage may be provided if so, required by the County Fire Dept.* The water storage and flow requirements will be determined by the Imperial County Fire Department and appendix B in the California Fire Code. Onsite private fire service mains and appurtenance shall be install installed with NFPA 20, 22, and 24.

The operations description notes: *"Due to the use of TESLA or equal battery systems, fire protection in the event of a fire will be to simply protect the surrounding areas but not to extinguisher the battery fires as that would only prolong the fire and smoke. TESLA system are designed to essentially "melt" within their containers and therefore attempting to extinguish a fire would only make the problem worse"* This comment for fire operations does not address the public hazards associated with thermal runaway of battery systems and the effects of batteries fires of the surrounding public. Limited data is provided on the effects of toxic smoke produce and possible explosive blast by fire of BESS. Mitigation analysis shall be prepared to address toxic smoke, explosion blast and other hazards related to BESS that will affect the neighboring residential zoning. This should also include possible public evacuations of the surrounding residential and commercial zones.

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1078 Dogwood Road
Heber, CA 92249

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Phone: (442) 265-6000
Fax: (760) 482-2427

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IMPERIAL COUNTY
CRASH FIRE RESCUE

OPERATIONS/PREVENTION
2514 La Brucherie Road
Imperial, CA 92251

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Phone: (442) 265-3000
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Prevention
Phone: (442) 265-3020

BESS facilities involved in fire has the potential to create extreme hazards for firefighters, emergency responders and the public 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, Holtville Fire Department (Contracted with Imperial County Fire Department) in regards to staffing, equipment, and knowledge to safely perform firefighting operations and hazardous material response for a utility-scale energy storage facility. The location of the project will lead to possible large scale evacuations of the public. This and other conditions can create difficulties in incident stabilization, response, recovery, and mitigation. 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

Imperial County Fire Department requirement for CUP22-0029 are as followed:

1. Holtville Peaker BESS Facility plans review and inspections will be done by a third-party consultant determined by the Fire Department at the applicant's expense as per California Fire Code Chapter 1 [A] 104.7.2 Technical Assistance. This will be at the discretion of the Fire Department.

2. Holtville Peaker BESS shall enter into a development agreement with Imperial County Fire Department and the County of Imperial for the purchase of a fire apparatus (Type 1) and equipment required for emergency operational services of the project. Final cost, conditions, and equipment associated with the fire apparatus and fire department

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2514 La Brucherie Road
Imperial, CA 92251

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Phone: (442) 265-3020

operations shall be determined prior to the issuance of the initial grading permit. The fire engine and equipment cost estimate will be at current market value for the as determined by the Fire Chief. The fire engine will be fair shared cost with other BESS projects on the southeast portion of the Imperial County.

3. 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. Private fire service mains and appurtenance shall be installed in accordance with NFPA 20, 22, 24.

4. Developer shall pay County Fire/OES two hundred and fifty dollars ($250) per megawatt of capacity to provide additional training, equipment, and operational needs of County Fire/OES for the life of the Project. The training, equipment, and operational needs shall be at the discretion of County Fire/OES.

5. This payment shall be made before issuance of the first building permit for the Project, or for each phase of the Project, whichever is applicable.

6. Owners and operators of ESS must 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. Will included Lithium-ion battery ESSs must incorporate adequate explosion prevention protection as required in NFPA 855 or International Fire Code Chapter 12.

7. Signage that identifies the contents of an ESS is required on all ESS installations to alert first responders to the potential hazards associated with the installation.

8. Fire department access roads and gates will be in accordance with the current adopted fire code and the facility will maintain a Knox Box/lock for access on site

9. Fire suppression systems required as per Chapter 12 section 1207.5.5 of the California Fire Code

10. Shall comply with all applicable sections of the California Fire Code

11. Other impacts from this project shall be evaluated by Imperial County Fire Department Fire Chief and Fire Code Official in determining any impacts of the project can or will

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cause a negative effect on Imperial County Fire Department and/or County of Imperial. Any impacts will be address between Imperial County Fire Department official, County of Imperial officials, applicants and/or developers which may include but not limited to:

- Capital purchases which may be required in providing services to this project
- Hazmat Operational Equipment
- Training
- Fiscal and operational costs

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

David Lantzer
Fire Chief
Imperial County Fire Department

Robert Malek
Deputy Chief
Imperial County Fire Department
Fire Prevention Bureau

EEC ORIGINAL PKG

ADMINISTRATION / TRAINING
1078 Dogwood Road
Heber, CA 92249

Administration
Phone: (442) 265-6000
Fax: (760) 482-2427

Training
Phone: (442) 265-6011

IMPERIAL COUNTY
CRASH RESCUE
FIRE
1907

OPERATIONS/PREVENTION
2514 La Brucherie Road
Imperial, CA 92251

Operations
Phone: (442) 265-3000
Fax: (760) 355-1482

Prevention
Phone: (442) 265-3020

November 15, 2023

RE: Conditional Use Permit #22-0029 IS#22-0048
Holtville Peaker BESS (Battery Energy Storage Systems)
2275 Melon Rd., Holtville, CA 92250
APN: 045-570-087

To: Michael Abraham, Assistant Director
Gerardo Quero, Planner I

Imperial County Fire Department Fire Prevention Bureau would like to thank you for the opportunity to review and comment on the Holtville Peaker BESS Facility, CUP#22-0029 and IS#22-0048.

The project description is to construct a 100 MW Energy Storage Facility using Battery Energy Storage Systems (BESS) on 17 Acres lot adjacent to the city limits of the City of Holtville CA 92250.

Imperial County Fire Department has the following comments in regard to the IS#22-0048 Environmental packet:

Project Description notes*: There will be water storage pond or tank to provide a minimum of 20,000 gallons of water for firefighting use. Additional storage may be provided if so, required by the County Fire Dept.* The water storage and flow requirements will be determined by the Imperial County Fire Department and appendix B in the California Fire Code. Onsite private fire service mains and appurtenance shall be installed with NFPA 20, 22, and 24.

Please note Imperial County Fire Department would like to request the 20,000 gallons of water for firefighting use be removed from the description as Imperial County Fire Department will determine the amount of water required onsite for fire protection.

RECEIVED

NOV 15 2023

IMPERIAL COUNTY
PLANNING & DEVELOPMENT SERVICES

ADMINISTRATION / TRAINING
1078 Dogwood Road
Heber, CA 92249

Administration
Phone: (442) 265-6000
Fax: (760) 482-2427

Training
Phone: (442) 265-6011

IMPERIAL COUNTY CRASH RESCUE FIRE 1907

OPERATIONS/PREVENTION
2514 La Brucherie Road
Imperial, CA 92251

Operations
Phone: (442) 265-3000
Fax: (760) 355-1482

Prevention
Phone: (442) 265-3020

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 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, there will be a water storage tank to provide a minimum of 20,000 gallons of water for firefighting use onsite. 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.

Imperial County Fire Department is requesting the language of minimum 20,000 gallons of water be removed from the document, XV. Public Services part (ai) as Imperial County Fire Department will determine the capacity of water needed for the project.

The operations description notes: *"Due to the use of TESLA or equal battery systems, fire protection in the event of a fire will be to simply protect the surrounding areas but not to extinguisher the battery fires as that would only prolong the fire and smoke. TESLA system are designed to essentially "melt" within their containers and therefore attempting to extinguish a fire would only make the problem worse"* This comment for fire operations does not address the public hazards associated with thermal runaway of battery systems and the effects of batteries fires of the surrounding public. Limited data is provided on the effects of toxic smoke produce and possible explosive blast by fire of BESS. Mitigation analysis shall be prepared to address toxic smoke, explosion blast and other hazards related to BESS that will affect the neighboring residential zoning. This should also include possible public evacuations of the surrounding residential and commercial zones.

Imperial County Fire Department is requesting further information and evaluation of toxic smoke produced by BESS fires be studied and provided for review. The toxic smoke produced from a fire of this BESS facility will have impacts on the surrounding residentials zoning and Holtville High School located within .25 miles of the project site.

Imperial County Fire Department reserves the right to comment and request additional requirements pertaining to this project regarding fire and life safety measures, California

APPLICATION

EEC ORIGINAL PKG

ADMINISTRATION / TRAINING
1078 Dogwood Road
Heber, CA 92249

Administration
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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

David Lantzer
Fire Chief
Imperial County Fire Department

Robert Malek
Deputy Chief
Imperial County Fire Department
Fire Prevention Bureau

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) 750 W. Main St., El Centro, Ca.	ZIP CODE 92243	PHONE NUMBER c/o 760-996-0313
3. APPLICANT'S NAME Holtville Peaker	EMAIL ADDRESS -------------------	
4. MAILING ADDRESS (Street / P O Box, City, State) same as owner	ZIP CODE --------------	PHONE NUMBER ------------
4. ENGINEER'S NAME CA. LICENSE NO. N A	EMAIL ADDRESS --------------------	
5. MAILING ADDRESS (Street / P O Box, City, State) -------------------	ZIP CODE --------------	PHONE NUMBER -----------

6. ASSESSOR'S PARCEL NO. 045-570-087	SIZE OF PROPERTY (in acres or square foot) approx 17 ac.	ZONING (existing)

7. PROPERTY (site) ADDRESS
pending assignment by ICPDS

8. GENERAL LOCATION (i.e. city, town, cross street)
S-W corner of Alamo Rd and Melon Rd, Holvtille, Ca

9. LEGAL DESCRIPTION see attached PTR for detailed legal

PLEASE PROVIDE CLEAR & CONCISE INFORMATION (ATTACH SEPARATE SHEET IF NEEDED)

10. DESCRIBE PROPOSED USE OF PROPERTY (list and describe in detail) the project is the development of a 100 MW BESS (battery storage system) using the Tesla system

11. DESCRIBE CURRENT USE OF PROPERTY vacant

12. DESCRIBE PROPOSED SEWER SYSTEM None

13. DESCRIBE PROPOSED WATER SYSTEM None

14. DESCRIBE PROPOSED FIRE PROTECTION SYSTEM on site water storage meeting county standards

15. IS PROPOSED USE A BUSINESS? ☒ Yes ☐ No | IF YES, HOW MANY EMPLOYEES WILL BE AT THIS SITE?

I / WE THE LEGAL OWNER (S) OF THE ABOVE PROPERTY CERTIFY THAT THE INFORMATION SHOWN OR STATED HEREIN IS TRUE AND CORRECT.

Ziad Alaywan — Dec 8, 2022
Print Name — Date

ziad alaywan
Signature

Jurg Heuberger for applicant
Print Name — Date

Signature

REQUIRED SUPPORT DOCUMENTS

A. SITE PLAN
B. FEE ______
C. OTHER ______
D. OTHER ______

APPLICATION RECEIVED BY: ______	DATE ______	REVIEW / APPROVAL BY OTHER DEPT'S required.
APPLICATION DEEMED COMPLETE BY: ______	DATE ______	☐ P. W.
APPLICATION REJECTED BY: ______	DATE ______	☐ E. H. S.
TENTATIVE HEARING BY: ______	DATE ______	☐ A. P. C. D.
FINAL ACTION: ☐ APPROVED ☐ DENIED	DATE ______	☐ O. E. S.
		☐ ______
		☐ ______

CUP # ______

EEC ORIGINAL PKG

Holtville Peaker Plant

Location:	Southwest corner of Alamo Rd. and Melon Rd., Holtville, Ca.
APN:	045-570-087
Battery Type:	Tesla Power Packs or equal
Capacity:	100 MW
Owner:	Apex Energy Solutions, LLC
Project Name:	Holtville Peaker, LLC

PROJECT DESCRIPITION:

Apex Energy Solutions LLC is proposing to develop a 100 MW Battery (BESS) energy storage facility just west of the City Limits of the City of Holtville. The system will connect to the IID xxx line which interconnection will allow the BESS to purchase and sell power.

The BESS system will be located along the southern property boundary, and interconnected to the IID line along Melon Rd. The site will have access from Alamo Rd. Since the BESS will utilize less than 1/5 of the overall site, the balance of the property will be undeveloped for some time, but the site will be maintained to minimize unwanted vegetation or dust.

There will be a water storage pond or tank to provide a minimum of 20,000 gallons of water for fire fighting use. Additional storage may be provided if so, required by the County Fire Dept.

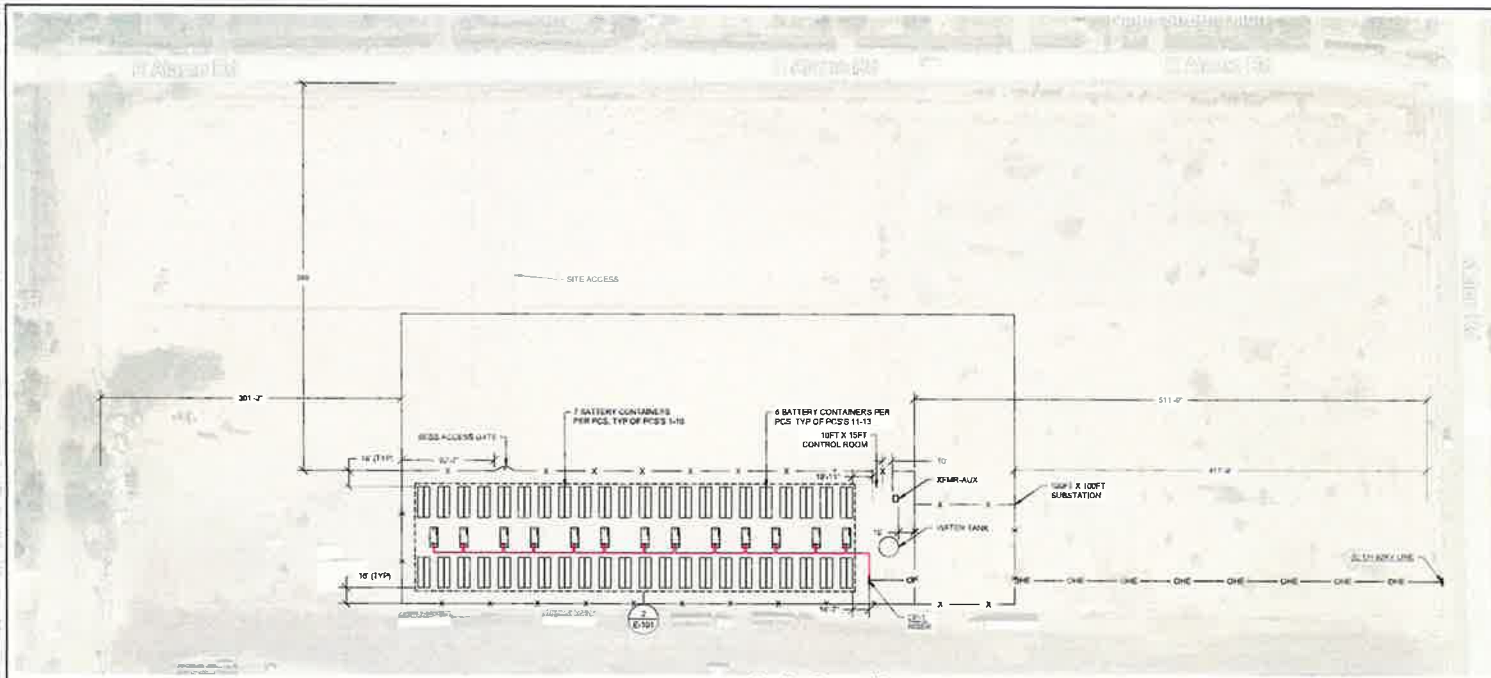
The entire site will be fenced and have video surveillance security. The project once built will not have on-site employees except for routine maintenance or repairs.

OPERATION:

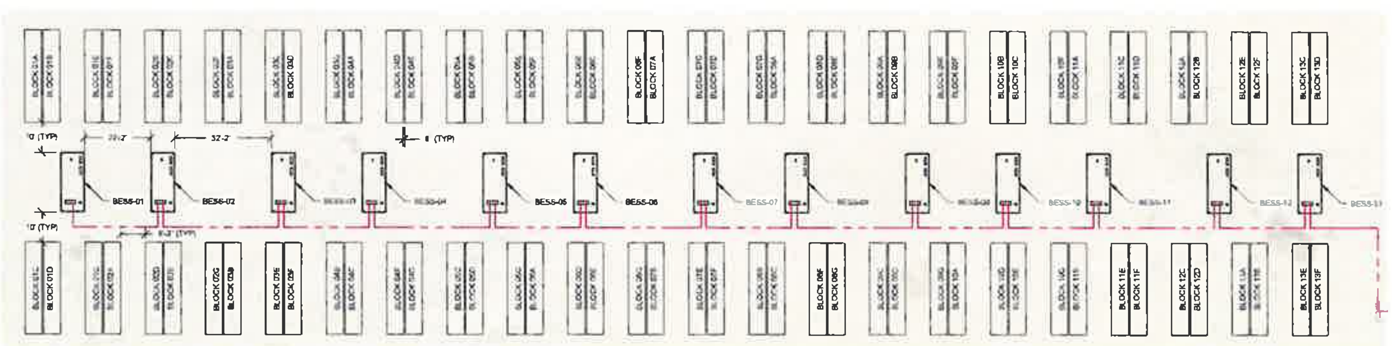
The system will be operated by purchasing power from the grid when there is a surplus or the costs are low and then sell the power to the grid when the demand requires it.

The system is entirely remotely operated and monitored with extensive video and intrusion surveillance.

Due to the use of the TESLA or equal battery system, fire protection in the event of a fire will be to simply protect the surrounding areas but not to extinguish the battery fires as that would only prolong the fire and smoke. TESLA system are designed to essentially "melt" within their containers and therefore attempting to extinguish a fire would only make the problem worse.



① OVERALL SITE PLAN
SCALE: 1" = 60'



② ENLARGED PLAN VIEW
SCALE: 1" = 20'

EEC ORIGINAL PKG

SHEET NOTES:

1. ACCESS ROADS, FENCES, AND OTHER CIVIL WORKS ARE DESIGNED BY OTHERS AND SHOWN FOR REFERENCE ONLY.

LEGEND:

	(E) OH UTILITY CIRCUIT
	PROPERTY LINE
—— OHE ——	(N) OH MV CIRCUIT
— — — —	UG MV CIRCUIT
—— X ——	(N) 6' PRIVACY CHAIN LINK FENCE
————	PREFERRED SUILADBLE AREA

SYSTEM SUMMARY

AC SYSTEM SIZE	61.75 kVA
DC CAPACITY	242.2 MWH
DC VOLTAGE	1,500 V
MV VOLTAGE	92 KV

BATTERY UNITS

MANUFACTURER	SUNGROW
MODEL	ST2752UX-US
TYPE	LI-ION / 280 AH
CAPACITY	2752 KWH
UNITS PER CONTAINER	48
TOTAL UNITS	4,224

INVERTERS / PCS

MANUFACTURER	SUNGROW
MODEL	SC5000UD-MV-US
AC POWER RATING	5,000 KVA
TOTAL INVERTERS	13

CONTRACTOR

ZGLOBAL
Power Engineering & Energy Solutions

ZGLOBAL INC.
604 SUTTER ST, STE 250
FOLSOM, CA 95630

PROJECT

HOLTVILLE
PEAKER BESS
HOLTVILLE, CA 92250

ENGINEER

STELLAVISE

2535 CAMINO DEL RIO S, STE. 235
SAN DIEGO, CA 92108

WWW.STELLAVISE.COM (619) 205-5038

SEAL

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REVISIONS

#	DESCRIPTION	DATE
A	BESS LAYOUT	10/13/2022
B	BESS LAYOUT R1	01/05/2023

NOT FOR CONSTRUCTION
JANUARY 25, 2023

HOLTVILLE
PEAKER BESS
HOLTVILLE, CA 92250

SHEET TITLE

OVERALL SITE PLAN

SHEET NO

E-101

RECON

An Employee-Owned Company

October 27, 2022

Mr. Ramon Gonzalez
Senior Project Coordinator
Z Global
750 W. Main Street
El Centro, CA 92243

Reference: Biological Resources Survey for the Holtville BESS Project (RECON Number 10247)

Dear Mr. Gonzalez:

This letter details the results of a biological resources survey conducted for the Holtville Battery Energy Storage Site (BESS) Project (project). This biological study letter has been prepared to provide necessary information to Z Global for environmental analysis of the project.

1.0 Project Description and Location

The proposed project would include development of a BESS that would connect to an existing 92 kilovolt gen-tie line. The BESS facility would include battery containers and storage sites, a control room, and associated facilities surrounded by fencing in the south-central portion of the parcel, with the remainder of the parcel used for temporary construction access and staging. Access to the facility would occur from Melon Road.

The 17.2-acre project site is comprised of a vacant lot located at Assessor Parcel Number 045-570-087, southwest of the intersection of East Alamo Road and Melon Road in the city of Holtville, California (Figures 1 and 2). Access to the site is regionally provided by Interstate 8 (I-8). Local access is provided from I-8 by Orchard Road to East Alamo Road. The project site is located approximately 8.2 miles from I-8. The project site is in the U.S. Geological Survey Holtville West quadrangle, Township 15 South, Range 15 East (see Figure 2). The project site is comprised of an undeveloped lot and is surrounded by residential development with scattered commercial development (Figure 3).

2.0 Methods

RECON Environmental, Inc. (RECON) biologist Alex Fromer conducted a general biological survey on October 19, 2022, to evaluate the resources within the project site. The 17.2-acre survey area was evaluated to determine the current condition of the biological resources present within and adjacent to the project (see Figure 3). During the general biological survey, Mr. Fromer mapped vegetation communities, recorded vegetation and habitat characteristics, and noted wildlife and plant species apparent at the time of the survey. Vegetation communities were mapped in the field on a 1:600 scale aerial photograph of the survey area. Plants were visually identified in the field and wildlife species were identified visually with the aid of binoculars, based on identification of calls, scat, tracks, or burrows.

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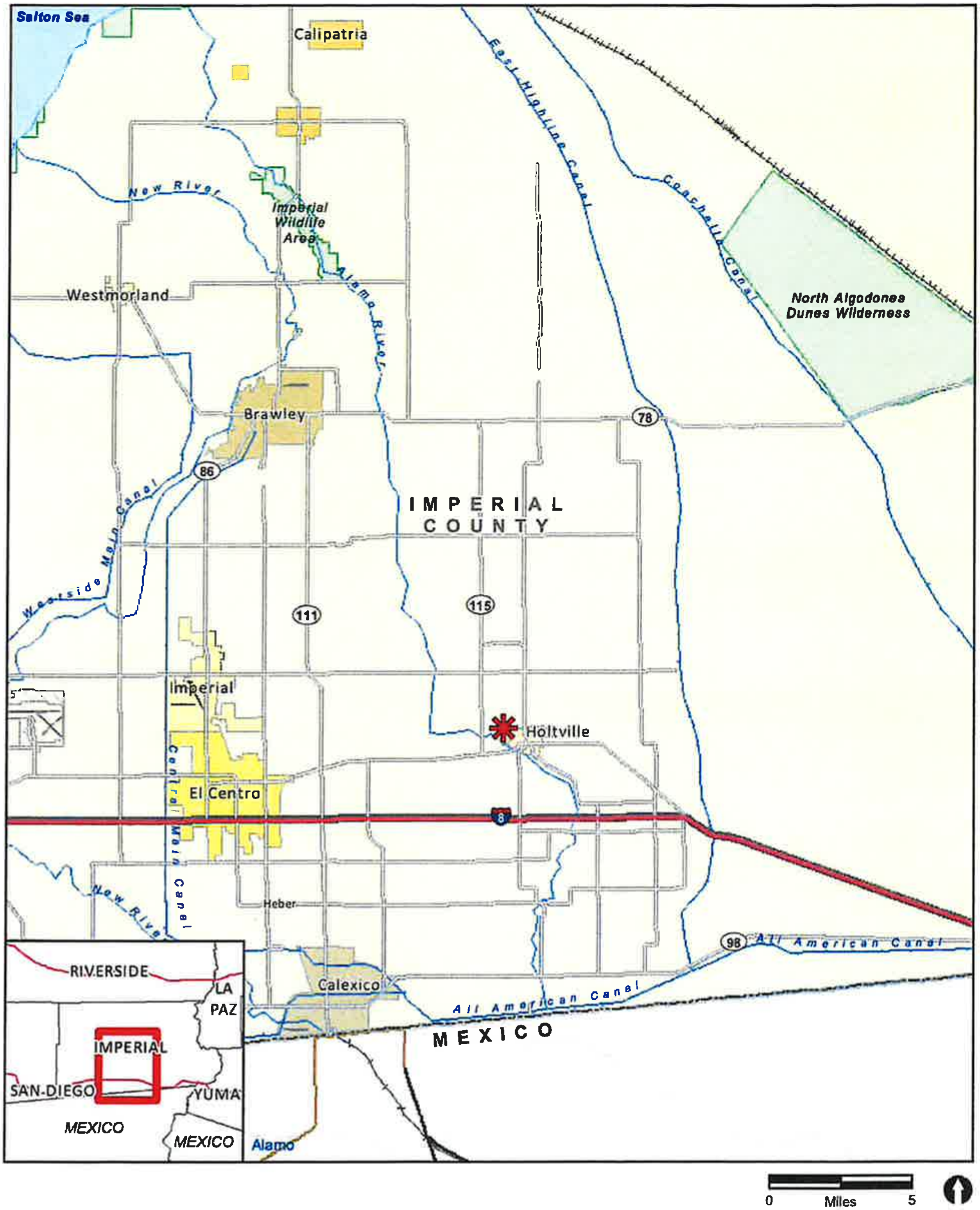

Project Location

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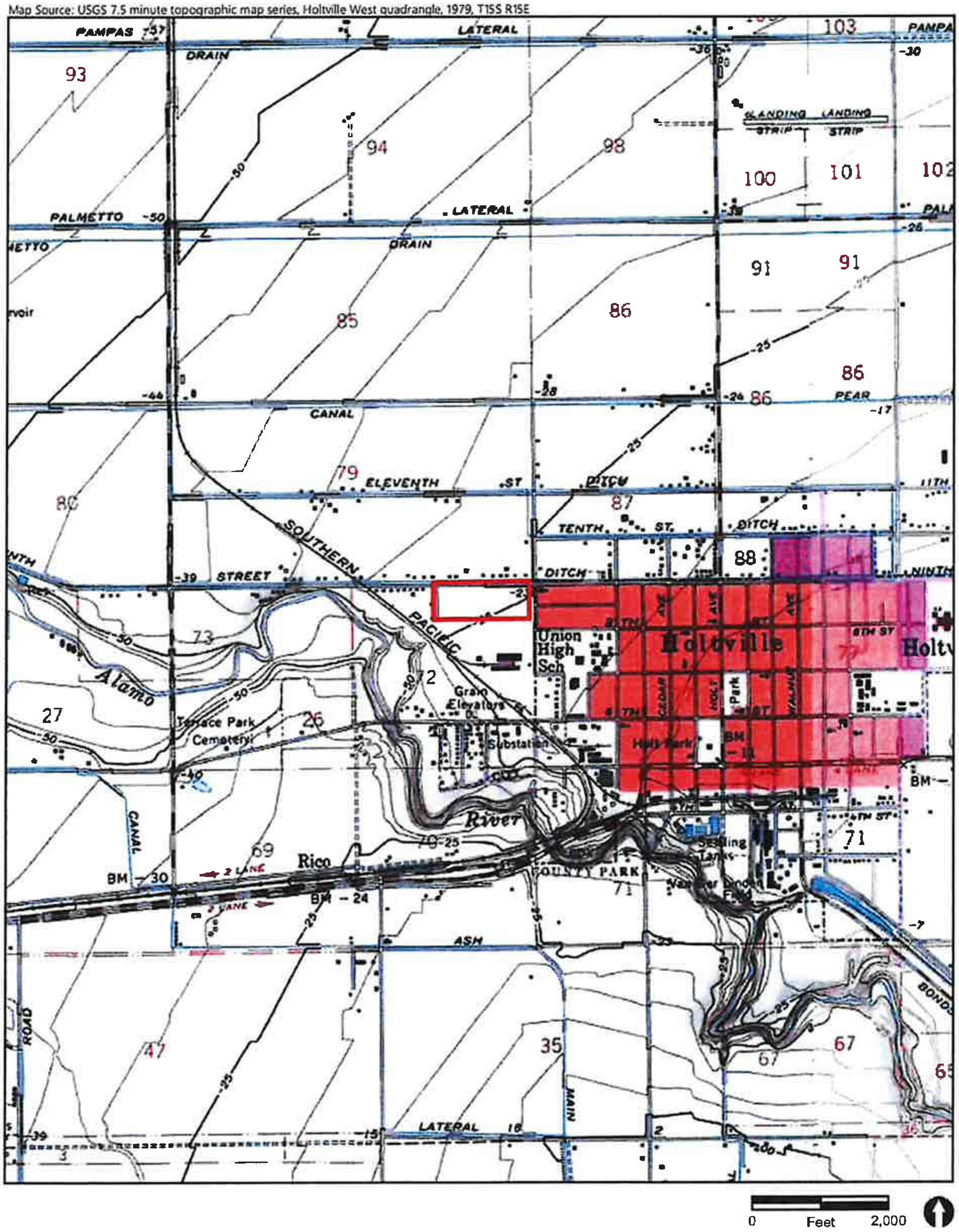
FIGURE 1
Regional Location

EEC ORIGINAL PKG

Map Source: USGS 7.5 minute topographic map series, Holtville West quadrangle, 1979, T15S R15E



Project Boundary

FIGURE 2
Project Location on USGS Map

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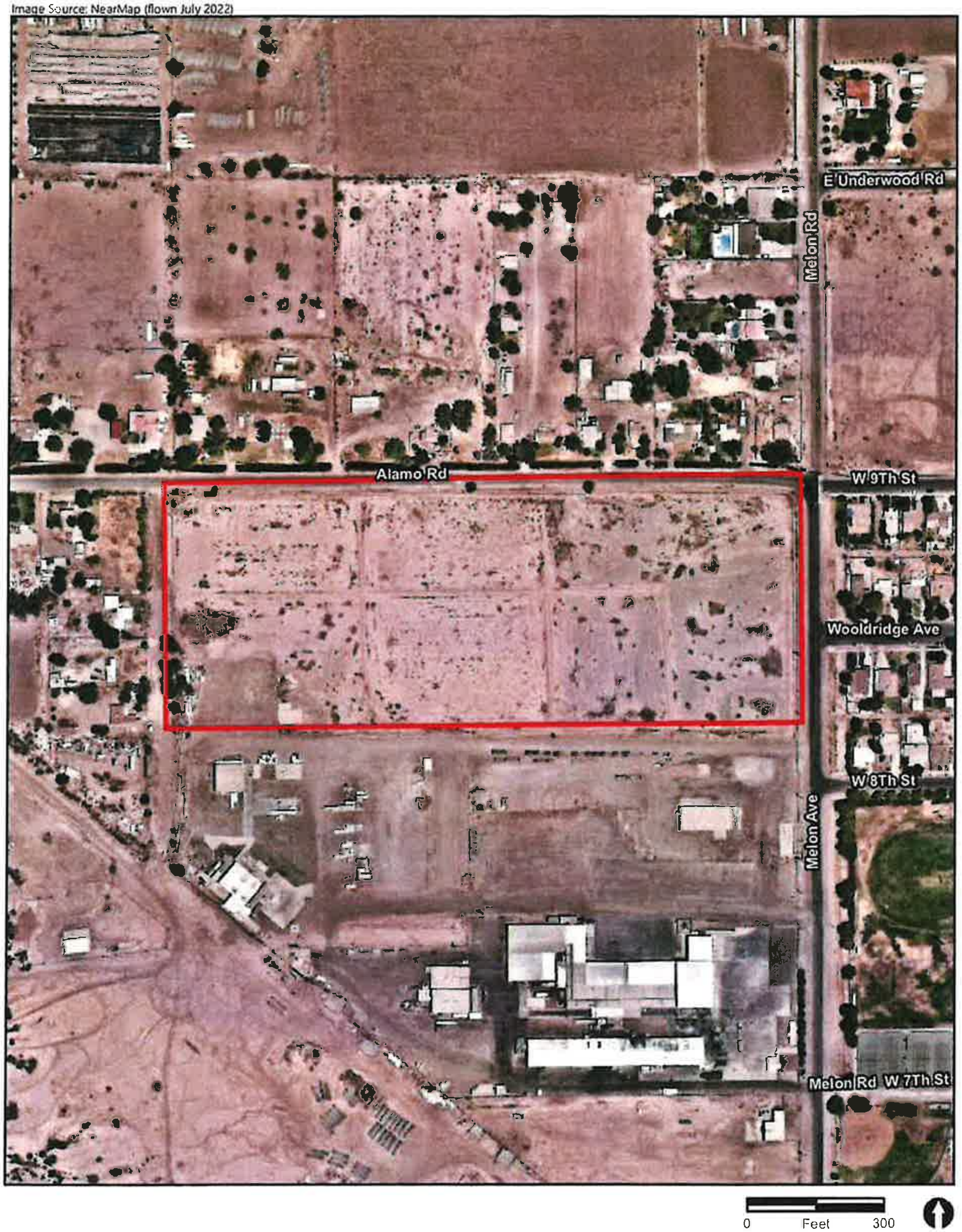
EEC ORIGINAL PKG

Image Source: NearMap (flown July 2022)



Project Boundary

RECON

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FIGURE 3

Project Location on Aerial Photograph

EEC ORIGINAL PKG

3.0 Background Research

Prior to conducting field surveys, RECON conducted a search of existing biological data for the project site, including a review of biological databases for sensitive plant and animal species reported within two miles of the project site, and a review of the site's physical characteristics (e.g., location, elevation, soils/substrate, topography). Databases consulted included the California Natural Diversity Database (California Department of Fish and Wildlife [CDFW] 2022) and the U.S. Fish and Wildlife Service (USFWS) All Species Occurrences Database (USFWS 2022a). In addition, a review of the National Wetlands Inventory was conducted to identify any potential wetlands or water resources present in the vicinity of the project site (USFWS 2022b).

Based on the database search, there are four sensitive wildlife species and no sensitive plant species known from a 2-mile radius surrounding the project site; however, there are no known recent occurrences of sensitive species closer than 0.5 mile. The survey area is bounded by residential development to the north, west, and east, and commercial development to the south. Thus, the potential for many species to occur is evaluated based on the habitats within the project site. Two sensitive species, burrowing owl (*Athene cunicularia*) and flat-tailed horned lizard (*Phrynosoma mcalli*), were determined to have low potential to occur within the project vicinity and are discussed further in this report. .

4.0 Existing Biological Resources

4.1 Vegetation Communities and Land Cover Types

The survey area supports two vegetation communities/land cover types: disturbed land and urban/developed land (Figure 4). The acreages of these vegetation communities and land cover types are listed in Table 1 and described below.

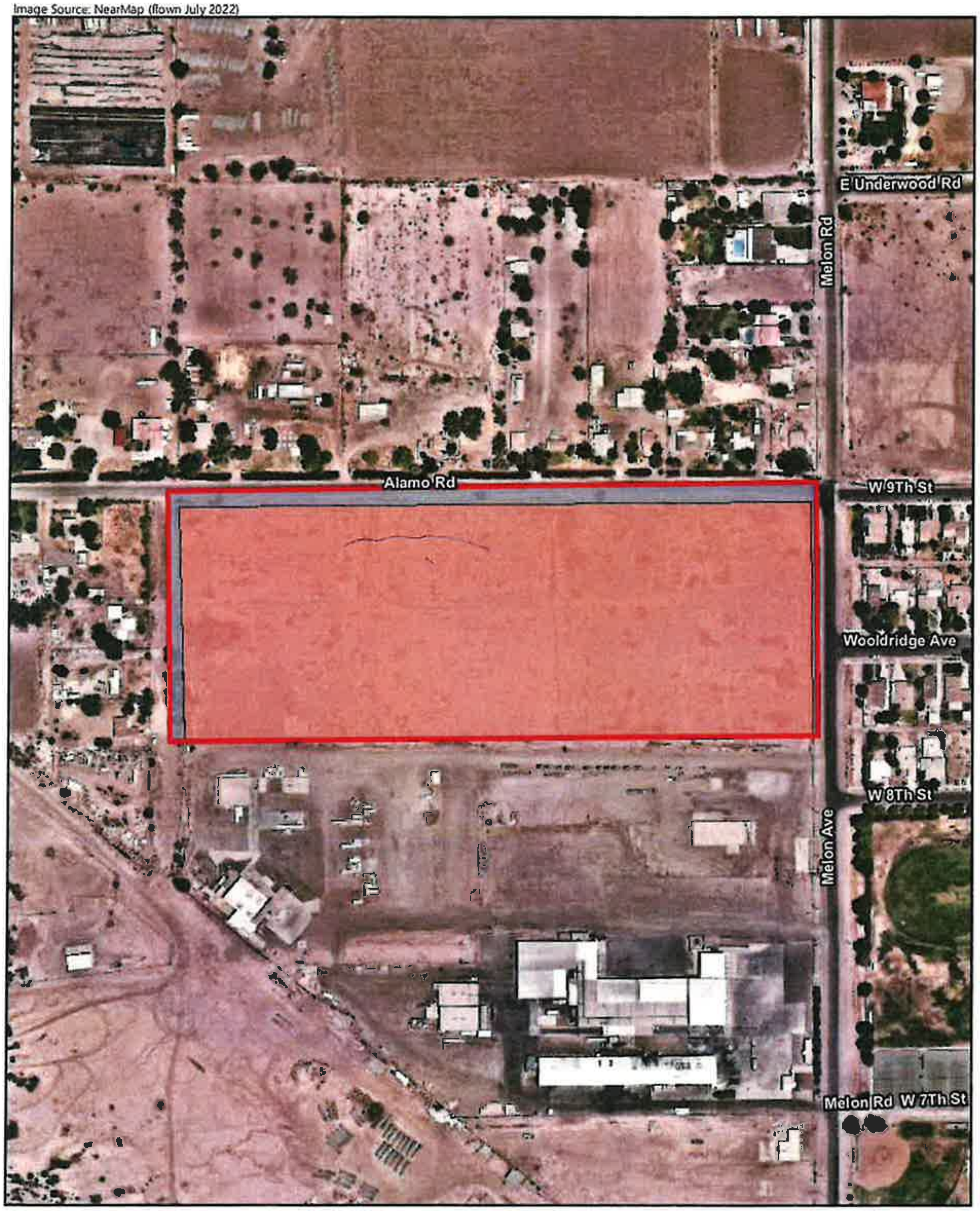
Table 1
Vegetation Communities within Survey Area
(Acres)

Vegetation Communities	Survey Area
Disturbed land	15.6
Urban/developed land	1.6
TOTAL	**17.2**

The urban/developed land consists of paved and unpaved roads, shoulders, and ornamental vegetation consisting primarily of Mexican palo verde (*Parkinsonia aculeata*) and honey mesquite (*Prosopis glandulosa* var. *torreyana*).

The disturbed land is comprised of undeveloped land throughout the entirety of the survey area. The disturbed land is dominated by Palmer amaranth (*Amaranthus palmeri*) and appears to undergo frequent disturbance. Puncture vine (*Tribulus terrestris*) and allscale saltbush (*Atriplex polycarpa*) are also found throughout, with Russian thistle (*Salsola tragus*) also present. This area of disturbed land also includes open areas with little to no vegetation cover and a few soil and debris piles.

Image Source: NearMap (flown July 2022)



Project Boundary

Vegetation Communities/Land Cover Types

Disturbed Land

Urban/Developed Land

FIGURE 4

Existing Biological Resources

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4.2 Plant and Wildlife Species Observed

A total of ten plant species were observed within the survey area: Mexican palo verde, honey mesquite, Palmer amaranth, puncture vine, allscale saltbush, Russian thistle, Australian tumbleweed (*Salsola australis*), white horse-nettle (*Solanum elaeagnifolium*), bush seepweed (*Suaeda nigra*), hairy crab grass (*Digitaria sanguinalis*), and Sonoran sandmat (*Euphorbia micromera*).

A total of ten wildlife species were observed within or adjacent to the survey area. This included eight bird species: mourning dove (*Zenaida macroura*), rock dove (*Columba livia*), Cooper's hawk (*Accipiter cooperii*), red-tailed hawk (*Buteo jamaicensis*), northern mockingbird (*Mimus polyglottos*), Eurasian collared dove (*Streptopelia decaocto*), white-crowned sparrow (*Zonotrichia leucophrys*), Amazon parrots (*Amazona* sp.); and two butterfly species, western pygmy blue (*Brephidium exilis*) and unidentified sulfur (*Colias* sp.).

4.3 Sensitive Plants

No sensitive plants were detected at the time of the survey, and none are expected to occur given the disturbed nature of the project site and soils. In addition, the lack of adjacent or nearby native habitat further reduces the likelihood of sensitive plants occurring within the survey area.

4.4 Sensitive Wildlife

Two sensitive wildlife species have some potential to occur within the survey area based on the presence of suitable habitat characteristics and previous occurrence data. In addition to these two species, migratory and nesting birds have potential to occur within the survey area. Historical observation records within two miles of the survey area exist for Sonoran Desert toad (*Bufo alvarius*), flat-tailed horned lizard (*Phrynosoma mcallii*), Yuma Ridgway's rail (*Rallus obsoletus yumanensis*), and western yellow bat (*Lasiurus xanthinus*). However, none of these species are expected to occur within the survey area due to high levels of disturbance and lack of suitable habitat with connectivity to open space. A brief description of sensitive wildlife with potential to occur is presented below.

Burrowing Owl. No burrowing owl individuals or any sign of burrowing owl activity were detected within or adjacent to the survey area. In addition, no potential burrows or burrowing owl sign were detected within the survey area. While the survey area contains flat, open habitat suitable for foraging, the project site lacks burrows and burrow surrogates for nesting. The potential for this species to occur is low given the level of dense residential development in the immediate vicinity to the survey area, lack of potentially suitable burrows, and intermittent patches of tall, and sometimes dense, vegetation.

Migratory and Nesting Birds. The majority of the survey area, including the bare ground and ornamental vegetation found within the urban/developed lands and disturbed land, has potential to support migratory and nesting bird species. Urban adapted species, in particular, have been known to nest within ornamental vegetation, while several ground nesting species have the potential to nest within the open areas found within the disturbed land and urban/developed lands within the survey area.

4.5 Aquatic Resources

No potential jurisdictional wetlands or waters, including riparian/riverine areas or vernal pools, were observed within or adjacent to the project site.

5.0 Avoidance, Minimization, and Mitigation for Project Impacts

As discussed above, project impacts to disturbed land and urban/developed lands would be less than significant and would not require mitigation. The project would also not impact any sensitive plant species or potential jurisdictional wetlands/waters; therefore, no mitigation would be required. Flat-tailed horned lizard is not expected to occur within the survey area and would not require mitigation measures. Potential direct and/or indirect impacts to burrowing owl and migratory and nesting birds would be addressed through the following avoidance, minimization, and mitigation measures below.

5.1 Vegetation Communities and Land Cover Types

The project would result in a total of up to 15.6 acres of direct impacts to disturbed land and 1.6 acres of urban/developed land (see Figure 4). Impacts to disturbed land and urban/developed land are not considered significant as these land cover types are not considered sensitive. Thus, no mitigation would be required for impacts to vegetation communities as a result of the project.

5.2 Sensitive Wildlife

Burrowing Owl. Burrowing owl was not detected on-site and is considered to have a low potential to occur within the project impact area based on current site conditions, which lack suitable burrows for nesting. However, this species is known to occur within the Imperial Valley area and portions of the project site contain suitable low-lying vegetation. Were this species to subsequently colonize the site, potential direct impacts to this species would be significant and require avoidance and/or mitigation measures (BIO-1).

BIO-1: **Western burrowing owl.** Prior to any vegetation clearing, grading, or construction, a pre-construction survey, a pre-construction take avoidance survey shall be conducted within the project footprint, plus 500 feet. Per the Staff Report on Burrowing Owl Mitigation (CDFW 2012), take avoidance surveys require an initial survey no less than 14 days prior to the start of ground disturbance activities and a final survey conducted within 24 hours of ground disturbance. If burrowing owls are detected, the CDFW must be notified within 48 hours and avoidance measures and/or mitigation would be required.

If active burrowing owl burrows are identified within the potential impact area, the project shall avoid disturbing active burrowing owl burrows (nesting sites) and burrowing owl individuals. Buffers shall be established around occupied burrows in accordance with guidance provided in the CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012) based on the proposed level of disturbance. For low disturbance projects, initial setback distances for avoidance of active burrows shall be 200 meters (approximately 656 feet) from April 1 to October 15 and 50 meters (164 feet) from October 16 to March 31. Exceptions can be made to the avoidance distance for areas with natural (hills, trees) or artificial (buildings, walls) barriers in place. The final avoidance buffer shall be at the discretion of the biologist. If, after consideration of a reduced buffer, an adequate avoidance buffer cannot be provided between an occupied burrow and required ground-disturbing activities, then passive relocation activities during the non-breeding season (September 1 through January 31) may be authorized in consultation with CDFW, which would include preparation, approval, and implementation of a Burrowing Owl Exclusion Plan in accordance with protocol described in the CDFW Staff Report on Burrowing Owl Mitigation.

Migratory & Nesting Birds. Migratory and nesting birds are covered under the California Fish and Game Code 3503 and 3503.5 and the Migratory Bird Treaty Act and have the potential to be directly impacted by the project if construction activities (i.e., clearing, grubbing, grading) occur during the Colorado Desert nesting season of January 15 to July 15. Direct impacts to nesting birds would be considered significant and require avoidance measures (BIO-2).

BIO-2: **Migratory & Nesting Birds.** Prior to any vegetation clearing, grading, or construction, a pre-construction survey for nesting birds shall be conducted if the project is initiated during the Colorado Desert nesting season, which is generally defined as January 15 to July 15. The nesting bird survey shall be conducted by a qualified biologist occur no more than seven days prior to vegetation removal. If active bird nests are confirmed to be present during the pre-construction survey, a buffer zone will be established by a qualified biologist until a qualified biologist has verified that the young have fledged or the nest has otherwise become inactive.

If you have any questions or concerns about this project, please call me at (619) 308-9333, extension 193.

Sincerely,

Alexander Fromer
Biologist

APF:jg

References Cited

California Department of Fish and Wildlife (CDFW)
2012 Staff Report on Burrowing Owl Mitigation. March 7.

2022 Natural Diversity Data Base. RareFind Version 5. Commercial Version – Dated May 1, 2021 – Biogeographic Data Branch; accessed May 26, 2021.

RECON Environmental, Inc. (RECON)
2022 Habitat Assessment and Burrowing Owl Focused Survey Results at Steeplechase Booster Pump Station Project. May 11.

U.S. Fish and Wildlife Service (USFWS)
2022a All Species Occurrences GIS Database. Carlsbad Fish and Wildlife Office. Accessed May.

2022b National Wetlands Inventory website. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. http://www.fws.gov/wetlands/

According to CEQA Section 15064.5(a), a historical resource includes the following:

1. A resource listed in, or determined to be eligible for listing on, the California Register of Historical Resources.
2. A resource included in the local register.
3. A resource which an agency determines to be historically significant. Generally, a resource shall be considered to be "historically significant," if the resource meets the criteria for listing on the California Register of Historical Places (Public Resources Code Section 5024.1 Title 14 California Code of Regulations, Section 4852) including the following:
   A. Is associated with events that have made a significant contribution to the broad patterns of California's history or cultural heritage;
   B. Is associated with the lives of persons important in our past;
   C. Embodies the distinctive characteristics of a type, period, region or method of construction or represents the work of an important creative individual, or possesses high artistic values; or
   D. Has yielded, or maybe likely to yield, information important to prehistory or history.
4. The fact that a resource is not listed in or determined to be eligible for listing in the California Register of Historical Resources or a local register does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code Sections 5020.1(j) or 5024.1.

A resource must meet one of the above criteria and must have integrity; that is, it must evoke the resource's period of significance or, in the case of criterion D, it may be disturbed, but it must retain enough intact and undisturbed deposits to make a meaningful data contribution to regional research issues.

MANAGEMENT RECOMMENDATIONS

No significant or potentially significant prehistoric or historic cultural resources were observed during the survey of the APE. The SCIC records search was negative for the project APE and returned only historic-era resources within the requested search area. The possibility of intact buried significant cultural resources being present within the APE is considered low due to past agriculture. RECON recommends no additional cultural resource work for this project.

Please call Ms. Zepeda-Herman at (619) 308-9333 ext. 133 if you have any questions or concerns about this project.

Sincerely,

Nathanial Yerka,
Project Archaeologist

Carmen Zepeda-Herman

Carmen Zepeda-Herman, M.A., RPA
Principal Investigator

REFERENCE CITED

Nationwide Environmental Title Research
2022 Historic Aerials. http://www.historicaerials.com/. Accessed on October 27.

RECON

An Employee-Owned Company

October 28, 2022

Mr. Ramon Gonzalez
Senior Project Coordinator
Z Global
750 W. Main Street
El Centro CA 92243

Reference: Cultural Resources Report for the Holtville BESS Project, Holtvillle, California (RECON Number 10247)

Dear Mr. Gonzalez:

This report details the results of a cultural resources survey conducted for the Holtville Battery Energy Storage Site (BESS) Project (project). This report has been prepared to provide necessary information to identify the effects of the project on historic properties per Section 106 of the National Historic Preservation Act.

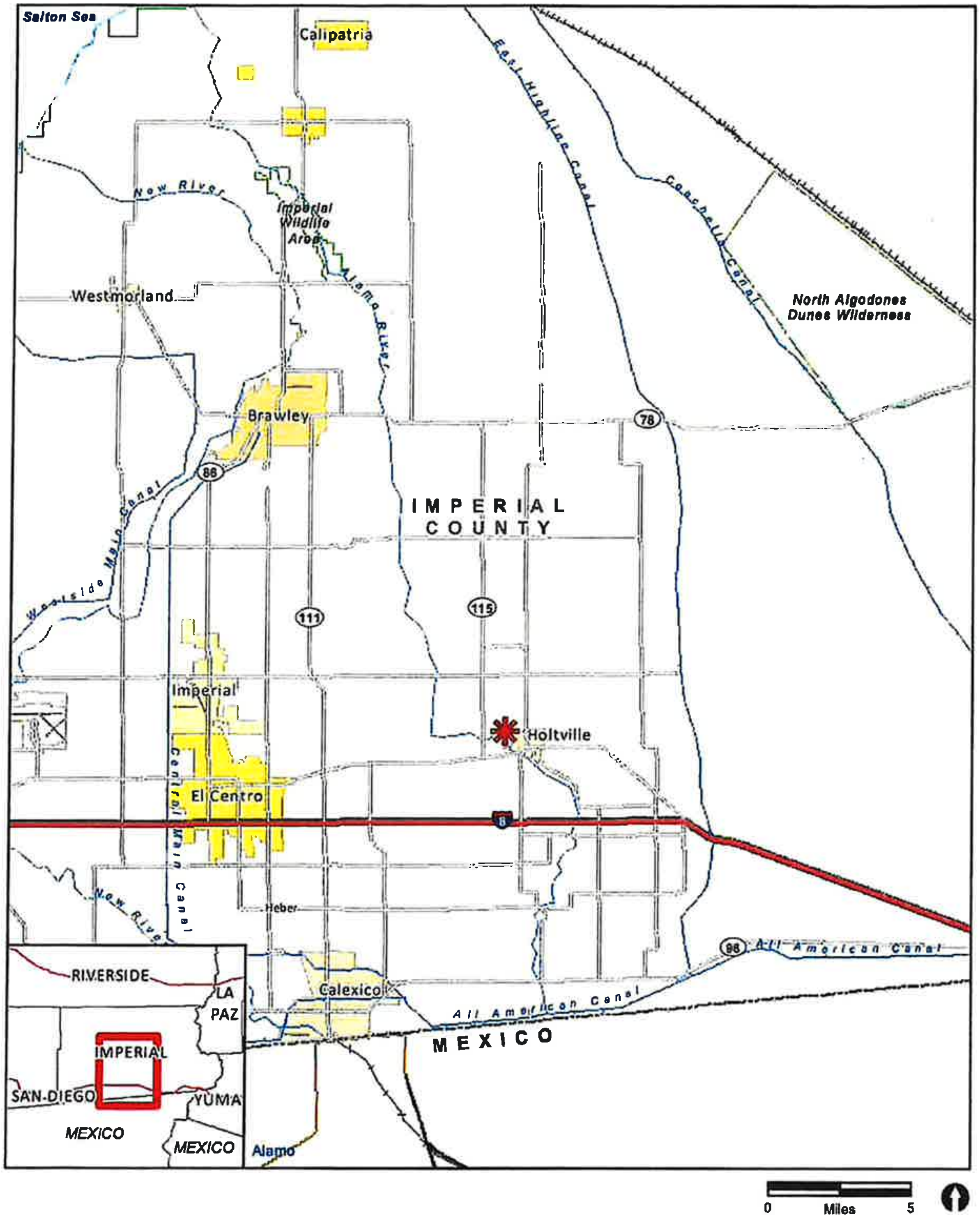
PROJECT LOCATION AND DESCRIPTION

The proposed project would include development of a BESS that would connect to an existing 92 kilovolt gen-tie line. The BESS facility would include battery containers and storage sites, a control room, and associated facilities surrounded by fencing in the south-central portion of the parcel, with the remainder of the parcel used for temporary construction access and staging. Access to the facility would occur from Melon Road.

The 17.2-acre project site is comprised of a vacant lot located at Assessor Parcel Number 045-570-087, southwest of the intersection of East Alamo Road and Melon Road in the city of Holtville, California (Figure 1) within Section 72, Township 15 South, Range 15 East of the U.S. Geological Survey 7.5-minute topographic map, Holtville West (Figure 2). Access to the site is regionally provided by Interstate 8 (I-8). Local access is provided from I-8 by Orchard Road to East Alamo Road. The project site is located approximately 8.2 miles north of I-8. The project site is comprised of an undeveloped lot and is surrounded by residential development with scattered commercial development (Figure 3). The entire 17.2-acre project site is considered the area of potential effect (APE).

METHODS

To determine if the project will adversely impact historic properties, background research, review of topographic maps and historic aerial photographs, and an on-foot survey were completed. Prior to the survey, a records search was requested from the California Historical Resources Information System, South Coastal Information Center (SCIC) to identify any previously recorded cultural resources within a one-mile radius of the project area. On October 20, 2022, RECON Environmental, Inc. (RECON) archaeologist Nathanial Yerka accompanied by Caesar Welch, a Native American monitor from Red Tail Environmental, conducted a pedestrian survey of the project area using 15-meter transects. Carmen Zepeda-Herman served as principal investigator. Ms. Zepeda-Herman is a member of the Register of Professional Archaeologists and meets the Secretary of the Interior Standards for Archaeology and Historic Preservation.



Project Location

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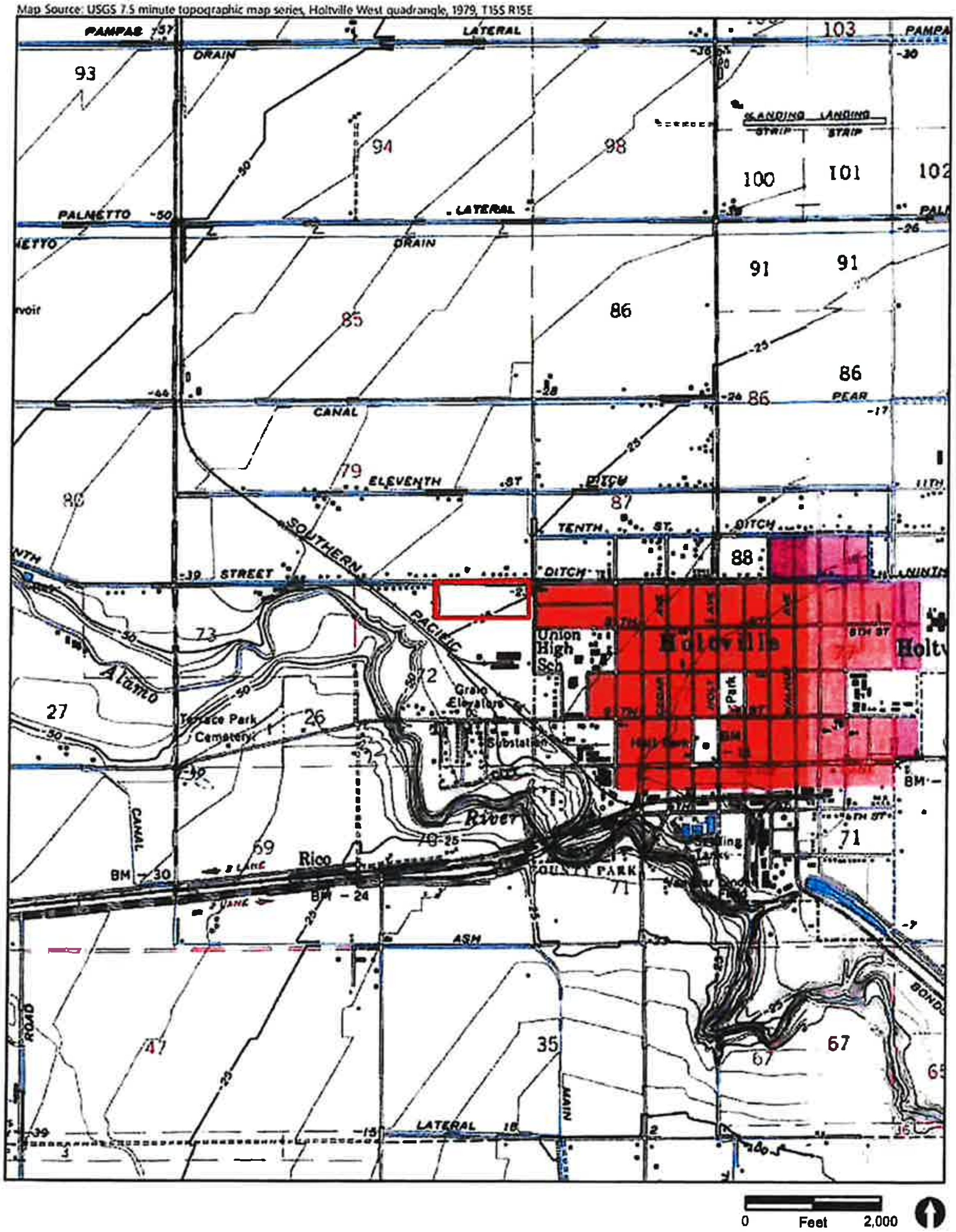
FIGURE 1
Regional Location

EEC ORIGINAL PKG

Map Source: USGS 7.5 minute topographic map series, Holtville West quadrangle, 1979, T15S R15E



Project Boundary

RECON

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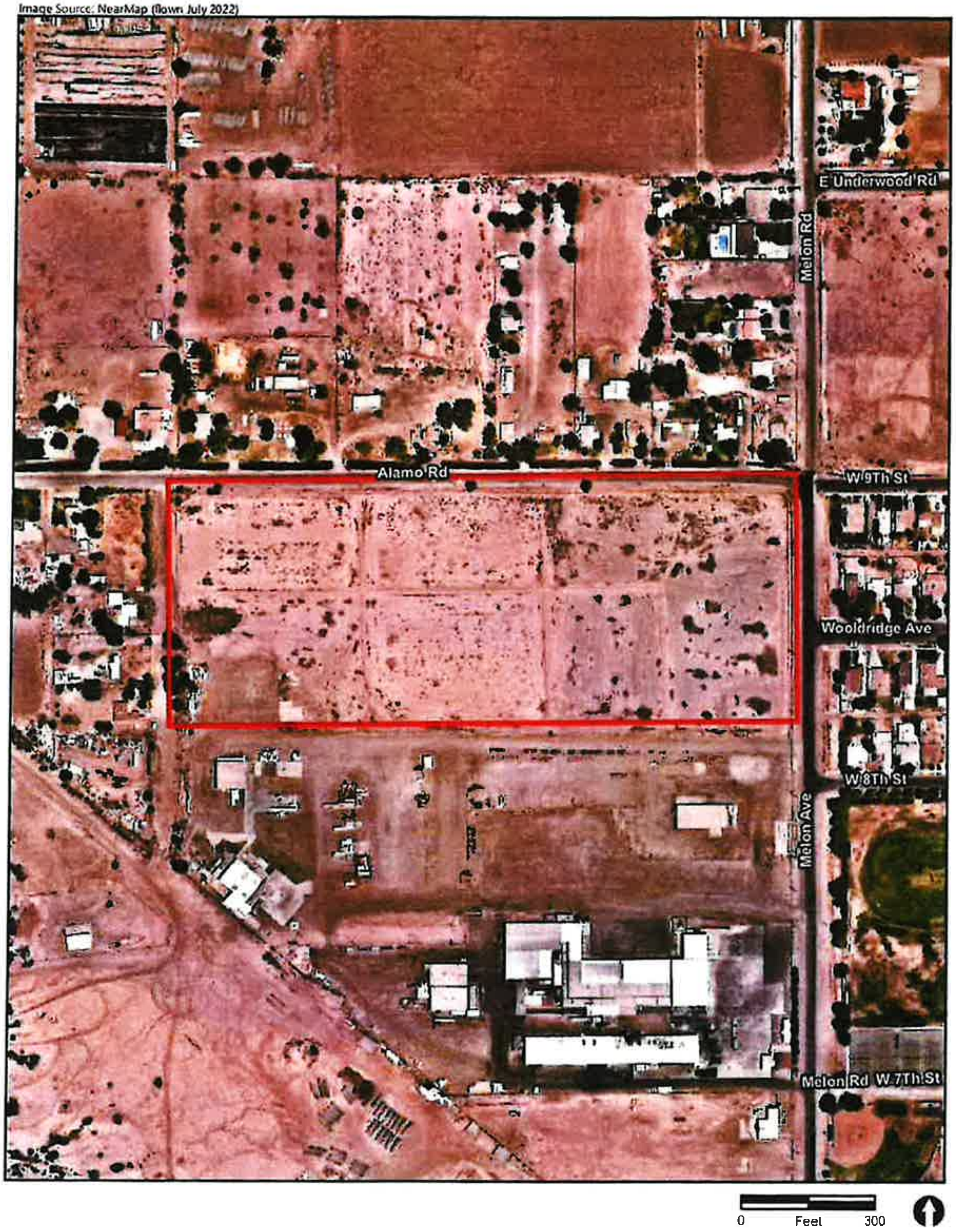
FIGURE 2
Project Location on USGS Map

EEC ORIGINAL PKG

Image Source: NearMap (flown July 2022)



Project Boundary

RECON

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FIGURE 3
Project Location on Aerial Photograph

EEC ORIGINAL PKG

The primary goal of this survey was to determine (1) if there are previously unrecorded cultural resources present, and if so, document the resources' locations and what they consist of and (2) to update conditions of previously recorded cultural resources. The project area was inspected for evidence of archaeological materials such as flaked and ground stone tools or fragments, ceramics, milling features, and human remains. Photographs were taken to document the environmental setting and general conditions. RECON used an Apple iPad running ESRI's ArcGIS Collector application paired with a Trible R1 sub-meter global positioning system (GPS) containing shapefiles and aerial photography to pinpoint our location in real-time, which was used to navigate the survey area.

NATIVE AMERICAN CONSULTATION

A letter was sent on October 17, 2022, to the Native American Heritage Commission (NAHC) requesting a search of their Sacred Lands File (SLF) to identify spiritually significant and/or sacred sites or traditional use areas in the project vicinity. The NAHC was also asked to provide a list of local Native American tribes, bands, or individuals that may have concerns or interests regarding cultural resources potentially occurring within the APE. The NAHC sent a reply on October 20, 2022, notifying RECON of the expected time of arrival of their SLF search (Attachment 1).

As of the writing of this report, a NAHC SLF search results response has not been received.

BACKGROUND RESEARCH

The SCIC records search indicated that there have been 16 cultural investigations conducted within one mile of the project site, one of which includes the project site (Confidential Attachment 1). The record search also indicated 12 historic-era cultural resources situated within one mile of the project site (Table 1). These cultural resources are comprised of a park with associated community center, a canal, a government building, a single-family property, a bridge, three concrete foundations, and four trash scatters. None of the previously recorded cultural resources were mapped within the project APE.

Table 1
Cultural Resources within a One-Mile Radius of the APE

Primary #	Trinomial	Period	Site Type	Recording Events
P-13-007363	CA-IMP-007363	Historic	Canal/ aqueduct	1995, 2009 (LSA Associates, Inc.); 2005 (EDAW, Inc.)
P-13-007422	--	Historic	Government building; Community center/social hall	1995 (E. Collins; IVC Field Class); 2006 (EDAW, Inc.); 2009 (IVC Museum)
P-13-008650	--	Historic	Single family property	2001 (IVC Field Class)
P-13-008980	--	Historic	Landscape architecture; Trees/ vegetation; Urban open space; Monument/mural/gravestone; Community center/social hall	2006, 2009 (EDAW)
P-13-014985	CA-IMP-012447	Historic	Trash scatter	2016 (Brian F. Smith & Associates, Inc.)
P-13-014986	CA-IMP-012448	Historic	Trash scatter	2016 (Brian F. Smith & Associates, Inc.)
P-13-014987	CA-IMP-012449	Historic	Trash scatter	2016 (Brian F. Smith & Associates, Inc.)
P-13-014988	CA-IMP-012450	Historic	Trash scatter	2016 (Brian F. Smith & Associates, Inc.)
P-13-014989	--	Historic	Bridge	2016 (Brian F. Smith & Associates, Inc.)
P-13-018457	--	Historic	Foundation/structure pad	2020 (ECORP Consulting, Inc.)
P-13-018458	--	Historic	Foundation/structure pad	2020 (ECORP Consulting, Inc.)
P-13-018459	--	Historic	Foundation/structure pad	2020 (ECORP Consulting, Inc.)

A review of topographic maps from 1945 and 1956 exhibit two buildings fronting East Alamo Road in the northwest corner of the project APE. The 1958 topographic map represents that the buildings are removed and no subsequent buildings appear thereafter. The first available aerial photograph is from 1953 and shows the entire project site has been subjected to agricultural disturbance. No buildings appear in the photographs even though the photograph predates the 1956 topographic map. The next available photograph dates to 1984, where a large concrete ramp is present along the southern project boundary, near the southwest project corner. Between 1985 and 1996, a small farm pond is constructed along the southern project boundary, centrally located, and is subsequently removed between 2002 and 2005. No apparent changes occur within the project APE other than windrows from agricultural use in subsequent photographs dating to 2009, 2010, 2012, 2014, 2016, 2019 and 2020 (Nationwide Environmental Title Research LLC 2022).

RESULTS OF SURVEY

No significant or potentially significant prehistoric or historic cultural resources were observed during the survey of the APE. RECON and Red Tail Environmental completed the survey under sunny and warm conditions. The survey commenced in the northeast corner utilizing north-south transects and translated east to west across the APE. The entirety of the APE has been subject to ground disturbance from past agricultural activity. Ground visibility averaged approximately 60 percent across the project APE with areas of dense ground cover composed of non-native weeds and bushes, vegetation waste piling and dumping, and imported materials dumping (a considerable portion of the eastern half of the APE has a surface layer of imported base material; Photograph 1), the remainder is open soil with remnant furrows and windrows (Photographs 2 through 4). The main portion of the APE is situated approximately 1.5 feet below the adjacent road grades of East Alamo Road and Melon Road. The APE is fenced on the western, northern, and eastern sides, with the southern project boundary represented by a mix of shallow troughs and deflated soil berms. A north-south utility pole alignment crosses the western third of the APE. The dominant feature of the APE is a 53-foot (east/west) by 46-foot (north/south) concrete ramp that graduates to a loading platform on the west side. The ramp feature has three tiers with the highest at 4.5 feet on the south side, the middle at 4 feet in height, and the northern and shortest ramp at 3 feet in height. Along the western edge, the concrete finish is hand-scrawled with a maker's date and mark of "1979 BR" (Photographs 5 and 6). The southwest corner is marked by a cleared area utilized for materials storage, which includes railroad rails, wooden utility poles, assorted metal beams and fixtures, piles of 2-inch minus gravel base, several concrete-filled and dilapidated 60-gallon drums, numerous stacked wooden pallets, roofing materials, stacked dimensional lumber, and a two-wheeled automobile utility trailer (Photograph 7). Other surface disturbances include assorted metal pipes, concrete and asphalt fragments, dimensional lumber, corrugated fiberglass sheet fragments, and modern rubbish comprised of assorted paper, plastic, and consumer bottle glass.

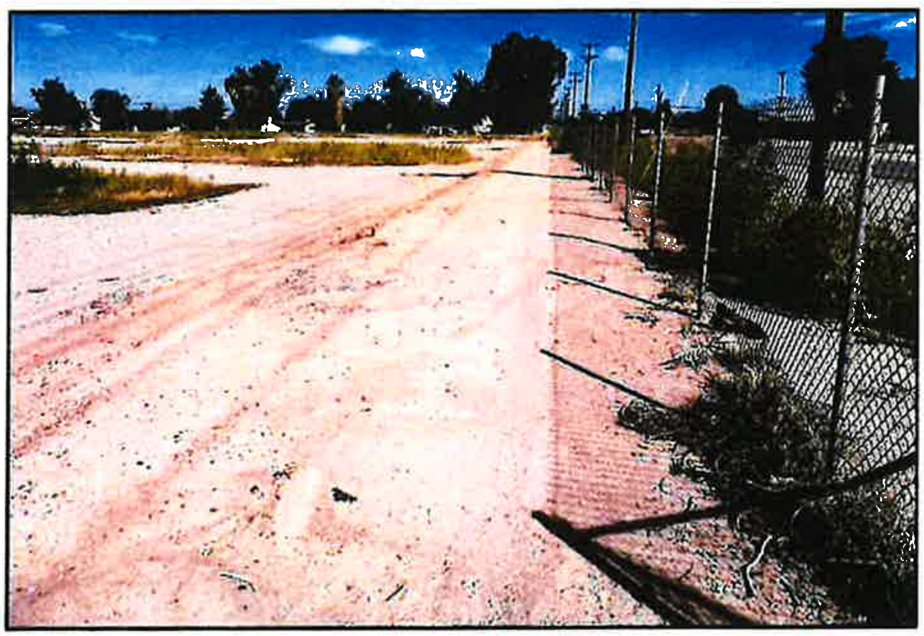
REGULATORY CONTEXT

The project is subject to state and City of Holtville (City) environmental regulations. The City is the lead agency for the California Environmental Quality Act (CEQA) guidelines and regulations.

California Environmental Quality Act

The regulatory framework and methods for determining impacts on cultural resources include compliance with CEQA requirements as defined in Section 15064.5 of the CEQA Guidelines, Determining the Significance of Impacts to Archaeological and Historical Resources. These guidelines require the identification of cultural resources that could be affected by the proposed project, the evaluation of the significance of such resources, an assessment of the proposed project impacts on significant resources, and a development of a research design and data recovery program to avoid or address adverse effects to significant resources. Significant resources, also called historical resources, are those cultural resources (whether prehistoric or historic) that have been evaluated and determined to be eligible for listing in the California Register of Historical Resources.

PHOTOGRAPH 1
Overview of Eastern Project APE, Looking Southwest



PHOTOGRAPH 2
Overview of Eastern APE Boundary from Southeast Corner, Looking North

PHOTOGRAPH 3
Overview of Southern APE Boundary, Looking East

PHOTOGRAPH 4
Overview of Northern APE Boundary from Northwest Corner, Looking East

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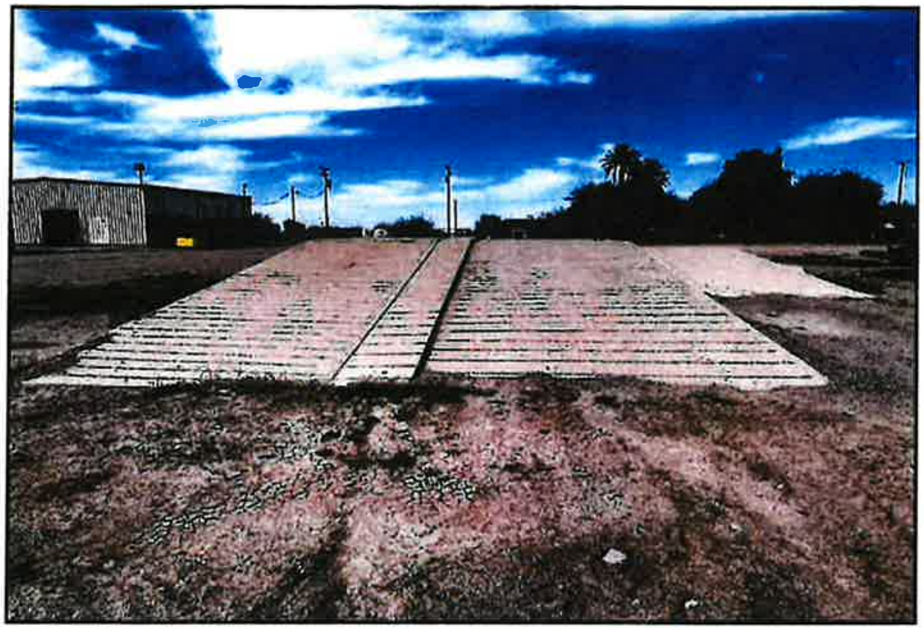

PHOTOGRAPH 5
Overview of Ramp Feature Near Southwest Corner, Looking West

PHOTOGRAPH 6
Maker's Date and Mark on Ramp Feature, Looking East

According to CEQA Section 15064.5(a), a historical resource includes the following:

1. A resource listed in, or determined to be eligible for listing on, the California Register of Historical Resources.
2. A resource included in the local register.
3. A resource which an agency determines to be historically significant. Generally, a resource shall be considered to be "historically significant," if the resource meets the criteria for listing on the California Register of Historical Places (Public Resources Code Section 5024.1 Title 14 California Code of Regulations, Section 4852) including the following:
   A. Is associated with events that have made a significant contribution to the broad patterns of California's history or cultural heritage;
   B. Is associated with the lives of persons important in our past;
   C. Embodies the distinctive characteristics of a type, period, region or method of construction or represents the work of an important creative individual, or possesses high artistic values; or
   D. Has yielded, or maybe likely to yield, information important to prehistory or history.
4. The fact that a resource is not listed in or determined to be eligible for listing in the California Register of Historical Resources or a local register does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code Sections 5020.1(j) or 5024.1.

A resource must meet one of the above criteria and must have integrity; that is, it must evoke the resource's period of significance or, in the case of criterion D, it may be disturbed, but it must retain enough intact and undisturbed deposits to make a meaningful data contribution to regional research issues.

MANAGEMENT RECOMMENDATIONS

No significant or potentially significant prehistoric or historic cultural resources were observed during the survey of the APE. The SCIC records search was negative for the project APE and returned only historic-era resources within the requested search area. The possibility of intact buried significant cultural resources being present within the APE is considered low due to past agriculture. RECON recommends no additional cultural resource work for this project.

Please call Ms. Zepeda-Herman at (619) 308-9333 ext. 133 if you have any questions or concerns about this project.

Sincerely,

Nathanial Yerka,
Project Archaeologist

Carmen Zepeda-Herman

Carmen Zepeda-Herman, M.A., RPA
Principal Investigator

REFERENCE CITED

Nationwide Environmental Title Research
2022 Historic Aerials. http://www.historicaerials.com/. Accessed on October 27.

ATTACHMENT 1

Native American Heritage Commission Correspondence

Nathanial Yerka

From:	NAHC@NAHC <NAHC@nahc.ca.gov>
Sent:	Thursday, October 20, 2022 2:49 PM
To:	Nathanial Yerka
Cc:	Green, Andrew@NAHC
Subject:	[External] RE: Sacred Lands Search - Imperial County, R-10247
Attachments:	NAHC_Form_10247.pdf; fig2.pdf

Hello,

Thank you for your message. We're in receipt of your request. We have recently hired new staff, and this change in our office is creating some delays. We estimate a turn-around time of 6-8 weeks and don't anticipate responding sooner than the end of that time frame. Please let us know if you have any questions.

Kind regards,

Native American Heritage Commission
1550 Harbor Blvd. Suite 100
West Sacramento, CA 95691
(916) 373-3710

From: Nathanial Yerka <nyerka@reconenvironmental.com>
Sent: Monday, October 17, 2022 4:07 PM
To: NAHC@NAHC <NAHC@nahc.ca.gov>
Cc: Carmen Zepeda-Herman <czepeda@reconenvironmental.com>
Subject: Sacred Lands Search - Imperial County, R-10247

Hello,

Recon Environmental, Inc. is requesting a search of the Sacred Lands File for Imperial County.

Please see attached Search Form and Project Figure.

Thank you,

Nate

Nathanial Yerka
Project Archaeologist

RECON Environmental, Inc.
3111 Camino del Rio North, Suite 600
San Diego, CA 92108-5726
(619) 308-9333

CA SB | SBA SB

Website | Instagram | Twitter | Facebook | LinkedIn

Imperial County Planning & Development Services
Planning / Building

Jim Minnick
DIRECTOR

August 17, 2023
REQUEST FOR REVIEW AND COMMENTS

The attached project and materials are being sent to you for your review and as an early notification that the following project is being requested and being processed by the County's Planning & Development Services Department. Please review the proposed project based on your agency/department area of interest, expertise, and/or jurisdiction.

To: Native American Heritage Commission Contact List

☒ Barona Group of the Capitan Grande - Raymond Welch

☒ Ewiiaapaayp Band of Kumeyaay Indians - Michael Garcia/Robert Pinto

☒ Manzanita Band of Kumeyaay Nation - Angela Elliott Santos/

☒ Inaja-Cosmit Band of Indians - Rebecca Osuna

☒ Kwaaymii Laguna Band of Mission Indians - Carmen Lucas

☒ San Pasqual Band of Diegueno Mission Indians - Allen Lawson

☒ Campo Band of Diegueno Mission Indians - Ralph Goff

☒ Iipay Nation of Santa Ysabel - Virgil Perez/Clint Linton

☒ Mesa Grande Band of Diegueno Mission Indians - Michael Linton

☒ Jamul Indian Village - Erica Pinto/Lisa Cumper

☒ La Posta Band of Diegueno Mission Indians - Javaughn Miller/Gwendolyn Parada

☒ Sycuan Band of the Kumeyaay Nation - Cody Martinez/Kristie Orosco

☒ Quechan Tribe of the Fort Yuma Reservation - Manfred Scott/Jill McCormick

☒ Viejas Band of Kumeyaay Indians - John Christman/Ernest Pingleton

☒ San Pasqual Band of Diegueno Mission Indians - John Flores

From: Gerardo Quero Planner I - (442) 265-1736 or gerardoquero@co.imperial.ca.us

Project ID: Conditional Use Permit #22-0029

Project Location: 2275 Melon Rd., Holtville, CA 92250 APN 045-570-087

Project Description: The applicant proposes to construct a 100 MW Energy Storage Facility (Peaker Plant) using Battery Energy Storage Systems (BESS) to be situated on a 17-acre Light Industrial (M-1-U) zoned lot adjacent to city limits of the City of Holtville.

Applicants: Apex Solutions, LLC

Comments due by: September 1st, 2023 at 5:00PM

COMMENTS: *(attach a separate sheet if necessary)* (if no comments, please state below and mail, fax, or e-mail this sheet to Case Planner)

____

Name: ____________________ Signature: ______________________ Title: ______________________

Date: ____________ Telephone No.: ________________ E-mail: ______________________________

JR\GQ\S:\AllUsers\APN\045\570\087\CUP22-0029\CUP22-0029 Request for Comments 08.17.23 .docx

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STATE OF CALIFORNIA Gavin Newsom, Governor

NATIVE AMERICAN HERITAGE COMMISSION

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

December 12, 2022

Nathaial Yerka
RECON Environmental, Inc.

Via Email to: nyerka@reconenvironmetal.com

Re: Holtville BESS RECON #10247 Project, Imperial County

Dear Mr. Yerka:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were positive. Please contact the tribes on the attached list for more information. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Pricilla.Torres-Fuentes@nahc.ca.gov.

Sincerely,

Pricilla Torres-Fuentes

Pricilla Torres-Fuentes
Cultural Resources Analyst

Attachment

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Native American Heritage Commission
Native American Contact List
Imperial County
12/12/2022

Barona Group of the Capitan Grande
Raymond Welch, Chairperson
1095 Barona Road — Diegueno
Lakeside, CA, 92040
Phone: (619) 443 - 6612
Fax: (619) 443-0681
counciloffice@barona-nsn.gov

Campo Band of Diegueno Mission Indians
Ralph Goff, Chairperson
36190 Church Road, Suite 1 — Diegueno
Campo, CA, 91906
Phone: (619) 478 - 9046
Fax: (619) 478-5818
rgoff@campo-nsn.gov

Ewiiaapaayp Band of Kumeyaay Indians
Michael Garcia, Vice Chairperson
4054 Willows Road — Diegueno
Alpine, CA, 91901
Phone: (619) 933 - 2200
Fax: (619) 445-9126
michaelg@leaningrock.net

Ewiiaapaayp Band of Kumeyaay Indians
Robert Pinto, Chairperson
4054 Willows Road — Diegueno
Alpine, CA, 91901
Phone: (619) 368 - 4382
Fax: (619) 445-9126
ceo@ebki-nsn.gov

Iipay Nation of Santa Ysabel
Virgil Perez, Chairperson
P.O. Box 130 — Diegueno
Santa Ysabel, CA, 92070
Phone: (760) 765 - 0845
Fax: (760) 765-0320

Iipay Nation of Santa Ysabel
Clint Linton, Director of Cultural Resources
P.O. Box 507 — Diegueno
Santa Ysabel, CA, 92070
Phone: (760) 803 - 5694
clint@redtailenvironmental.com

Inaja-Cosmit Band of Indians
Rebecca Osuna, Chairperson
2005 S. Escondido Blvd. — Diegueno
Escondido, CA, 92025
Phone: (760) 737 - 7628
Fax: (760) 747-8568

Jamul Indian Village
Erica Pinto, Chairperson
P.O. Box 612 — Diegueno
Jamul, CA, 91935
Phone: (619) 669 - 4785
Fax: (619) 669-4817
epinto@jiv-nsn.gov

Jamul Indian Village
Lisa Cumper, Tribal Historic Preservation Officer
P.O. Box 612 — Diegueno
Jamul, CA, 91935
Phone: (619) 669 - 4855
lcumper@jiv-nsn.gov

Kwaaymii Laguna Band of Mission Indians
Carmen Lucas,
P.O. Box 775 — Kwaaymii
Pine Valley, CA, 91962 — Diegueno
Phone: (619) 709 - 4207

La Posta Band of Diegueno Mission Indians
Javaughn Miller, Tribal Administrator
8 Crestwood Road — Diegueno
Boulevard, CA, 91905
Phone: (619) 478 - 2113
Fax: (619) 478-2125
jmiller@LPtribe.net

La Posta Band of Diegueno Mission Indians
Gwendolyn Parada, Chairperson
8 Crestwood Road — Diegueno
Boulevard, CA, 91905
Phone: (619) 478 - 2113
Fax: (619) 478-2125
LP13boots@aol.com

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Holtville BESS RECON #10247 Project, Imperial County.

Native American Heritage Commission
Native American Contact List
Imperial County
12/12/2022

Manzanita Band of Kumeyaay Nation
Angela Elliott Santos, Chairperson
P.O. Box 1302 — Diegueno
Boulevard, CA, 91905
Phone: (619) 766 - 4930
Fax: (619) 766-4957

Mesa Grande Band of Diegueno Mission Indians
Michael Linton, Chairperson
P.O Box 270 — Diegueno
Santa Ysabel, CA, 92070
Phone: (760) 782 - 3818
Fax: (760) 782-9092
mesagrandeband@msn.com

Quechan Tribe of the Fort Yuma Reservation
Manfred Scott, Acting Chairman
Kw'ts'an Cultural Committee
P.O. Box 1899 — Quechan
Yuma, AZ, 85366
Phone: (928) 750 - 2516
scottmanfred@yahoo.com

Quechan Tribe of the Fort Yuma Reservation
Jill McCormick, Historic Preservation Officer
P.O. Box 1899 — Quechan
Yuma, AZ, 85366
Phone: (760) 572 - 2423
historicpreservation@quechantribe.com

San Pasqual Band of Diegueno Mission Indians
John Flores, Environmental Coordinator
P. O. Box 365 — Diegueno
Valley Center, CA, 92082
Phone: (760) 749 - 3200
Fax: (760) 749-3876
johnf@sanpasqualtribe.org

San Pasqual Band of Diegueno Mission Indians
Allen Lawson, Chairperson
P.O. Box 365 — Diegueno
Valley Center, CA, 92082
Phone: (760) 749 - 3200
Fax: (760) 749-3876
allenl@sanpasqualtribe.org

Sycuan Band of the Kumeyaay Nation
Cody Martinez, Chairperson
1 Kwaaypaay Court — Kumeyaay
El Cajon, CA, 92019
Phone: (619) 445 - 2613
Fax: (619) 445-1927
ssilva@sycuan-nsn.gov

Sycuan Band of the Kumeyaay Nation
Kristie Orosco, Kumeyaay Resource Specialist
1 Kwaaypaay Court — Kumeyaay
El Cajon, CA, 92019
Phone: (619) 445 - 6917

Viejas Band of Kumeyaay Indians
John Christman, Chairperson
1 Viejas Grade Road — Diegueno
Alpine, CA, 91901
Phone: (619) 445 - 3810
Fax: (619) 445-5337

Viejas Band of Kumeyaay Indians
Ernest Pingleton, Tribal Historic Officer, Resource Management
1 Viejas Grade Road — Diegueno
Alpine, CA, 91901
Phone: (619) 659 - 2314
epingleton@viejas-nsn.gov

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Holtville BESS RECON #10247 Project, Imperial County.

EEC ORIGINAL PKG

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) 750 W. Main St., El Centro, Ca.	ZIP CODE 92243	PHONE NUMBER c/o 760-996-0313
3. APPLICANT'S NAME Holtville Peaker	EMAIL ADDRESS ----------------	
4. MAILING ADDRESS (Street / P O Box, City, State) same as owner	ZIP CODE ------------	PHONE NUMBER ------------
4. ENGINEER'S NAME CA. LICENSE NO. N A	EMAIL ADDRESS --------------------	
5. MAILING ADDRESS (Street / P O Box, City, State) --------------------	ZIP CODE ------------	PHONE NUMBER ------------

6. ASSESSOR'S PARCEL NO. 045-570-087	SIZE OF PROPERTY (in acres or square foot) approx 17 ac.	ZONING (existing)
7. PROPERTY (site) ADDRESS pending assignment by ICPDS		
8. GENERAL LOCATION (i.e. city, town, cross street) S-W corner of Alamo Rd and Melon Rd, Holvtille, Ca		
9. LEGAL DESCRIPTION see attached PTR for detailed legal		

PLEASE PROVIDE CLEAR & CONCISE INFORMATION (ATTACH SEPARATE SHEET IF NEEDED)

10. DESCRIBE PROPOSED USE OF PROPERTY (list and describe in detail) the project is the development of a 100 MW BESS (battery storage system) using the Tesla system

11. DESCRIBE CURRENT USE OF PROPERTY vacant
12. DESCRIBE PROPOSED SEWER SYSTEM None
13. DESCRIBE PROPOSED WATER SYSTEM None
14. DESCRIBE PROPOSED FIRE PROTECTION SYSTEM on site water storage meeting county standards

15. IS PROPOSED USE A BUSINESS? ☒ Yes ☐ No — IF YES, HOW MANY EMPLOYEES WILL BE AT THIS SITE?

I / WE THE LEGAL OWNER (S) OF THE ABOVE PROPERTY CERTIFY THAT THE INFORMATION SHOWN OR STATED HEREIN IS TRUE AND CORRECT.

Ziad Alaywan — Dec 8, 2022
Print Name — Date
ziad alaywan
Signature
Jurg Heuberger for applicant
Print Name — Date
Signature

REQUIRED SUPPORT DOCUMENTS

A. SITE PLAN
B. FEE
C. OTHER
D. OTHER

APPLICATION RECEIVED BY:	DATE	REVIEW / APPROVAL BY OTHER DEPT'S required.
APPLICATION DEEMED COMPLETE BY:	DATE	☐ P. W.
APPLICATION REJECTED BY:	DATE	☐ E. H. S.
TENTATIVE HEARING BY:	DATE	☐ A. P. C. D.
FINAL ACTION: ☐ APPROVED ☐ DENIED	DATE	☐ O. E. S.
		☐
		☐

CUP # 22-0029

IS22-0048

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Holtville Peaker Plant

Location:	Southwest corner of Alamo Rd. and Melon Rd., Holtville, Ca.
APN:	045-570-087
Battery Type:	Tesla Power Packs or equal
Capacity:	100 MW
Owner:	Apex Energy Solutions, LLC
Project Name:	Holtville Peaker, LLC

PROJECT DESCRIPITION:

Apex Energy Solutions LLC is proposing to develop a 100 MW Battery (BESS) energy storage facility just west of the City Limits of the City of Holtville. The system will connect to the IID xxx line which interconnection will allow the BESS to purchase and sell power.

The BESS system will be located along the southern property boundary, and interconnected to the IID line along Melon Rd. The site will have access from Alamo Rd. Since the BESS will utilize less than 1/5 of the overall site, the balance of the property will be undeveloped for some time, but the site will be maintained to minimize unwanted vegetation or dust.

There will be a water storage pond or tank to provide a minimum of 20,000 gallons of water for fire fighting use. Additional storage may be provided if so, required by the County Fire Dept.

The entire site will be fenced and have video surveillance security. The project once built will not have on-site employees except for routine maintenance or repairs.

OPERATION:

The system will be operated by purchasing power from the grid when there is a surplus or the costs are low and then sell the power to the grid when the demand requires it.

The system is entirely remotely operated and monitored with extensive video and intrusion surveillance.

Due to the use of the TESLA or equal battery system, fire protection in the event of a fire will be to simply protect the surrounding areas but not to extinguish the battery fires as that would only prolong the fire and smoke. TESLA system are designed to essentially "melt" within their containers and therefore attempting to extinguish a fire would only make the problem worse.

RECON

An Employee-Owned Company

February 15, 2023

Mr. Ramon Gonzalez
Senior Project Coordinator
Z Global
750 W. Main Street
El Centro, CA 92243

Reference: Air Quality Analysis for the Holtville Peaker BESS Project, Holtville, California (RECON Number 10247)

Dear Mr. Gonzalez:

The purpose of this report is to assess potential short-term local and regional air quality impacts resulting from development of the Holtville Peaker Battery Energy Storage Site (BESS) Project (project). The analysis of impacts is based on state and federal Ambient Air Quality Standards (AAQS) and assessed in accordance with the regional guidelines, policies, and standards and the Imperial County Air Pollution Control District (ICAPCD).

1.0 Project Description

The 17.2-acre project site consists of a vacant lot located at Assessor Parcel Number 045-570-087, southwest of the intersection of East Alamo Road and Melon Road, in the City of Holtville's (City's) sphere of influence (SOI) within Imperial County, California (Figure 1). The project site is surrounded by residential development with scattered commercial and industrial development (Figure 2).

The project would include development of a BESS facility that would connect to an existing 92-kilovolt gen-tie line (Figure 3). The BESS facility would include battery containers and storage sites, a control room, and associated facilities surrounded by fencing in the south-central portion of the parcel, with the remainder of the parcel used for temporary construction access and staging. Access to the facility would occur from Melon Road.

2.0 Environmental Setting

2.1 Regulatory Setting

2.1.1 Federal Regulations

AAQS represent the maximum levels of background pollution considered safe, with an adequate margin of safety, to protect the public health and welfare. The federal Clean Air Act (CAA) was enacted in 1970 and amended in 1977 and 1990 (42 U.S. Code [U.S.C.] 7401) for the purposes of protecting and enhancing the quality of the nation's air resources to benefit public health, welfare, and productivity. In 1971, in order to achieve the purposes of Section 109 of the CAA [42 U.S.C. 7409], the U.S. Environmental Protection Agency (U.S. EPA) developed primary and secondary National AAQS (NAAQS).

Six pollutants of primary concern were designated: ozone, carbon monoxide (CO), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), lead (Pb), particulate matter with a diameter of 10 microns and less (PM_{10}), and particulate matter with a diameter of 2.5 microns and less ($PM_{2.5}$). The primary NAAQS "in the judgment of the Administrator, based on such criteria and allowing an adequate margin of safety, are requisite to protect the public health . . . ." and the secondary standards ". . . protect the public welfare from any known or anticipated adverse effects associated with the presence

3111 Camino del Rio North, Suite 600, San Diego, CA 92108-5726 | 619.308.9333 | reconenvironmental.com
SAN DIEGO | BAY AREA | TUCSON EEC ORIGINAL PKG

of such air pollutant in the ambient air" [42 U.S.C. 7409(b)(2)]. The primary NAAQS were established, with a margin of safety, considering long-term exposure for the most sensitive groups in the general population (i.e., children, senior citizens, and people with breathing difficulties). The NAAQS are presented in Table 1 (California Air Resources Board [CARB] 2016).

If an air basin is not in either federal or state attainment for a particular pollutant, the basin is classified as non-attainment area for that pollutant. The project is located within the Salton Sea Air Basin (SSAB). The County is classified as a federal moderate non-attainment area for the 2008 8-hour ozone standards, marginal non-attainment area for the 2015 8-hour ozone standards, and a partial moderate non-attainment area for the $PM_{2.5}$ standards.

2.1.2 State Regulations

Criteria Pollutants

The CARB has developed the California AAQS (CAAQS) and generally has set more stringent limits on the criteria pollutants than the NAAQS (see Table 1). In addition to the federal criteria pollutants, the CAAQS also specify standards for visibility-reducing particles, sulfates, hydrogen sulfide, and vinyl chloride.

Similar to the federal CAA, the state classifies either "attainment" or "non-attainment" areas for each pollutant based on the comparison of measured data with the CAAQS. The County is a non-attainment area for the state ozone standards and the state PM_{10} standard. The California CAA, which became effective on January 1, 1989, requires all areas of the state to attain the CAAQS at the earliest practicable date. The California CAA has specific air quality management strategies that must be adopted by the agency responsible for the non-attainment area. In the case of the SSAB, the responsible agency is the ICAPCD.

Toxic Air Contaminants

The public's exposure to toxic air contaminants (TACs) is a significant public health issue in California. Diesel particulate matter (DPM) emissions have been identified as TACs. In 1983, the California Legislature enacted a program to identify the health effects of TACs and to reduce exposure to these contaminants to protect the public health (Assembly Bill [AB] 1807: Health and Safety Code Sections 39650–39674). The California Legislature established a two-step process to address the potential health effects from TACs. The first step is the risk assessment (or identification) phase. The second step is the risk management (or control) phase of the process.

The California Air Toxics Program establishes the process for the identification and control of TACs and includes provisions to make the public aware of significant toxic exposures and for reducing risk. Additionally, the Air Toxics "Hot Spots" Information and Assessment Act (AB 2588, 1987, Connelly Bill) was enacted in 1987 and requires stationary sources to report the types and quantities of certain substances routinely released into the air.

The goals of the Air Toxics "Hot Spots" Act are to collect emission data, to identify facilities having localized impacts, to ascertain health risks, to notify nearby residents of significant risks, and to reduce those significant risks to acceptable levels.

Table 1
Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[1]		National Standards[2]		
		Concentration[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
Ozone[8]	1 Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	–	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.07 ppm (137 µg/m^3)		0.070 ppm (137 µg/m^3)		
Respirable Particulate Matter (PM_{10})[9]	24 Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		–		
Fine Particulate Matter ($PM_{2.5}$)[9]	24 Hour	No Separate State Standard		35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	12 µg/m^3	15 µg/m^3	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m^3)	Non-dispersive Infrared Photometry	35 ppm (40 mg/m^3)	–	Non-dispersive Infrared Photometry
	8 Hour	9.0 ppm (10 mg/m^3)		9 ppm (10 mg/m^3)	–	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		–	–	
Nitrogen Dioxide (NO_2)[10]	1 Hour	0.18 ppm (339 µg/m^3)	Gas Phase Chemi-luminescence	100 ppb (188 µg/m^3)	–	Gas Phase Chemi-luminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)		0.053 ppm (100 µg/m^3)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[11]	1 Hour	0.25 ppm (655 µg/m^3)	Ultraviolet Fluorescence	75 ppb (196 µg/m^3)	–	Ultraviolet Fluorescence; Spectro-photometry (Pararosaniline Method)
	3 Hour	–		–	0.5 ppm (1,300 µg/m^3)	
	24 Hour	0.04 ppm (105 µg/m^3)		0.14 ppm (for certain areas)[11]	–	
	Annual Arithmetic Mean	–		0.030 ppm (for certain areas)[11]	–	
Lead[12,13]	30 Day Average	1.5 µg/m^3	Atomic Absorption	–	–	High Volume Sampler and Atomic Absorption
	Calendar Quarter	–		1.5 µg/m^3 (for certain areas)[12]	Same as Primary Standard	
	Rolling 3-Month Average	–		0.15 µg/m^3		
Visibility Reducing Particles[14]	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 µg/m^3	Ion Chroma-tography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride[12]	24 Hour	0.01 ppm (26 µg/m^3)	Gas Chroma-tography			

Table 1
Ambient Air Quality Standards

NOTES:
ppm = parts per million; ppb = parts per billion; µg/m^3 = micrograms per cubic meter; – = not applicable.

1 California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, particulate matter (PM_{10}, $PM_{2.5}$, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2 National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.

3 Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4 Any equivalent measurement method which can be shown to the satisfaction of the Air Resources Board to give equivalent results at or near the level of the air quality standard may be used.

5 National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

6 National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

7 Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.

8 On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

9 On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 µg/m^3 to 12.0 µg/m^3. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 µg/m^3, as was the annual secondary standards of 15 µg/m^3. The existing 24-hour PM_{10} standards (primary and secondary) of 150 µg/m^3 also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

10 To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national standards are in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national standards to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

11 On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.
Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

12 The CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

13 The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/m^3 as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

14 In 1989, the CARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

SOURCE: CARB 2016.

California Environmental Quality Act

Section 15125(d) of the California Environmental Quality Act (CEQA) Guidelines requires discussion of any inconsistencies between the project and applicable general plans and regional plans, including the applicable air quality attainment or maintenance plan (or SIP).

2.1.3 Local Regulations

CEQA Air Quality Handbook

The ICAPCD adopted its *CEQA Air Quality Handbook: Guidelines for the Implementation of the California Environmental Quality Act of 1970* in 2007 and amended the handbook in December 2017 (ICAPCD 2017a). The ICAPCD CEQA Air Quality Handbook provides guidance on how to determine the significance of impacts, including air pollutant emissions, related to the development of residential, commercial, and industrial projects. Where impacts are determined to be significant, the ICAPCD CEQA Air Quality Handbook provides guidance to mitigate adverse impacts to air quality from development projects.

Stationary Source Permitting

Pursuant to ICAPCD Rule 207 (New & Modified Stationary Source Review) and associated rules such as Rule 201 (Permits Required) and Rule 208 (Permit to Operate), the construction, installation, modification, replacement, and operation of any equipment which may emit air contaminants requires ICAPCD permits. The ICAPCD requires that all such equipment be assessed for the potential to result in health risk impacts, and permits to operate equipment must be renewed each year equipment is in use or upon the modification of equipment.

Policy Number 5–Off-site Mitigation/In-Lieu Fee

The ICAPCD issued Policy Number 5, Off-site Mitigation/In-lieu Fee in April 2014. The policy references the ICAPCD CEQA Air Quality Handbook and discusses how project proponents may achieve additional mitigation by either proposing an off-site mitigation project or paying an in-lieu mitigation fee. Mitigation fees collected by the ICAPCD are used to fund the emissions offsets projects through the ICAPCD Carl Moyer Memorial Air Quality Standards Attainment Program (Carl Moyer Program). Specific projects funded by the program achieve emissions reductions by replacing old, highly polluting equipment with newer, cleaner equipment earlier than required by regulation or through normal attrition. As outlined in Policy Number 5, total in-lieu fees for mitigation of construction emissions are calculated based on the quantity and duration of the project's construction emissions and the cost-effectiveness of the Carl Moyer Program for offsetting oxides of nitrogen (NO_X) and PM_{10} emissions.

Operational Development Fee Mitigation Program

Adopted in November 2007, Rule 310, Operational Development Fee Mitigation Program, is designed to assist in the reduction of excess air emissions resulting from new residential and commercial development (warehousing is considered a commercial use under the program) in Imperial County. Funds collected by the program are used to offset NO_X and PM_{10} emissions through a local emission reduction projects such as paving unpaved roadways to reduce fugitive dust.

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The Children's Environmental Health Protection Act, California Senate Bill 25 (Chapter 731, Escutia, Statutes of 1999), focuses on children's exposure to air pollutants. The act requires CARB to review its air quality standards from a children's health perspective, evaluate the statewide air monitoring network, and develop any additional air toxic control measures needed to protect children's health. Locally, toxic air pollutants are regulated through the ICAPCD Regulation X. Of particular concern statewide are DPM emissions. DPM was established as a TAC in 1998, and is estimated to represent a majority of the cancer risk from TACs statewide (based on the statewide average). Diesel exhaust is a complex mixture of gases, vapors, and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by the CARB and are listed as carcinogens either under the state's Proposition 65 or under the federal Hazardous Air Pollutants program.

Following the identification of DPM as a TAC in 1998, CARB has worked on developing strategies and regulations aimed at reducing the risk from DPM. The overall strategy for achieving these reductions is found in the *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles* (CARB 2000). A stated goal of the plan is to reduce the statewide cancer risk arising from exposure to DPM by 85 percent by 2020.

In April 2005, CARB published the *Air Quality and Land Use Handbook: A Community Health Perspective* (CARB 2005). The handbook makes recommendations directed at protecting sensitive land uses from air pollutant emissions while balancing a myriad of other land use issues (e.g., housing, transportation needs, economics, etc.). Sensitive land uses include but are not limited to, schools, hospitals, residences, resident care facilities, and day-care centers. The handbook is not regulatory or binding on local agencies and recognizes that application takes a qualitative approach. Therefore, the CARB has provided guidelines for the siting of land uses near heavily traveled roadways. Of pertinence to this study, the CARB guidelines indicate that siting new sensitive land uses within 500 feet of a freeway or urban roads with 100,000 or more vehicles/day should be avoided when possible.

As an ongoing process, CARB will continue to establish new programs and regulations for the control of DPM and other air-toxics emissions as appropriate. The continued development and implementation of these programs and policies will ensure that the public's exposure to DPM and other TACs will continue to decline.

State Implementation Plan

The State Implementation Plan (SIP) is a collection of documents that set forth the state's strategies for achieving the NAAQS. In California, the SIP is a compilation of new and previously submitted plans, programs (such as air quality management plans, monitoring, modeling, permitting, etc.), district rules, state regulations, and federal controls. The CARB is the lead agency for all purposes related to the SIP under state law. Local air districts and other agencies, such as the Department of Pesticide Regulation and the Bureau of Automotive Repair, prepare SIP elements and submit them to CARB for review and approval. The CARB then forwards SIP revisions to the U.S. EPA for approval and publication in the Federal Register. All of the items included in the California SIP are listed in the Code of Federal Regulations (CFR) at 40 CFR 52.220.

The ICAPCD is the air district responsible for the project area. Applicable ICAPCD SIPs include:

- Imperial County 2009 State Implementation Plan for Particulate Matter Less than 10 Microns in Aerodynamic Diameter;
- Imperial County 2013 State Implementation Plan for the 2006 24-Hour $PM_{2.5}$ Moderate Non-attainment Area; and
- Imperial County 2017 State Implementation Plan for the 2008 8-Hour Ozone Standard.

Fugitive Dust Control

The ICAPCD Regulation VIII regulates emissions of fugitive dust. Fugitive dust is:

> Particulate Matter entrained in the ambient air which is caused from man-made and natural activities such as, but not limited to, movement of soil, vehicles, equipment, blasting, and wind. This excludes Particulate Matter emitted directly in the exhaust of motor vehicles or other fuel combustion devices, from portable brazing, soldering, or welding equipment, pile drivers, and stack emissions from stationary sources (ICAPCD, Rule 800 (c)(18)).

Regulation VIII includes the following specific rules:

- Rule 800–Fugitive Dust Requirements for Control of $PM_{2.5}$
- Rule 801–Construction and Earthmoving Activities
- Rule 802–Bulk Materials
- Rule 803–Carry Out and Track Out
- Rule 804–Open Areas
- Rule 805–Paved and Unpaved Roads
- Rule 806–Conservation Management Practices

ICAPCD Rule 428

Adopted on September 11, 2018, Rule 428, Wood Burning Appliances, is to limit emissions of particulate matter from wood burning appliances. This rule applies to any person who manufactures, sells, offers for sale, or operates a permanently installed, indoor or outdoor, wood burning appliance within the Imperial County $PM_{2.5}$ nonattainment area. This rule also applies to any person who installs a wood burning appliance in any residential or commercial, single- or multi-building unit within the Imperial County $PM_{2.5}$ nonattainment area.

2.2 Existing Air Quality

2.2.1 Climate and Meteorology

Climate conditions at the project site, like the rest of Imperial County, are governed by the large-scale sinking and warming of air in the semi-permanent tropical high-pressure center of the Pacific Ocean. The high-pressure ridge blocks out most storms except in winter when it is weakest and farthest south. The coastal mountains prevent the intrusion of any cool, damp air found in California coastal environs. Because of the barrier and weakened storms, Imperial County experiences clear skies, extremely hot summers, mild winters, and little rainfall (ICAPCD 2017b).

Winters are mild and dry with daily average temperatures ranging between 65 and 75 degrees Fahrenheit. Summers are extremely hot with daily average temperatures ranging between 104 and 115 degrees Fahrenheit. The flat terrain and the strong temperature differentials created by intense solar heating result in moderate winds and deep thermal convection. The combination of subsiding air, protective mountains, and distance from the ocean all combine to severely limit precipitation (ICAPCD 2017b).

Imperial County experiences surface inversions almost every day of the year. Due to strong surface heating, these inversions are usually broken and allow pollutants to be more easily dispersed. In some circumstances, the presence of the Pacific high-pressure cell can cause the air to warm to a temperature higher than the air below. This highly stable atmospheric condition, termed a subsidence inversion, can act as a nearly impenetrable lid to the vertical mixing of pollutants. The strength of these inversions makes them difficult to disrupt. Consequently, they can persist for one or more days, causing air stagnation and the buildup of pollutants. Highest and worst-case ozone levels are often associated with the presence of subsidence inversions (ICAPCD 2017b).

The large daily oscillation of temperature produces a corresponding large variation in the relative humidity. Nocturnal humidity rises to 50 to 60 percent, but drops to about 10 percent during the day. Prevailing winds are from the west-northwest through southwest; a secondary flow maximum from the southeast is also evident. The prevailing winds from the west and northwest occur seasonally from fall through spring and are known to be from the Los Angeles area. Occasionally, Imperial County experiences periods of extremely high wind speeds. Wind speeds can exceed 31 miles per hour (mph) and this occurs most frequently during the months of April and May. However, speeds of less than 6.8 mph account for more than one-half of the observed wind measurements (ICAPCD 2017b).

2.2.2 Background Air Quality

Air quality at a particular location is a function of the kinds, amounts, and dispersal rates of pollutants being emitted into the air locally and throughout the basin. The major factors affecting pollutant dispersion are wind speed and direction, the vertical dispersion of pollutants (which is affected by inversions), and the local topography.

Air quality is commonly expressed as the number of days in which air pollution levels exceed state standards set by the CARB or federal standards set by the U.S. EPA. The ICAPCD maintains air quality monitoring stations throughout the SSAB. Air pollutant concentrations and meteorological information are continuously recorded at these stations. Measurements are then used by scientists to help forecast daily air pollution levels.

The El Centro – 9th Street monitoring station, located at 150 9th Street, approximately 10 miles west of the project site, is the nearest station to the project site. The El Centro monitoring station measures ozone, NO_2, PM_{10}, and $PM_{2.5}$. Table 2 provides a summary of measurements collected at the El Centro monitoring station for the years 2017 through 2021.

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Table 2 Summary of Air Quality Measurements Recorded at the El Centro Monitoring Station					
Pollutant/Standard	2017	2018	2019	2020	2021
Ozone					
Federal Max 8-hour (ppm)	0.092	0.090	0.071	0.077	0.083
Days 2015 Federal 8-hour Standard Exceeded (0.07 ppm)	17	14	1	2	6
Days 2008 Federal 8-hour Standard Exceeded (0.075 ppm)	8	3	0	1	2
State Max 8-hour (ppm)	0.092	0.090	0.071	0.077	0.084
Days State 8-hour Standard Exceeded (0.07 ppm)	17	15	1	2	7
Max. 1-hour (ppm)	0.110	0.102	0.080	0.097	0.096
Days State 1-hour Standard Exceeded (0.09 ppm)	4	2	0	1	1
Nitrogen Dioxide					
Max 1-hour (ppm)	0.0488	0.0341	0.0367	0.0448	0.0558
Days State 1-hour Standard Exceeded (0.18 ppm)	0	0	0	0	0
Days Federal 1-hour Standard Exceeded (0.100 ppb)	0	0	0	0	0
Annual Average (ppm)	--	--	--	--	--
PM_{10}*					
Federal Max. Daily (μg/m^3)	268.5	256.3	123.9	197.5	194.5
Measured Days Federal 24-hour Standard Exceeded (150 μg/m^3)	5	5	0	2	1
Calculated Days Federal 24-hour Standard Exceeded (150 μg/m^3)	5.0	5.1	0.0	2.0	1.0
Federal Annual Average (μg/m^3)	41.6	47.3	34.9	41.5	41.8
State Max. Daily (μg/m^3)	186.4	253.0	130.0	197.7	186.9
Measured Days State 24-hour Standard Exceeded (50 μg/m^3)	60	111	53	92	88
Calculated Days State 24-hour Standard Exceeded (50 μg/m^3)	--	113.0	53.7	92.0	88.6
State Annual Average (μg/m^3)	--	46.8	35.6	41.5	41.6
$PM_{2.5}$*					
Federal Max. Daily (μg/m^3)	23.2	22.4	21.4	28.5	19.1
Measured Days Federal 24-hour Standard Exceeded (35 μg/m^3)	0	0	0	0	0
Calculated Days Federal 24-hour Standard Exceeded (35 μg/m^3)	0.0	0.0	0.0	0.0	0.0
Federal Annual Average (μg/m^3)	8.4	8.6	7.8	9.7	8.2
State Max. Daily (μg/m^3)	23.2	22.4	21.4	28.5	19.1
State Annual Average (μg/m^3)	8.4	8.7	7.9	9.8	8.3

SOURCE: CARB 2023.
ppm = parts per million; μg/m^3 = micrograms per cubic meter; -- = Not available.
*Calculated days value. Calculated days are the estimated number of days that a measurement would have been greater than the level of the standard had measurements been collected every day. The number of days above the standard is not necessarily the number of violations of the standard for the year.

3.0 Thresholds of Significance

Thresholds used to evaluate potential impacts to air quality are based on applicable criteria in the CEQA Guidelines Appendix G. The project would have a significant air quality impact if it would:

1. Conflict with or obstruct implementation of the applicable air quality plan.
2. 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.
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.

As stated in the State CEQA Guidelines, these questions are "intended to encourage thoughtful assessment of impacts and do not necessarily represent thresholds of significance" (Title 14, Division 6, Chapter 3 Guidelines for Implementation of the CEQA, Appendix G, Environmental Checklist Form). The State CEQA Guidelines encourage lead agencies to adopt regionally specific thresholds of significance. When adopting these thresholds, the amended Guidelines allow lead agencies to consider thresholds of significance adopted or recommended by other public agencies, or recommended by experts, provided that the thresholds are supported by substantial evidence.

The ICAPCD CEQA Air Quality Handbook establishes the following four separate evaluation categories (ICAPCD 2017a):

1. Comparison of calculated project emissions to ICAPCD emission thresholds.
2. Consistency with the most recent Clean Air Plan for Imperial County.
3. Comparison of predicted ambient pollutant concentrations resulting from the project to state and federal health standards, when applicable.
4. The evaluation of special conditions which apply to certain projects.

Any development with a potential to emit criteria pollutants below significance levels defined by the ICAPCD is called a "Tier I project," and is considered by the ICAPCD to have less than significant potential adverse impacts on local air quality. For Tier I projects, the project proponent should implement a set of feasible "standard" mitigation measures (enumerated by the ICAPCD) to reduce the air quality impact to an insignificant level. A "Tier II project" is one whose emissions exceed any of the thresholds. Its impact is significant and the project proponent should select and implement all feasible "discretionary" mitigation measures (also enumerated by the ICAPCD) in addition to the standard measures.

3.1 Operational Impacts

Table 3 provides general guidelines for determining the significance of impacts based on the total emissions that are expected from project operation established by the ICAPCD.

Table 3
Significance Thresholds for Operations

Pollutant	Tier I	Tier II
NO_X and ROG	Less than 137 lbs/day	137 lbs/day and greater
PM_{10} and SO_X	Less than 150 lbs/day	150 lbs/day and greater
CO and $PM_{2.5}$	Less than 550 lbs/day	550 lbs/day and greater

ROG = reactive organic gas; NO_X = oxides of nitrogen; SO_X = oxides of sulfur; CO = carbon monoxide; PM_{10} = particulate matter with an aerodynamic diameter 10 microns or less; $PM_{2.5}$ = particulate matter with an aerodynamic diameter 2.5 microns or less; lbs/day = pounds per day
SOURCE: ICAPCD 2017a.

As stated above, Tier 1 projects are required to implement all feasible standard measures specified by the ICAPCD. Tier II projects are required to implement all feasible standard measures as well as all feasible discretionary measures specified by the ICAPCD.

3.2 Construction Impacts

The ICAPCD has also established thresholds of significance for project construction. Table 4 provides general guidelines for determining significance of impacts based on the total emissions that are expected from project construction.

Table 4
Significance Thresholds for Construction

Pollutant	Thresholds (pounds/day)
PM_{10}	150
ROG	75
NO_X	100
CO	550

ROG = reactive organic gas; NO_X = oxides of nitrogen; CO = carbon monoxide; PM_{10} = particulate matter with an aerodynamic diameter 10 microns or less.
SOURCE: ICAPCD 2017a.

Regardless of project size, all feasible standard measures specified by the ICAPCD for construction equipment and fugitive PM_{10} control for construction activities should be implemented at construction sites. Control measures for fugitive PM_{10} construction emissions in Imperial County are found in ICAPCD Regulation VIII and in the ICAPCD CEQA Air Quality Handbook and are discussed below.

3.3 Public Nuisance Law (Odors)

State of California Health and Safety Code Sections 41700 and 41705 and ICAPCD Rule 407 prohibit emissions from any source whatsoever in quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to the public health or damage to property.

The ICAPCD CEQA Air Quality Handbook provides screening level distances for potential odor sources. If a project is proposed within one mile of a wastewater treatment plant, sanitary landfill, composting station, feedlot, asphalt plant, painting and coating operation, or rendering plant, a potential odor problem may result (ICAPCD 2017a).

4.0 Emission Calculations

The project would result in air pollutant emissions associated with the construction and operation. Emissions were calculated using California Emissions Estimator Model (CalEEMod) Version 2022.1 (California Air Pollution Control Officers Association [CAPCOA] 2022). The CalEEMod program is a tool used to estimate emissions resulting from land development projects in the state of California. CalEEMod was developed with the participation of several state air districts.

CalEEMod estimates parameters such as the type and amount of construction equipment required, trip generation, and utility consumption based on the size and type of each specific land use using data collected from surveys performed in SCAQMD. Where available, parameters were modified to reflect project-specific data.

4.1 Construction-related Emissions

Construction-related activities are temporary, short-term sources of air pollutant emissions. Sources of construction-related emissions include:

- Fugitive dust from grading activities;
- Exhaust emissions from construction equipment;
- Application of chemical coatings (paints, stains, sealants, etc.); and
- Exhaust and fugitive dust emission from on-road vehicles (trips by workers, delivery trucks, and material-hauling trucks).

Heavy-duty construction equipment is usually diesel powered. Based on CARB's In-Use Off-Road Diesel-Fueled Fleets Regulation, heavy-duty construction equipment includes off-road diesel vehicles 25 horsepower or greater. In general, emissions from diesel-powered equipment contain more NO_X, SO_X, and particulate matter than gasoline-powered engines. However, diesel-powered engines generally produce less CO and less ROG than do gasoline-powered engines. Standard construction equipment includes tractors/loaders/backhoes, rubber-tired dozers, excavators, graders, cranes, forklifts, rollers, paving equipment, generator sets, welders, cement and mortar mixers, and air compressors.

Primary inputs are the numbers of each piece of equipment and the length of each construction stage. The construction equipment estimates are based on surveys performed by the South Coast Air Quality Management District and the Sacramento Metropolitan Air Quality Management District of typical construction projects which provide a basis for scaling equipment needs and schedule with a project's size. Air emission estimates in CalEEMod are based on the duration of construction phases; construction equipment type, quantity, and usage; grading area; season; and ambient temperature, among other parameters.

Construction emissions were calculated assuming construction would begin in June 2023 and last for eight months. Construction stages would include site preparation, grading/trenching, and foundations/equipment installation/ wiring/commissioning.

4.1.1 Fugitive Dust

Fugitive dust would be associated with construction activities that involve ground disturbance. Fugitive dust emissions vary greatly during construction and are dependent on the amount and type of activity, silt content of the soil, and the weather. Vehicles moving over paved and unpaved surfaces, demolition, excavation, earth movement, grading, and wind erosion from exposed surfaces are all sources of fugitive dust. Calculation of fugitive dust emissions are based on the area of disturbed ground and the fugitive dust measures implemented. Based on discussion with ICAPCD staff, watering during ground disturbing activities would achieve a 50 percent reduction in fugitive dust.

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 5 acres or more for non-residential developments or 10 acres or more in size for residential developments. The project footprint consists of 4.5 acres of the 17.2-acre project site. However, because other portions of the project site may be used for staging areas, it was assumed that the total disturbed area could exceed 5 acres. 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 and/or washed at delivery site after removal of 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.

4.1.2 Construction Equipment

CalEEMod calculates emissions of all pollutants from construction equipment using emission factors from CARB's off-road diesel equipment emission factors database. The specific required construction equipment amount needed for the project is not known at this stage. Modeling was based on the default equipment type and amount for the ground-up construction of a light industrial use. This is conservative since the project would haul the necessary equipment to the site for installation while a light industrial use involves the ground-up construction of buildings which would require more construction equipment. The modeled construction equipment is summarized in Table 5.

Table 5
Construction Phases and Equipment

Equipment	Quantity	Daily Operation Time (hours)
Site Preparation (3 weeks)		
Rubber Tired Dozers	3	8
Tractors/Loaders/Backhoes	4	8
Grading/Trenching (10 weeks)		
Grader	1	8
Excavator	1	8
Rubber Tired Dozer	1	8
Tractors/Loaders/Backhoes	3	8
Foundations/Installation/Wiring/Commissioning (19 weeks)		
Crane	1	7
Forklifts	3	8
Generator Set	1	8
Tractors/Loaders/Backhoes	3	7
Welder	1	8
NOTE: Each phase would also include vehicles associated with work commutes, dump trucks for hauling, and trucks for deliveries.		

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 5 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).

4.1.3 On-Road Vehicles

Construction would generate mobile source emissions from worker trips, hauling trips, and vendor trips. CalEEMod calculates emissions of all pollutants from on-road trucks and passenger vehicles using emission factors derived from CARB's motor vehicle emission inventory program EMFAC2017 (CARB 2017). Vehicle emission factors were multiplied by the model default total estimated number of trips and the average trip length to calculate the total mobile emissions.

CalEEMod calculates dust emissions from travel on paved and unpaved roads. By default, CalEEMod assumes the percentage of paved and unpaved roads for each district as provided by the district. For Imperial County, the default assumption is 50 percent paved and 50 percent unpaved. However, this is not characteristic of the roads in the vicinity of the project site. During construction, vehicles traveling to and from the project site would not traverse unpaved roads. However, it should be noted that Imperial County roadways do experience higher levels of entrained roadway dust. To account for these dust emissions, ICAPCD recommends modeling 90 percent paved roads during construction activities.

4.1.4 Construction Emission Estimates

Table 6 provides a summary of the criteria pollutant emissions generated by the project construction. CalEEMod output files for project construction and operations are contained in Attachment 1.

Table 6
Maximum Daily Construction Air Pollutant Emissions

Emission Source	Maximum Daily Emissions (pounds)					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Site Preparation	4	40	38	<1	59	11
Grading/Trenching	2	20	22	<1	45	7
Foundations/Installation/ Wiring/Commissioning	1	12	14	<1	28	3
Max Daily Emissions	**4**	**40**	**38**	**<1**	**59**	**11**
Significance Threshold	*75*	*100*	*550*	-	*150*	-
Exceeds Threshold?	***No***	***No***	***No***	-	***No***	-

SOURCE: Attachment 1.
NOTE: Totals may vary due to independent rounding.
ROG = reactive organic gas; NO_X = oxides of nitrogen; CO = carbon monoxide;
PM_{10} = particulate matter with an aerodynamic diameter 10 microns or less;
$PM_{2.5}$ = particulate matter with an aerodynamic diameter 2.5 microns or less.

As shown in Table 6, construction emissions associated with future construction of the project site would be less than all applicable ICAPCD significance thresholds. The emissions summarized in Table 6 account for the 50 percent reduction in dust due to daily watering, but do not account for any other emission reductions from any other standard or discretionary measure for dust control or construction equipment. These emissions are therefore conservative.

With implementation of the standard and discretionary measures for fugitive PM_{10} control and standard measures for construction combustion equipment, project construction impacts would be less than significant.

4.2 Operation-related Emissions

Operation-related sources of air pollutant emissions include the direct emission of criteria pollutants. Common direct emission sources associated with typical projects include mobile sources such as project-generated traffic, area sources such as the use of landscaping equipment, and energy sources such as the combustion of natural gas.

4.2.1 Mobile Sources

CalEEMod calculates mobile source emissions using emission factors derived from CARB's motor vehicle emission inventory program, EMFAC2017 (CARB 2017). 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. To account for these trips, a total of one round trip (two one-way trips) was modeled per weekday. The default trip length was increased to 20 miles. CalEEMod default emission factors for the soonest operational year of 2024 were modeled.

As discussed under the construction emission methodology for on-road vehicles, CalEEMod calculates dust emissions from travel on paved and unpaved roads. For Imperial County, the default assumption is 50 percent paved and 50 percent unpaved. However, this is not characteristic of the roads in the vicinity of the project site. During project operation, vehicles traveling to and from the project site would not traverse unpaved roads. However, the project site access road from Melon Road would be unpaved. However, as with construction activities, to account for these dust emissions and any entrained dust on paved roads, 90 percent paved roads was modeled.

4.2.2 Area and Energy Sources

Area source emissions associated with typical development projects include consumer products, natural gas used in space and water heating, architectural coatings, landscaping equipment, and mechanical equipment such as boilers or backup generators. Hearths (fireplaces) and woodstoves are also a source of area emissions. Emissions are generated from energy use such as the combustion of natural gas used in space and water heating. As discussed, the project would be an unmanned facility that would not be a source of area or energy emissions. However, as a conservative analysis, the project was modeled as a light industrial land use and default emission factors for light industrial area and energy sources were modeled.

4.2.3 Operational Emission Estimates

Table 7 provides a summary of the criteria pollutant emissions generated by the project operations. CalEEMod output files for project construction and operations are contained in Attachment 1.

Table 7
Maximum Daily Operations Air Pollutant Emissions

Emission Source	Maximum Daily Emissions (pounds)					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Mobile Sources	<1	<1	<1	<1	1	<1
Area Sources	1	<1	1	<1	<1	<1
Energy Sources	<1	<1	<1	<1	<1	<1
Total Operations	**1**	**<1**	**1**	**<1**	**1**	**<1**
Significance Threshold	*137*	*137*	*550*	*150*	*150*	*550*
Exceeds Threshold?	***No***	***No***	***No***	***No***	***No***	***No***

SOURCE: Attachment 1.
NOTE: Totals may vary due to independent rounding.
ROG = reactive organic gas; NO_X = oxides of nitrogen; CO = carbon monoxide;
PM_{10} = particulate matter with an aerodynamic diameter 10 microns or less;
$PM_{2.5}$ = particulate matter with an aerodynamic diameter 2.5 microns or less.

As shown in Table 7, operation of the project would result in minimal emissions that would be less than the applicable thresholds for all criteria pollutants. The project would not result in a cumulatively considerable net increase of criteria pollutants, and operational impacts would be less than significant.

5.0 Air Quality Impact Analysis

1. Would the project conflict with or obstruct implementation of the applicable air quality plan?

CARB is the lead agency for preparation of the SIP, which outlines the state measures to achieve NAAQS. CARB delegates responsibility for preparation of SIP elements to local air districts and requires local air districts to prepare Air Quality Attainment Plans outlining measures required to achieve CAAQS.

The ICAPCD is the air district responsible for the project area. Applicable ICAPCD air quality plans include:

- Imperial County 2009 State Implementation Plan for Particulate matter Less than 10 Microns in Aerodynamic Diameter;
- Imperial County 2013 State Implementation Plan for the 2006 24-Hour $PM_{2.5}$ Moderate Non-attainment Area; and
- Imperial County 2017 State Implementation Plan for the 2008 8-Hour Ozone Standard.

The primary concern for assessing consistency with air quality plans is whether the project would induce growth that would result in a net increase in criteria pollutant emissions that exceed the assumptions used to develop the plan. The criteria pollutant emission projections for the ICAPCD air quality plans are based on Southern California Association of Governments' (SCAG) population growth and regional vehicle miles traveled (VMT) projections, which are based in part on the land uses established by local general plans. As such, projects that propose development that is consistent with the local land use plans would be consistent with growth projections and air quality plans criteria pollutant emissions estimates. In the event that a project would result in development that is less dense than anticipated by the growth projections, the project would be considered consistent with the air quality plans. In the event a project would result in development that results in greater than anticipated growth projections, the project would result in air pollutant emissions that may not have been accounted for in the air quality plans and thus may obstruct or conflict with the air quality plans.

The project site is located within the City's SOI and is designated as an Urban Area land use in the Imperial County General Plan. The Urban Area designation includes areas surrounding the following seven incorporated cities: Brawley, El Centro, Westmorland, Holtville, Calipatria, Imperial, and Calexico. It is anticipated that these areas will eventually be annexed or incorporated. The project would construct a BESS that would not be a significant source of emissions. The project would be consistent with the growth projections and air quality plans criteria pollutant emissions estimates. Furthermore, the project would not construct housing or other uses that would result in regional population growth. The project would provide needed energy storage for the region and the state. Therefore, the project would not result in new growth beyond what was originally anticipated in SCAG's growth projections for Imperial County. Additionally, as summarized in Tables 6 and 7, construction and operation of the project would result in emissions that are below all applicable project-level significance thresholds. Therefore, project emissions would be consistent with SCAG's growth projections and the ICAPCD's air quality plans, and impacts would be less than significant.

2. Would the project 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?

The project area is in non-attainment areas for NAAQS and CAAQS for ozone and particulate matter. The majority of regional PM_{10} and $PM_{2.5}$ emissions originate from dust stirred up by wind or by vehicle traffic on unpaved roads (ICAPCD 2009). Other PM_{10} and $PM_{2.5}$ emissions originate from grinding operations, combustion sources such as motor vehicles, power plants, wood burning, forest fires, agricultural burning, and industrial processes. Ozone is not emitted directly, but is a result of atmospheric activity on precursors. NO_X and ROG are known as the chief "precursors" of ozone. These compounds react in the presence of sunlight to produce ozone. Approximately 88 percent of NO_X and 40 percent of ROG regional emissions originate from on- and off-road vehicles (ICAPCD 2010). Other major sources include solvent evaporation and miscellaneous processes such as pesticide application.

As shown in Table 6, project construction would not exceed the applicable regional emissions thresholds. These thresholds are designed to provide limits below which project emissions would not significantly change regional air quality. The project would implement all standard and discretionary measures for fugitive PM_{10} control and standard measures for construction combustion equipment. Therefore, project construction would not result in a cumulatively considerable net increase in emissions of ozone, PM_{10}, or $PM_{2.5}$, and impacts would be less than significant.

Long-term emissions of regional air pollutants occur from operational sources. As shown in Table 7, operation of the project would result in minimal emissions that would be less than the applicable thresholds for all criteria pollutants. Therefore, project operation would not result in a cumulatively considerable net increase in emissions of ozone, PM_{10}, or $PM_{2.5}$, and impacts would be less than significant.

3. *Would the project expose sensitive receptors (including, but not limited to, schools, hospitals, resident care facilities, day-care centers and project residents) to substantial pollutant concentrations?*

Sensitive land uses include schools and schoolyards, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential communities. The project site is located adjacent to residential uses.

Diesel Particulate Matter – Construction

Construction of the project and associated infrastructure would result in short-term diesel exhaust emissions from on-site heavy-duty equipment. Construction of the project would result in the generation of diesel-exhaust DPM emissions from the use of off-road diesel equipment required for site preparation and grading, and other construction activities and on-road diesel equipment used to bring materials to and from the project site.

Generation of DPM from construction projects typically occurs in a single area for a short period. Construction is anticipated to last for approximately one year. The dose of DPM to which the receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the extent of exposure that person has with the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for the Maximally Exposed Individual. The risks estimated for a Maximally Exposed Individual are higher if a fixed exposure occurs over a longer period of time. According to the Office of Environmental Health Hazard Assessment (OEHHA), health risk assessments, which determine the exposure of sensitive receptors to toxic emissions, should be based on a 30-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the project (OEHHA 2015). Thus, if the duration of proposed construction activities near any specific sensitive receptor were eight months, the exposure would be 2 percent (8 months divided by 30 years) of the total exposure period used for health risk calculation. Further, the project would implement the standard measures for construction combustion equipment summarized in Section 4.1.2. Additionally, with ongoing implementation of U.S. EPA and CARB requirements for cleaner fuels; off-road diesel engine retrofits; and new, low-emission diesel engine types, the DPM emissions of individual equipment would be reduced over time. All construction equipment is subject to the CARB In-Use Off-Road Diesel-Fueled Fleets Regulation, which limits unnecessary idling to 5 minutes, requires all construction fleets to be labeled and reported to CARB, bans Tier 0 equipment and phases out Tier 1 and 2 equipment (thereby replacing fleets with cleaner equipment), and requires that fleets comply with Best Available Control Technology requirements. Therefore, due to the limited duration of construction activities, implementation of standard measures for construction combustion equipment, and implementation of the In-Use Off-Road Diesel-Fueled Fleets Regulation, DPM generated by project construction is not expected to create conditions where the probability is greater than 10 in 1 million of contracting cancer for the Maximally Exposed Individual or to generate ground-level concentrations of non-carcinogenic TACs that exceed a Hazard Index greater than 1 for the Maximally Exposed Individual. Therefore, project construction would not expose sensitive receptors to substantial pollutant concentration, and impacts would be less than significant.

Carbon Monoxide Hot Spots

A CO hot spot is an area of localized CO pollution that is caused by severe vehicle congestion on major roadways, typically near intersections. CO hot spots have the potential to violate state and federal CO standards at intersections, even if the broader basin is in attainment for federal and state levels. Due to increased requirements for cleaner vehicles, equipment, and fuels, CO levels in the state have dropped substantially. All air basins are attainment or maintenance areas for CO. Therefore, recent screening procedures based on more current methodologies have been developed. The Sacramento Metropolitan Air Quality Management District developed a screening threshold in 2011, which states that any project involving an intersection experiencing 31,600 vehicles per hour or more will require detailed analysis. In addition, the Bay Area Air Quality Management District developed a screening threshold in 2010, which states that any project involving an intersection experiencing 44,000 vehicles per hour would require detailed analysis. No intersections in the vicinity of the project carry this substantial amount of traffic. Additionally, there are no signalized intersections in the vicinity of the project site. Traffic generated by the project would not result in any heavily congested intersections. Thus, the project is not anticipated to result in a CO hot spot.

4. *Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?*

The potential for an odor impact is dependent on a number of variables including the nature of the odor source, distance between the receptor and odor source, and local meteorological conditions. Project construction would result in the emission of diesel fumes and other odors typically associated with construction activities. Sensitive receptors near the project site include residential uses; however, exposure to odors associated with project construction would be short term (8 months) and temporary in nature. Further, per CARB's Airborne Toxic Control Measures 13 (California Code of Regulations Chapter 10 Section 2485), the applicant shall not allow idling time to exceed 5 minutes unless more time is required per engine manufacturers' specifications or for safety reasons. Therefore, project construction would not generate odors adversely affecting a substantial number of people, and impacts would be less than significant.

The ICAPCD CEQA Air Quality Handbook provides screening level distances for potential odor sources. If a project is proposed within one mile of a wastewater treatment plant, sanitary landfill, composting station, feedlot, asphalt plant, painting and coating operation, or rendering plant, a potential odor problem may result (ICAPCD 2017a). The project does not include the construction of any of these uses. Energy storage facilities are not known to emit odors during operation. Project operation would include occasional inspection and maintenance. These operational activities are not known to emit odors. Therefore, operational impacts related to odor would also be less than significant.

6.0 Conclusions

The project's potential to result in impacts to air quality was assessed in accordance with the guidelines, policies, and standards established by the ICAPCD. The applicable ICAPCD air quality plans include the 2009, 2013, and 2017 SIPs for reducing PM_{10}, $PM_{2.5}$, and ozone. The project would construct a BESS that would not be a significant source of emissions. The project would be consistent with the growth projections and air quality plans criteria pollutant emissions estimates. Additionally, the project would not result in an air quality violation. Therefore, the project would not conflict with or obstruct the implementation of the regional air quality plans, and impacts would be less than significant.

As shown in Table 6, project construction would not exceed the applicable regional emissions thresholds. The project would implement all standard and discretionary measures for fugitive PM_{10} control and standard measures for construction combustion equipment. As shown in Table 7, operation of the project would result in minimal emissions that would be less than the applicable thresholds for all criteria pollutants. Therefore, project construction and operation would not result in a cumulatively considerable net increase in emissions of ozone, PM_{10}, or $PM_{2.5}$, and impacts would be less than significant.

Project construction would not result in the exposure of sensitive receptors to significant levels of DPM that could result in excess cancer risks. Additionally, the project would not result in the creation of a CO hot spot. Therefore, construction and operation of the project would not expose sensitive receptors to substantial pollutant concentrations, and impacts would be less than significant.

During construction, potential odor sources would be associated with construction equipment; however, exposure to odors associated with project construction would be short term and temporary in nature. Operation of the project would not include any uses that would generate substantial odors. Therefore, the project would not generate odors adversely affecting a substantial number of people, and impacts would be less than significant.

If you have any questions about the results of this analysis, please contact me at jfleming@reconenvironmental.com or (619) 308-9333 extension 177.

Sincerely,

Jessica Fleming

Jessica Fleming
Senior Air Quality Specialist

JLF:sh

Attachment

7.0 Certification

The following is a list of preparers, persons, and organizations involved with the air quality analysis.

RECON Environmental, Inc.
- Jessica Fleming, County-approved Air Quality Consultant
- Stacey Higgins, Senior Production Specialist
- Benjamin Arp, GIS Specialist

8.0 References Cited

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Office of Environmental Health Hazard Assessment (OEHHA)
2015 Air Toxics Hot Spots Program Guidance Manual for the Preparation of Risk Assessments (Guidance Manual), February.

Project Location

RECON
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FIGURE 1
Regional Location

EEC ORIGINAL PKG

Dust From Material Movemen:	—	—	—	—	—	—	0.40	0.40	—	0.21	0.21	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.30	0.27	< 0.005	0.01	—	0.01	0.01	—	0.01	—	36.0	36.0	< 0.005	< 0.005	—	36.2
Dust From Material Movemen:	—	—	—	—	—	—	0.07	0.07	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.13	0.14	2.42	0.00	0.00	47.2	47.2	0.00	4.75	4.75	—	281	281	0.01	0.01	1.12	285
Vendor	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	0.00
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.01	0.07	0.00	0.00	1.94	1.94	0.00	0.20	0.20	—	10.5	10.5	< 0.005	< 0.005	0.02	10.6
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	0.35	0.35	0.00	0.04	0.04	—	1.74	1.74	< 0.005	< 0.005	< 0.005	1.76
Vendor	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	0.00

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Holtville Peaker
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.40
Precipitation (days)	4.80
Location	32.81815122274024, -115.39010295719622
County	Imperial
City	Unincorporated
Air District	Imperial County APCD
Air Basin	Salton Sea
TAZ	5604
EDFZ	19
Electric Utility	Imperial Irrigation District
Gas Utility	Southern California Gas

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
General Light Industry	20.0	1000sqft	4.50	20,000	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.85	4.08	39.9	37.9	0.05	1.81	57.1	58.9	1.66	9.80	11.5	—	5,577	5,577	0.23	0.05	1.12	5,599
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.57	1.31	12.0	13.9	0.02	0.55	27.6	28.1	0.51	2.77	3.28	—	2,618	2,618	0.10	0.04	0.02	2,632
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.93	0.78	7.29	7.82	0.01	0.34	15.0	15.3	0.31	1.86	2.17	—	1,296	1,296	0.05	0.02	0.16	1,302
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.17	0.14	1.33	1.43	< 0.005	0.06	2.74	2.80	0.06	0.34	0.40	—	214	214	0.01	< 0.005	0.03	216
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	75.0	100	550	—	—	—	150	—	—	—	—	—	—	—	—	—	—
Unmit.	—	No	No	No	—	—	—	No	—	—	—	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Threshol	—	75.0	100	550	—	—	—	150	—	—	—	—	—	—	—	—	—	—
Unmit.	—	No	No	No	—	—	—	No	—	—	—	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	4.85	4.08	39.9	37.9	0.05	1.81	57.1	58.9	1.66	9.80	11.5	—	5,577	5,577	0.23	0.05	1.12	5,599
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	1.57	1.31	12.0	13.9	0.02	0.55	27.6	28.1	0.51	2.77	3.28	—	2,618	2,618	0.10	0.04	0.02	2,632
2024	1.50	1.25	11.4	13.8	0.02	0.50	27.6	28.1	0.46	2.77	3.23	—	2,614	2,614	0.10	0.04	0.02	2,628
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.93	0.78	7.29	7.82	0.01	0.34	15.0	15.3	0.31	1.86	2.17	—	1,296	1,296	0.05	0.02	0.16	1,302
2024	0.03	0.02	0.22	0.27	< 0.005	0.01	0.54	0.55	0.01	0.05	0.06	—	51.3	51.3	< 0.005	< 0.005	0.01	51.6
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.17	0.14	1.33	1.43	< 0.005	0.06	2.74	2.80	0.06	0.34	0.40	—	214	214	0.01	< 0.005	0.03	216
2024	0.01	< 0.005	0.04	0.05	< 0.005	< 0.005	0.10	0.10	< 0.005	0.01	0.01	—	8.50	8.50	< 0.005	< 0.005	< 0.005	8.54

EEC ORIGINAL PKG

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	0.19	0.67	0.20	1.20	< 0.005	0.01	0.58	0.60	0.02	0.09	0.10	0.00	1,008	1,008	0.07	0.01	5.35	1,018
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.03	0.52	0.19	0.26	< 0.005	0.01	0.58	0.60	0.01	0.09	0.10	0.00	1,000	1,000	0.07	0.01	5.21	1,010
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.10	0.59	0.19	0.67	< 0.005	0.01	0.42	0.43	0.01	0.06	0.08	0.00	994	994	0.07	0.01	5.25	1,004
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.02	0.11	0.03	0.12	< 0.005	< 0.005	0.08	0.08	< 0.005	0.01	0.01	0.00	165	165	0.01	< 0.005	0.87	166
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	137	137	550	150	—	—	150	—	—	550	—	—	—	—	—	—	—
Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	137	137	550	150	—	—	150	—	—	550	—	—	—	—	—	—	—
Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—

2.5. Operations Emissions by Sector, Unmitigated

EEC ORIGINAL PKG

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.01	0.01	0.02	0.18	< 0.005	< 0.005	0.58	0.58	< 0.005	0.09	0.09	—	36.5	36.5	< 0.005	< 0.005	0.14	37.1

Area	0.15	0.65	0.01	0.87	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.58	3.58	< 0.005	< 0.005	—	3.59
Energy	0.02	0.01	0.17	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	968	968	0.07	0.01	—	972
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.21	5.21
Total	0.19	0.67	0.20	1.20	< 0.005	0.01	0.58	0.60	0.02	0.09	0.10	0.00	1,008	1,008	0.07	0.01	5.35	1,018
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.01	0.01	0.02	0.11	< 0.005	< 0.005	0.58	0.58	< 0.005	0.09	0.09	—	32.0	32.0	< 0.005	< 0.005	< 0.005	32.5
Area	—	0.50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.02	0.01	0.17	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	968	968	0.07	0.01	—	972
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.21	5.21
Total	0.03	0.52	0.19	0.26	< 0.005	0.01	0.58	0.60	0.01	0.09	0.10	0.00	1,000	1,000	0.07	0.01	5.21	1,010
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.01	0.01	0.01	0.10	< 0.005	< 0.005	0.42	0.42	< 0.005	0.06	0.06	—	24.2	24.2	< 0.005	< 0.005	0.04	24.5
Area	0.08	0.57	< 0.005	0.43	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.76	1.76	< 0.005	< 0.005	—	1.77
Energy	0.02	0.01	0.17	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	968	968	0.07	0.01	—	972
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.21	5.21
Total	0.10	0.59	0.19	0.67	< 0.005	0.01	0.42	0.43	0.01	0.06	0.08	0.00	994	994	0.07	0.01	5.25	1,004
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	< 0.005	< 0.005	< 0.005	0.02	< 0.005	< 0.005	0.08	0.08	< 0.005	0.01	0.01	—	4.00	4.00	< 0.005	< 0.005	0.01	4.06
Area	0.01	0.10	< 0.005	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.29	0.29	< 0.005	< 0.005	—	0.29
Energy	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	160	160	0.01	< 0.005	—	161

Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.86	0.86
Total	0.02	0.11	0.03	0.12	< 0.005	< 0.005	0.08	0.08	< 0.005	0.01	0.01	0.00	165	165	0.01	< 0.005	0.87	166

3. Construction Emissions Details

3.1. Site Preparation (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.70	3.95	39.7	35.5	0.05	1.81	—	1.81	1.66	—	1.66	—	5,295	5,295	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	9.83	9.83	—	5.05	5.05	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	0.16	1.63	1.46	< 0.005	0.07	—	0.07	0.07	—	0.07	—	218	218	0.01	< 0.005	—	218

Hauling	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	0.00

3.3. Grading (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.43	2.04	20.0	19.7	0.03	0.94	—	0.94	0.87	—	0.87	—	2,958	2,958	0.12	0.02	—	2,968
Dust From Material Movemen:	—	—	—	—	—	—	3.54	3.54	—	1.71	1.71	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.33	0.28	2.74	2.70	< 0.005	0.13	—	0.13	0.12	—	0.12	—	405	405	0.02	< 0.005	—	407
Dust From Material Movemen:	—	—	—	—	—	—	0.49	0.49	—	0.23	0.23	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.50	0.49	< 0.005	0.02	—	0.02	0.02	—	0.02	—	67.1	67.1	< 0.005	< 0.005	—	67.3

Dust From Material Movement	—	—	—	—	—	—	0.09	0.09	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.12	0.12	2.07	0.00	0.00	40.5	40.5	0.00	4.07	4.07	—	241	241	0.01	0.01	0.96	245
Vendor	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	0.00
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.02	0.20	0.00	0.00	5.55	5.55	0.00	0.56	0.56	—	30.0	30.0	< 0.005	< 0.005	0.06	30.4
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	1.01	1.01	0.00	0.10	0.10	—	4.96	4.96	< 0.005	< 0.005	0.01	5.03
Vendor	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	0.00
Hauling	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	0.00

3.5. Building Construction (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.50	1.26	11.8	13.2	0.02	0.55	—	0.55	0.51	—	0.51	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.50	1.26	11.8	13.2	0.02	0.55	—	0.55	0.51	—	0.51	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.36	0.30	2.84	3.17	0.01	0.13	—	0.13	0.12	—	0.12	—	577	577	0.02	< 0.005	—	579
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.52	0.58	< 0.005	0.02	—	0.02	0.02	—	0.02	—	95.5	95.5	< 0.005	< 0.005	—	95.9
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	1.16	0.00	0.00	22.7	22.7	0.00	2.28	2.28	—	135	135	0.01	< 0.005	0.54	137
Vendor	0.01	0.01	0.13	0.07	< 0.005	< 0.005	4.88	4.89	< 0.005	0.49	0.49	—	107	107	< 0.005	0.01	0.29	111
Hauling	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	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.08	0.66	0.00	0.00	22.7	22.7	0.00	2.28	2.28	—	114	114	0.01	< 0.005	0.01	115
Vendor	0.01	< 0.005	0.14	0.07	< 0.005	< 0.005	4.88	4.89	< 0.005	0.49	0.49	—	107	107	< 0.005	0.01	0.01	111
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.02	0.20	0.00	0.00	5.46	5.46	0.00	0.55	0.55	—	29.5	29.5	< 0.005	< 0.005	0.06	29.9
Vendor	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	1.18	1.18	< 0.005	0.12	0.12	—	25.7	25.7	< 0.005	< 0.005	0.03	26.8
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	1.00	1.00	0.00	0.10	0.10	—	4.88	4.88	< 0.005	< 0.005	0.01	4.95
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.21	0.21	< 0.005	0.02	0.02	—	4.25	4.25	< 0.005	< 0.005	< 0.005	4.43
Hauling	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	0.00

3.7. Building Construction (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	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	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.22	0.26	< 0.005	0.01	—	0.01	0.01	—	0.01	—	46.9	46.9	< 0.005	< 0.005	—	47.1
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	< 0.005	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.77	7.77	< 0.005	< 0.005	—	7.79
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.07	0.61	0.00	0.00	22.7	22.7	0.00	2.28	2.28	—	112	112	0.01	< 0.005	0.01	113
Vendor	0.01	< 0.005	0.13	0.06	< 0.005	< 0.005	4.88	4.89	< 0.005	0.49	0.49	—	105	105	< 0.005	0.01	0.01	110
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.44	0.44	0.00	0.04	0.04	—	2.35	2.35	< 0.005	< 0.005	< 0.005	2.38
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.10	0.10	< 0.005	0.01	0.01	—	2.06	2.06	< 0.005	< 0.005	< 0.005	2.15
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	0.08	0.08	0.00	0.01	0.01	—	0.39	0.39	< 0.005	< 0.005	< 0.005	0.39
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	0.34	0.34	< 0.005	< 0.005	< 0.005	0.36
Hauling	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	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	0.01	0.01	0.02	0.18	< 0.005	< 0.005	0.58	0.58	< 0.005	0.09	0.09	—	36.5	36.5	< 0.005	< 0.005	0.14	37.1
Total	0.01	0.01	0.02	0.18	< 0.005	< 0.005	0.58	0.58	< 0.005	0.09	0.09	—	36.5	36.5	< 0.005	< 0.005	0.14	37.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	0.01	0.01	0.02	0.11	< 0.005	< 0.005	0.58	0.58	< 0.005	0.09	0.09	—	32.0	32.0	< 0.005	< 0.005	< 0.005	32.5
Total	0.01	0.01	0.02	0.11	< 0.005	< 0.005	0.58	0.58	< 0.005	0.09	0.09	—	32.0	32.0	< 0.005	< 0.005	< 0.005	32.5
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	< 0.005	< 0.005	< 0.005	0.02	< 0.005	< 0.005	0.08	0.08	< 0.005	0.01	0.01	—	4.00	4.00	< 0.005	< 0.005	0.01	4.06
Total	< 0.005	< 0.005	< 0.005	0.02	< 0.005	< 0.005	0.08	0.08	< 0.005	0.01	0.01	—	4.00	4.00	< 0.005	< 0.005	0.01	4.06

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	760	760	0.05	0.01	—	763
Total	—	—	—	—	—	—	—	—	—	—	—	—	760	760	0.05	0.01	—	763
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	760	760	0.05	0.01	—	763
Total	—	—	—	—	—	—	—	—	—	—	—	—	760	760	0.05	0.01	—	763
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	126	126	0.01	< 0.005	—	126
Total	—	—	—	—	—	—	—	—	—	—	—	—	126	126	0.01	< 0.005	—	126

EEC ORIGINAL PKG

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	0.02	0.01	0.17	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	208	208	0.02	< 0.005	—	209

Total	0.02	0.01	0.17	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	208	208	0.02	< 0.005	—	209
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	0.02	0.01	0.17	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	208	208	0.02	< 0.005	—	209
Total	0.02	0.01	0.17	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	208	208	0.02	< 0.005	—	209
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	34.5	34.5	< 0.005	< 0.005	—	34.6
Total	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	34.5	34.5	< 0.005	< 0.005	—	34.6

4.3. Area Emissions by Source

4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.43	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.15	0.14	0.01	0.87	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.58	3.58	< 0.005	< 0.005	—	3.59
Total	0.15	0.65	0.01	0.87	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.58	3.58	< 0.005	< 0.005	—	3.59

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.43	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	0.50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.01	0.01	< 0.005	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.29	0.29	< 0.005	< 0.005	—	0.29
Total	0.01	0.10	< 0.005	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.29	0.29	< 0.005	< 0.005	—	0.29

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Light Industry	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

EEC ORIGINAL PKG

General Light Industry	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.21	5.21
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.21	5.21
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.21	5.21
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.21	5.21
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.86	0.86
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.86	0.86

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

EEC ORIGINAL PKG

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

EEC ORIGINAL PKG

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	6/1/2023	6/21/2023	5.00	15.0	—
Grading	Grading	6/22/2023	8/30/2023	5.00	50.0	—
Building Construction	Building Construction	8/31/2023	1/10/2024	5.00	95.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29

Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	8.40	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	3.28	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	0.00	0.00	22.5	0.00	—
Grading	0.00	0.00	50.0	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	Other	50%	50%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
General Light Industry	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2023	0.00	457	0.03	< 0.005

2024	0.00	457	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
General Light Industry	2.00	0.00	0.00	521	40.0	0.00	0.00	10,429

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	30,000	10,000	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
General Light Industry	607,489	457	0.0330	0.0040	649,692

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
General Light Industry	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
General Light Industry	0.00	0.00

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
General Light Industry	Other commercial A/C and heat pumps	R-410A	2,088	0.30	4.00	4.00	18.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type
—	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	31.1	annual days of extreme heat
Extreme Precipitation	0.00	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A

Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	0	0	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	1	1	1	2
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	59.9
AQ-PM	43.9
AQ-DPM	8.23
Drinking Water	56.2
Lead Risk Housing	39.6
Pesticides	82.1
Toxic Releases	28.8
Traffic	3.59
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	26.6
Haz Waste Facilities/Generators	16.6
Impaired Water Bodies	96.3
Solid Waste	0.00
Sensitive Population	—
Asthma	86.7
Cardio-vascular	87.5
Low Birth Weights	29.9
Socioeconomic Factor Indicators	—
Education	86.1
Housing	46.0
Linguistic	94.3
Poverty	78.2

Unemployment	99.4

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	18.58077762
Employed	17.20775055
Median HI	3.695624278
Education	—
Bachelor's or higher	19.41485949
High school enrollment	100
Preschool enrollment	23.26446811
Transportation	—
Auto Access	37.4566919
Active commuting	32.84999358
Social	—
2-parent households	37.08456307
Voting	34.2871808
Neighborhood	—
Alcohol availability	43.85987425
Park access	48.27409213
Retail density	15.98870781
Supermarket access	64.72475298
Tree canopy	8.905427948
Housing	—
Homeownership	46.24663159

Housing habitability	54.08700115
Low-inc homeowner severe housing cost burden	73.96381368
Low-inc renter severe housing cost burden	28.6154241
Uncrowded housing	45.96432696
Health Outcomes	—
Insured adults	47.60682664
Arthritis	0.0
Asthma ER Admissions	8.1
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	48.3
Cognitively Disabled	19.2
Physically Disabled	8.8
Heart Attack ER Admissions	3.8
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0

No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	7.8
Elderly	39.0
English Speaking	4.8
Foreign-born	56.6
Outdoor Workers	4.4
Climate Change Adaptive Capacity	—
Impervious Surface Cover	65.7
Traffic Density	7.3
Traffic Access	23.0
Other Indices	—
Hardship	88.7
Other Decision Support	—
2016 Voting	0.0

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	68.0
Healthy Places Index Score for Project Location (b)	22.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Approximately 19,386 square feet inverters and BESS containers, rounded up to 20,000 4.5 acre project impact area
Construction: Construction Phases	6-8 month construction duration Site preparation - 3 weeks Grading/trenching - 10 weeks Foundations/BESS installation/wiring/commissioning - 19 weeks
Construction: On-Road Fugitive Dust	All roads used to access project site are paved. ICAPCD recommends modeling 90 percent paved roads during construction activities.
Operations: Vehicle Data	Unmanned/remote facility. 1 round trip modeled to account for any routine maintenance. Trip length increased to 20 miles.
Operations: Road Dust	Used same paved road % as construction workers
Operations: Water and Waste Water	Unmanned facility, no water use
Operations: Solid Waste	Unmanned facility, no solid waste

RECON

An Employee-Owned Company

October 27, 2022

Mr. Ramon Gonzalez
Senior Project Coordinator
Z Global
750 W. Main Street
El Centro, CA 92243

Reference: Biological Resources Survey for the Holtville BESS Project (RECON Number 10247)

Dear Mr. Gonzalez:

This letter details the results of a biological resources survey conducted for the Holtville Battery Energy Storage Site (BESS) Project (project). This biological study letter has been prepared to provide necessary information to Z Global for environmental analysis of the project.

1.0 Project Description and Location

The proposed project would include development of a BESS that would connect to an existing 92 kilovolt gen-tie line. The BESS facility would include battery containers and storage sites, a control room, and associated facilities surrounded by fencing in the south-central portion of the parcel, with the remainder of the parcel used for temporary construction access and staging. Access to the facility would occur from Melon Road.

The 17.2-acre project site is comprised of a vacant lot located at Assessor Parcel Number 045-570-087, southwest of the intersection of East Alamo Road and Melon Road in the city of Holtville, California (Figures 1 and 2). Access to the site is regionally provided by Interstate 8 (I-8). Local access is provided from I-8 by Orchard Road to East Alamo Road. The project site is located approximately 8.2 miles from I-8. The project site is in the U.S. Geological Survey Holtville West quadrangle, Township 15 South, Range 15 East (see Figure 2). The project site is comprised of an undeveloped lot and is surrounded by residential development with scattered commercial development (Figure 3).

2.0 Methods

RECON Environmental, Inc. (RECON) biologist Alex Fromer conducted a general biological survey on October 19, 2022, to evaluate the resources within the project site. The 17.2-acre survey area was evaluated to determine the current condition of the biological resources present within and adjacent to the project (see Figure 3). During the general biological survey, Mr. Fromer mapped vegetation communities, recorded vegetation and habitat characteristics, and noted wildlife and plant species apparent at the time of the survey. Vegetation communities were mapped in the field on a 1:600 scale aerial photograph of the survey area. Plants were visually identified in the field and wildlife species were identified visually with the aid of binoculars, based on identification of calls, scat, tracks, or burrows.

Project Location

RECON
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FIGURE 1
Regional Location

EEC ORIGINAL PKG

Map Source: USGS 7.5 minute topographic map series, Holtville West quadrangle, 1979, T15S R15E

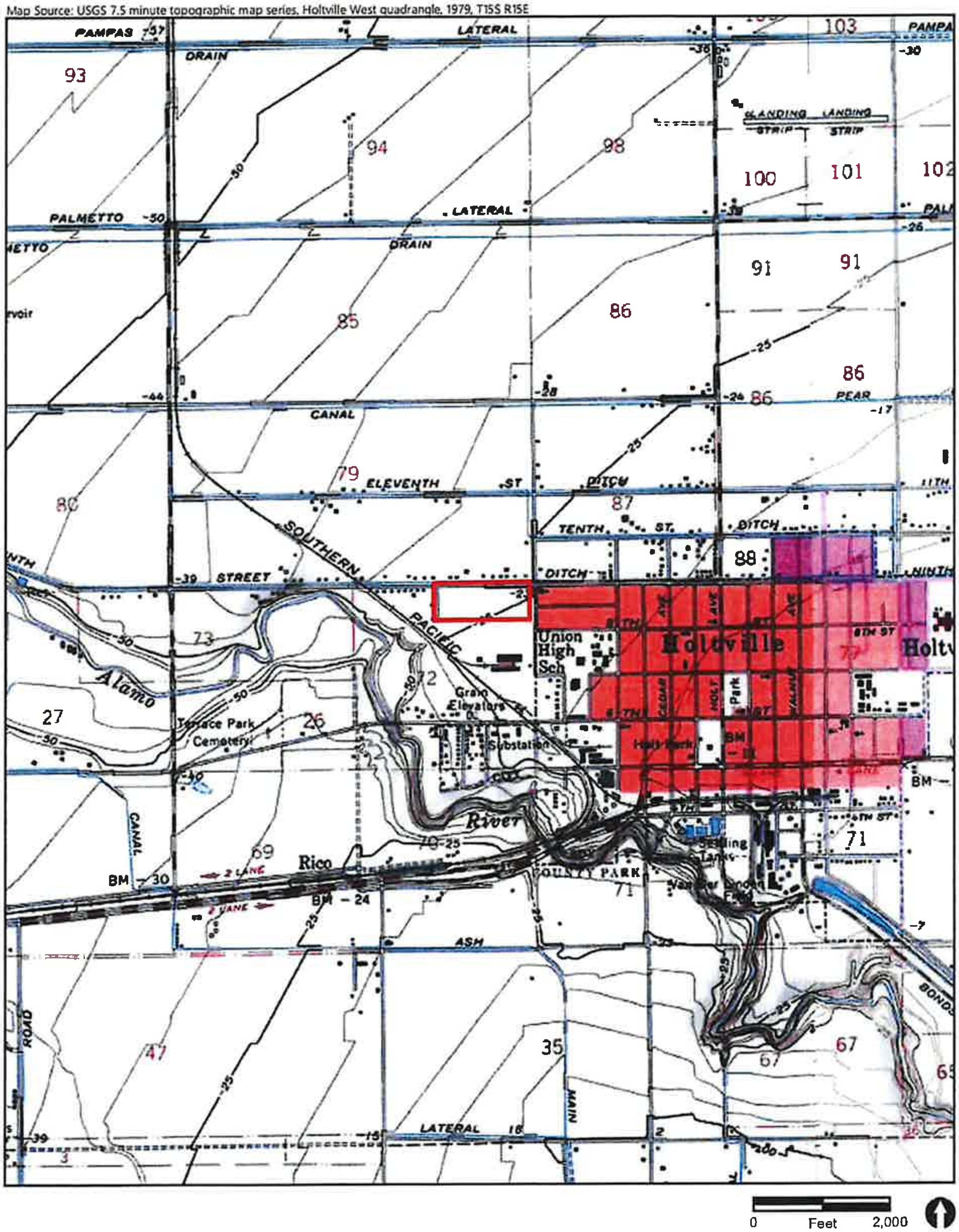

FIGURE 2
Project Location on USGS Map

RECON

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EEC ORIGINAL PKG

Image Source: NearMap (flown July 2022)

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FIGURE 3

Project Location on Aerial Photograph

EEC ORIGINAL PKG

3.0 Background Research

Prior to conducting field surveys, RECON conducted a search of existing biological data for the project site, including a review of biological databases for sensitive plant and animal species reported within two miles of the project site, and a review of the site's physical characteristics (e.g., location, elevation, soils/substrate, topography). Databases consulted included the California Natural Diversity Database (California Department of Fish and Wildlife [CDFW] 2022) and the U.S. Fish and Wildlife Service (USFWS) All Species Occurrences Database (USFWS 2022a). In addition, a review of the National Wetlands Inventory was conducted to identify any potential wetlands or water resources present in the vicinity of the project site (USFWS 2022b).

Based on the database search, there are four sensitive wildlife species and no sensitive plant species known from a 2-mile radius surrounding the project site; however, there are no known recent occurrences of sensitive species closer than 0.5 mile. The survey area is bounded by residential development to the north, west, and east, and commercial development to the south. Thus, the potential for many species to occur is evaluated based on the habitats within the project site. Two sensitive species, burrowing owl (*Athene cunicularia*) and flat-tailed horned lizard (*Phrynosoma mcalli*), were determined to have low potential to occur within the project vicinity and are discussed further in this report. .

4.0 Existing Biological Resources

4.1 Vegetation Communities and Land Cover Types

The survey area supports two vegetation communities/land cover types: disturbed land and urban/developed land (Figure 4). The acreages of these vegetation communities and land cover types are listed in Table 1 and described below.

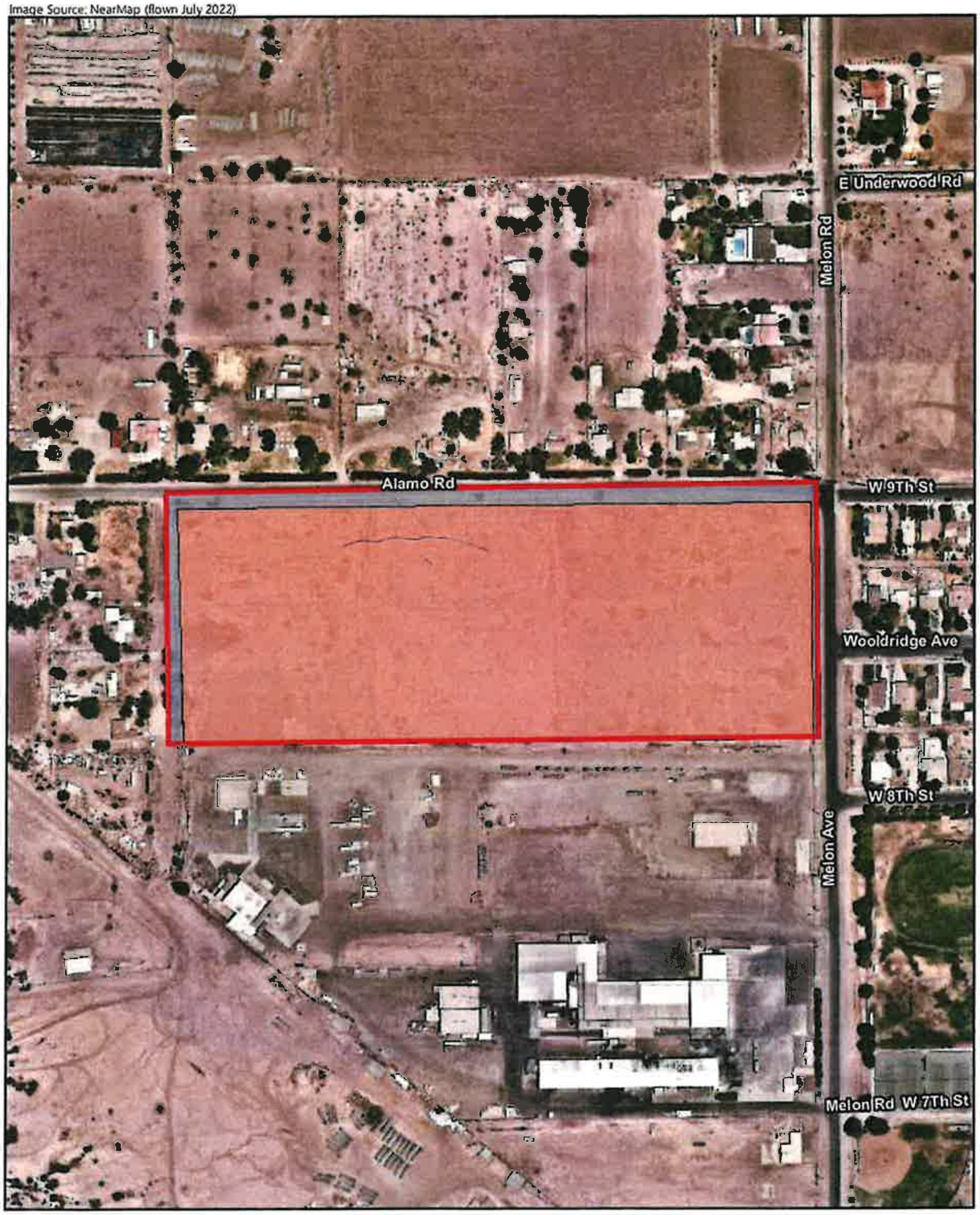
Table 1
Vegetation Communities within Survey Area (Acres)

Vegetation Communities	Survey Area
Disturbed land	15.6
Urban/developed land	1.6
TOTAL	**17.2**

The urban/developed land consists of paved and unpaved roads, shoulders, and ornamental vegetation consisting primarily of Mexican palo verde (*Parkinsonia aculeata*) and honey mesquite (*Prosopis glandulosa* var. *torreyana*).

The disturbed land is comprised of undeveloped land throughout the entirety of the survey area. The disturbed land is dominated by Palmer amaranth (*Amaranthus palmeri*) and appears to undergo frequent disturbance. Puncture vine (*Tribulus terrestris*) and allscale saltbush (*Atriplex polycarpa*) are also found throughout, with Russian thistle (*Salsola tragus*) also present. This area of disturbed land also includes open areas with little to no vegetation cover and a few soil and debris piles.

Image Source: NearMap (flown July 2022)



Project Boundary

Vegetation Communities/Land Cover Types

Disturbed Land

Urban/Developed Land

0 Feet 300

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FIGURE 4
Existing Biological Resources

EEC ORIGINAL PKG

4.2 Plant and Wildlife Species Observed

A total of ten plant species were observed within the survey area: Mexican palo verde, honey mesquite, Palmer amaranth, puncture vine, allscale saltbush, Russian thistle, Australian tumbleweed (*Salsola australis*), white horse-nettle (*Solanum elaeagnifolium*), bush seepweed (*Suaeda nigra*), hairy crab grass (*Digitaria sanguinalis*), and Sonoran sandmat (*Euphorbia micromera*).

A total of ten wildlife species were observed within or adjacent to the survey area. This included eight bird species: mourning dove (*Zenaida macroura*), rock dove (*Columba livia*), Cooper's hawk (*Accipiter cooperii*), red-tailed hawk (*Buteo jamaicensis*), northern mockingbird (*Mimus polyglottos*), Eurasian collared dove (*Streptopelia decaocto*), white-crowned sparrow (*Zonotrichia leucophrys*), Amazon parrots (*Amazona* sp.); and two butterfly species, western pygmy blue (*Brephidium exilis*) and unidentified sulfur (*Colias* sp.).

4.3 Sensitive Plants

No sensitive plants were detected at the time of the survey, and none are expected to occur given the disturbed nature of the project site and soils. In addition, the lack of adjacent or nearby native habitat further reduces the likelihood of sensitive plants occurring within the survey area.

4.4 Sensitive Wildlife

Two sensitive wildlife species have some potential to occur within the survey area based on the presence of suitable habitat characteristics and previous occurrence data. In addition to these two species, migratory and nesting birds have potential to occur within the survey area. Historical observation records within two miles of the survey area exist for Sonoran Desert toad (*Bufo alvarius*), flat-tailed horned lizard (*Phrynosoma mcallii*), Yuma Ridgway's rail (*Rallus obsoletus yumanensis*), and western yellow bat (*Lasiurus xanthinus*). However, none of these species are expected to occur within the survey area due to high levels of disturbance and lack of suitable habitat with connectivity to open space. A brief description of sensitive wildlife with potential to occur is presented below.

Burrowing Owl. No burrowing owl individuals or any sign of burrowing owl activity were detected within or adjacent to the survey area. In addition, no potential burrows or burrowing owl sign were detected within the survey area. While the survey area contains flat, open habitat suitable for foraging, the project site lacks burrows and burrow surrogates for nesting. The potential for this species to occur is low given the level of dense residential development in the immediate vicinity to the survey area, lack of potentially suitable burrows, and intermittent patches of tall, and sometimes dense, vegetation.

Migratory and Nesting Birds. The majority of the survey area, including the bare ground and ornamental vegetation found within the urban/developed lands and disturbed land, has potential to support migratory and nesting bird species. Urban adapted species, in particular, have been known to nest within ornamental vegetation, while several ground nesting species have the potential to nest within the open areas found within the disturbed land and urban/developed lands within the survey area.

4.5 Aquatic Resources

No potential jurisdictional wetlands or waters, including riparian/riverine areas or vernal pools, were observed within or adjacent to the project site.

5.0 Avoidance, Minimization, and Mitigation for Project Impacts

As discussed above, project impacts to disturbed land and urban/developed lands would be less than significant and would not require mitigation. The project would also not impact any sensitive plant species or potential jurisdictional wetlands/waters; therefore, no mitigation would be required. Flat-tailed horned lizard is not expected to occur within the survey area and would not require mitigation measures. Potential direct and/or indirect impacts to burrowing owl and migratory and nesting birds would be addressed through the following avoidance, minimization, and mitigation measures below.

5.1 Vegetation Communities and Land Cover Types

The project would result in a total of up to 15.6 acres of direct impacts to disturbed land and 1.6 acres of urban/developed land (see Figure 4). Impacts to disturbed land and urban/developed land are not considered significant as these land cover types are not considered sensitive. Thus, no mitigation would be required for impacts to vegetation communities as a result of the project.

5.2 Sensitive Wildlife

Burrowing Owl. Burrowing owl was not detected on-site and is considered to have a low potential to occur within the project impact area based on current site conditions, which lack suitable burrows for nesting. However, this species is known to occur within the Imperial Valley area and portions of the project site contain suitable low-lying vegetation. Were this species to subsequently colonize the site, potential direct impacts to this species would be significant and require avoidance and/or mitigation measures (BIO-1).

BIO-1: **Western burrowing owl.** Prior to any vegetation clearing, grading, or construction, a pre-construction survey, a pre-construction take avoidance survey shall be conducted within the project footprint, plus 500 feet. Per the Staff Report on Burrowing Owl Mitigation (CDFW 2012), take avoidance surveys require an initial survey no less than 14 days prior to the start of ground disturbance activities and a final survey conducted within 24 hours of ground disturbance. If burrowing owls are detected, the CDFW must be notified within 48 hours and avoidance measures and/or mitigation would be required.

If active burrowing owl burrows are identified within the potential impact area, the project shall avoid disturbing active burrowing owl burrows (nesting sites) and burrowing owl individuals. Buffers shall be established around occupied burrows in accordance with guidance provided in the CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012) based on the proposed level of disturbance. For low disturbance projects, initial setback distances for avoidance of active burrows shall be 200 meters (approximately 656 feet) from April 1 to October 15 and 50 meters (164 feet) from October 16 to March 31. Exceptions can be made to the avoidance distance for areas with natural (hills, trees) or artificial (buildings, walls) barriers in place. The final avoidance buffer shall be at the discretion of the biologist. If, after consideration of a reduced buffer, an adequate avoidance buffer cannot be provided between an occupied burrow and required ground-disturbing activities, then passive relocation activities during the non-breeding season (September 1 through January 31) may be authorized in consultation with CDFW, which would include preparation, approval, and implementation of a Burrowing Owl Exclusion Plan in accordance with protocol described in the CDFW Staff Report on Burrowing Owl Mitigation.

Migratory & Nesting Birds. Migratory and nesting birds are covered under the California Fish and Game Code 3503 and 3503.5 and the Migratory Bird Treaty Act and have the potential to be directly impacted by the project if construction activities (i.e., clearing, grubbing, grading) occur during the Colorado Desert nesting season of January 15 to July 15. Direct impacts to nesting birds would be considered significant and require avoidance measures (BIO-2).

BIO-2: **Migratory & Nesting Birds.** Prior to any vegetation clearing, grading, or construction, a pre-construction survey for nesting birds shall be conducted if the project is initiated during the Colorado Desert nesting season, which is generally defined as January 15 to July 15. The nesting bird survey shall be conducted by a qualified biologist occur no more than seven days prior to vegetation removal. If active bird nests are confirmed to be present during the pre-construction survey, a buffer zone will be established by a qualified biologist until a qualified biologist has verified that the young have fledged or the nest has otherwise become inactive.

If you have any questions or concerns about this project, please call me at (619) 308-9333, extension 193.

Sincerely,

Alexander Fromer
Biologist

APF:jg

References Cited

California Department of Fish and Wildlife (CDFW)
2012 Staff Report on Burrowing Owl Mitigation. March 7.

2022 Natural Diversity Data Base. RareFind Version 5. Commercial Version – Dated May 1, 2021 – Biogeographic Data Branch; accessed May 26, 2021.

RECON Environmental, Inc. (RECON)
2022 Habitat Assessment and Burrowing Owl Focused Survey Results at Steeplechase Booster Pump Station Project. May 11.

U.S. Fish and Wildlife Service (USFWS)
2022a All Species Occurrences GIS Database. Carlsbad Fish and Wildlife Office. Accessed May.

2022b National Wetlands Inventory website. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. http://www.fws.gov/wetlands/

RECON

An Employee-Owned Company

October 28, 2022

Mr. Ramon Gonzalez
Senior Project Coordinator
Z Global
750 W. Main Street
El Centro CA 92243

Reference: Cultural Resources Report for the Holtville BESS Project, Holtvillle, California (RECON Number 10247)

Dear Mr. Gonzalez:

This report details the results of a cultural resources survey conducted for the Holtville Battery Energy Storage Site (BESS) Project (project). This report has been prepared to provide necessary information to identify the effects of the project on historic properties per Section 106 of the National Historic Preservation Act.

PROJECT LOCATION AND DESCRIPTION

The proposed project would include development of a BESS that would connect to an existing 92 kilovolt gen-tie line. The BESS facility would include battery containers and storage sites, a control room, and associated facilities surrounded by fencing in the south-central portion of the parcel, with the remainder of the parcel used for temporary construction access and staging. Access to the facility would occur from Melon Road.

The 17.2-acre project site is comprised of a vacant lot located at Assessor Parcel Number 045-570-087, southwest of the intersection of East Alamo Road and Melon Road in the city of Holtville, California (Figure 1) within Section 72, Township 15 South, Range 15 East of the U.S. Geological Survey 7.5-minute topographic map, Holtville West (Figure 2). Access to the site is regionally provided by Interstate 8 (I-8). Local access is provided from I-8 by Orchard Road to East Alamo Road. The project site is located approximately 8.2 miles north of I-8. The project site is comprised of an undeveloped lot and is surrounded by residential development with scattered commercial development (Figure 3). The entire 17.2-acre project site is considered the area of potential effect (APE).

METHODS

To determine if the project will adversely impact historic properties, background research, review of topographic maps and historic aerial photographs, and an on-foot survey were completed. Prior to the survey, a records search was requested from the California Historical Resources Information System, South Coastal Information Center (SCIC) to identify any previously recorded cultural resources within a one-mile radius of the project area. On October 20, 2022, RECON Environmental, Inc. (RECON) archaeologist Nathanial Yerka accompanied by Caesar Welch, a Native American monitor from Red Tail Environmental, conducted a pedestrian survey of the project area using 15-meter transects. Carmen Zepeda-Herman served as principal investigator. Ms. Zepeda-Herman is a member of the Register of Professional Archaeologists and meets the Secretary of the Interior Standards for Archaeology and Historic Preservation.

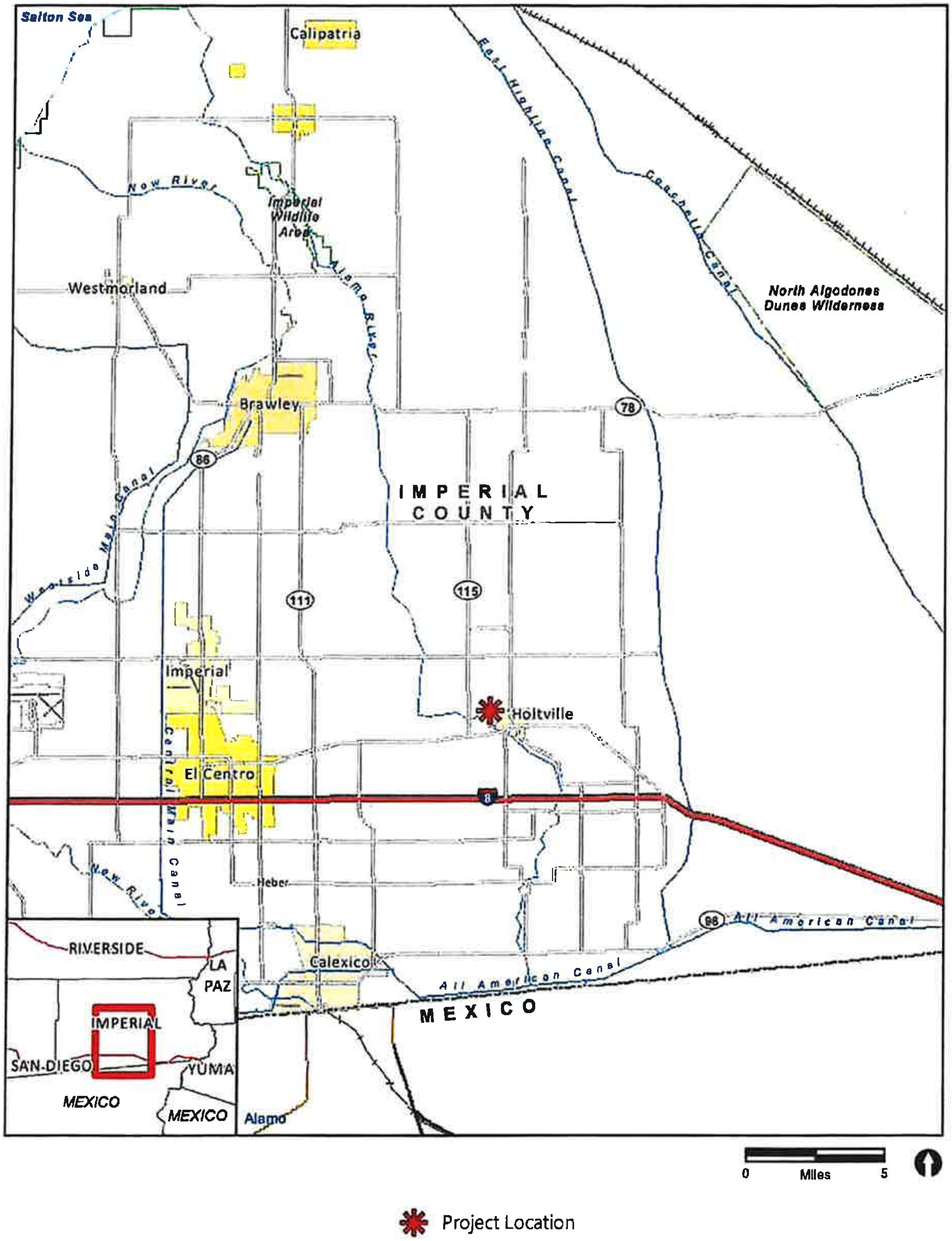

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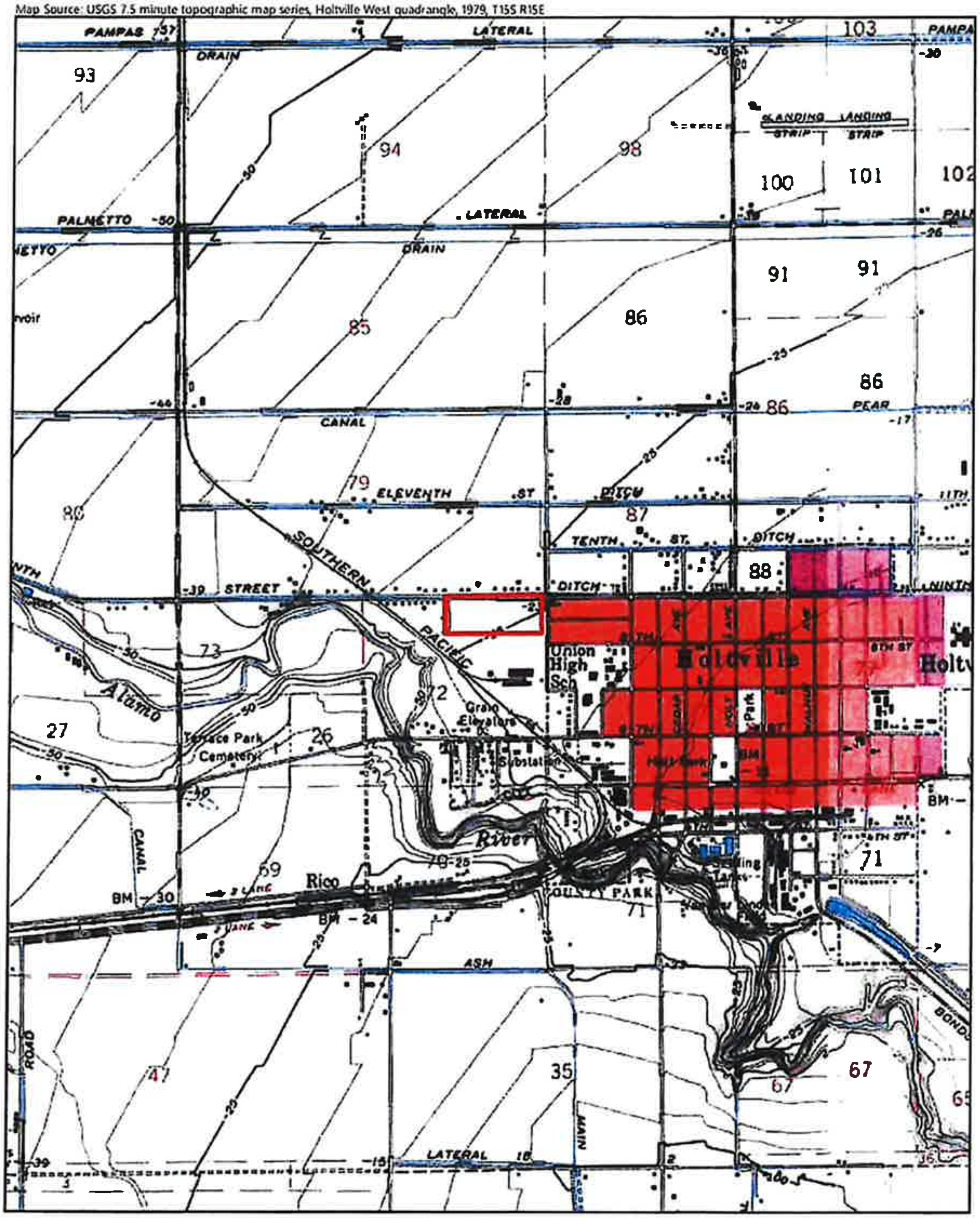
FIGURE 1
Regional Location

EEC ORIGINAL PKG

Map Source: USGS 7.5 minute topographic map series, Holtville West quadrangle, 1979, T15S R15E



Project Boundary

FIGURE 2
Project Location on USGS Map

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EEC ORIGINAL PKG

Image Source: NearMap (flown July 2022)

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FIGURE 3
Project Location on Aerial Photograph

EEC ORIGINAL PKG

The primary goal of this survey was to determine (1) if there are previously unrecorded cultural resources present, and if so, document the resources' locations and what they consist of and (2) to update conditions of previously recorded cultural resources. The project area was inspected for evidence of archaeological materials such as flaked and ground stone tools or fragments, ceramics, milling features, and human remains. Photographs were taken to document the environmental setting and general conditions. RECON used an Apple iPad running ESRI's ArcGIS Collector application paired with a Trible R1 sub-meter global positioning system (GPS) containing shapefiles and aerial photography to pinpoint our location in real-time, which was used to navigate the survey area.

NATIVE AMERICAN CONSULTATION

A letter was sent on October 17, 2022, to the Native American Heritage Commission (NAHC) requesting a search of their Sacred Lands File (SLF) to identify spiritually significant and/or sacred sites or traditional use areas in the project vicinity. The NAHC was also asked to provide a list of local Native American tribes, bands, or individuals that may have concerns or interests regarding cultural resources potentially occurring within the APE. The NAHC sent a reply on October 20, 2022, notifying RECON of the expected time of arrival of their SLF search (Attachment 1).

As of the writing of this report, a NAHC SLF search results response has not been received.

BACKGROUND RESEARCH

The SCIC records search indicated that there have been 16 cultural investigations conducted within one mile of the project site, one of which includes the project site (Confidential Attachment 1). The record search also indicated 12 historic-era cultural resources situated within one mile of the project site (Table 1). These cultural resources are comprised of a park with associated community center, a canal, a government building, a single-family property, a bridge, three concrete foundations, and four trash scatters. None of the previously recorded cultural resources were mapped within the project APE.

Table 1
Cultural Resources within a One-Mile Radius of the APE

Primary #	Trinomial	Period	Site Type	Recording Events
P-13-007363	CA-IMP-007363	Historic	Canal/ aqueduct	1995, 2009 (LSA Associates, Inc.); 2005 (EDAW, Inc.)
P-13-007422	--	Historic	Government building; Community center/social hall	1995 (E. Collins; IVC Field Class); 2006 (EDAW, Inc.); 2009 (IVC Museum)
P-13-008650	--	Historic	Single family property	2001 (IVC Field Class)
P-13-008980	--	Historic	Landscape architecture; Trees/ vegetation; Urban open space; Monument/mural/gravestone; Community center/social hall	2006, 2009 (EDAW)
P-13-014985	CA-IMP-012447	Historic	Trash scatter	2016 (Brian F. Smith & Associates, Inc.)
P-13-014986	CA-IMP-012448	Historic	Trash scatter	2016 (Brian F. Smith & Associates, Inc.)
P-13-014987	CA-IMP-012449	Historic	Trash scatter	2016 (Brian F. Smith & Associates, Inc.)
P-13-014988	CA-IMP-012450	Historic	Trash scatter	2016 (Brian F. Smith & Associates, Inc.)
P-13-014989	--	Historic	Bridge	2016 (Brian F. Smith & Associates, Inc.)
P-13-018457	--	Historic	Foundation/structure pad	2020 (ECORP Consulting, Inc.)
P-13-018458	--	Historic	Foundation/structure pad	2020 (ECORP Consulting, Inc.)
P-13-018459	--	Historic	Foundation/structure pad	2020 (ECORP Consulting, Inc.)

A review of topographic maps from 1945 and 1956 exhibit two buildings fronting East Alamo Road in the northwest corner of the project APE. The 1958 topographic map represents that the buildings are removed and no subsequent buildings appear thereafter. The first available aerial photograph is from 1953 and shows the entire project site has been subjected to agricultural disturbance. No buildings appear in the photographs even though the photograph predates the 1956 topographic map. The next available photograph dates to 1984, where a large concrete ramp is present along the southern project boundary, near the southwest project corner. Between 1985 and 1996, a small farm pond is constructed along the southern project boundary, centrally located, and is subsequently removed between 2002 and 2005. No apparent changes occur within the project APE other than windrows from agricultural use in subsequent photographs dating to 2009, 2010, 2012, 2014, 2016, 2019 and 2020 (Nationwide Environmental Title Research LLC 2022).

RESULTS OF SURVEY

No significant or potentially significant prehistoric or historic cultural resources were observed during the survey of the APE. RECON and Red Tail Environmental completed the survey under sunny and warm conditions. The survey commenced in the northeast corner utilizing north-south transects and translated east to west across the APE. The entirety of the APE has been subject to ground disturbance from past agricultural activity. Ground visibility averaged approximately 60 percent across the project APE with areas of dense ground cover composed of non-native weeds and bushes, vegetation waste piling and dumping, and imported materials dumping (a considerable portion of the eastern half of the APE has a surface layer of imported base material; Photograph 1), the remainder is open soil with remnant furrows and windrows (Photographs 2 through 4). The main portion of the APE is situated approximately 1.5 feet below the adjacent road grades of East Alamo Road and Melon Road. The APE is fenced on the western, northern, and eastern sides, with the southern project boundary represented by a mix of shallow troughs and deflated soil berms. A north-south utility pole alignment crosses the western third of the APE. The dominant feature of the APE is a 53-foot (east/west) by 46-foot (north/south) concrete ramp that graduates to a loading platform on the west side. The ramp feature has three tiers with the highest at 4.5 feet on the south side, the middle at 4 feet in height, and the northern and shortest ramp at 3 feet in height. Along the western edge, the concrete finish is hand-scrawled with a maker's date and mark of "1979 BR" (Photographs 5 and 6). The southwest corner is marked by a cleared area utilized for materials storage, which includes railroad rails, wooden utility poles, assorted metal beams and fixtures, piles of 2-inch minus gravel base, several concrete-filled and dilapidated 60-gallon drums, numerous stacked wooden pallets, roofing materials, stacked dimensional lumber, and a two-wheeled automobile utility trailer (Photograph 7). Other surface disturbances include assorted metal pipes, concrete and asphalt fragments, dimensional lumber, corrugated fiberglass sheet fragments, and modern rubbish comprised of assorted paper, plastic, and consumer bottle glass.

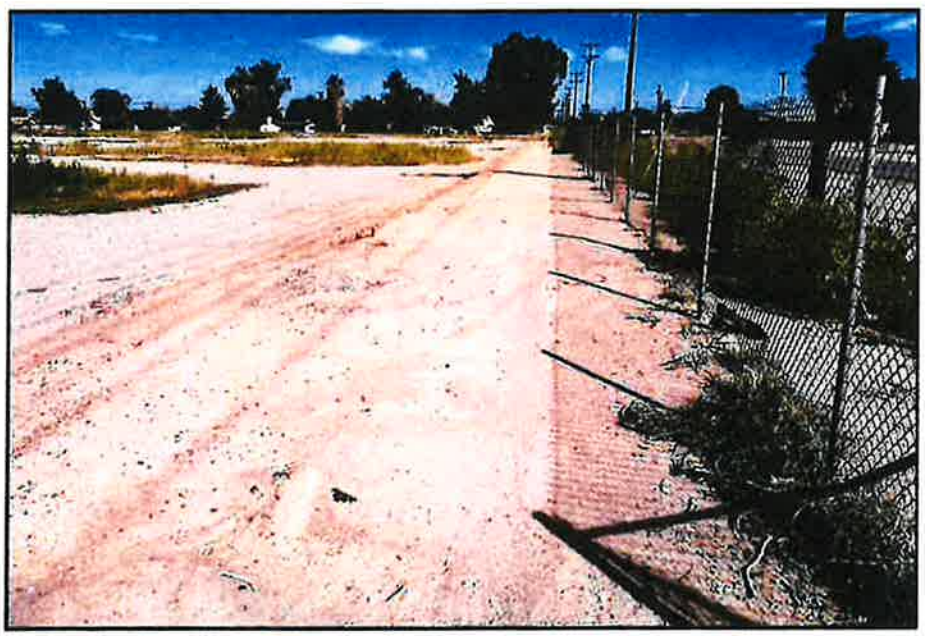
REGULATORY CONTEXT

The project is subject to state and City of Holtville (City) environmental regulations. The City is the lead agency for the California Environmental Quality Act (CEQA) guidelines and regulations.

California Environmental Quality Act

The regulatory framework and methods for determining impacts on cultural resources include compliance with CEQA requirements as defined in Section 15064.5 of the CEQA Guidelines, Determining the Significance of Impacts to Archaeological and Historical Resources. These guidelines require the identification of cultural resources that could be affected by the proposed project, the evaluation of the significance of such resources, an assessment of the proposed project impacts on significant resources, and a development of a research design and data recovery program to avoid or address adverse effects to significant resources. Significant resources, also called historical resources, are those cultural resources (whether prehistoric or historic) that have been evaluated and determined to be eligible for listing in the California Register of Historical Resources.

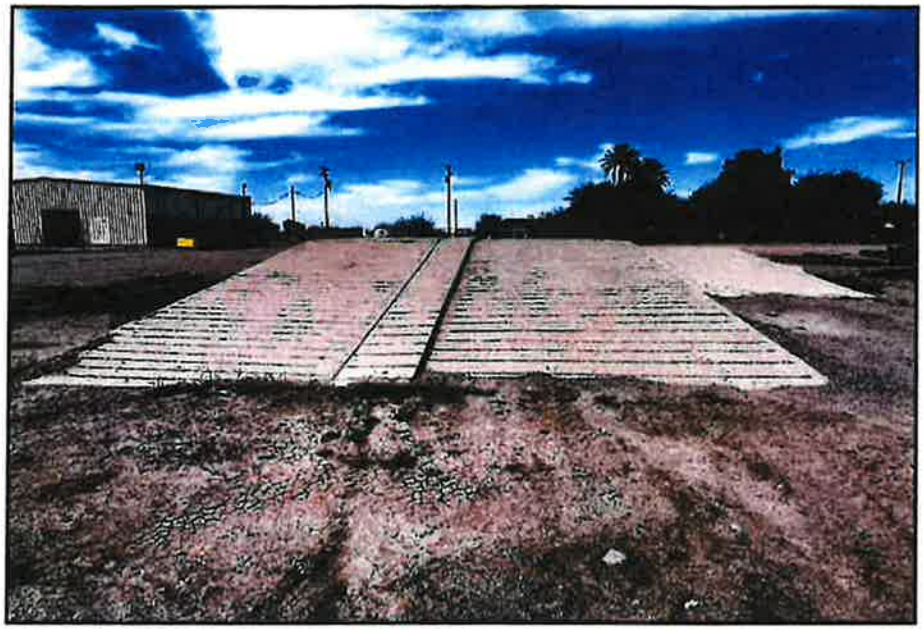
PHOTOGRAPH 1
Overview of Eastern Project APE, Looking Southwest



PHOTOGRAPH 2
Overview of Eastern APE Boundary from Southeast Corner, Looking North

PHOTOGRAPH 3
Overview of Southern APE Boundary, Looking East

PHOTOGRAPH 4
Overview of Northern APE Boundary from Northwest Corner, Looking East



PHOTOGRAPH 5
Overview of Ramp Feature Near Southwest Corner, Looking West

PHOTOGRAPH 6
Maker's Date and Mark on Ramp Feature, Looking East

ATTACHMENT 1

Native American Heritage Commission Correspondence

Nathanial Yerka

From:	NAHC@NAHC <NAHC@nahc.ca.gov>
Sent:	Thursday, October 20, 2022 2:49 PM
To:	Nathanial Yerka
Cc:	Green, Andrew@NAHC
Subject:	[External] RE: Sacred Lands Search - Imperial County, R-10247
Attachments:	NAHC_Form_10247.pdf; fig2.pdf

Hello,

Thank you for your message. We're in receipt of your request. We have recently hired new staff, and this change in our office is creating some delays. We estimate a turn-around time of 6-8 weeks and don't anticipate responding sooner than the end of that time frame. Please let us know if you have any questions.

Kind regards,

Native American Heritage Commission
1550 Harbor Blvd. Suite 100
West Sacramento, CA 95691
(916) 373-3710

From: Nathanial Yerka <nyerka@reconenvironmental.com>
Sent: Monday, October 17, 2022 4:07 PM
To: NAHC@NAHC <NAHC@nahc.ca.gov>
Cc: Carmen Zepeda-Herman <czepeda@reconenvironmental.com>
Subject: Sacred Lands Search - Imperial County, R-10247

Hello,

Recon Environmental, Inc. is requesting a search of the Sacred Lands File for Imperial County.

Please see attached Search Form and Project Figure.

Thank you,

Nate

Nathanial Yerka
Project Archaeologist

RECON Environmental, Inc.
3111 Camino del Rio North, Suite 600
San Diego, CA 92108-5726
(619) 308-9333

CA SB | SBA SB

Website | Instagram | Twitter | Facebook | LinkedIn

February 15, 2023

Mr. Ramon Gonzalez
Senior Project Coordinator
Z Global
750 W. Main Street
El Centro, CA 92243

Reference: Greenhouse Gas Analysis for the Peaker Holtville BESS Project, Holtville, California (RECON Number 10247)

Dear Mr. Gonzalez:

The purpose of this letter report is to assess potential greenhouse gas (GHG) impacts associated with construction and operation of the Holtville Peaker Battery Energy Storage Site (BESS) Project (project). As discussed in this analysis, the project would not make a cumulatively considerable contribution to total GHG emissions in Imperial County or California. As California procures increasing amounts of renewable energy to meet the goals of Senate Bill (SB) 100, the state will need to deploy a significant amount of energy storage capability. As the project would provide energy storage, it would assist the state's goal of utilizing 100 percent renewable energy by 2045. Therefore, the project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emission of GHGs, and impacts would be less than significant.

1.0 Project Description

The 17.2-acre project site consists of a vacant lot located at Assessor Parcel Number 045-570-087, southwest of the intersection of East Alamo Road and Melon Road in the City of Holtville's (City's) sphere of influence (SOI) within Imperial County, California (Figure 1). The project site is surrounded by residential development with scattered commercial and industrial development (Figure 2).

The project would include development of a BESS that would connect to an existing 92-kilovolt gen-tie line (Figure 3). The BESS facility would include battery containers and storage sites, a control room, and associated facilities surrounded by fencing in the south-central portion of the parcel, with the remainder of the parcel used for temporary construction access and staging. Access to the facility would occur from Melon Road.

2.0 Environmental Setting

2.1 State GHG Inventory

The California Air Resources Board (CARB) performs statewide GHG inventories. The inventory is divided into nine broad sectors of economic activity: agriculture, commercial, electricity generation, forestry, high global warming potential (GWP) emitters, industrial, recycling and waste, residential, and transportation. Emissions are quantified in million metric tons of carbon dioxide equivalent (MMT CO_2E). Table 1 shows the estimated statewide GHG emissions for the years 1990, 2005, 2012, and 2018. Although annual GHG inventory data is available for years 2000 through 2020, the years 1990, 2005, 2012, and 2018 are highlighted in Table 1 because 1990 is the baseline year for established reduction targets, and 2005, 2012, and 2018 correspond to the same years for which inventory data for the region is available.

Table 1 California GHG Emissions by Sector				
Sector	1990[1] Emissions in MMT CO_2E (% total)[2]	2005[3] Emissions in MMT CO_2E (% total)[2]	2012[3] Emissions in MMT CO_2E (% total)[2]	2018[3] Emissions in MMT CO_2E (% total)[2]
Electricity Generation	110.5 (25.7%)	108.1 (22.6%)	99.1 (22.8%)	65.1 (15.8%)
Transportation	150.6 (35.0%)	187.6 (39.2%)	161.8 (37.2%)	169.6 (41.3%)
Industrial	105.3 (24.4%)	102.3 (21.4%)	91.0 (20.9%)	93.7 (22.8%)
Commercial	14.4 (3.4%)	16.1 (3.4%)	19.6 (4.5%)	22.3 (5.4%)
Residential	29.7 (6.9%)	30.3 (7.0%)	27.9 (6.4%)	28.1 (6.8%)
Agriculture & Forestry	18.9 (4.4%)	33.7 (7.0%)	35.2 (8.1%)	32.2 (7.8%)
Not Specified	1.3 (0.3%)	--	--	--
Total[4]	**430.7**	**478.1**	**434.6**	**411.0**

SOURCE: CARB 2007 and 2022a.
[1]1990 data was obtained from the CARB 2007 source and are based on Intergovernmental Panel on Climate Change (IPCC) fourth assessment report GWPs.
[2]Percentages may not total 100 due to rounding.
[3]2005, 2012, and 2018 data was retrieved from the CARB 2022a source and are based on IPCC fourth assessment report GWPs.
[4]Totals may vary due to independent rounding.

As shown in Table 1, statewide GHG source emissions totaled approximately 431 MMT CO_2E in 1990, 478 MMT CO_2E in 2005, 435 MMT CO_2E in 2012, and 411 MMT CO_2E in 2018. Many factors affect year-to-year changes in GHG emissions, including economic activity, demographic influences, environmental conditions such as drought, and the impact of regulatory efforts to control GHG emissions. As shown in Table 1, transportation-related emissions consistently contribute to the most GHG emissions.

2.2 Regional GHG Inventory

The Imperial County (County) Regional Climate Action Plan (Regional CAP) was adopted in June 2021 (Imperial County 2021). The Regional CAP inventoried existing emissions within the County and each of its incorporated cities including Holtville. The results of the countywide emissions inventories are summarized in Table 2. As shown, agricultural-related GHG emissions contributed the most countywide.

Table 2 Imperial Valley Regional GHG Emissions Inventory							
	2005		2012		2018		
Emissions Sector	MT CO_2E[1]	% Total	MT CO_2E[1]	% Total	MT CO_2E[1]	% Total	%Change from 2005
Transportation	656,655	16.3%	650,729	17.3%	748,111	19.7%	+13.9%
Energy	1,006,987	25.1%	757,037	20.2%	484,863	12.8%	-51.9%
Water	28,114	0.7%	30,158	0.8%	34,291	0.9%	+22.0%
Solid Waste	218,847	5.4%	132,773	3.5%	148,337	3.9%	-32.2%
Agriculture	2,081,481	51.8%	2,155,325	57.4%	2,354,168	61.9%	+13.1%
Propane	13,698	0.3%	14,856	0.4%	19,112	0.5%	+39.5%
Calexico POE[2]	12,649	0.3%	12,649	0.3%	12,649	0.3%	0.0%
Total[3]	**4,018,430**	**100%**	**3,753,527**	**100%**	**3,801,531**	**100%**	**-5.4%**

SOURCE: Imperial County 2021.
NOTE: Totals may vary due to independent rounding.
[1]MT CO_2E = metric tons of carbon dioxide equivalent.
[2]Data for emissions at the ports of entry (POEs) was only available for 2015. For purposes of this inventory, emissions estimates from 2015 were assumed constant for each inventory year. Emissions from POEs are not apportioned to individual jurisdictions.
[3]Electricity consumption associated with potable water treatment and delivery is not included in this total, as data for this activity was not available for unincorporated County.

2.3 Local GHG Inventory

The local GHG inventory for the City was prepared as part of the Regional CAP, and is summarized in Table 3. As shown, energy-related GHG emissions contributed the most citywide.

Table 3 City of Holtville GHG Emissions Inventory			
	MT CO_2E		
Source	2005	2012	2018
Energy	48,136	34,478	22,948
Transportation	19,925	19,278	19,015
Water	886	991	983
Waste	5,523	2,988	2,667
Agriculture	39	40	44
Total	**74,509**	**57,776**	**45,657**
% Change from 2005	--	*-22%*	*-39%*
Wastewater Collection and Treatment[1]	555	465	304
Potable Water Consumption[1]	398	236	119

SOURCE: Imperial County 2021.
NOTE: Totals may vary due to independent rounding.
[1]For informational purposes only.

2.4 Regulatory Setting

In response to rising concern associated with increasing GHG emissions and global climate change impacts, several plans and regulations have been adopted at the international, national, and state levels with the aim of reducing GHG emissions. The main source of GHG emissions associated with the project would be construction activities. The following is a discussion of the plans and regulations most applicable to the project.

2.4.1 Federal

On September 27, 2019, the United States Environmental Protection Agency (U.S. EPA) and the National Highway Traffic Safety Administration (NHTSA) published the "Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program" (84 Federal Register 51310). The Part One Rule revokes California's authority to set its own GHG emissions standards and set zero-emission vehicle mandates in California. On April 30, 2020, the U.S. EPA and NHTSA published the final SAFE Vehicles Rule: Part Two (85 Federal Register 24174). The SAFE Vehicles Rule proposes amended Corporate Average Fuel Economy (CAFE) and Light-Duty Vehicle Greenhouse Gas Emissions Standards. The SAFE Rule relaxed federal GHG emissions and CAFE standards to increase in stringency at only about 1.5 percent per year from model year 2020 levels over model years 2021 through 2026. The previously established emission standards and related "augural" fuel economy standards would have achieved about 4 percent per year improvements through model year 2025. Part Two of the SAFE Vehicles Rule set amended fuel economy and CO_2 standards for Passenger Cars and Light Trucks for model years 2021 through 2026.

2.4.2 State

2.4.2.1 Executive Orders and statewide GHG Emission Targets

Executive Order S-3-05

This Executive Order (EO) established the following GHG emission reduction targets for the state of California:

- by 2010, reduce GHG emissions to 2000 levels;
- by 2020, reduce GHG emissions to 1990 levels; and
- by 2050, reduce GHG emissions to 80 percent below 1990 levels.

This EO also directs the secretary of the California Environmental Protection Agency to oversee the efforts made to reach these targets, and to prepare biannual reports on the progress made toward meeting the targets and on the impacts to California related to global warming, including impacts to water supply, public health, agriculture, the coastline, and forestry. With regard to impacts, the report shall also prepare and report on mitigation and adaptation plans to combat the impacts. The first Climate Action Team Assessment Report was produced in March 2006 and has been updated every two years.

Executive Order B-30-15

This EO establishes an GHG emission reduction goal for the State of California by 2030 of 40 percent below 1990 levels. This EO also directed all state agencies with jurisdiction over GHG-emitting sources to implement measures designed to achieve the 2030 goal, as well as the pre-existing, long-term 2050 goal identified in EO S-3-05. Additionally, this EO directed California Air Resources Board (CARB) to update its Climate Change Scoping Plan to address the 2030 goal.

2.4.2.2 California Global Warming Solutions Act

In response to EO S-3-05, the California Legislature passed Assembly Bill 32 (AB) 32, the California Global Warming Solutions Act of 2006, and thereby enacted Sections 38500–38599 of the California Health and Safety Code. The heart of AB 32 is its requirement that CARB establish an emissions cap and adopt rules and regulations that would reduce GHG emissions to 1990 levels by 2020. AB 32 also required CARB to adopt a plan by January 1, 2009 indicating how emission reductions would be achieved from significant GHG sources via regulations, market mechanisms, and other actions.

In 2008, CARB estimated that annual statewide GHG emissions were 427 MMT CO_2E in 1990 and would reach 596 MMT CO_2E by 2020 under a business as usual (BAU) condition (CARB 2008). To achieve the mandate of AB 32, CARB determined that a 169 MMT CO_2E (or approximate 28.5 percent) reduction in BAU emissions was needed by 2020. In 2010, CARB prepared an updated 2020 forecast to account for the recession and slower forecasted growth. CARB determined that the economic downturn reduced the 2020 BAU by 55 MMT CO_2E; as a result, achieving the 1990 emissions level by 2020 would require a reduction in GHG emissions of 21.7 (not 28.5) percent from the 2020 BAU. California has achieved its 2020 goal.

Approved in September 2016, SB 32 updates the California Global Warming Solutions Act of 2006 and enacts EO B-30-15. Under SB 32, the state would reduce its GHG emissions to 40 percent below 1990 levels by 2030. This is equivalent to an emissions level of approximately 260 MMT CO_2E for 2030. In implementing the 40 percent reduction goal, CARB is required to prioritize emissions reductions to consider the social costs of the emissions of GHGs; where "social costs" is defined as "an estimate of the economic damages, including, but not limited to, changes in net agricultural productivity; impacts to public health; climate adaptation impacts, such as property damages from increased flood risk; and changes in energy system costs, per metric ton of greenhouse gas emission per year."

2.4.2.3 Climate Change Scoping Plan

As directed by the California Global Warming Solutions Act of 2006, in 2008, CARB adopted the *Climate Change Scoping Plan: A Framework for Change* (*Scoping Plan*), which identified the main strategies California implemented to achieve the GHG reductions necessary to reduce forecasted BAU emissions in 2020 to the state's historic 1990 emissions level (CARB 2008). The 2020 reduction goals were met. In November 2017, CARB released the 2017 Climate Change Scoping Plan Update, the Strategy for Achieving California's 2030 Greenhouse Gas Target (2017 Scoping Plan; CARB 2017a). The 2017 Scoping Plan identifies state strategies for achieving the state's 2030 GHG emissions reduction target codified by SB 32. Measures under the 2017 Scoping Plan Scenario build on existing programs such as the Low Carbon Fuel Standard, Advanced Clean Cars Program, Renewables Portfolio Standard (RPS), Sustainable Communities Strategy (SCS), Short-Lived Climate Pollutant Reduction Strategy, and the Cap-and-Trade Program. Additionally, the 2017 Scoping Plan proposes new policies to address GHG emissions from natural and working lands. The 2022 Scoping Plan was adopted in December 2022. The 2022 Scoping Plan assesses the progress towards the 2030 GHG emissions reduction target identified in the 2017 Scoping Plan, and lays out a path to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions by 85 percent below 1990 levels no later than 2045, as directed by AB 1279. The 2022 Scoping Plan identifies strategies related to clean technology, energy development, natural and working lands, and others, and is designed to meet the state's long-term climate objectives and support a range of economic, environmental, energy security, environmental justice, and public health priorities (CARB 2022b).

2.4.2.4 Regional Emissions Targets – Senate Bill 375

SB 375, the 2008 Sustainable Communities and Climate Protection Act, was signed into law in September 2008 and requires CARB to set regional targets for reducing passenger vehicle GHG emissions in accordance with the Scoping Plan. The purpose of SB 375 is to align regional transportation planning efforts, regional GHG reduction targets, and fair-share housing allocations under state housing law. SB 375 requires Metropolitan Planning Organizations (MPOs) to adopt a SCS or Alternative Planning Strategy to address GHG reduction targets from cars and light-duty trucks in the context of that MPO's Regional Transportation Plan (RTP). The San Diego region's MPO is the San Diego Association of Governments (SANDAG). In 2010, CARB set targets for the SANDAG region of a 7 percent reduction in GHG emissions per capita from automobiles and light-duty trucks compared to 2005 levels by 2020 and a 13 percent

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reduction by 2035. These targets are periodically reviewed and updated. CARB's current targets for the SANDAG region are a reduction of 15 percent by 2020 and 19 percent by 2035.

2.4.2.5 Renewables Portfolio Standard

The RPS promotes diversification of the state's electricity supply and decreased reliance on fossil fuel energy sources. Renewable energy includes (but is not limited to) wind, solar, geothermal, small hydroelectric, biomass, anaerobic digestion, and landfill gas. Originally adopted in 2002 with a goal to achieve a 20 percent renewable energy mix by 2020 (referred to as the "Initial RPS"), the goal has been accelerated and increased by EOs S-14-08 and S-21-09 to a goal of 33 percent by 2020. In April 2011, SB 2 (1X) codified California's 33 percent RPS goal. SB 350 (2015) increased California's renewable energy mix goal to 50 percent by year 2030. SB 100 (2018) further increased the standard set by SB 350 establishing the RPS goal of 44 percent by the end of 2024, 52 percent by the end of 2027, and 60 percent by 2030.

2.4.3 Local

2.4.3.1 Regional Climate Action Plan

The Regional CAP was prepared to address the impacts of climate change and reduce GHG emissions in the Imperial Valley region which includes the County and its seven incorporated cities. The Regional CAP is consistent with statewide legislation and regulatory mandates, and establishes local strategies, measures, and actions aimed at reducing GHG emissions. Reduction targets for the County were established in alignment with SB 32 and EO S-3-05, based on the 2005 GHG inventory and sector-specific targets in the 2017 Scoping Plan. For the County, they include reducing emissions to 24 percent below 2005 levels by 2030 and to 34 percent below 2005 levels by 2050. To meet these targets, the County would need to reduce communitywide emissions to 2,022,285 MT CO_2E by 2030 and 1,771,509 MT CO_2E by 2050. For the City, the targets include reducing emissions to 40 percent below 2005 levels by 2030 and to 64 percent below 2005 levels by 2050. To achieve these reductions, the Regional CAP identifies GHG reduction measures related to transportation, energy, waste, and agricultural sources (Imperial County 2021).

2.4.3.2 Imperial County General Plan

The Imperial County General Plan Renewable Energy and Transmission Element was adopted in October 2015. As stated in the element, the benefits of renewable energy development include reduction in potential GHG by displacing fossil-fuel-generated electricity with renewable energy, which does not add to the greenhouse effect; contribution towards meeting the state's RPS mandate; and minimization of impacts to local communities, agriculture and sensitive resources (Imperial County 2015). Of importance to the project, the General Plan contains the following objectives:

3.3 Encourage the development of services and industrial associated with renewable energy facilities.

5.2 Encourage development of utility-scale distributed generation projects in the County.

2.4.3.3 City of Holtville General Plan

The City of Holtville updated its General Plan in 2017, which identifies a community vision for future urban services (City of Holtville 2017). The Holtville General Plan emphasizes the provision of available public services to residents and businesses and ensure future growth occurs sustainably. Of importance to the project, the General Plan contains the following policies:

6.1 Encourage the implementation and use of renewable energy sources, such as geothermal, solar, and wind.

3.0 Guidelines for Determining Significance

Based on the CEQA Guidelines Appendix G, impacts related to GHG emissions would be significant if the project would:

1. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
2. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emission of GHGs.

As stated in the State CEQA Guidelines, these questions are "intended to encourage thoughtful assessment of impacts and do not necessarily represent thresholds of significance" (Title 14, Division 6, Chapter 3 Guidelines for Implementation of the CEQA, Appendix G, Environmental Checklist Form). The State CEQA Guidelines encourage lead agencies to adopt regionally specific thresholds of significance. When adopting these thresholds, the amended Guidelines allow lead agencies to consider thresholds of significance adopted or recommended by other public agencies, or recommended by experts, provided that the thresholds are supported by substantial evidence.

The project site is in the Salton Sea Air Basin. The Imperial County Air Pollution Control District (ICAPCD) is responsible for regulating air quality within the Imperial County portion of the Salton Sea Air Basin. No GHG emission significance threshold has been adopted by the County or the ICAPCD for land development projects. Thus, in the absence of a threshold of significance for GHG emissions that has been adopted in a public process following environmental review, this analysis considers guidance promulgated by other agencies.

The County is a member of Southern California Association of Governments (SCAG). SCAG is comprised of several different counties including Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura counties. Air districts responsible for managing air quality within the SCAG boundaries include the South Coast Air Quality Management District (AQMD), the Mojave Desert Air Pollution Control District (APCD), Ventura County APCD, and the Antelope Valley AQMD.

Due to the climate and land use patterns, the Antelope Valley AQMD and Mojave Desert APCD are air districts that are most similar to the ICAPCD's jurisdiction. The Antelope Valley AQMD is within the northern part of Los Angeles County, and the Mojave Desert APCD contains San Bernardino County's high desert region and Riverside County's Palo Verde Valley region. These jurisdictions are in inland desert regions with rural land use patterns; with a substantial number large-scale agricultural, warehousing/distribution, industrial, and military operations. Additionally, both of these agencies have adopted GHG thresholds for use in CEQA analysis. As outlined in the Antelope Valley AQMD's 2016 *California Environmental Quality Act (CEQA) and Federal Conformity Guidelines and Mojave Desert APCD's 2016 California Environmental Quality Act (CEQA) and Federal Conformity Guidelines*, the two air districts both recommend use of a GHG emissions significance threshold of 100,000 short tons of CO_2E per year (90,718 MT CO_2E). Projects with emissions that exceed this threshold are required to incorporate mitigation sufficient to reduce emissions to less than this significance threshold or must incorporate all feasible mitigation.

This recommended significance threshold is consistent with the federal trigger level for GHG emissions "subject to regulation" under the U.S. EPA's Clean Air Act Title V Permitting requirements (40 Code of Federal Regulations 70.2). Additionally, as ICAPCD Title IX Regulations are based on Clean Air Act Title V Permitting requirements, this recommended significance threshold is also consistent with local ICAPCD Rule 900–Procedures for Issuing Permits to Operate for Sources Subject to Title V of the Federal Clean Air Act Amendments of 1990 and Rule 904–Prevention of Significant Deterioration Permit Program.

In the absence of adopted GHG significance thresholds, the threshold of 90,718 MT CO_2E is an appropriate CEQA significance threshold for the assessment of GHG emissions for the purposes of this project. The project was also evaluated qualitatively for how it will support the state's renewable energy goals.

4.0 Project Impact Analysis

1. *Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?*

Operational GHG emissions associated with a project break down into the following five categories: mobile (on-road vehicles), energy (electricity, natural gas), area (landscape maintenance equipment), water and wastewater, and solid waste sources. GHG emissions also result from construction activities. Emissions were calculated using California Emissions Estimator Model (CalEEMod) Version 2022.1 (California Air Pollution Control Officers Association [CAPCOA] 2022). The CalEEMod program is a tool used to estimate emissions resulting from land development projects in the state of California. CalEEMod was developed with the participation of several state air districts.

CalEEMod estimates parameters such as the type and amount of construction equipment required, trip generation, and utility consumption based on the size and type of each specific land use using data collected from surveys performed in South Coast Air Quality Management District (SCAQMD). Where available, parameters were modified to reflect project-specific data.

4.1 Construction-related Emissions

Construction activities emit GHGs primarily through combustion of fuels (mostly diesel) in the engines of off-road construction equipment and through combustion of diesel and gasoline in on-road construction vehicles and the commute vehicles of the construction workers.

Primary inputs are the numbers of each piece of equipment and the length of each construction stage. The construction equipment estimates are based on surveys performed by the South Coast Air Quality Management District and the Sacramento Metropolitan Air Quality Management District of typical construction projects which provide a basis for scaling equipment needs and schedule with a project's size. GHG emission estimates in CalEEMod are based on the duration of construction phases; construction equipment type, quantity, and usage; grading area; season; and ambient temperature, among other parameters.

Construction emissions were calculated assuming construction would begin in June 2023 and last for eight months. Construction stages would include site preparation, grading/trenching, and foundations/equipment installation/ wiring/commissioning.

CalEEMod calculates emissions of all pollutants from construction equipment using emission factors from CARB's off-road diesel equipment emission factors database. The specific required construction equipment amount needed for the project is not known at this stage. Modeling was based on the default equipment type and amount for the ground-up construction of a light industrial use. This is conservative since the project would haul the necessary equipment to the site for installation while a light industrial use involves the ground-up construction of buildings which would require more construction equipment. The modeled construction equipment is summarized in Table 4.

Table 4 Construction Phases and Equipment		
Equipment	Quantity	Daily Operation Time (hours)
Site Preparation (3 weeks)		
Rubber Tired Dozers	3	8
Tractors/Loaders/Backhoes	4	8
Grading/Trenching (10 weeks)		
Grader	1	8
Excavator	1	8
Rubber Tired Dozer	1	8
Tractors/Loaders/Backhoes	3	8
Foundations/Installation/Wiring/Commissioning (19 weeks)		
Crane	1	7
Forklifts	3	8
Generator Set	1	8
Tractors/Loaders/Backhoes	3	7
Welder	1	8
NOTE: Each phase would also include vehicles associated with work commutes, dump trucks for hauling, and trucks for deliveries.		

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 (ICAPCD 2017):

<u>Standard Measures for Construction Combustion Equipment</u>

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 5 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 would also generate mobile source emissions from worker trips, hauling trips, and vendor trips. CalEEMod calculates emissions of all pollutants from on-road trucks and passenger vehicles using emission factors derived from CARB's motor vehicle emission inventory program EMFAC2017 (CARB 2017b). Vehicle emission factors were multiplied by the model default total estimated number of trips and the average trip length to calculate the total mobile emissions.

Based on guidance from the SCAQMD, total construction GHG emissions resulting from a project should be amortized over 30 years and added to operational GHG emissions to account for their contribution to GHG emissions over the lifetime of a project (SCAQMD 2009).

4.2 Operation-related Emissions

4.2.1 Mobile Sources

GHG emissions from vehicles come from the combustion of fossil fuels in vehicle engines. The vehicle emissions are calculated based on the vehicle type and the trip rate for each land use. CalEEMod calculates mobile source emissions using emission factors derived from CARB's motor vehicle emission inventory program, EMFAC2017 (CARB 2017b). 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. To account for these trips, a total of one round trip (two one-way trips) was modeled per weekday. The default trip length was increased to 20 miles. CalEEMod default emission factors for the soonest operational year of 2024 were modeled.

4.2.2 Energy Sources

GHGs are emitted as a result of activities in buildings for which electricity and natural gas are used as energy sources. GHGs are emitted during the generation of electricity from fossil fuels off-site in power plants. These emissions are considered indirect but are calculated in association with a building's operation. Combustion of fossil fuel emits criteria pollutants and GHGs directly into the atmosphere. When this occurs in a building, this is considered a direct emissions source associated with that building. Energy source GHG emissions were calculated using the default emission factors for a light industrial land use. This is conservative since the project would not be a source of natural gas emissions.

4.2.3 Area Sources

Area sources include GHG emissions that would occur from the use of landscaping equipment. The use of landscape equipment emits GHGs associated with the equipment's fuel combustion. The project would not include any landscape maintenance. However, as a conservative analysis, area-source emissions were calculated using the default emission factors for a light industrial land use.

4.2.4 Water and Wastewater Sources

The amount of water used and wastewater generated by a project has indirect GHG emissions associated with it. These emissions are a result of the energy used to supply, distribute, and treat the water and wastewater. In addition to the indirect GHG emissions associated with energy use, wastewater treatment can directly emit both methane and nitrous oxide. As the project would be an unmanned facility, it would not include any water use.

4.2.5 Solid Waste Sources

The disposal of solid waste produces GHG emissions from anaerobic decomposition in landfills, incineration, and transportation of waste. As the project would be an unmanned facility, it would not generate any operational waste.

4.2.6 Refrigerant Sources

Small amounts of GHG emissions result from refrigerants used in air conditioning and refrigeration equipment. CalEEMod quantifies refrigerant emissions from leaks during regular operation and routine servicing over the equipment lifetime and then derives average annual emissions from the lifetime estimate. Emissions due to refrigerants were calculated using CalEEMod default values for a light industrial land use, which are based on industry data from the U.S. EPA.

4.3 Total GHG Emissions

Table 5 shows the estimated annual GHG construction emissions associated with the project, as well as the amortized construction emissions over a 30-year project life. Table 6 summarizes the total project GHG emissions.

Table 5 Construction-Related GHG Emissions	
Year	GHG Emissions (MT CO_2E)
2023	216
2024	9
Total	**225**
Amortized Over 30 Years	*7*
SOURCE: Attachment 1.	

Table 6 Total GHG Emissions	
Source	GHG Emissions (MT CO_2E)
Mobile	4
Energy	161
Area	<1
Water	0
Solid Waste	0
Refrigerants	1
Construction	7
Total	**173**
Screening Threshold	*90,718*
Exceeds Threshold?	No
SOURCE: Attachment 1. NOTE: Totals may vary due to independent rounding.	

As shown in Table 6, the project would result in a total emission of 173 MT CO_2E annually. This is less than the 90,718 MT CO_2E screening threshold. As the project would not exceed the screening threshold for GHG emissions, GHG impacts associated with the project would be less than significant.

2. *Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emission of GHGs?*

State GHG emissions reduction policy was established by EOs S-3-05 and B-30-15 and was subsequently codified by AB 32 and SB 32. EO S-3-05 established GHG emission reduction targets of year 2000 GHG emission levels by 2010, year 1990 GHG emission levels by 2020, and 80 percent below year 1990 levels by 2050; and EO B-30-15 established an interim GHG emission reduction target of 40 percent below year 1990 levels by 2030. AB 32 launched the CARB Climate Change Scoping Plan that outlined the reduction measures needed to reach the 2020 target, which has been achieved. SB 32 enacts the EO B-30-15 target of reducing GHG emissions to 40 percent below year 1990 levels by 2030.

As shown in Table 6 above, the project's annual GHG emissions would be less than the screening threshold of 90,718 MT CO_2E per year. Additionally, the project would support the state's goal to increase use of renewable energy. In September 2018, the California Legislature passed SB 100, which set a goal that "renewable energy resources and zero-carbon resources supply 100 percent of retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all state agencies by December 31, 2045." As California procures increasing amounts of renewable energy to meet the goals of SB 100, the state will need to deploy a significant amount of energy storage capability. Renewable energy resources such as wind and solar generate electricity intermittently. Energy storage allows utilities and system operators to manage the effect of intermittent renewable generation on the grid and create reliable, dispatchable generation upon demand. Energy storage also allows excess solar energy produced during the day to be stored and dispatched optimally during peak evening hours or other periods of high demand. The project would, therefore, serve as an integral component of the state's overarching renewable energy strategy that would reduce use of fossil fuel and associated GHG emissions by providing necessary energy storage. The project would assist the state's goal of utilizing 100 percent renewable energy by 2045, which would result in a net decrease in use of fossil fuel and GHG emissions. Therefore, the project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emission of GHGs, and impacts would be less than significant.

If you have any questions about the results of this analysis, please contact me at jfleming@reconenvironmental.com or (619) 308-9333 extension 177.

Sincerely,

Jessica Fleming

Jessica Fleming
Air Quality Specialist

JLF:sh

5.0 Certification

The following is a list of preparers, persons, and organizations involved with the GHG analysis.

RECON Environmental, Inc.
- Jessica Fleming, County-approved Air Quality Consultant
- Stacey Higgins, Senior Production Specialist
- Benjamin Arp, GIS Specialist

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FIGURE 1
Regional Location

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ATTACHMENT 1

Holtville Peaker Detailed Report

Holtville Peaker Detailed Report

Table of Contents

Image Source: NearMap (flown July 2022)

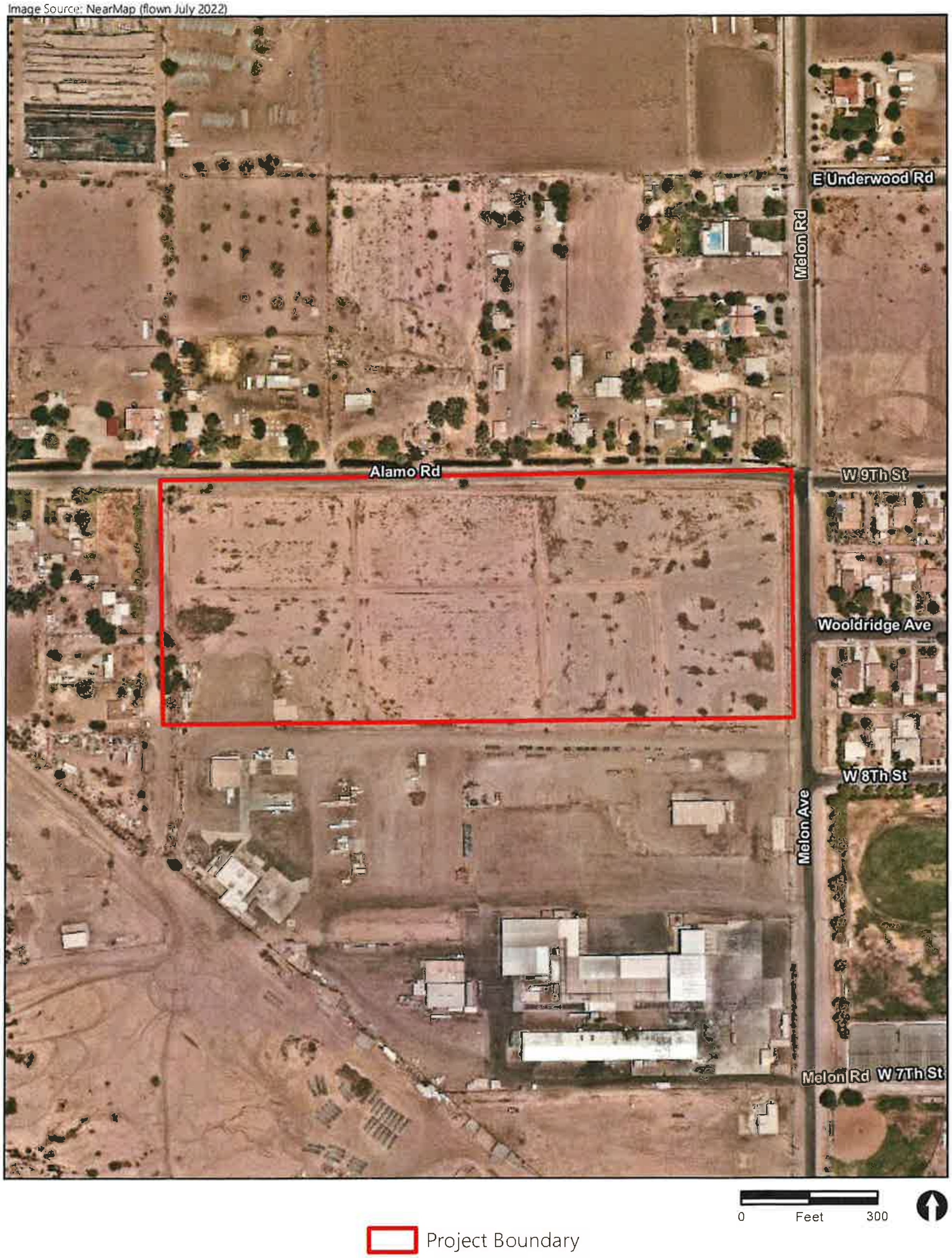

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FIGURE 2

Project Location on Aerial Photograph

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Map Source: Stellavise Solar Engineering

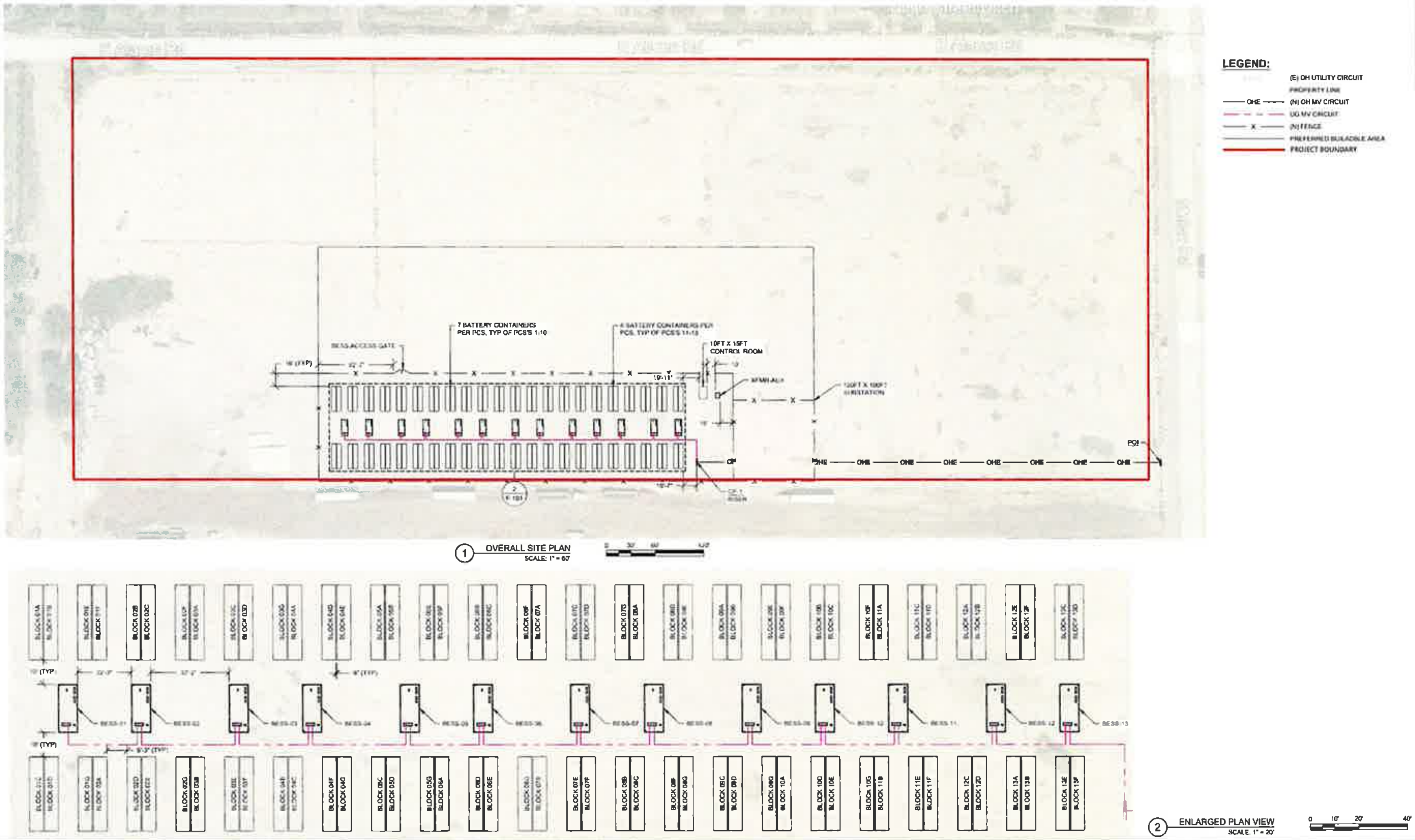

FIGURE 3
Site Plan

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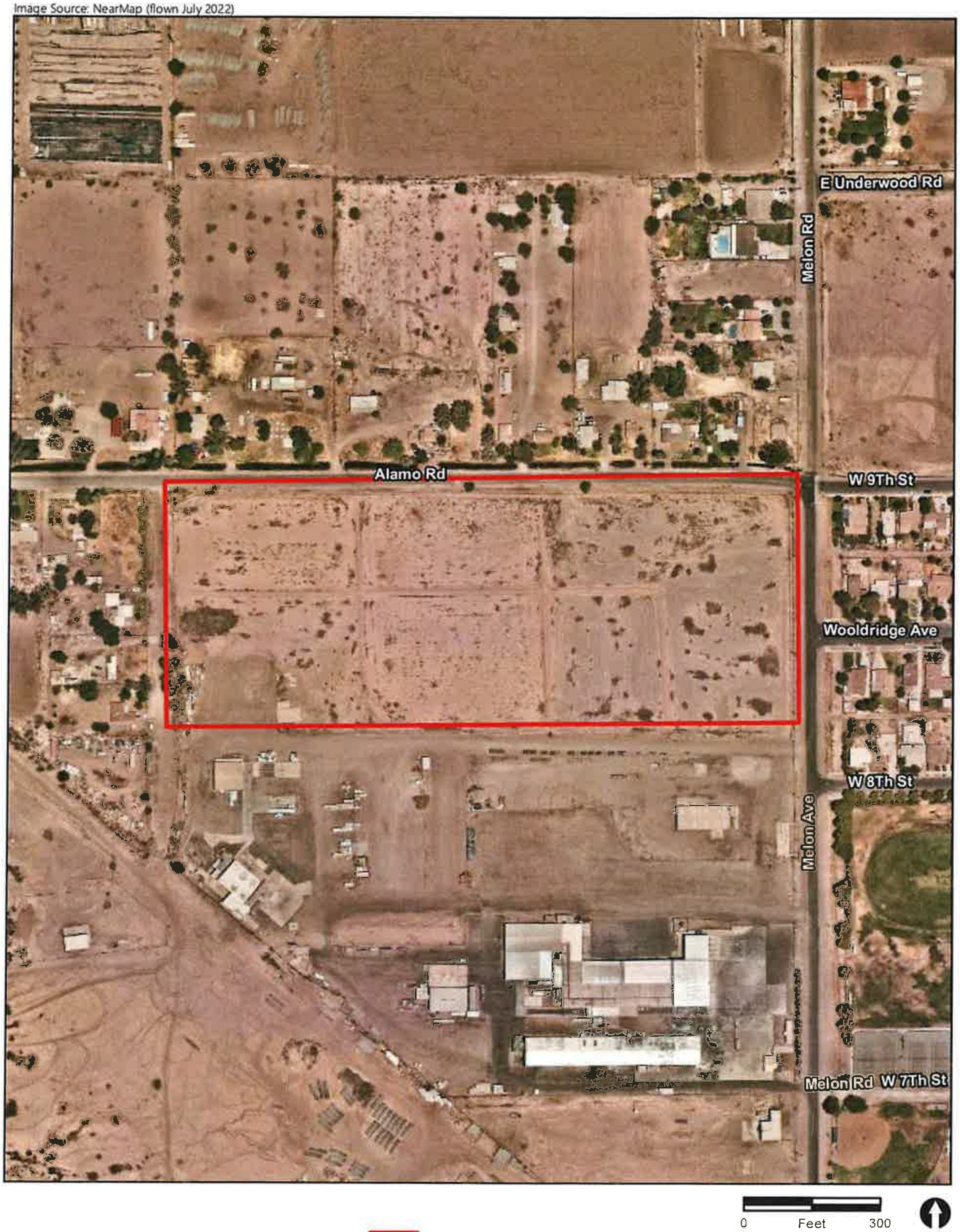
Image Source: NearMap (flown July 2022)



Project Boundary

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FIGURE 2

Project Location on Aerial Photograph

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Map Source: Stellavise Solar Engineering

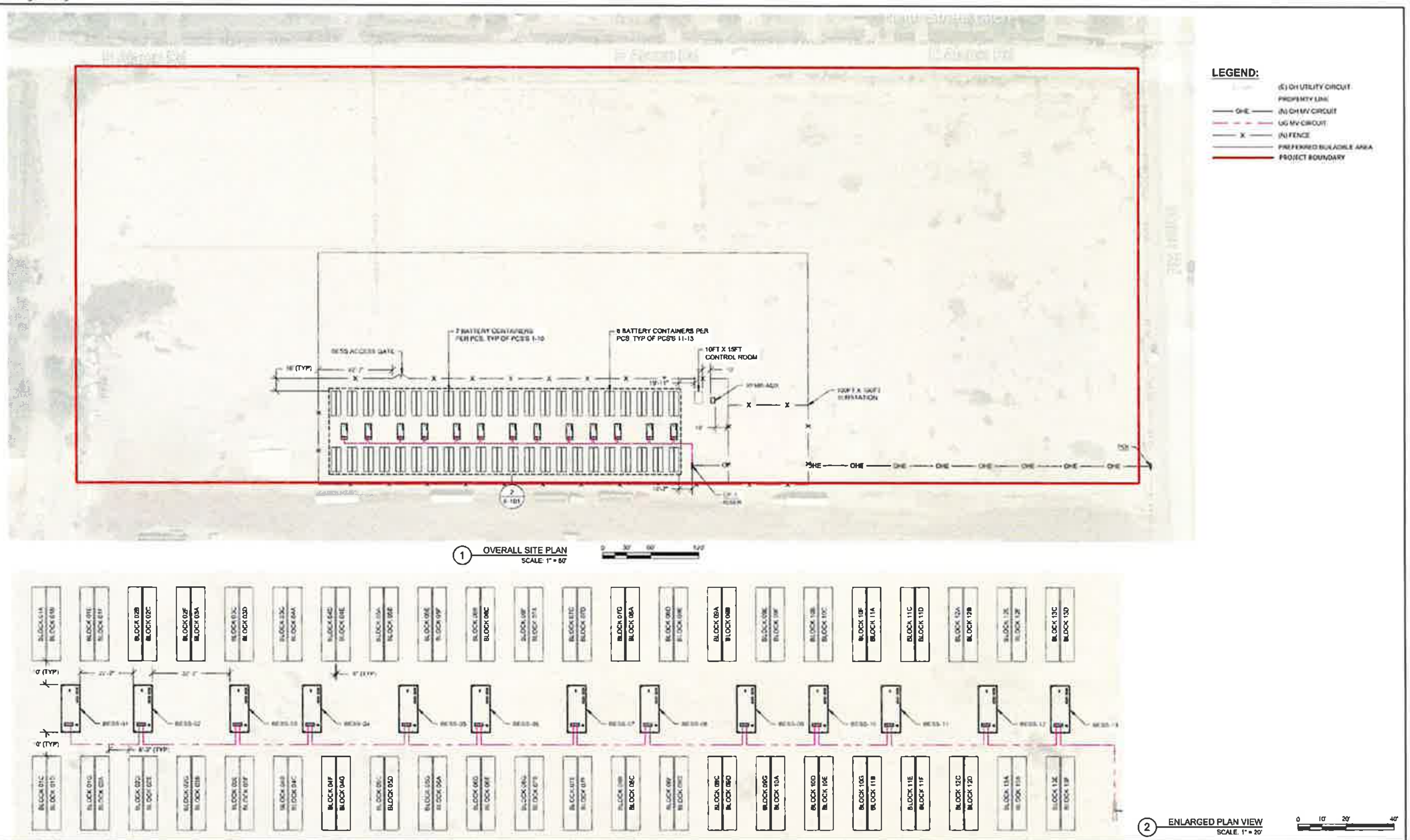

FIGURE 3
Site Plan

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ATTACHMENT 1

Holtville Peaker Detailed Report

Holtville Peaker Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Holtville Peaker
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.40
Precipitation (days)	4.80
Location	32.81815122274024, -115.39010295719622
County	Imperial
City	Unincorporated
Air District	Imperial County APCD
Air Basin	Salton Sea
TAZ	5604
EDFZ	19
Electric Utility	Imperial Irrigation District
Gas Utility	Southern California Gas

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
General Light Industry	20.0	1000sqft	4.50	20,000	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.85	4.08	39.9	37.9	0.05	1.81	57.1	58.9	1.66	9.80	11.5	—	5,577	5,577	0.23	0.05	1.12	5,599
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.57	1.31	12.0	13.9	0.02	0.55	27.6	28.1	0.51	2.77	3.28	—	2,618	2,618	0.10	0.04	0.02	2,632
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.93	0.78	7.29	7.82	0.01	0.34	15.0	15.3	0.31	1.86	2.17	—	1,296	1,296	0.05	0.02	0.16	1,302
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.17	0.14	1.33	1.43	< 0.005	0.06	2.74	2.80	0.06	0.34	0.40	—	214	214	0.01	< 0.005	0.03	216
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	75.0	100	550	—	—	—	150	—	—	—	—	—	—	—	—	—	—
Unmit.	—	No	No	No	—	—	—	No	—	—	—	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Threshol	—	75.0	100	550	—	—	—	150	—	—	—	—	—	—	—	—	—	—
Unmit.	—	No	No	No	—	—	—	No	—	—	—	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	4.85	4.08	39.9	37.9	0.05	1.81	57.1	58.9	1.66	9.80	11.5	—	5,577	5,577	0.23	0.05	1.12	5,599
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	1.57	1.31	12.0	13.9	0.02	0.55	27.6	28.1	0.51	2.77	3.28	—	2,618	2,618	0.10	0.04	0.02	2,632
2024	1.50	1.25	11.4	13.8	0.02	0.50	27.6	28.1	0.46	2.77	3.23	—	2,614	2,614	0.10	0.04	0.02	2,628
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.93	0.78	7.29	7.82	0.01	0.34	15.0	15.3	0.31	1.86	2.17	—	1,296	1,296	0.05	0.02	0.16	1,302
2024	0.03	0.02	0.22	0.27	< 0.005	0.01	0.54	0.55	0.01	0.05	0.06	—	51.3	51.3	< 0.005	< 0.005	0.01	51.6
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.17	0.14	1.33	1.43	< 0.005	0.06	2.74	2.80	0.06	0.34	0.40	—	214	214	0.01	< 0.005	0.03	216
2024	0.01	< 0.005	0.04	0.05	< 0.005	< 0.005	0.10	0.10	< 0.005	0.01	0.01	—	8.50	8.50	< 0.005	< 0.005	< 0.005	8.54

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2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	0.19	0.67	0.20	1.20	< 0.005	0.01	0.58	0.60	0.02	0.09	0.10	0.00	1,008	1,008	0.07	0.01	5.35	1,018
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.03	0.52	0.19	0.26	< 0.005	0.01	0.58	0.60	0.01	0.09	0.10	0.00	1,000	1,000	0.07	0.01	5.21	1,010
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.10	0.59	0.19	0.67	< 0.005	0.01	0.42	0.43	0.01	0.06	0.08	0.00	994	994	0.07	0.01	5.25	1,004
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.02	0.11	0.03	0.12	< 0.005	< 0.005	0.08	0.08	< 0.005	0.01	0.01	0.00	165	165	0.01	< 0.005	0.87	166
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	137	137	550	150	—	—	150	—	—	550	—	—	—	—	—	—	—
Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	137	137	550	150	—	—	150	—	—	550	—	—	—	—	—	—	—
Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.01	0.01	0.02	0.18	< 0.005	< 0.005	0.58	0.58	< 0.005	0.09	0.09	—	36.5	36.5	< 0.005	< 0.005	0.14	37.1

Area	0.15	0.65	0.01	0.87	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.58	3.58	< 0.005	< 0.005	—	3.59
Energy	0.02	0.01	0.17	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	968	968	0.07	0.01	—	972
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.21	5.21
Total	0.19	0.67	0.20	1.20	< 0.005	0.01	0.58	0.60	0.02	0.09	0.10	0.00	1,008	1,008	0.07	0.01	5.35	1,018
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.01	0.01	0.02	0.11	< 0.005	< 0.005	0.58	0.58	< 0.005	0.09	0.09	—	32.0	32.0	< 0.005	< 0.005	< 0.005	32.5
Area	—	0.50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.02	0.01	0.17	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	968	968	0.07	0.01	—	972
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.21	5.21
Total	0.03	0.52	0.19	0.26	< 0.005	0.01	0.58	0.60	0.01	0.09	0.10	0.00	1,000	1,000	0.07	0.01	5.21	1,010
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.01	0.01	0.01	0.10	< 0.005	< 0.005	0.42	0.42	< 0.005	0.06	0.06	—	24.2	24.2	< 0.005	< 0.005	0.04	24.5
Area	0.08	0.57	< 0.005	0.43	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.76	1.76	< 0.005	< 0.005	—	1.77
Energy	0.02	0.01	0.17	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	968	968	0.07	0.01	—	972
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.21	5.21
Total	0.10	0.59	0.19	0.67	< 0.005	0.01	0.42	0.43	0.01	0.06	0.08	0.00	994	994	0.07	0.01	5.25	1,004
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	< 0.005	< 0.005	< 0.005	0.02	< 0.005	< 0.005	0.08	0.08	< 0.005	0.01	0.01	—	4.00	4.00	< 0.005	< 0.005	0.01	4.06
Area	0.01	0.10	< 0.005	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.29	0.29	< 0.005	< 0.005	—	0.29
Energy	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	160	160	0.01	< 0.005	—	161

Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.86	0.86
Total	0.02	0.11	0.03	0.12	< 0.005	< 0.005	0.08	0.08	< 0.005	0.01	0.01	0.00	165	165	0.01	< 0.005	0.87	166

3. Construction Emissions Details

3.1. Site Preparation (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.70	3.95	39.7	35.5	0.05	1.81	—	1.81	1.66	—	1.66	—	5,295	5,295	0.21	0.04	—	5,314
Dust From Material Movemen:	—	—	—	—	—	—	9.83	9.83	—	5.05	5.05	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	0.16	1.63	1.46	< 0.005	0.07	—	0.07	0.07	—	0.07	—	218	218	0.01	< 0.005	—	218

Dust From Material Movemen:	—	—	—	—	—	—	0.40	0.40	—	0.21	0.21	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.30	0.27	< 0.005	0.01	—	0.01	0.01	—	0.01	—	36.0	36.0	< 0.005	< 0.005	—	36.2
Dust From Material Movemen:	—	—	—	—	—	—	0.07	0.07	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.13	0.14	2.42	0.00	0.00	47.2	47.2	0.00	4.75	4.75	—	281	281	0.01	0.01	1.12	285
Vendor	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	0.00
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.01	0.07	0.00	0.00	1.94	1.94	0.00	0.20	0.20	—	10.5	10.5	< 0.005	< 0.005	0.02	10.6
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	0.35	0.35	0.00	0.04	0.04	—	1.74	1.74	< 0.005	< 0.005	< 0.005	1.76
Vendor	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	0.00

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Hauling	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	0.00

3.3. Grading (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.43	2.04	20.0	19.7	0.03	0.94	—	0.94	0.87	—	0.87	—	2,958	2,958	0.12	0.02	—	2,968
Dust From Material Movemen:	—	—	—	—	—	—	3.54	3.54	—	1.71	1.71	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.33	0.28	2.74	2.70	< 0.005	0.13	—	0.13	0.12	—	0.12	—	405	405	0.02	< 0.005	—	407
Dust From Material Movemen:	—	—	—	—	—	—	0.49	0.49	—	0.23	0.23	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.50	0.49	< 0.005	0.02	—	0.02	0.02	—	0.02	—	67.1	67.1	< 0.005	< 0.005	—	67.3

Dust From Material Movement	—	—	—	—	—	—	0.09	0.09	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.12	0.12	2.07	0.00	0.00	40.5	40.5	0.00	4.07	4.07	—	241	241	0.01	0.01	0.96	245
Vendor	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	0.00
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.02	0.20	0.00	0.00	5.55	5.55	0.00	0.56	0.56	—	30.0	30.0	< 0.005	< 0.005	0.06	30.4
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	1.01	1.01	0.00	0.10	0.10	—	4.96	4.96	< 0.005	< 0.005	0.01	5.03
Vendor	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	0.00
Hauling	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	0.00

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3.5.7. Building Construction (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.50	1.26	11.8	13.2	0.02	0.55	—	0.55	0.51	—	0.51	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.50	1.26	11.8	13.2	0.02	0.55	—	0.55	0.51	—	0.51	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.36	0.30	2.84	3.17	0.01	0.13	—	0.13	0.12	—	0.12	—	577	577	0.02	< 0.005	—	579
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.52	0.58	< 0.005	0.02	—	0.02	0.02	—	0.02	—	95.5	95.5	< 0.005	< 0.005	—	95.9
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	1.16	0.00	0.00	22.7	22.7	0.00	2.28	2.28	—	135	135	0.01	< 0.005	0.54	137
Vendor	0.01	0.01	0.13	0.07	< 0.005	< 0.005	4.88	4.89	< 0.005	0.49	0.49	—	107	107	< 0.005	0.01	0.29	111
Hauling	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	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.08	0.66	0.00	0.00	22.7	22.7	0.00	2.28	2.28	—	114	114	0.01	< 0.005	0.01	115
Vendor	0.01	< 0.005	0.14	0.07	< 0.005	< 0.005	4.88	4.89	< 0.005	0.49	0.49	—	107	107	< 0.005	0.01	0.01	111
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.02	0.20	0.00	0.00	5.46	5.46	0.00	0.55	0.55	—	29.5	29.5	< 0.005	< 0.005	0.06	29.9
Vendor	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	1.18	1.18	< 0.005	0.12	0.12	—	25.7	25.7	< 0.005	< 0.005	0.03	26.8
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	1.00	1.00	0.00	0.10	0.10	—	4.88	4.88	< 0.005	< 0.005	0.01	4.95
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.21	0.21	< 0.005	0.02	0.02	—	4.25	4.25	< 0.005	< 0.005	< 0.005	4.43
Hauling	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	0.00

3.7. Building Construction (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	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	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.22	0.26	< 0.005	0.01	—	0.01	0.01	—	0.01	—	46.9	46.9	< 0.005	< 0.005	—	47.1
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	< 0.005	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.77	7.77	< 0.005	< 0.005	—	7.79
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.07	0.61	0.00	0.00	22.7	22.7	0.00	2.28	2.28	—	112	112	0.01	< 0.005	0.01	113
Vendor	0.01	< 0.005	0.13	0.06	< 0.005	< 0.005	4.88	4.89	< 0.005	0.49	0.49	—	105	105	< 0.005	0.01	0.01	110
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.44	0.44	0.00	0.04	0.04	—	2.35	2.35	< 0.005	< 0.005	< 0.005	2.38
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.10	0.10	< 0.005	0.01	0.01	—	2.06	2.06	< 0.005	< 0.005	< 0.005	2.15
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	0.08	0.08	0.00	0.01	0.01	—	0.39	0.39	< 0.005	< 0.005	< 0.005	0.39
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	0.34	0.34	< 0.005	< 0.005	< 0.005	0.36
Hauling	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	0.00

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	760	760	0.05	0.01	—	763
Total	—	—	—	—	—	—	—	—	—	—	—	—	760	760	0.05	0.01	—	763
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	760	760	0.05	0.01	—	763
Total	—	—	—	—	—	—	—	—	—	—	—	—	760	760	0.05	0.01	—	763
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	126	126	0.01	< 0.005	—	126
Total	—	—	—	—	—	—	—	—	—	—	—	—	126	126	0.01	< 0.005	—	126

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4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	0.02	0.01	0.17	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	208	208	0.02	< 0.005	—	209

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	0.01	0.01	0.02	0.18	< 0.005	< 0.005	0.58	0.58	< 0.005	0.09	0.09	—	36.5	36.5	< 0.005	< 0.005	0.14	37.1
Total	0.01	0.01	0.02	0.18	< 0.005	< 0.005	0.58	0.58	< 0.005	0.09	0.09	—	36.5	36.5	< 0.005	< 0.005	0.14	37.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	0.01	0.01	0.02	0.11	< 0.005	< 0.005	0.58	0.58	< 0.005	0.09	0.09	—	32.0	32.0	< 0.005	< 0.005	< 0.005	32.5
Total	0.01	0.01	0.02	0.11	< 0.005	< 0.005	0.58	0.58	< 0.005	0.09	0.09	—	32.0	32.0	< 0.005	< 0.005	< 0.005	32.5
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	< 0.005	< 0.005	< 0.005	0.02	< 0.005	< 0.005	0.08	0.08	< 0.005	0.01	0.01	—	4.00	4.00	< 0.005	< 0.005	0.01	4.06
Total	< 0.005	< 0.005	< 0.005	0.02	< 0.005	< 0.005	0.08	0.08	< 0.005	0.01	0.01	—	4.00	4.00	< 0.005	< 0.005	0.01	4.06

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Total	0.02	0.01	0.17	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	208	208	0.02	< 0.005	—	209
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	0.02	0.01	0.17	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	208	208	0.02	< 0.005	—	209
Total	0.02	0.01	0.17	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	208	208	0.02	< 0.005	—	209
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	34.5	34.5	< 0.005	< 0.005	—	34.6
Total	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	34.5	34.5	< 0.005	< 0.005	—	34.6

4.3. Area Emissions by Source

4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.43	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.15	0.14	0.01	0.87	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.58	3.58	< 0.005	< 0.005	—	3.59
Total	0.15	0.65	0.01	0.87	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.58	3.58	< 0.005	< 0.005	—	3.59

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.43	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	0.50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.01	0.01	< 0.005	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.29	0.29	< 0.005	< 0.005	—	0.29
Total	0.01	0.10	< 0.005	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.29	0.29	< 0.005	< 0.005	—	0.29

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Light Industry	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Light Industry	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.21	5.21
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.21	5.21
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.21	5.21
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.21	5.21
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.86	0.86
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.86	0.86

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	6/1/2023	6/21/2023	5.00	15.0	—
Grading	Grading	6/22/2023	8/30/2023	5.00	50.0	—
Building Construction	Building Construction	8/31/2023	1/10/2024	5.00	95.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

EEC ORIGINAL PKG

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29

Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	8.40	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	3.28	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	0.00	0.00	22.5	0.00	—
Grading	0.00	0.00	50.0	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	Other	50%	50%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
General Light Industry	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2023	0.00	457	0.03	< 0.005

2024	0.00	457	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
General Light Industry	2.00	0.00	0.00	521	40.0	0.00	0.00	10,429

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	30,000	10,000	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
General Light Industry	607,489	457	0.0330	0.0040	649,692

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
General Light Industry	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
General Light Industry	0.00	0.00

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
General Light Industry	Other commercial A/C and heat pumps	R-410A	2,088	0.30	4.00	4.00	18.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type
—	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	31.1	annual days of extreme heat
Extreme Precipitation	0.00	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A

Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	0	0	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	1	1	1	2
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	59.9
AQ-PM	43.9
AQ-DPM	8.23
Drinking Water	56.2
Lead Risk Housing	39.6
Pesticides	82.1
Toxic Releases	28.8
Traffic	3.59
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	26.6
Haz Waste Facilities/Generators	16.6
Impaired Water Bodies	96.3
Solid Waste	0.00
Sensitive Population	—
Asthma	86.7
Cardio-vascular	87.5
Low Birth Weights	29.9
Socioeconomic Factor Indicators	—
Education	86.1
Housing	46.0
Linguistic	94.3
Poverty	78.2

Unemployment	99.4

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	18.58077762
Employed	17.20775055
Median HI	3.695624278
Education	—
Bachelor's or higher	19.41485949
High school enrollment	100
Preschool enrollment	23.26446811
Transportation	—
Auto Access	37.4566919
Active commuting	32.84999358
Social	—
2-parent households	37.08456307
Voting	34.2871808
Neighborhood	—
Alcohol availability	43.85987425
Park access	48.27409213
Retail density	15.98870781
Supermarket access	64.72475298
Tree canopy	8.905427948
Housing	—
Homeownership	46.24663159

Housing habitability	54.08700115
Low-inc homeowner severe housing cost burden	73.96381368
Low-inc renter severe housing cost burden	28.6154241
Uncrowded housing	45.96432696
Health Outcomes	—
Insured adults	47.60682664
Arthritis	0.0
Asthma ER Admissions	8.1
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	48.3
Cognitively Disabled	19.2
Physically Disabled	8.8
Heart Attack ER Admissions	3.8
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0

No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	7.8
Elderly	39.0
English Speaking	4.8
Foreign-born	56.6
Outdoor Workers	4.4
Climate Change Adaptive Capacity	—
Impervious Surface Cover	65.7
Traffic Density	7.3
Traffic Access	23.0
Other Indices	—
Hardship	88.7
Other Decision Support	—
2016 Voting	0.0

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	68.0
Healthy Places Index Score for Project Location (b)	22.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Approximately 19,386 square feet inverters and BESS containers, rounded up to 20,000 4.5 acre project impact area
Construction: Construction Phases	6-8 month construction duration Site preparation - 3 weeks Grading/trenching - 10 weeks Foundations/BESS installation/wiring/commissioning - 19 weeks
Construction: On-Road Fugitive Dust	All roads used to access project site are paved. ICAPCD recommends modeling 90 percent paved roads during construction activities.
Operations: Vehicle Data	Unmanned/remote facility. 1 round trip modeled to account for any routine maintenance. Trip length increased to 20 miles.
Operations: Road Dust	Used same paved road % as construction workers
Operations: Water and Waste Water	Unmanned facility, no water use
Operations: Solid Waste	Unmanned facility, no solid waste

February 15, 2023

Mr. Ramon Gonzalez
Senior Project Coordinator
Z Global
750 W. Main Street
El Centro CA 92243

Reference: Noise Analysis for the Holtville Peaker BESS Project, Holtville, California (RECON Number 10247)

Dear Mr. Gonzalez:

The purpose of this report is to assess potential noise impacts from construction and operation of the Holtville Peaker Battery Energy Storage Site (BESS) Project (project). Noise impacts were evaluated using standards established by the City of Holtville (City) and Imperial County (County).

1.0 Project Description

The 17.2-acre project site consists of an undeveloped lot located at Assessor Parcel Number 045-570-087, southwest of the intersection of East Alamo Road and Melon Road in the City's sphere of influence (SOI) within Imperial County, California (Figure 1). The project site is surrounded by residential development with scattered commercial and industrial development (Figure 2).

The project would include development of a BESS that would connect to an existing 92-kilovolt gen-tie line (Figure 3). The BESS facility would include battery containers and storage sites, a control room, and associated facilities surrounded by fencing in the south-central portion of the parcel, with the remainder of the parcel used for temporary construction access and staging. Access to the facility would occur from Melon Road.

2.0 Environmental Setting

2.1 Noise Terminology

Sound levels are described in units called the decibel (dB). Decibels are measured on a logarithmic scale that quantifies sound intensity in a manner similar to the Richter scale used for earthquake magnitudes. Thus, a doubling of the energy of a noise source, such as doubling of traffic volume, would increase the noise level by 3 dB; a halving of the energy would result in a 3 dB decrease. Additionally, in technical terms, sound levels are described as either a "sound power level" or a "sound pressure level," which while commonly confused, are two distinct characteristics of sound.

Both share the same unit of measure, the dB. However, sound power, expressed as L_{pw}, is the energy converted into sound by the source. The L_{pw} is used to estimate how far a noise will travel and to predict the sound levels at various distances from the source. As sound energy travels through the air, it creates a sound wave that exerts pressure on receivers such as an eardrum or microphone and is the sound pressure level. Noise measurement instruments only measure sound pressure, and noise level limits used in standards are generally sound pressure levels.

The human ear is not equally sensitive to all frequencies within the sound spectrum. To accommodate this phenomenon, the A-scale, which approximates the frequency response of the average young ear when listening to most ordinary everyday sounds, was devised. When people make relative judgments of the loudness or annoyance of a sound, their judgments correlate well with the A-scale sound levels of those sounds. Therefore, the "A-weighted" noise scale is used for measurements and standards involving the human perception of noise. Noise levels using A-weighted measurements are designated with the notation dB(A).

The impact of noise is not a function of loudness alone. The time of day when noise occurs and the duration of the noise are also important. In addition, most noise that lasts for more than a few seconds is variable in its intensity. Consequently, a variety of noise descriptors has been developed. The noise descriptors used for this study are the one-hour equivalent noise level (L_{eq}), the community noise equivalent level (CNEL), and the sound exposure level. The CNEL is a 24-hour equivalent sound level. The CNEL calculation applies an additional 5 dB(A) penalty to noise occurring during evening hours, between 7:00 p.m. and 10:00 p.m., and an additional 10 dB(A) penalty is added to noise occurring during the night, between 10:00 p.m. and 7:00 a.m. These increases for certain times are intended to account for the added sensitivity of humans to noise during the evening and night. The sound exposure level is a noise level over a stated period of time or event and normalized to one second. Sound from a small, localized source (approximating a "point" source) radiates uniformly outward as it travels away from the source in a spherical pattern, known as geometric spreading. The sound level decreases or drops off at a rate of 6 dB(A) for each doubling of the distance.

Traffic noise is not a single, stationary point source of sound. The movement of vehicles makes the source of the sound appear to emanate from a line (line source) rather than a point when viewed over some time interval. The drop-off rate for a line source is 3 dB(A) for each doubling of distance.

The propagation of noise is also affected by the intervening ground, known as ground absorption. A hard site (such as parking lots or smooth bodies of water) receives no additional ground attenuation, and the changes in noise levels with distance (drop-off rate) are simply the geometric spreading of the source. A soft site (such as soft dirt, grass, or scattered bushes and trees) receives an additional ground attenuation value of 1.5 dB(A) per doubling of distance. Thus, a point source over a soft site would attenuate at 7.5 dB(A) per doubling of distance.

Human perception of noise has no simple correlation with acoustical energy. A change in noise levels is generally perceived as follows: 3 dB(A) barely perceptible, 5 dB(A) readily perceptible, and 10 dB(A) perceived as a doubling or halving of noise (California Department of Transportation 2013).

2.2 Applicable Standards

The project site is located within the City's SOI and is designated as an Urban Area land use in the Imperial County General Plan. The Urban Area designation includes areas surrounding the following seven incorporated cities: Brawley, El Centro, Westmorland, Holtville, Calipatria, Imperial, and Calexico. It is anticipated that these areas will eventually be annexed or incorporated. The Holtville Urban Area is generally bounded on the west by State Highway 115, Zenos Road, and Country Club Road; on the north by Kamm Road; on the east by Towland Road; and on the south by Haven Road, the Ash Main Canal, and Edwards Road. The project site is located adjacent to the western City boundary. Due to the project site's location and Urban Area designation, noise generated by the project was evaluated using the standards established by both the City and the County.

2.2.1 City of Holtville

2.2.1.1 Construction

Section 8.24.070 of the City's Municipal Code addresses construction-related noise near residential uses. It states:

- It shall be unlawful for any person to make, continue or cause to be made or continued, within the limits of the city of Holtville, any disturbing, excessive or offensive noise which causes discomfort or annoyance to any reasonable persons of normal sensitivity residing in the area.
- The following acts, among others, are declared to be offensive, loud, disturbing, and unnecessary noises originating from residential properties or on public ways in violation of this section, but such enumeration shall not be deemed to be exclusive:
    - Construction work or related activity which is adjacent to or across a street or right-of-way from a residential use, except between the hours of 7:00 a.m. and 7:00 p.m. on weekdays, or between 8:00 a.m. and 7:00 p.m. on Saturday and Sunday. No such construction is permitted on federal holidays. As used in this section, "construction" shall mean any site preparation, assembly, erection, substantial repair, alteration, demolition or similar action, for or on any private property, public or private right-of-way, streets, structures, utilities, facilities, or other similar property. An exception to this rule is during summer months when a special permit may be obtained from Imperial County planning development services. This does not apply to emergency repair work performed by or on behalf of public agencies.

2.2.1.2 Operation

As stated in the Noise Element of the City's General Plan (City of Holtville 2017), the City has adopted a program to develop a Noise Ordinance that will be designed to address business activity and nuisance noise. The ordinance will establish specific interior and exterior standards for noise levels within various types of land uses as well as daytime and nighttime standards. Enforcement of the ordinance ensures that adjacent properties are not exposed to excessive noise from stationary sources or nuisances. Enforcing the ordinance includes requiring proposed development projects to demonstrate compliance with the ordinance. The ordinance will be reviewed periodically for adequacy and amended as needed to address community needs and development patterns.

No specific noise level limits have been adopted to date. However, Section 17.10.150 states:

- No use shall be permitted which creates noise levels that exceed five decibels above the ambient noise level of the area, in accordance with the Occupation Safety and Health Act of 1970.

2.2.2 Imperial County

2.2.2.1 Construction

County General Plan Noise Element Section IV.C.3 addresses noise generated by construction activities. It states:

- 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 operation shall be limited to the hours of 7 a.m. to 7 p.m., Monday through Friday, and 9 a.m. to 5 p.m. Saturday. No commercial construction operations are permitted on Sunday or holidays. 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 a.m. and 5 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.

Based on these standards, the applicable limit for project construction activities is 75 dB(A) L_{eq} at the nearest sensitive receptor.

2.2.2.2 Operation

The County General Plan Noise Element (Imperial County 2015) identifies property line noise level limits that apply to noise generation from one property to an adjacent property (excluding construction noise). As stated in the Noise Element, the property line noise level limits imply the existence of a sensitive receptor on the adjacent, or receiving, property. In the absence of a sensitive receptor, an exception or variance to the standards may be appropriate.

County Code of Ordinances Title 9, Division 7: Noise Abatement and Control, specifies noise level limits. Noise level limits are summarized in Table 1. Noise level limits do not apply to construction equipment.

Table 1
Imperial County Property Line Noise Limits

Zone	Time	One-Hour Average Sound Level [dB(A) L_{eq}]
Low-Density Residential Zones	7:00 a.m. to 10:00 p.m.	50
	10:00 p.m. to 7:00 a.m.	45
Medium to High-Density Residential Zones	7:00 a.m. to 10:00 p.m.	55
	10:00 p.m. to 7:00 a.m.	50
Commercial Zones	7:00 a.m. to 10:00 p.m.	60
	10:00 p.m. to 7:00 a.m.	55
Manufacturing/Light Industrial/ Industrial Park Zones including agriculture	(anytime)	70
General Industrial Zones	(anytime)	75

SOURCE: Imperial County Noise Abatement and Control Ordinance, Tit. 9, Div. 7, § 90702.00(A).

The project site and the property to the south are zoned M1U (Light Industrial Urban), the properties to the west and north are zoned A1U (Limited Agriculture Urban) and C2U (Medium Commercial Urban), and the property to the northeast is zoned R1U (Low Density Residential Urban). The properties to the east are within City boundaries and have a City zoning designation of R-1 (Single Family).

3.0 Existing Conditions

Existing noise levels at the project site were measured on February 3, 2023, using one Larson-Davis LxT Sound Expert Sound Level Meter, serial number 3896. The following parameters were used:

Filter:	A-weighted
Response:	Slow
Time History Period:	5 seconds

The meter was calibrated before and after the measurements. The meter was set 5 feet above the ground level for each measurement. Noise measurements were taken to obtain typical ambient noise levels at the project site and in the vicinity. The weather was mild and partly cloudy with a slight breeze. Three 15-minute measurements were taken, as described below. The measurement locations are shown on Figure 4, and detailed data is presented in Attachment 1.

Measurement 1 was located at the northern project boundary, approximately 50 feet south of Alamo Road. The main source of noise at this location was vehicle traffic on Alamo Road. Secondary sources of noise included bird vocalizations, barking dogs, and a distant siren. Noise levels were measured for 15 minutes. The average measured noise level was 55.9 dB(A) L_{eq}.

Measurement 2 was located at the western project boundary, approximately 50 feet east of the dirt road. The main source of noise at this location was vehicle traffic on Alamo Road. Secondary sources of noise included bird vocalizations, barking dogs, and roosters. Noise levels were measured for 15 minutes. The average measured noise level was 48.9 dB(A) L_{eq}.

Measurement 3 was located at the eastern project boundary, approximately 50 feet west of Melon Road. The main source of noise at this location was vehicle traffic on Melon Road. Secondary sources of noise included vehicle traffic on Alamo Road, bird vocalizations, and hammering. Noise levels were measured for 15 minutes. The average measured noise level was 52.4 dB(A) L_{eq}.

Noise measurements are summarized in Table 2.

Table 2
Noise Measurements

Measurement	Location	Time	Main Noise Sources	L_{eq}
1	Northern project boundary, 50 feet south of Alamo Road.	9:59 a.m. – 10:14 a.m.	Vehicle traffic on Alamo Road	55.9
2	Western project boundary, 50 feet east of dirt road.	10:30 a.m. – 10:45 a.m.	Vehicle traffic on Alamo Road	48.9
3	Eastern project boundary, 50 feet west of Melon Road.	11:02 a.m. – 11:17 a.m.	Vehicle traffic on Melon Road	52.4
NOTE: Noise measurement data is contained in Attachment 1.				

4.0 Methodology

Noise level predictions and contour mapping for construction and on-site noise sources were developed using noise modeling software, SoundPlan Essential, version 4.1 (Navcon Engineering 2018). SoundPLAN calculates noise propagation based on the International Organization for Standardization method (ISO 9613-2 – Acoustics, Attenuation of Sound during Propagation Outdoors). The model calculates noise levels at selected receiver locations using input parameter estimates such as total noise generated by each noise source; distances between sources, barriers, and receivers; and shielding provided by intervening terrain, barriers, and structures. The model outputs can be developed as noise level contour maps or noise levels at specific receivers. In all cases, receivers were modeled at 5 feet above ground elevation, which represents the average height of the human ear.

4.1 Construction

Construction activities associated with the project would include site preparation, grading, excavation, and foundation work for the placement of the BESS storage containers and inverters. Project construction noise would be generated by diesel engine-driven construction equipment. Noise impacts from construction are a function of the noise generated by equipment, the location and sensitivity of nearby land uses, and the timing and duration of the noise-generating activities. Table 3 presents a list of noise generation levels for various types of construction equipment. The duty cycle is the amount of time that equipment generates the reported noise level during typical, standard equipment operation. The noise levels and duty cycles summarized in Table 3 are based on measurements and studies conducted by Federal Highway Administration and the Federal Transit Authority.

Table 3
Typical Construction Equipment Noise Levels

Equipment	Noise Level at 50 Feet [dB(A) L_{eq}]	Typical Duty Cycle
Auger Drill Rig	85	20%
Backhoe	80	40%
Blasting	94	1%
Chain Saw	85	20%
Clam Shovel	93	20%
Compactor (ground)	80	20%
Compressor (air)	80	40%
Concrete Mixer Truck	85	40%
Concrete Pump	82	20%
Concrete Saw	90	20%
Crane (mobile or stationary)	85	20%
Dozer	85	40%
Dump Truck	84	40%
Excavator	85	40%
Front End Loader	80	40%
Generator (25 kilovolt amps or less)	70	50%
Generator (more than 25 kilovolt amps)	82	50%
Grader	85	40%
Hydra Break Ram	90	10%
Impact Pile Driver (diesel or drop)	95	20%
In situ Soil Sampling Rig	84	20%
Jackhammer	85	20%
Mounted Impact Hammer (hoe ram)	90	20%
Paver	85	50%
Pneumatic Tools	85	50%
Pumps	77	50%
Rock Drill	85	20%
Roller	74	40%

Table 3 Typical Construction Equipment Noise Levels		
Equipment	Noise Level at 50 Feet [dB(A) L_{eq}]	Typical Duty Cycle
Scraper	85	40%
Tractor	84	40%
Vacuum Excavator (vac-truck)	85	40%
Vibratory Concrete Mixer	80	20%
Vibratory Pile Driver	95	20%
SOURCE: Federal Highway Administration 2006 and 2008, Federal Transit Authority 2006. dB(A) L_{eq} = A-weighted decibels average noise level		

The loudest construction activities would be those associated with site preparation and grading. Construction noise levels were calculated assuming the simultaneous use of the following three pieces of construction equipment: a grader, a loader, and a water truck. Water truck noise levels were assumed to be equivalent to a dump truck. Although more construction equipment would be present on-site, not all would be used at the same time. Simultaneous use of this equipment would generate and average hourly noise level of 84.3 dB(A) L_{eq} at 50 feet, which is equivalent to a sound power level of 115.9 dB(A) L_{pw}. This noise level was modeled as an area source distributed over the footprint of the development area.

4.2 Operation

Once construction is complete, the primary noise sources would be the inverters and the BESS containers. The project would include 13 Sungrow Model SC5000UD-MV-US inverters surrounded by 88 Sungrow Model ST2752UX-US BESS containers each consisting of 48 battery units. It was assumed that noise levels generated by the inverters would be similar to Sungrow Model SG3600-UD-MV which generate a sound power level of 92 dB(A) L_{pw} (TRC Companies, Inc. 2022). Manufacturer specifications for the BESS containers indicate that three facades of the containers generate a noise level of 54 dB(A) L_{eq} at 5 meters and one façade generates a noise level of 53 dB(A) L_{eq} at 5 meters (Assured Environmental 2022). The louder noise level, which equates to a sound power level of 76 dB(A) L_{pw}, was modeled. All inverters and BESS containers were modeled with a 100 percent usage factor.

5.0 Noise Impact Analysis

5.1 Construction

Noise associated with project construction would potentially result in short-term impacts to surrounding properties. As discussed, the project is surrounded by residential, commercial, and industrial uses. The nearest sensitive receptors are the residential uses located north, west, and east of the project site. Construction noise levels were calculated based on the simultaneously use of a grader, loader, and water truck.

Noise levels were modeled at a series of 15 receivers located at the adjacent properties. The results are summarized in Table 4. Modeled receiver locations and construction noise contours are shown on Figure 5. SoundPLAN data is contained in Attachment 2.

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Table 4 Construction Noise Levels		
Receiver	Zoning/Jurisdiction	Construction Noise Level [dB(A) L_{eq}]
1	R-1 (Single Family)/City	55
2	R-1 (Single Family)/City	55
3	R-1 (Single Family)/City	55
4	R-1 (Single Family)/City	55
5	A1U (Limited Agriculture Urban)/County	57
6	C2U (Medium Commercial Urban)/County	60
7	A1U (Limited Agriculture Urban)/County	61
8	A1U (Limited Agriculture Urban)/County	60
9	A1U (Limited Agriculture Urban)/County	59
10	A1U (Limited Agriculture Urban)/County	57
11	A1U (Limited Agriculture Urban)/County	56
12	A1U (Limited Agriculture Urban)/County	57
13	A1U (Limited Agriculture Urban)/County	58
14	A1U (Limited Agriculture Urban)/County	58
15	A1U (Limited Agriculture Urban)/County	58
dB(A) L_{eq} = A-weighted decibels equivalent noise level.		

As shown, construction noise levels are not anticipated to exceed the County's construction noise level limit of 75 dB(A) L_{eq} at the adjacent properties. Construction activities would only occur during the times allowable by the City and County Municipal Codes (7 a.m. to 7 p.m., Monday through Friday, and 9 a.m. to 5 p.m. Saturday). No construction activities that generate impulsive noise levels would be required. Although the existing adjacent residences would be exposed to construction noise levels that could be heard above ambient conditions, the exposure would be temporary. Therefore, project construction would not exceed noise level limits established in the County's Municipal Code and would only occur during the daytime hours, and temporary increases in noise levels during construction would be less than significant.

5.2 Operation

The primary noise sources on-site would be the inverters and the BESS containers. Using the on-site noise source parameters discussed in Section 4.2, noise levels were modeled at a series of 15 receivers located at the adjacent properties. Modeled receivers and operational noise contours are shown in Figure 6. Modeled data is included in Attachment 3. Future projected noise levels are summarized in Table 5.

Table 5 Operational Noise Levels		
Receiver	Zoning/Jurisdiction	Operational Noise Level [dB(A) L_{eq}]
1	R-1 (Single Family)/City	38
2	R-1 (Single Family)/City	38
3	R-1 (Single Family)/City	38
4	R-1 (Single Family)/City	37
5	A1U (Limited Agriculture Urban)/County	39
6	C2U (Medium Commercial Urban)/County	42
7	A1U (Limited Agriculture Urban)/County	43
8	A1U (Limited Agriculture Urban)/County	43

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Table 5 Operational Noise Levels		
Receiver	Zoning/Jurisdiction	Operational Noise Level [dB(A) L_{eq}]
9	A1U (Limited Agriculture Urban)/County	42
10	A1U (Limited Agriculture Urban)/County	41
11	A1U (Limited Agriculture Urban)/County	39
12	A1U (Limited Agriculture Urban)/County	41
13	A1U (Limited Agriculture Urban)/County	42
14	A1U (Limited Agriculture Urban)/County	43
15	A1U (Limited Agriculture Urban)/County	43
dB(A) L_{eq} = A-weighted decibels equivalent noise level.		

As shown, operational noise levels would not exceed the County's most restrictive noise level limit of 45 dB(A) L_{eq} at the residential uses to north, east, and west. Additionally, as shown in Figure 6, operational noise levels would not exceed the County's industrial noise level limit at the property to the south. Further, Section 17.10.150 of the City's Municipal Code states noise levels shall not exceed five decibels above the ambient noise level of the area. As shown in Table 2, the ambient noise level on the project site ranged from 48.9 to 55.9 dB(A) L_{eq}. Operational noise levels would not exceed five decibels above the ambient noise level. Therefore, project operation would not result in noise levels that exceed City or County standards, and operational noise impacts would be less than significant.

6.0 Conclusions

Based on the preceding analysis, the project is not anticipated to generate construction or operational noise levels that exceed the applicable noise limits. Impacts associated with the project would be less than significant.

If you have any questions about the results of this analysis, please contact me at jfleming@reconenvironmental.com or (619) 308-9333 extension 177.

Sincerely,

Jessica Fleming

Jessica Fleming
Noise Specialist

JLF:jg

7.0 Certification

The following is a list of preparers, persons, and organizations involved with the noise assessment.

RECON Environmental, Inc.
- Jessica Fleming, County-approved Noise Consultant
- Jennifer Gutierrez, Production Specialist
- Benjamin Arp, GIS Specialist

8.0 References Cited

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Project Location

RECON

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FIGURE 1
Regional Location

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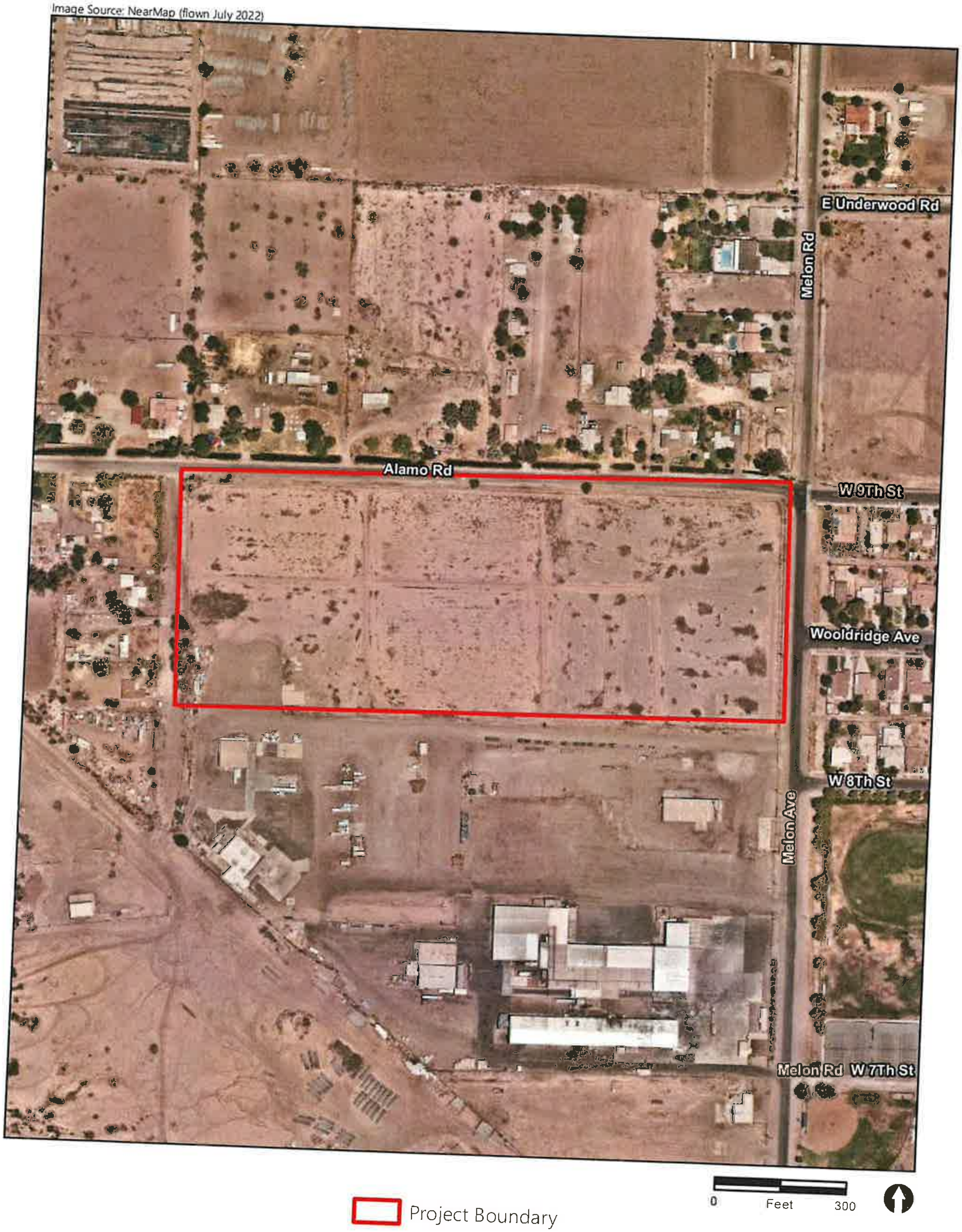
Image Source: NearMap (flown July 2022)



RECON

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FIGURE 2
Project Location on Aerial Photograph

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Map Source: Stellavise Solar Engineering

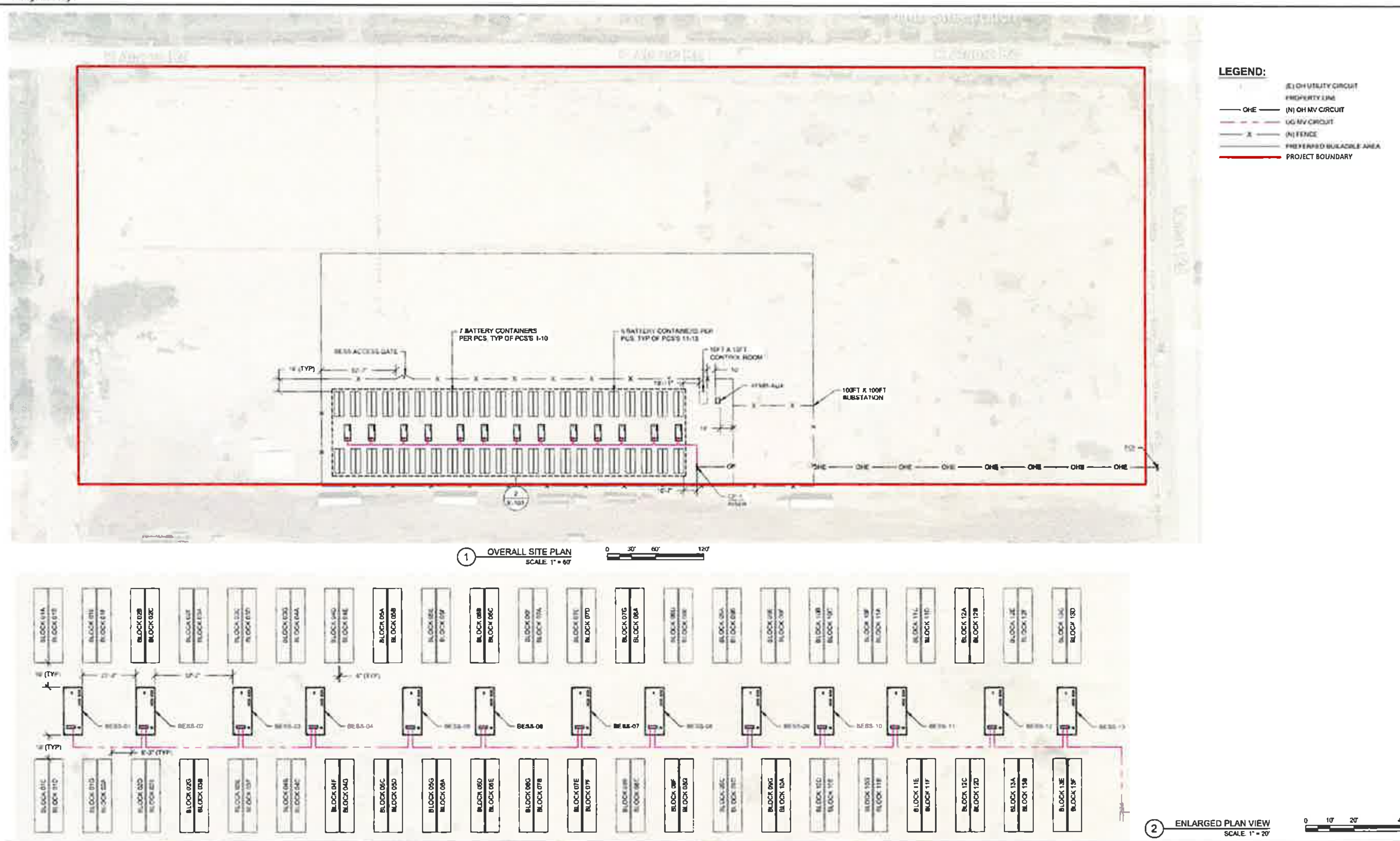
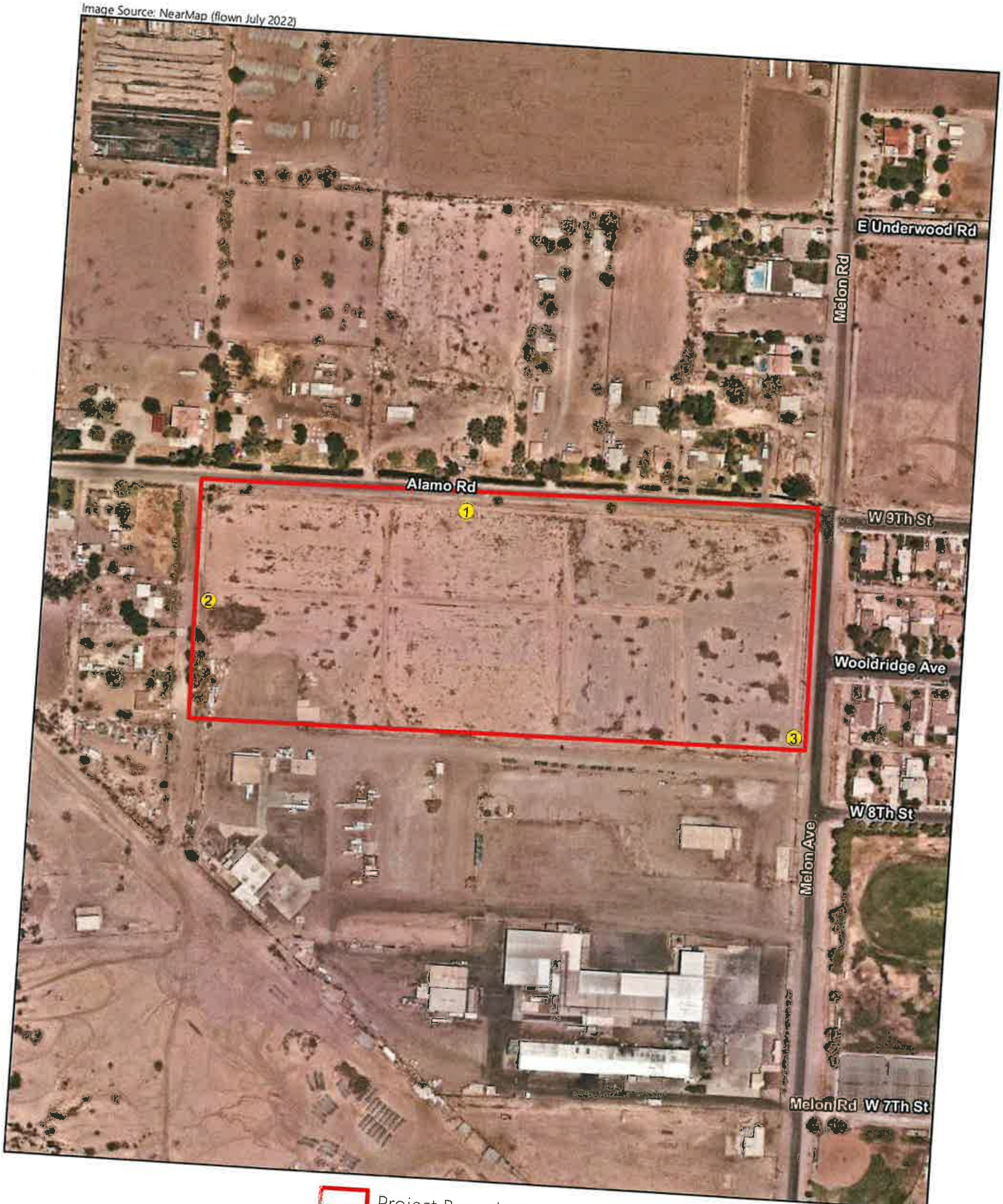


FIGURE 3
Site Plan

RECON

02/07/23 bma

Image Source: NearMap (flown July 2022)



Project Boundary

Noise Measurement Location

0 Feet 300

RECON

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FIGURE 4
Noise Measurement Locations

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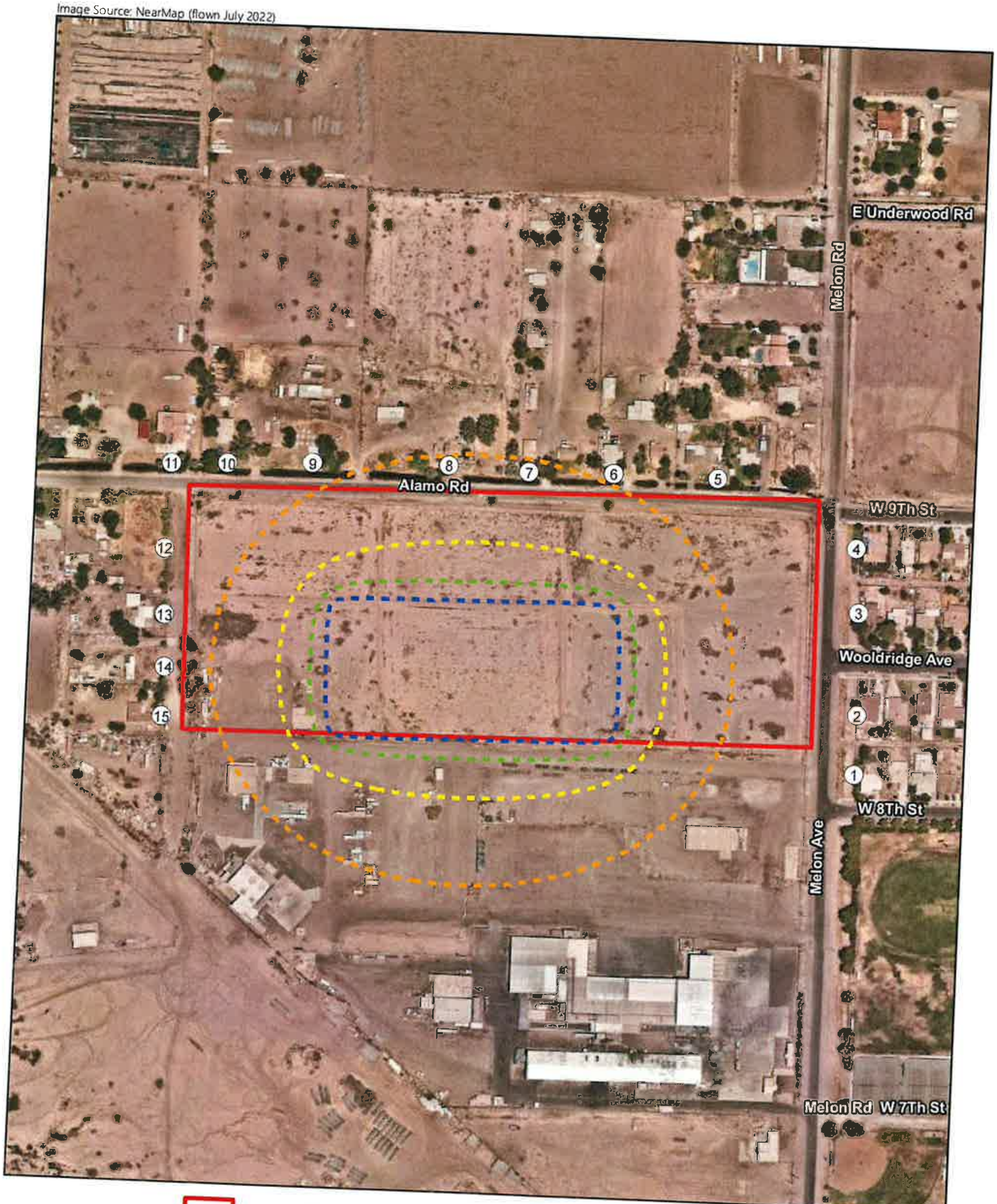
Image Source: NearMap (flown July 2022)



Project Boundary

Receivers

Construction Noise

60 dB(A) L_{eq}

65 dB(A) L_{eq}

70 dB(A) L_{eq}

75 dB(A) L_{eq}

0 Feet 300

RECON

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FIGURE 5

Construction Noise Contours

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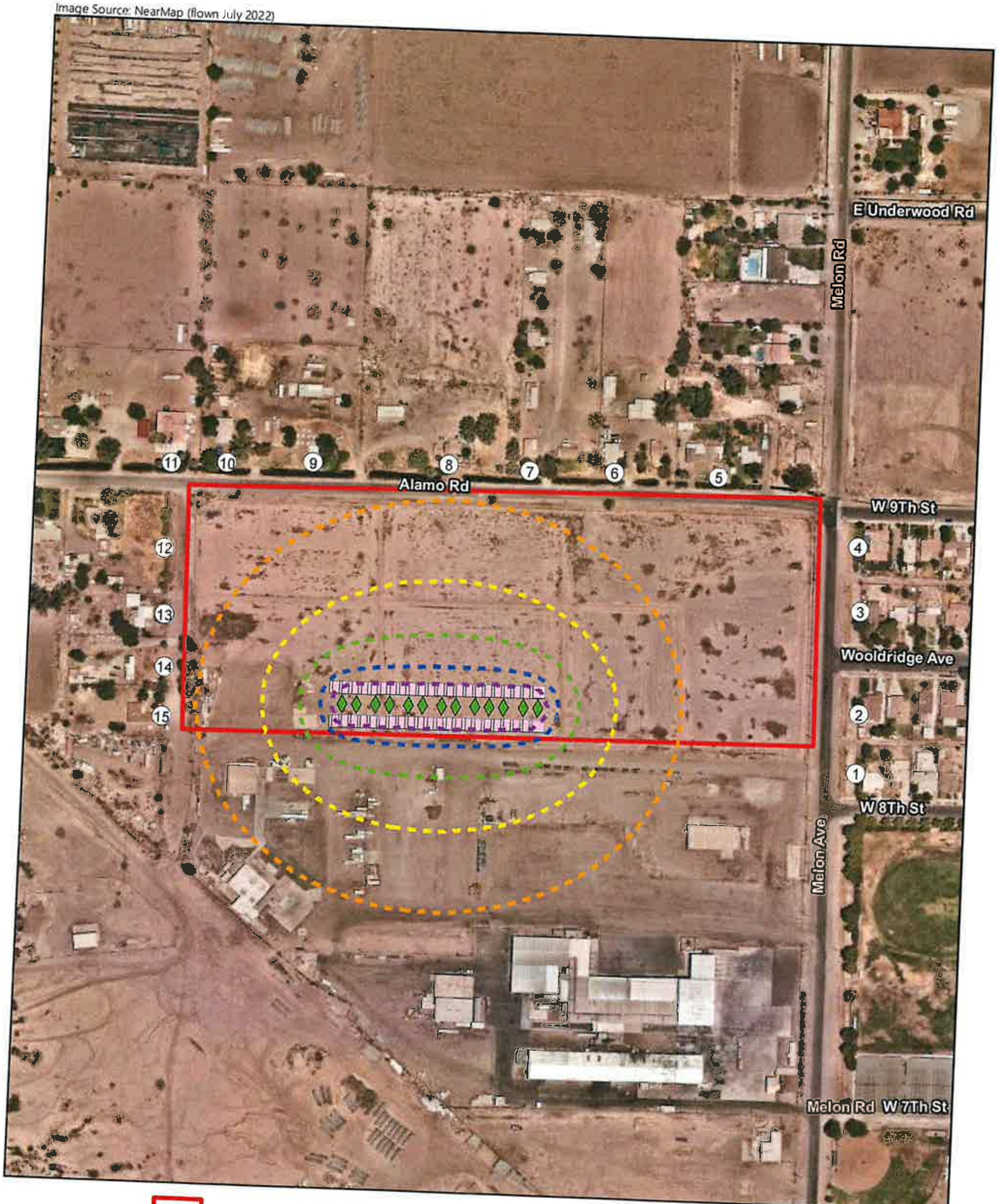
Image Source: NearMap (flown July 2022)



Project Boundary
Receivers
BESS
Inverters

Operational Noise

45 dB(A) L_{eq}
50 dB(A) L_{eq}
55 dB(A) L_{eq}
60 dB(A) L_{eq}
65 dB(A) L_{eq}

0 Feet 300

RECON

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FIGURE 6
Operational Noise Contours

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ATTACHMENTS

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ATTACHMENT 1

Noise Measurement Data

Summary		
File Name on Meter	LxT_Data.207.s	
File Name on PC	LxT_0003896-20230203 105511-LxT_Data.207.ldbin	
Serial Number	0003896	
Model	SoundTrack LxT®	
Firmware Version	2.404	
User		
Location	Measurement 1	
Job Description		
Note		

Measurement	
Description	
Start	2023-02-03 10:55:11
Stop	2023-02-03 11:10:31
Duration	00:15:19.8
Run Time	00:15:00.8
Pause	00:00:19.0
Pre-Calibration	2023-02-03 10:42:30
Post-Calibration	None
Calibration Deviation	---

Overall Settings			
RMS Weight	A Weighting		
Peak Weight	A Weighting		
Detector	Slow		
Preamplifier	PRMLxT1		
Microphone Correction	Off		
Integration Method	Linear		
Overload	144.6 dB		
	A	C	Z
Under Range Peak	100.6	97.6	102.6 dB
Under Range Limit	37.8	37.5	44.5 dB
Noise Floor	28.7	28.3	35.4 dB

Results		
LAeq	55.9	
LAE	85.4	
EA	38.582 µPa²h	
EA8	1.234 mPa²h	
EA40	6.168 mPa²h	
LApeak (max)	2023-02-03 11:06:07	82.7 dB
LASmax	2023-02-03 11:07:48	67.3 dB
LASmin	2023-02-03 11:00:40	38.5 dB
SEA	dB	
LAS > 60.0 dB (Exceedance Counts / Duration)	50	141.8 s
LAS > 70.0 dB (Exceedance Counts / Duration)	0	0.0 s
LApeak > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
LApeak > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
LApeak > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s
LCeq	61.0 dB	
LAeq	55.9 dB	
LCeq - LAeq	5.2 dB	
LAIeq	61.8 dB	
LAeq	55.9 dB	
LAIeq - LAeq	5.9 dB	

	A		C		Z	
	dB	Time Stamp	dB	Time Stamp	dB	Time Stamp
Leq	55.9		61.0			
Ls(max)	67.3	2023/02/03 11:07:48				
Ls(min)	38.5	2023/02/03 11:00:40				
LPeak(max)	82.7	2023/02/03 11:06:07				

Overload Count	0
Overload Duration	0.0 s

Dose Settings		
Dose Name	OSHA-1	OSHA-2
Exchange Rate	5	5 dB
Threshold	90	80 dB
Criterion Level	90	90 dB
Criterion Duration	8	8 h

Results		
Dose		%
Projected Dose		%
TWA (Projected)		dB
TWA (t)		dB
Lep (t)	40.8	40.8 dB

Statistics	
LA5.00	62.0 dB
LA10.00	60.2 dB
LA33.30	54.5 dB
LA50.00	50.0 dB
LA66.60	46.8 dB
LA90.00	42.0 dB

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10247 Holtville Peaker
Noise Measurement Data

Summary

File Name on Meter		
File Name on PC	LxT_Data.208.s	
Serial Number	LxT_0003896-20230203 112642-LxT_Data.208.ldbin	
Model	0003896	
Firmware Version	SoundTrack LxT®	
User	2.404	
Location		
Job Description	Measurement 2	
Note		

Measurement

Description		
Start		
Stop	2023-02-03 11:26:42	
Duration	2023-02-03 11:42:04	
Run Time	00:15:21.4	
Pause	00:15:02.3	
	00:00:19.1	
Pre-Calibration		
Post-Calibration	2023-02-03 10:42:25	
Calibration Deviation	None	

Overall Settings

RMS Weight			
Peak Weight	A Weighting		
Detector	A Weighting		
Preamplifier	Slow		
Microphone Correction	PRMLxT1		
Integration Method	Off		
Overload	Linear		
	144.6 dB		
	A	C	Z
Under Range Peak	100.6	97.6	102.6 dB
Under Range Limit	37.8	37.5	44.5 dB
Noise Floor	28.7	28.3	35.4 dB

Results

LAeq		
LAE	48.9	
EA	78.4	
EA8	7.715 µPa²h	
EA40	246.252 µPa²h	
LApeak (max)	1.231 mPa²h	
LASmax	2023-02-03 11:38:44	86.1 dB
LASmin	2023-02-03 11:28:03	64.0 dB
SEA	2023-02-03 11:41:45	40.8 dB
	dB	
LAS > 60.0 dB (Exceedance Counts / Duration)		
LAS > 70.0 dB (Exceedance Counts / Duration)	2	9.6 s
LApeak > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
LApeak > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
LApeak > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s
	0	0.0 s
LCeq		
LAeq	60.5 dB	
LCeq - LAeq	48.9 dB	
LAIeq	11.6 dB	
LAeq	52.3 dB	
LAIeq - LAeq	48.9 dB	
	3.4 dB	

	A		C		Z	
	dB	Time Stamp	dB	Time Stamp	dB	Time Stamp
Leq	48.9		60.5			
Ls(max)	64.0	2023/02/03 11:28:03				
Ls(min)	40.8	2023/02/03 11:41:45				
LPeak(max)	86.1	2023/02/03 11:38:44				

Overload Count	
Overload Duration	0
	0.0 s

Dose Settings

Dose Name		
Exchange Rate	OSHA-1	OSHA-2
Threshold	5	5 dB
Criterion Level	90	80 dB
Criterion Duration	90	90 dB
	8	8 h

Results

Dose		
Projected Dose		%
TWA (Projected)		%
TWA (t)		dB
Lep (t)		dB
	33.8	33.8 dB

Statistics

LAS5.00	
LA10.00	52.8 dB
LA33.30	51.3 dB
LA50.00	47.4 dB
LA66.60	46.1 dB
LA90.00	45.0 dB
	43.3 dB

EEC ORIGINAL PKG

ATTACHMENT 2

SoundPLAN Data – Construction

EEC ORIGINAL PKG

Summary			
File Name on Meter	LxT_Data.209.s		
File Name on PC	LxT_0003896-20230203 115809-LxT_Data.209.ldbin		
Serial Number	0003896		
Model	SoundTrack LxT®		
Firmware Version	2.404		
User			
Location	Measurement 3		
Job Description			
Note			

Measurement			
Description			
Start	2023-02-03 11:58:09		
Stop	2023-02-03 12:13:32		
Duration	00:15:22.7		
Run Time	00:15:01.1		
Pause	00:00:21.6		
Pre-Calibration	2023-02-03 10:42:25		
Post-Calibration	None		
Calibration Deviation	---		

Overall Settings			
RMS Weight	A Weighting		
Peak Weight	A Weighting		
Detector	Slow		
Preamplifier	PRMLxT1		
Microphone Correction	Off		
Integration Method	Linear		
Overload	144.6 dB		
	A	C	Z
Under Range Peak	100.6	97.6	102.6 dB
Under Range Limit	37.8	37.5	44.5 dB
Noise Floor	28.7	28.3	35.4 dB

Results		
LAeq	52.4	
LAE	82.0	
EA	17.475 µPa²h	
EA8	558.517 µPa²h	
EA40	2.793 mPa²h	
LApeak (max)	2023-02-03 12:04:25	86.0 dB
LASmax	2023-02-03 12:08:46	70.7 dB
LASmin	2023-02-03 12:10:55	38.6 dB
SEA	dB	
LAS > 60.0 dB (Exceedance Counts / Duration)	3	25.4 s
LAS > 70.0 dB (Exceedance Counts / Duration)	1	2.9 s
LApeak > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
LApeak > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
LApeak > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s
LCeq	62.7 dB	
LAeq	52.4 dB	
LCeq - LAeq	10.2 dB	
LAIeq	54.1 dB	
LAeq	52.4 dB	
LAIeq - LAeq	1.7 dB	

	A		C		Z	
	dB	Time Stamp	dB	Time Stamp	dB	Time Stamp
Leq	52.4		62.7			
Ls(max)	70.7	2023/02/03 12:08:46				
Ls(min)	38.6	2023/02/03 12:10:55				
LPeak(max)	86.0	2023/02/03 12:04:25				

Overload Count	0
Overload Duration	0.0 s

Dose Settings		
Dose Name	OSHA-1	OSHA-2
Exchange Rate	5	5 dB
Threshold	90	80 dB
Criterion Level	90	90 dB
Criterion Duration	8	8 h

Results		
Dose		%
Projected Dose		%
TWA (Projected)		dB
TWA (t)		dB
Lep (t)	37.4	37.4 dB

Statistics	
LA5.00	56.8 dB
LA10.00	54.4 dB
LA33.30	47.1 dB
LA50.00	44.7 dB
LA66.60	43.2 dB
LA90.00	40.6 dB

10247 Holtville Peaker

SoundPLAN Data - Construction

Source name	Reference	Noise Level	Corrections Cwall	Corrections CI	Corrections CT
		dB(A)	dB(A)	dB(A)	dB(A)
Construction	Lw/unit	115.9	-	-	-

10247 Holtville Peaker

SoundPLAN Data - Construction

No.	Coordinates X	Y	Noise Level dB(A)
	(meters)		
1	650832.11	3632119.27	55.0
2	650832.11	3632158.96	55.3
3	650829.99	3632227.75	55.2
4	650826.29	3632270.62	54.8
5	650731.04	3632313.48	57.3
6	650661.19	3632313.48	59.5
7	650604.57	3632311.89	60.5
8	650550.06	3632314.01	60.4
9	650458.52	3632311.36	58.8
10	650401.37	3632308.72	56.9
11	650363.80	3632307.13	55.6
12	650362.21	3632249.98	56.9
13	650364.33	3632205.53	57.7
14	650365.91	3632170.60	57.9
15	650365.39	3632137.27	57.6

Receivers

ATTACHMENT 3

SoundPLAN Data – Operation

[illegible] Peaker
SoundPLAN Data - Operation

		Level	Frequency spectrum [dB(A)]																												Corrections		
Source name	Reference	Lw(A) dB(A)	20 Hz	25 Hz	31 Hz	40 Hz	50 Hz	63 Hz	80 Hz	100 Hz	125 Hz	160 Hz	200 Hz	250 Hz	315 Hz	400 Hz	500 Hz	630 Hz	800 Hz	1 kHz	1.3 kHz	1.6 kHz	2 kHz	2.5 kHz	3.2 kHz	4 kHz	5 kHz	6.3 kHz	8 kHz	10 kHz	Cwall dB(A)	LI dB(A)	CT dB(A)
BESS1	Lw/unit	[illegible]																													-	-	-
BESS2	Lw/unit	[illegible]																													-	-	-
BESS3	Lw/unit	[illegible]																													-	-	-
BESS4	Lw/unit	[illegible]																													-	-	-
BESS5	Lw/unit	[illegible]																													-	-	-
BESS6	Lw/unit	[illegible]																													-	-	-
BESS7	Lw/unit	[illegible]																													-	-	-
BESS8	Lw/unit	[illegible]																													-	-	-
BESS9	Lw/unit	[illegible]																													-	-	-
BESS10	Lw/unit	[illegible]																													-	-	-
BESS11	Lw/unit	[illegible]																													-	-	-
BESS12	Lw/unit	[illegible]																													-	-	-
BESS13	Lw/unit	[illegible]																													-	-	-
BESS14	Lw/unit	[illegible]																													-	-	-
BESS15	Lw/unit	[illegible]																													-	-	-
BESS16	Lw/unit	[illegible]																													-	-	-
BESS17	Lw/unit	[illegible]																													-	-	-
BESS18	Lw/unit	[illegible]																													-	-	-
BESS19	Lw/unit	[illegible]																													-	-	-
BESS20	Lw/unit	[illegible]																													-	-	-
BESS21	Lw/unit	[illegible]																													-	-	-
BESS22	Lw/unit	[illegible]																													-	-	-
BESS23	Lw/unit	[illegible]																													-	-	-
BESS24	Lw/unit	[illegible]																													-	-	-
BESS25	Lw/unit	[illegible]																													-	-	-
BESS26	Lw/unit	[illegible]																													-	-	-
BESS27	Lw/unit	[illegible]																													-	-	-
BESS28	Lw/unit	[illegible]																													-	-	-
BESS29	Lw/unit	[illegible]																													-	-	-
BESS30	Lw/unit	[illegible]																													-	-	-
BESS31	Lw/unit	[illegible]																													-	-	-
BESS32	Lw/unit	[illegible]																													-	-	-
BESS33	Lw/unit	[illegible]																													-	-	-
BESS34	Lw/unit	[illegible]																													-	-	-
BESS35	Lw/unit	[illegible]																													-	-	-
BESS36	Lw/unit	[illegible]																													-	-	-
BESS37	Lw/unit	[illegible]																													-	-	-
BESS38	Lw/unit	[illegible]																													-	-	-
BESS39	Lw/unit	[illegible]																													-	-	-
BESS40	Lw/unit	[illegible]																													-	-	-
BESS41	Lw/unit	[illegible]																													-	-	-
BESS42	Lw/unit	[illegible]																													-	-	-
BESS43	Lw/unit	[illegible]																													-	-	-
BESS44	Lw/unit	[illegible]																													-	-	-
BESS45	Lw/unit	[illegible]																													-	-	-
BESS46	Lw/unit	[illegible]																													-	-	-
BESS47	Lw/unit	[illegible]																													-	-	-
BESS48	Lw/unit	[illegible]																													-	-	-
BESS49	Lw/unit	[illegible]																													-	-	-
BESS50	Lw/unit	[illegible]																													-	-	-
BESS51	Lw/unit	[illegible]																													-	-	-
BESS52	Lw/unit	[illegible]																													-	-	-
BESS53	Lw/unit	[illegible]																													-	-	-
BESS54	Lw/unit	[illegible]																													-	-	-
BESS55	Lw/unit	[illegible]																													-	-	-
BESS56	Lw/unit	[illegible]																													-	-	-
BESS57	Lw/unit	[illegible]																													-	-	-
BESS58	Lw/unit	[illegible]																													-	-	-
BESS59	Lw/unit	[illegible]																													-	-	-
BESS60	Lw/unit	[illegible]																													-	-	-
BESS61	Lw/unit	[illegible]																													-	-	-
BESS62	Lw/unit	[illegible]																													-	-	-
BESS63	Lw/unit	[illegible]																													-	-	-
BESS64	Lw/unit	[illegible]																													-	-	-
BESS65	Lw/unit	[illegible]																													-	-	-
BESS66	Lw/unit	[illegible]																													-	-	-
BESS67	Lw/unit	[illegible]																													-	-	-
BESS68	Lw/unit	[illegible]																													-	-	-
BESS69	Lw/unit	[illegible]																													-	-	-
BESS70	Lw/unit	[illegible]																													-	-	-
BESS71	Lw/unit	[illegible]																													-	-	-
BESS72	Lw/unit	[illegible]																													-	-	-
BESS73	Lw/unit	[illegible]																													-	-	-
BESS74	Lw/unit	[illegible]																													-	-	-
BESS75	Lw/unit	[illegible]																													-	-	-
BESS76	Lw/unit	[illegible]																													-	-	-
BESS77	Lw/unit	[illegible]																													-	-	-
BESS78	Lw/unit	[illegible]																													-	-	-
BESS79	Lw/unit	[illegible]																													-	-	-
BESS80	Lw/unit	[illegible]																													-	-	-
BESS81	Lw/unit	[illegible]																													-	-	-
BESS82	Lw/unit	[illegible]																													-	-	-
BESS83	Lw/unit	[illegible]																													-	-	-
BESS84	Lw/unit	[illegible]																													-	-	-
BESS85	Lw/unit	[illegible]																													-	-	-
BESS86	Lw/unit	[illegible]																													-	-	-
BESS87	Lw/unit	[illegible]																													-	-	-
BESS88	Lw/unit	[illegible]																													-	-	-
Inverter 1	Lw/unit	-	[illegible]	31.5	[illegible]	[illegible]	[illegible]	54.2	[illegible]	[illegible]	67.9	66.2	66.6	72.1	76.8	82.2	82.3	78.7	77.3	[illegible]	74.8	75.5	76.2	77.6	[illegible]	[illegible]	[illegible]	80.1	72.8	70.6	-	-	-
Inverter 2	Lw/unit	-	[illegible]	31.5	[illegible]	[illegible]	[illegible]	54.2	[illegible]	[illegible]	67.9	66.2	66.6	72.1	76.8	82.2	82.3	78.7	77.3	[illegible]	74.8	75.5	76.2	77.6	[illegible]	[illegible]	[illegible]	80.1	72.8	70.6	-	-	-
Inverter 3	Lw/unit	-	[illegible]	31.5	[illegible]	[illegible]	[illegible]	54.2	[illegible]	[illegible]	67.9	66.2	66.6	72.1	76.8	82.2	82.3	78.7	77.3	[illegible]	74.8	75.5	76.2	77.6	[illegible]	[illegible]	[illegible]	80.1	72.8	70.6			
Inverter 4	Lw/unit	-	[illegible]	31.5	[illegible]	[illegible]	[illegible]	54.2	[illegible]	[illegible]	67.9	66.2	66.6	72.1	76.8	82.2	82.3	78.7	77.3	[illegible]	74.8	75.5	76.2	77.6	[illegible]	[illegible]	[illegible]	80.1	72.8	70.6	-	-	-
Inverter 5	Lw/unit	-	[illegible]	31.5	[illegible]	[illegible]	[illegible]	54.2	[illegible]	[illegible]	67.9	66.2	66.6	72.1	76.8	82.2	82.3	78.7	77.3	[illegible]	74.8	75.5	76.2	77.6	[illegible]	[illegible]	[illegible]	80.1	72.8	70.6	-	-	-
Inverter 6	Lw/unit	-	[illegible]	31.5	[illegible]	[illegible]	[illegible]	54.2	[illegible]	[illegible]	67.9	66.2	66.6	72.1	76.8	82.2	82.3	78.7	77.3	[illegible]	74.8	75.5	76.2	77.6	[illegible]	[illegible]	[illegible]	80.1	72.8	70.6	-	-	-
Inverter 7	Lw/unit	-	[illegible]	31.5	[illegible]	[illegible]	[illegible]	54.2	[illegible]	[illegible]	67.9	66.2	66.6	72.1	76.8	82.2	82.3	78.7	77.3	[illegible]	74.8	75.5	76.2	77.6	[illegible]	[illegible]	[illegible]	80.1	72.8	70.6	-	-	-
Inverter 8	Lw/unit	-	[illegible]	31.5	[illegible]	[illegible]	[illegible]	54.2	[illegible]	[illegible]	67.9	66.2	66.6	72.1	76.8	82.2	82.3	78.7	77.3	[illegible]	74.8	75.5	76.2	77.6	[illegible]	[illegible]	[illegible]	80.1	72.8	70.6	-	-	-
Inverter 9	Lw/unit	-	[illegible]	31.5	[illegible]	[illegible]	[illegible]	54.2	[illegible]	[illegible]	67.9	66.2	66.6	72.1	76.8	82.2	82.3	78.7	77.3	[illegible]	74.8	75.5	76.2	77.6	[illegible]	[illegible]	[illegible]	80.1	72.8	70.6	-	-	-
Inverter 10	Lw/unit	-	[illegible]	31.5	[illegible]	[illegible]	[illegible]	54.2	[illegible]	[illegible]	67.9	66.2	[illegible]	72.1	76.8	82.2	82.3	78.7	77.3	[illegible]	74.8	75.5	76.2	77.6	[illegible]	[illegible]	[illegible]	80.1	72.8	70.6	-	-	-
Inverter 11	Lw/unit	-	[illegible]	31.5	[illegible]	[illegible]	[illegible]	54.2	[illegible]	[illegible]	67.9	66.2	66.6	72.1	76.8	82.2	82.3	78.7	77.3	[illegible]	74.8	75.5	76.2	77.6	[illegible]	[illegible]	[illegible]	80.1	72.8	70.6	-	-	-
Inverter 12	Lw/unit	-	[illegible]	31.5	[illegible]	[illegible]	[illegible]	54.2	[illegible]	[illegible]	67.9	66.2	66.6	72.1	76.8	82.2	82.3	78.7	77.3	[illegible]	74.8	75.5	76.2	77.6	[illegible]	[illegible]	[illegible]	80.1	72.8	70.6	-	-	-
Inverter 13	Lw/unit	-	[illegible]	31.5	[illegible]	[illegible]	[illegible]	54.2	[illegible]	[illegible]	67.9	66.2	66.6	72.1	76.8	82.2	82.3	78.7	77.3	[illegible]	74.8	75.5	76.2	77.6	[illegible]	[illegible]	[illegible]	80.1	72.8	70.6	-	-	-

Noise Source

EEC ORIGINAL PKG

10247 Holtville Peaker

SoundPLAN Data - Operation

No.	Coordinates X (meters)	Coordinates Y (meters)	Noise Level dB(A)
1	650832.11	3632119.27	37.9
2	650832.11	3632158.96	38.0
3	650829.99	3632227.75	37.6
4	650826.29	3632270.62	37.2
5	650731.04	3632313.48	39.4
6	650661.19	3632313.48	41.6
7	650604.57	3632311.89	43.0
8	650550.06	3632314.01	43.3
9	650458.52	3632311.36	42.2
10	650401.37	3632308.72	40.6
11	650363.80	3632307.13	39.4
12	650362.21	3632249.98	41.1
13	650364.33	3632205.53	42.4
14	650365.91	3632170.60	43.1
15	650365.39	3632137.27	43.1

Source name				Noise Level dB(A)
1	1 Fl	37.9	0.0	
BESS1				11.7
BESS2				11.8
BESS3				11.8
BESS4				11.9
BESS5				11.9
BESS6				12.0
BESS7				12.0
BESS8				12.0
BESS9				12.1
BESS10				12.1
BESS11				12.2
BESS12				12.2
BESS13				12.3
BESS14				12.3
BESS15				12.3
BESS16				12.4
BESS17				12.5
BESS18				12.5
BESS19				12.5
BESS20				12.6
BESS21				12.6
BESS22				12.7
BESS23				12.7
BESS24				12.8
BESS25				12.8
BESS26				12.9
BESS27				12.9
BESS28				13.0
BESS29				13.0
BESS30				13.1
BESS31				13.1
BESS32				13.2
BESS33				13.2
BESS34				13.3
BESS35				13.3
BESS36				13.4
BESS37				13.4
BESS38				13.5
BESS39				13.5
BESS40				13.6
BESS41				13.6
BESS42				13.7
BESS43				13.7
BESS44				13.8
BESS45				13.8
BESS46				13.9
BESS47				13.9
BESS48				14.0
BESS49				14.0
BESS50				14.1
BESS51				14.2
BESS52				14.2
BESS53				14.3
BESS54				14.3
BESS55				14.4
BESS56				14.4
BESS57				14.5
BESS58				14.6
BESS59				14.6
BESS60				14.7
BESS61				14.7
BESS62				14.8
BESS63				14.8
BESS64				14.9
BESS65				14.9
BESS66				15.0
BESS67				15.1
BESS68				15.2
BESS69				15.2
BESS70				15.3
BESS71				15.3
BESS72				15.4
BESS73				15.4
BESS74				15.5
BESS75				15.6
BESS76				15.7
BESS77				15.7
BESS78				15.8
BESS79				15.8
BESS80				15.9
BESS81				15.9
BESS82				16.0
BESS83				16.1
BESS84				16.2
BESS85				16.2
BESS86				16.3
BESS87				16.4
BESS88				16.5
Inverter 1				21.9
Inverter 2				22.2
Inverter 3				22.6
Inverter 4				23.0
Inverter 5				23.4
Inverter 6				23.8
Inverter 7				24.3
Inverter 8				24.7
Inverter 9				25.3
Inverter 10				25.7
Inverter 11				26.2
Inverter 12				26.8
Inverter 13				27.3

EEC ORIGINAL PKG

2	1 Fl	38.0	0.0	
BESS1				11.8
BESS2				11.9
BESS3				11.8
BESS4				11.9
BESS5				12.0
BESS6				12.0
BESS7				12.0
BESS8				12.0
BESS9				12.2
BESS10				12.2
BESS11				12.2
BESS12				12.2
BESS13				12.4
BESS14				12.4
BESS15				12.3
BESS16				12.4
BESS17				12.5
BESS18				12.6
BESS19				12.5
BESS20				12.6
BESS21				12.7
BESS22				12.8
BESS23				12.7
BESS24				12.8
BESS25				12.9
BESS26				13.0
BESS27				12.9
BESS28				13.0
BESS29				13.1
BESS30				13.2
BESS31				13.1
BESS32				13.2
BESS33				13.3
BESS34				13.4
BESS35				13.3
BESS36				13.4
BESS37				13.5
BESS38				13.6
BESS39				13.5
BESS40				13.6
BESS41				13.7
BESS42				13.8
BESS43				13.7
BESS44				13.8
BESS45				13.9
BESS46				14.0
BESS47				13.9
BESS48				14.0
BESS49				14.2
BESS50				14.2
BESS51				14.2
BESS52				14.2
BESS53				14.4
BESS54				14.5
BESS55				14.4
BESS56				14.5
BESS57				14.6
BESS58				14.7
BESS59				14.6
BESS60				14.7
BESS61				14.9
BESS62				14.9
BESS63				14.9
BESS64				14.9
BESS65				15.1
BESS66				15.2
BESS67				15.1
BESS68				15.2
BESS69				15.3
BESS70				15.4
BESS71				15.3
BESS72				15.4
BESS73				15.6
BESS74				15.7
BESS75				15.6
BESS76				15.7
BESS77				15.9
BESS78				15.9
BESS79				15.9
BESS80				15.9
BESS81				16.1
BESS82				16.2
BESS83				16.1
BESS84				16.2
BESS85				16.4
BESS86				16.5
BESS87				16.4
BESS88				16.5
Inverter 1				21.9
Inverter 2				22.2
Inverter 3				22.7
Inverter 4				23.0
Inverter 5				23.5
Inverter 6				23.9
Inverter 7				24.4
Inverter 8				24.8
Inverter 9				25.4
Inverter 10				25.8
Inverter 11				26.3
Inverter 12				26.9
Inverter 13				27.5

EEC ORIGINAL PKG

3	1 Fl	37.6	0.0	
BESS1				11.7
BESS2				11.8
BESS3				11.6
BESS4				11.6
BESS5				11.9
BESS6				11.9
BESS7				11.6
BESS8				11.8
BESS9				12.1
BESS10				12.1
BESS11				11.9
BESS12				12.0
BESS13				12.2
BESS14				12.3
BESS15				12.1
BESS16				12.1
BESS17				12.4
BESS18				12.5
BESS19				12.3
BESS20				12.3
BESS21				12.6
BESS22				12.7
BESS23				12.5
BESS24				12.5
BESS25				12.8
BESS26				12.8
BESS27				12.6
BESS28				12.7
BESS29				13.0
BESS30				13.0
BESS31				12.8
BESS32				12.9
BESS33				13.2
BESS34				13.2
BESS35				13.0
BESS36				13.1
BESS37				13.4
BESS38				13.4
BESS39				13.2
BESS40				13.3
BESS41				13.6
BESS42				13.6
BESS43				13.4
BESS44				13.5
BESS45				13.8
BESS46				13.8
BESS47				13.6
BESS48				13.7
BESS49				14.0
BESS50				14.0
BESS51				13.8
BESS52				13.9
BESS53				14.2
BESS54				14.3
BESS55				14.0
BESS56				14.1
BESS57				14.4
BESS58				14.5
BESS59				14.2
BESS60				14.3
BESS61				14.6
BESS62				14.7
BESS63				14.4
BESS64				14.5
BESS65				14.9
BESS66				14.9
BESS67				14.6
BESS68				14.7
BESS69				15.1
BESS70				15.2
BESS71				14.9
BESS72				14.9
BESS73				15.3
BESS74				15.4
BESS75				15.1
BESS76				15.2
BESS77				15.6
BESS78				15.7
BESS79				15.3
BESS80				15.4
BESS81				15.8
BESS82				15.9
BESS83				15.6
BESS84				15.6
BESS85				16.1
BESS86				16.2
BESS87				15.8
BESS88				15.9
Inverter 1				21.7
Inverter 2				22.0
Inverter 3				22.4
Inverter 4				22.8
Inverter 5				23.2
Inverter 6				23.6
Inverter 7				24.1
Inverter 8				24.5
Inverter 9				25.0
Inverter 10				25.4
Inverter 11				25.8
Inverter 12				26.4
Inverter 13				26.9

4	1 Fl	37 2	0 0	
BESS1				11.5
BESS2				11.6
BESS3				11.3
BESS4				11.4
BESS5				11.7
BESS6				11.7
BESS7				11.5
BESS8				11.5
BESS9				11.9
BESS10				11.9
BESS11				11.7
BESS12				11.7
BESS13				12.0
BESS14				12.1
BESS15				11.8
BESS16				11.9
BESS17				12.2
BESS18				12.2
BESS19				12.0
BESS20				12.0
BESS21				12.4
BESS22				12.4
BESS23				12.2
BESS24				12.2
BESS25				12.5
BESS26				12.6
BESS27				12.3
BESS28				12.4
BESS29				12.7
BESS30				12.8
BESS31				12.5
BESS32				12.5
BESS33				12.9
BESS34				13.0
BESS35				12.7
BESS36				12.7
BESS37				13.1
BESS38				13.2
BESS39				12.8
BESS40				12.9
BESS41				13.3
BESS42				13.3
BESS43				13.0
BESS44				13.1
BESS45				13.5
BESS46				13.5
BESS47				13.2
BESS48				13.3
BESS49				13.7
BESS50				13.7
BESS51				13.4
BESS52				13.4
BESS53				13.9
BESS54				13.9
BESS55				13.6
BESS56				13.6
BESS57				14.1
BESS58				14.1
BESS59				13.8
BESS60				13.8
BESS61				14.3
BESS62				14.3
BESS63				14.0
BESS64				14.0
BESS65				14.5
BESS66				14.6
BESS67				14.2
BESS68				14.2
BESS69				14.7
BESS70				14.8
BESS71				14.4
BESS72				14.4
BESS73				14.9
BESS74				15.0
BESS75				14.6
BESS76				14.6
BESS77				15.1
BESS78				15.2
BESS79				14.8
BESS80				14.8
BESS81				15.4
BESS82				15.4
BESS83				15.0
BESS84				15.0
BESS85				15.6
BESS86				15.7
BESS87				15.2
BESS88				15.2
Inverter 1				21.4
Inverter 2				21.7
Inverter 3				22.1
Inverter 4				22.4
Inverter 5				22.9
Inverter 6				23.2
Inverter 7				23.6
Inverter 8				24.0
Inverter 9				24.5
Inverter 10				24.9
Inverter 11				25.2
Inverter 12				25.8
Inverter 13				26.2

5	1 Fl	39 4	0 0	
BESS1				13.6
BESS2				13.6
BESS3				13.2
BESS4				13.2
BESS5				13.7
BESS6				13.8
BESS7				13.3
BESS8				13.4
BESS9				13.9
BESS10				14.0
BESS11				13.5
BESS12				13.6
BESS13				14.1
BESS14				14.2
BESS15				13.7
BESS16				13.7
BESS17				14.3
BESS18				14.3
BESS19				13.9
BESS20				13.9
BESS21				14.5
BESS22				14.5
BESS23				14.0
BESS24				14.1
BESS25				14.7
BESS26				14.7
BESS27				14.2
BESS28				14.3
BESS29				14.9
BESS30				14.9
BESS31				14.4
BESS32				14.4
BESS33				15 1
BESS34				15.1
BESS35				14.6
BESS36				14.6
BESS37				15.3
BESS38				15.3
BESS39				14.7
BESS40				14.8
BESS41				15.5
BESS42				15.5
BESS43				14.9
BESS44				15.0
BESS45				15.7
BESS46				15.7
BESS47				15.1
BESS48				15.1
BESS49				15.9
BESS50				15.9
BESS51				15.3
BESS52				15.3
BESS53				16.1
BESS54				16.1
BESS55				15.4
BESS56				15.5
BESS57				16.3
BESS58				16.3
BESS59				15.6
BESS60				15.7
BESS61				16.5
BESS62				16.5
BESS63				15.8
BESS64				15.9
BESS65				16.7
BESS66				16.7
BESS67				16.0
BESS68				16.0
BESS69				16.9
BESS70				17.0
BESS71				16.2
BESS72				16 2
BESS73				17.1
BESS74				17.2
BESS75				16.3
BESS76				16.4
BESS77				17.3
BESS78				17.4
BESS79				16.5
BESS80				16.6
BESS81				17.5
BESS82				17.6
BESS83				16.7
BESS84				16.7
BESS85				17.7
BESS86				17.8
BESS87				16.8
BESS88				16.9
Inverter 1				23 8
Inverter 2				24.1
Inverter 3				24.5
Inverter 4				24.9
Inverter 5				25.3
Inverter 6				25.7
Inverter 7				26.1
Inverter 8				26.5
Inverter 9				27.0
Inverter 10				27.3
Inverter 11				27.7
Inverter 12				28.2
Inverter 13				28.5

6	1 Fl	41.6	0.0	
BESS1				15.6
BESS2				15.7
BESS3				15.0
BESS4				15.1
BESS5				15.8
BESS6				15.9
BESS7				15.2
BESS8				15.3
BESS9				16.0
BESS10				16.1
BESS11				15.4
BESS12				15.4
BESS13				16.2
BESS14				16.3
BESS15				15.6
BESS16				15.6
BESS17				16.4
BESS18				16.5
BESS19				15.7
BESS20				15.8
BESS21				16.6
BESS22				16.7
BESS23				15.9
BESS24				16.0
BESS25				16.8
BESS26				16.9
BESS27				16.1
BESS28				16.1
BESS29				17.0
BESS30				17.1
BESS31				16.3
BESS32				16.3
BESS33				17.2
BESS34				17.3
BESS35				16.4
BESS36				16.5
BESS37				17.4
BESS38				17.5
BESS39				16.6
BESS40				16.7
BESS41				17.6
BESS42				17.7
BESS43				16.8
BESS44				16.8
BESS45				17.8
BESS46				17.9
BESS47				16.9
BESS48				17.0
BESS49				18.0
BESS50				18.1
BESS51				17.1
BESS52				17.1
BESS53				18.2
BESS54				18.3
BESS55				17.3
BESS56				17.3
BESS57				18.4
BESS58				18.5
BESS59				17.4
BESS60				17.5
BESS61				18.6
BESS62				18.6
BESS63				17.6
BESS64				17.6
BESS65				18.8
BESS66				18.8
BESS67				17.7
BESS68				17.7
BESS69				18.9
BESS70				19.0
BESS71				17.8
BESS72				17.9
BESS73				19.1
BESS74				19.1
BESS75				18.0
BESS76				18.0
BESS77				19.2
BESS78				19.3
BESS79				18.1
BESS80				18.1
BESS81				19.4
BESS82				19.4
BESS83				18.2
BESS84				18.2
BESS85				19.5
BESS86				19.5
BESS87				18.3
BESS88				18.3
Inverter 1				26.2
Inverter 2				26.5
Inverter 3				27.0
Inverter 4				27.4
Inverter 5				27.9
Inverter 6				28.2
Inverter 7				28.7
Inverter 8				29.0
Inverter 9				29.4
Inverter 10				29.7
Inverter 11				30.0
Inverter 12				30.3
Inverter 13				30.5

7	1Fl	43 0	0 0	
BESS1				17.4
BESS2				17.5
BESS3				16.6
BESS4				16.6
BESS5				17.6
BESS6				17.7
BESS7				16.8
BESS8				16.8
BESS9				17.8
BESS10				17.9
BESS11				16.9
BESS12				17.0
BESS13				18.0
BESS14				18.1
BESS15				17.1
BESS16				17.1
BESS17				18.2
BESS18				18.3
BESS19				17.2
BESS20				17.3
BESS21				18.4
BESS22				18.4
BESS23				17.4
BESS24				17.4
BESS25				18.6
BESS26				18.6
BESS27				17.5
BESS28				17.6
BESS29				18.7
BESS30				18.8
BESS31				17.7
BESS32				17.7
BESS33				18.9
BESS34				19.0
BESS35				17.8
BESS36				17.9
BESS37				19.1
BESS38				19.1
BESS39				18.0
BESS40				18.0
BESS41				19.2
BESS42				19.3
BESS43				18.1
BESS44				18.1
BESS45				19.4
BESS46				19.4
BESS47				18.2
BESS48				18.2
BESS49				19.5
BESS50				19.5
BESS51				18.3
BESS52				18.3
BESS53				19.6
BESS54				19.7
BESS55				18.4
BESS56				18.4
BESS57				19.7
BESS58				19.8
BESS59				18.5
BESS60				18.5
BESS61				19.8
BESS62				19.8
BESS63				18.5
BESS64				18.5
BESS65				19.9
BESS66				19.9
BESS67				18.6
BESS68				18.6
BESS69				19.9
BESS70				20.0
BESS71				18.6
BESS72				18.6
BESS73				20.0
BESS74				20.0
BESS75				18.6
BESS76				18.7
BESS77				20.0
BESS78				20.0
BESS79				18.7
BESS80				18.7
BESS81				20.0
BESS82				20.0
BESS83				18.7
BESS84				18.7
BESS85				20.0
BESS86				20.0
BESS87				18.7
BESS88				18.6
Inverter 1				28.3
Inverter 2				28.6
Inverter 3				29.1
Inverter 4				29.4
Inverter 5				29.8
Inverter 6				30.1
Inverter 7				30.4
Inverter 8				30.6
Inverter 9				30.8
Inverter 10				31.0
Inverter 11				31.0
Inverter 12				31.1
Inverter 13				31.1

8	1 FI	43 3	0.0	
BESS1				18 8
BESS2				18 9
BESS3				17.7
BESS4				17 8
BESS5				19 0
BESS6				19 0
BESS7				17.9
BESS8				17 9
BESS9				19.1
BESS10				19 2
BESS11				18.0
BESS12				18 0
BESS13				19 3
BESS14				19 3
BESS15				18 1
BESS16				18.1
BESS17				19.4
BESS18				19.4
BESS19				18 2
BESS20				18 2
BESS21				19 5
BESS22				19 5
BESS23				18 2
BESS24				18 3
BESS25				19 6
BESS26				19 6
BESS27				18 3
BESS28				18 3
BESS29				19 7
BESS30				19.7
BESS31				18 4
BESS32				18.4
BESS33				19 7
BESS34				19 7
BESS35				18.4
BESS36				18 4
BESS37				19 8
BESS38				19 8
BESS39				18 5
BESS40				18.5
BESS41				19.8
BESS42				19.8
BESS43				18.5
BESS44				18 5
BESS45				19 8
BESS46				19.8
BESS47				18 5
BESS48				18 5
BESS49				19 8
BESS50				19 8
BESS51				18 5
BESS52				18.5
BESS53				19.8
BESS54				19.8
BESS55				18 5
BESS56				18.5
BESS57				19 7
BESS58				19.7
BESS59				18.4
BESS60				18 4
BESS61				19.7
BESS62				19 7
BESS63				18.4
BESS64				18 4
BESS65				19.6
BESS66				19.6
BESS67				18.3
BESS68				18 3
BESS69				19 5
BESS70				19 5
BESS71				18 3
BESS72				18.3
BESS73				19.4
BESS74				19 4
BESS75				18 2
BESS76				18 2
BESS77				19.3
BESS78				19 3
BESS79				18.1
BESS80				18.1
BESS81				19 2
BESS82				19.1
BESS83				18 0
BESS84				18 0
BESS85				19.0
BESS86				19.0
BESS87				17.9
BESS88				17.9
Inverter 1				29.9
Inverter 2				30 1
Inverter 3				30.4
Inverter 4				30 6
Inverter 5				30.7
Inverter 6				30.8
Inverter 7				30.8
Inverter 8				30.8
Inverter 9				30.7
Inverter 10				30.6
Inverter 11				30.5
Inverter 12				30.2
Inverter 13				30.0

9	1 Fl	42 2	0.0	
BESS1				19.8
BESS2				19 8
BESS3				18 5
BESS4				18 5
BESS5				19 7
BESS6				19 7
BESS7				18.4
BESS8				18.4
BESS9				19 6
BESS10				19 6
BESS11				18 4
BESS12				18 3
BESS13				19.5
BESS14				19.5
BESS15				18 3
BESS16				18 3
BESS17				19 4
BESS18				19.4
BESS19				18 2
BESS20				18 2
BESS21				19.3
BESS22				19 3
BESS23				18 1
BESS24				18 1
BESS25				19 2
BESS26				19 2
BESS27				18 0
BESS28				18 0
BESS29				19.1
BESS30				19 0
BESS31				17.9
BESS32				17.9
BESS33				18 9
BESS34				18 9
BESS35				17 8
BESS36				17.8
BESS37				18 7
BESS38				18 7
BESS39				17 7
BESS40				17.6
BESS41				18.6
BESS42				18 5
BESS43				17 5
BESS44				17.5
BESS45				18.4
BESS46				18 3
BESS47				17.4
BESS48				17.3
BESS49				18 2
BESS50				18 2
BESS51				17 2
BESS52				17 2
BESS53				18 0
BESS54				18 0
BESS55				17 1
BESS56				17.0
BESS57				17 8
BESS58				17 8
BESS59				16 9
BESS60				16 9
BESS61				17 6
BESS62				17 6
BESS63				16 8
BESS64				16.7
BESS65				17 4
BESS66				17 4
BESS67				16 6
BESS68				16 6
BESS69				17.2
BESS70				17 2
BESS71				16 4
BESS72				16.4
BESS73				17.0
BESS74				17 0
BESS75				16.3
BESS76				16 2
BESS77				16 8
BESS78				16 8
BESS79				16.1
BESS80				16.1
BESS81				16 6
BESS82				16 6
BESS83				15 9
BESS84				15 9
BESS85				16.4
BESS86				16 4
BESS87				15 8
BESS88				15.7
Inverter 1				30.8
Inverter 2				30 6
Inverter 3				30 4
Inverter 4				30.2
Inverter 5				29.9
Inverter 6				29.6
Inverter 7				29 2
Inverter 8				28 9
Inverter 9				28.5
Inverter 10				28.1
Inverter 11				27.8
Inverter 12				27.3
Inverter 13				27 0

10247 Holtville Peaker
SoundPLAN Data - Operation

10	1.Fl	40.6	0.0	
BESS1				18.8
BESS2				18.8
BESS3				17.7
BESS4				17.7
BESS5				18.7
BESS6				18.6
BESS7				17.6
BESS8				17.6
BESS9				18.5
BESS10				18.4
BESS11				17.5
BESS12				17.4
BESS13				18.3
BESS14				18.2
BESS15				17.3
BESS16				17.3
BESS17				18.1
BESS18				18.1
BESS19				17.2
BESS20				17.1
BESS21				17.9
BESS22				17.9
BESS23				17.0
BESS24				17.0
BESS25				17.7
BESS26				17.7
BESS27				16.8
BESS28				16.8
BESS29				17.5
BESS30				17.5
BESS31				16.7
BESS32				16.6
BESS33				17.3
BESS34				17.3
BESS35				16.5
BESS36				16.5
BESS37				17.1
BESS38				17.1
BESS39				16.3
BESS40				16.3
BESS41				16.9
BESS42				16.9
BESS43				16.2
BESS44				16.1
BESS45				16.7
BESS46				16.6
BESS47				16.0
BESS48				15.9
BESS49				16.5
BESS50				16.4
BESS51				15.8
BESS52				15.8
BESS53				16.3
BESS54				16.2
BESS55				15.6
BESS56				15.6
BESS57				16.1
BESS58				16.0
BESS59				15.5
BESS60				15.4
BESS61				15.9
BESS62				15.8
BESS63				15.3
BESS64				15.2
BESS65				15.7
BESS66				15.6
BESS67				15.1
BESS68				15.1
BESS69				15.5
BESS70				15.4
BESS71				14.9
BESS72				14.9
BESS73				15.3
BESS74				15.2
BESS75				14.8
BESS76				14.7
BESS77				15.1
BESS78				15.0
BESS79				14.6
BESS80				14.5
BESS81				14.9
BESS82				14.8
BESS83				14.4
BESS84				14.4
BESS85				14.7
BESS86				14.7
BESS87				14.2
BESS88				14.2
Inverter 1				29.6
Inverter 2				29.3
Inverter 3				28.9
Inverter 4				28.6
Inverter 5				28.1
Inverter 6				27.8
Inverter 7				27.3
Inverter 8				26.9
Inverter 9				26.5
Inverter 10				26.1
Inverter 11				25.8
Inverter 12				25.3
Inverter 13				25.0

11	1 Fl	39.4	0.0	
BESS1				17.8
BESS2				17.7
BESS3				16.9
BESS4				16.9
BESS5				17.6
BESS6				17.5
BESS7				16.7
BESS8				16.7
BESS9				17.4
BESS10				17.3
BESS11				16.6
BESS12				16.5
BESS13				17.2
BESS14				17.1
BESS15				16.4
BESS16				16.3
BESS17				17.0
BESS18				16.9
BESS19				16.2
BESS20				16.2
BESS21				16.8
BESS22				16.7
BESS23				16.0
BESS24				16.0
BESS25				16.6
BESS26				16.5
BESS27				15.9
BESS28				15.8
BESS29				16.4
BESS30				16.3
BESS31				15.7
BESS32				15.6
BESS33				16.2
BESS34				16.1
BESS35				15.5
BESS36				15.5
BESS37				16.0
BESS38				15.9
BESS39				15.3
BESS40				15.3
BESS41				15.7
BESS42				15.7
BESS43				15.2
BESS44				15.1
BESS45				15.5
BESS46				15.5
BESS47				15.0
BESS48				14.9
BESS49				15.3
BESS50				15.3
BESS51				14.8
BESS52				14.7
BESS53				15.2
BESS54				15.1
BESS55				14.6
BESS56				14.6
BESS57				15.0
BESS58				14.9
BESS59				14.5
BESS60				14.4
BESS61				14.8
BESS62				14.7
BESS63				14.3
BESS64				14.2
BESS65				14.6
BESS66				14.5
BESS67				14.1
BESS68				14.0
BESS69				14.4
BESS70				14.3
BESS71				13.9
BESS72				13.9
BESS73				14.2
BESS74				14.1
BESS75				13.8
BESS76				13.7
BESS77				14.0
BESS78				13.9
BESS79				13.6
BESS80				13.5
BESS81				13.8
BESS82				13.8
BESS83				13.4
BESS84				13.4
BESS85				13.6
BESS86				13.6
BESS87				13.3
BESS88				13.2
Inverter 1				28.4
Inverter 2				28.1
Inverter 3				27.6
Inverter 4				27.3
Inverter 5				26.8
Inverter 6				26.4
Inverter 7				25.9
Inverter 8				25.6
Inverter 9				25.1
Inverter 10				24.8
Inverter 11				24.5
Inverter 12				24.0
Inverter 13				23.7

EEC ORIGINAL PKG

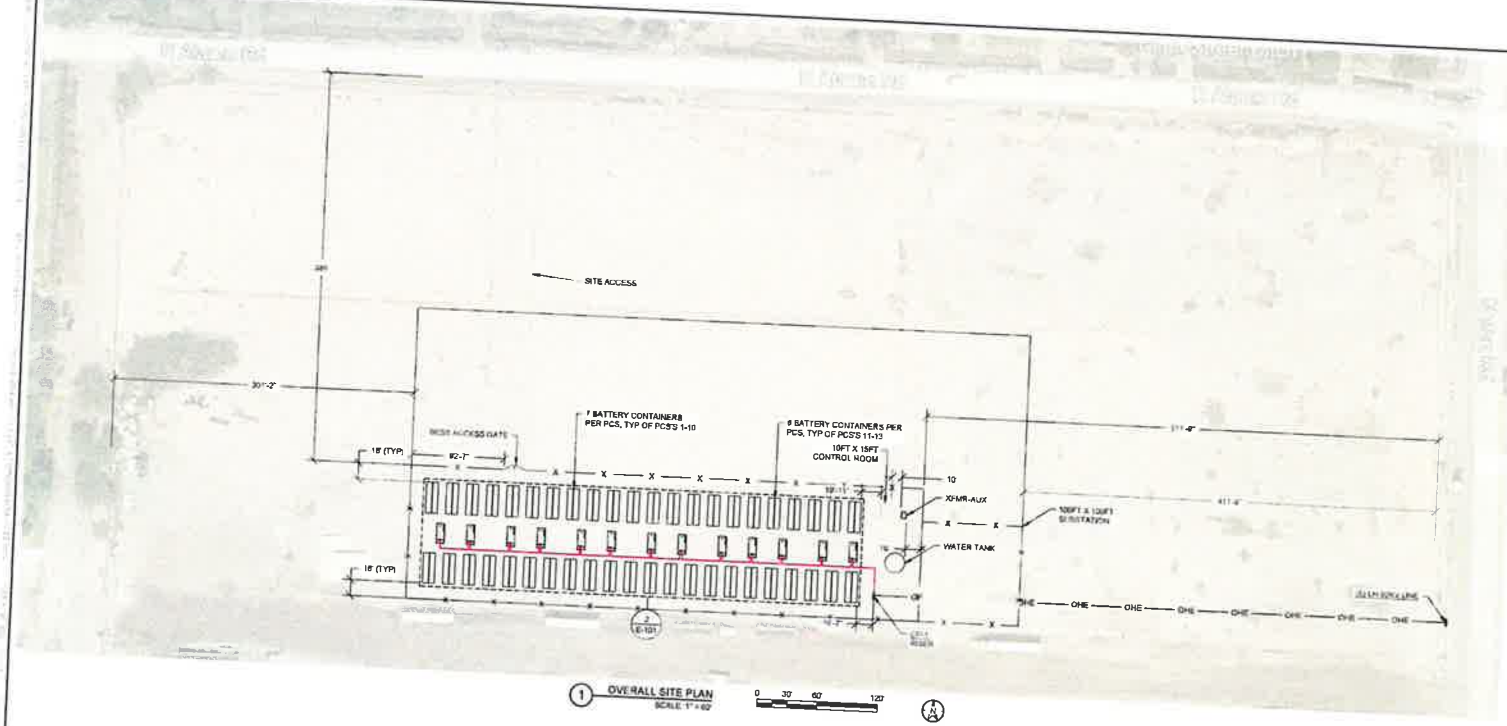
10247 Holtville Peaker
SoundPLAN Data - Operation

12	1 Fl	41.1	0.0	
BESS1				20.0
BESS2				19.9
BESS3				19.1
BESS4				19.0
BESS5				19.7
BESS6				19.6
BESS7				18.8
BESS8				18.7
BESS9				19.3
BESS10				19.2
BESS11				18.5
BESS12				18.5
BESS13				19.0
BESS14				18.9
BESS15				18.3
BESS16				18.2
BESS17				18.7
BESS18				18.6
BESS19				18.0
BESS20				17.9
BESS21				18.4
BESS22				18.3
BESS23				17.8
BESS24				17.7
BESS25				18.1
BESS26				18.0
BESS27				17.5
BESS28				17.4
BESS29				17.8
BESS30				17.8
BESS31				17.3
BESS32				17.2
BESS33				17.6
BESS34				17.5
BESS35				17.0
BESS36				16.9
BESS37				17.3
BESS38				17.2
BESS39				16.8
BESS40				16.7
BESS41				17.0
BESS42				16.9
BESS43				16.5
BESS44				16.4
BESS45				16.7
BESS46				16.7
BESS47				16.3
BESS48				16.2
BESS49				16.5
BESS50				16.4
BESS51				16.0
BESS52				16.0
BESS53				16.2
BESS54				16.2
BESS55				15.8
BESS56				15.7
BESS57				16.0
BESS58				15.9
BESS59				15.6
BESS60				15.5
BESS61				15.7
BESS62				15.7
BESS63				15.4
BESS64				15.3
BESS65				15.5
BESS66				15.4
BESS67				15.1
BESS68				15.1
BESS69				15.3
BESS70				15.2
BESS71				14.9
BESS72				14.9
BESS73				15.0
BESS74				15.0
BESS75				14.7
BESS76				14.6
BESS77				14.8
BESS78				14.8
BESS79				14.5
BESS80				14.4
BESS81				14.6
BESS82				14.5
BESS83				14.3
BESS84				14.2
BESS85				14.4
BESS86				14.3
BESS87				14.1
BESS88				14.0
Inverter 1				31.1
Inverter 2				30.6
Inverter 3				29.8
Inverter 4				29.3
Inverter 5				28.6
Inverter 6				28.1
Inverter 7				27.5
Inverter 8				27.0
Inverter 9				26.4
Inverter 10				26.0
Inverter 11				25.6
Inverter 12				25.1
Inverter 13				24.7

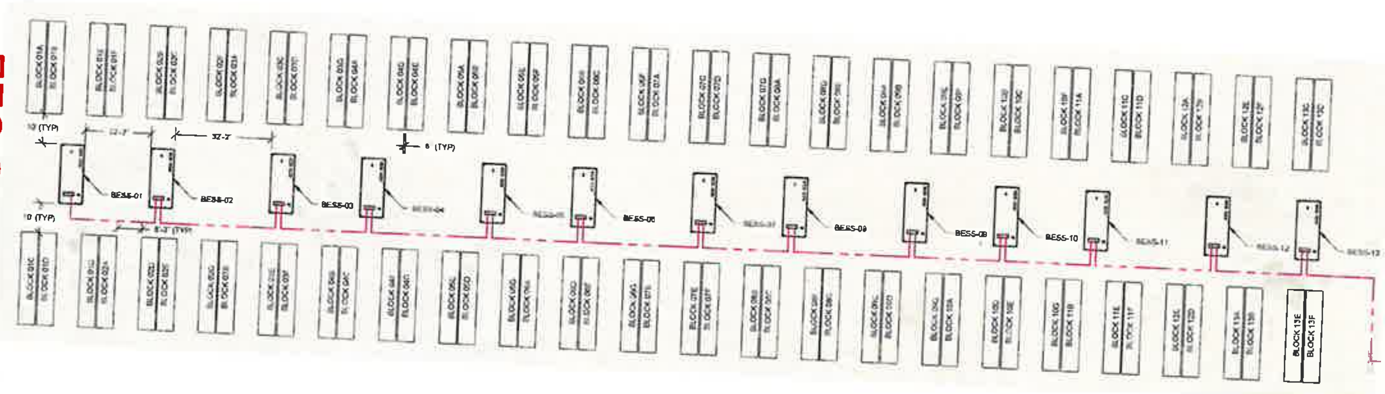
13	1 Fl	42.4	0.0	
BESS1				21.6
BESS2				21.5
BESS3				20.9
BESS4				20.8
BESS5				21.2
BESS6				21.0
BESS7				20.5
BESS8				20.4
BESS9				20.7
BESS10				20.6
BESS11				20.1
BESS12				20.0
BESS13				20.3
BESS14				20.2
BESS15				19.8
BESS16				19.6
BESS17				19.9
BESS18				19.8
BESS19				19.4
BESS20				19.3
BESS21				19.5
BESS22				19.4
BESS23				19.1
BESS24				19.0
BESS25				19.2
BESS26				19.1
BESS27				18.7
BESS28				18.6
BESS29				18.8
BESS30				18.7
BESS31				18.4
BESS32				18.3
BESS33				18.5
BESS34				18.4
BESS35				18.1
BESS36				18.0
BESS37				18.1
BESS38				18.0
BESS39				17.8
BESS40				17.7
BESS41				17.8
BESS42				17.7
BESS43				17.5
BESS44				17.4
BESS45				17.5
BESS46				17.4
BESS47				17.2
BESS48				17.1
BESS49				17.2
BESS50				17.1
BESS51				16.9
BESS52				16.8
BESS53				16.9
BESS54				16.8
BESS55				16.6
BESS56				16.6
BESS57				16.6
BESS58				16.6
BESS59				16.4
BESS60				16.3
BESS61				16.4
BESS62				16.3
BESS63				16.1
BESS64				16.0
BESS65				16.1
BESS66				16.0
BESS67				15.9
BESS68				15.8
BESS69				15.8
BESS70				15.8
BESS71				15.6
BESS72				15.5
BESS73				15.6
BESS74				15.5
BESS75				15.4
BESS76				15.3
BESS77				15.3
BESS78				15.3
BESS79				15.1
BESS80				15.1
BESS81				15.1
BESS82				15.0
BESS83				14.9
BESS84				14.8
BESS85				14.8
BESS86				14.8
BESS87				14.7
BESS88				14.6
Inverter 1				33.2
Inverter 2				32.4
Inverter 3				31.5
Inverter 4				30.8
Inverter 5				29.9
Inverter 6				29.3
Inverter 7				28.6
Inverter 8				28.0
Inverter 9				27.3
Inverter 10				26.8
Inverter 11				26.3
Inverter 12				25.7
Inverter 13				25.3

14	1 Fl	43.1	0.0
BESS1	22.3		
BESS2	22.2		
BESS3	22.0		
BESS4	21.8		
BESS5	21.8		
BESS6	21.7		
BESS7	21.5		
BESS8	21.4		
BESS9	21.3		
BESS10	21.2		
BESS11	21.0		
BESS12	20.9		
BESS13	20.9		
BESS14	20.7		
BESS15	20.6		
BESS16	20.5		
BESS17	20.4		
BESS18	20.3		
BESS19	20.2		
BESS20	20.1		
BESS21	20.0		
BESS22	19.9		
BESS23	19.8		
BESS24	19.7		
BESS25	19.6		
BESS26	19.5		
BESS27	19.4		
BESS28	19.3		
BESS29	19.2		
BESS30	19.1		
BESS31	19.0		
BESS32	18.9		
BESS33	18.8		
BESS34	18.7		
BESS35	18.7		
BESS36	18.6		
BESS37	18.5		
BESS38	18.4		
BESS39	18.3		
BESS40	18.2		
BESS41	18.2		
BESS42	18.0		
BESS43	18.0		
BESS44	17.9		
BESS45	17.8		
BESS46	17.7		
BESS47	17.7		
BESS48	17.6		
BESS49	17.5		
BESS50	17.4		
BESS51	17.4		
BESS52	17.3		
BESS53	17.2		
BESS54	17.1		
BESS55	17.1		
BESS56	17.0		
BESS57	16.9		
BESS58	16.8		
BESS59	16.8		
BESS60	16.7		
BESS61	16.6		
BESS62	16.5		
BESS63	16.5		
BESS64	16.4		
BESS65	16.3		
BESS66	16.2		
BESS67	16.2		
BESS68	16.1		
BESS69	16.0		
BESS70	16.0		
BESS71	16.0		
BESS72	15.9		
BESS73	15.8		
BESS74	15.7		
BESS75	15.7		
BESS76	15.6		
BESS77	15.5		
BESS78	15.4		
BESS79	15.4		
BESS80	15.4		
BESS81	15.3		
BESS82	15.2		
BESS83	15.2		
BESS84	15.1		
BESS85	15.0		
BESS86	15.0		
BESS87	15.0		
BESS88	14.9		
Inverter 1	34.3		
Inverter 2	33.4		
Inverter 3	32.3		
Inverter 4	31.5		
Inverter 5	30.6		
Inverter 6	29.9		
Inverter 7	29.1		
Inverter 8	28.5		
Inverter 9	27.7		
Inverter 10	27.2		
Inverter 11	26.7		
Inverter 12	26.1		
Inverter 13	25.6		

15	1 FI	43 1	0 0	
BESS1				22 1
BESS2				22 0
BESS3				22 3
BESS4				22.1
BESS5				21 6
BESS6				21.5
BESS7				21 8
BESS8				21 6
BESS9				21 1
BESS10				21 0
BESS11				21.3
BESS12				21.1
BESS13				20 7
BESS14				20 6
BESS15				20 8
BESS16				20 7
BESS17				20.3
BESS18				20.1
BESS19				20 4
BESS20				20 2
BESS21				19.9
BESS22				19 7
BESS23				20.0
BESS24				19 8
BESS25				19.5
BESS26				19.3
BESS27				19 6
BESS28				19.4
BESS29				19.1
BESS30				19.0
BESS31				19 2
BESS32				19.1
BESS33				18 7
BESS34				18 6
BESS35				18 8
BESS36				18 7
BESS37				18 4
BESS38				18.3
BESS39				18 4
BESS40				18.3
BESS41				18 0
BESS42				17.9
BESS43				18 1
BESS44				18 0
BESS45				17 7
BESS46				17 6
BESS47				17 8
BESS48				17.7
BESS49				17 4
BESS50				17 3
BESS51				17 5
BESS52				17 4
BESS53				17.1
BESS54				17 0
BESS55				17 1
BESS56				17 1
BESS57				16 8
BESS58				16 7
BESS59				16 9
BESS60				16 8
BESS61				16 5
BESS62				16 4
BESS63				16 6
BESS64				16 5
BESS65				16 2
BESS66				16.1
BESS67				16 3
BESS68				16 2
BESS69				16 0
BESS70				15 9
BESS71				16 0
BESS72				15 9
BESS73				15 7
BESS74				15 6
BESS75				15 7
BESS76				15 7
BESS77				15 4
BESS78				15 4
BESS79				15 5
BESS80				15.4
BESS81				15 2
BESS82				15 1
BESS83				15 2
BESS84				15 2
BESS85				15 0
BESS86				14.9
BESS87				15 0
BESS88				14.9
Inverter 1				34.3
Inverter 2				33 4
Inverter 3				32 3
Inverter 4				31.5
Inverter 5				30 6
Inverter 6				29.9
Inverter 7				29 1
Inverter 8				28 5
Inverter 9				27 7
Inverter 10				27.2
Inverter 11				26 7
Inverter 12				26 0
Inverter 13				25 6



1 OVERALL SITE PLAN
SCALE: 1" = 60'



2 ENLARGED PLAN VIEW
SCALE: 1" = 20'

EEC ORIGINAL PKG

SHEET NOTES:

1. ACCESS ROADS, FENCES, AND OTHER CIVIL WORKS ARE DESIGNED BY OTHERS AND SHOWN FOR REFERENCE ONLY.

LEGEND:

- (E) OH UTILITY CIRCUIT
- PROPERTY LINE
- —OHE— (N) OH MV CIRCUIT
- UG MV CIRCUIT
- —X— (N) 6' PRIVACY CHAIN LINK FENCE
- PREFERRED BUILDABLE AREA

SYSTEM SUMMARY

AC SYSTEM SIZE	61.75 MVA
DC CAPACITY	242.2 MWH
DC VOLTAGE	1,500 V
MV VOLTAGE	92 KV

BATTERY UNITS

MANUFACTURER	SUNGROW
MODEL	ST2752UX-US
TYPE	LI-ION / 280 AH
CAPACITY	2752 KWH
UNITS PER CONTAINER	48
TOTAL UNITS	4,224

INVERTERS / PCS

MANUFACTURER	SUNGROW
MODEL	SC5000UD-MV-US
AC POWER RATING	5,000 KVA
TOTAL INVERTERS	13

CONTRACTOR

ZGLOBAL
Power Engineering & Energy Solutions

ZGLOBAL INC.
604 SUTTER ST. STE 250
FOLSOM, CA 95630

PROJECT

HOLTVILLE PEAKER BESS
HOLTVILLE, CA 92250

ENGINEER

STELLAVISE
POWER ENGINEERING

2535 CAMINO DEL RIO S. STE. 235
SAN DIEGO, CA 92108

WWW.STELLAVISE.COM (619) 295-5028

SEAL

REVISIONS

#	DESCRIPTION	DATE
A	BESS LAYOUT	10/13/2022
B	BESS LAYOUT R1	01/25/2023

NOT FOR CONSTRUCTION
JANUARY 25, 2023

HOLTVILLE PEAKER BESS
HOLTVILLE, CA 92250

SHEET TITLE

OVERALL SITE PLAN

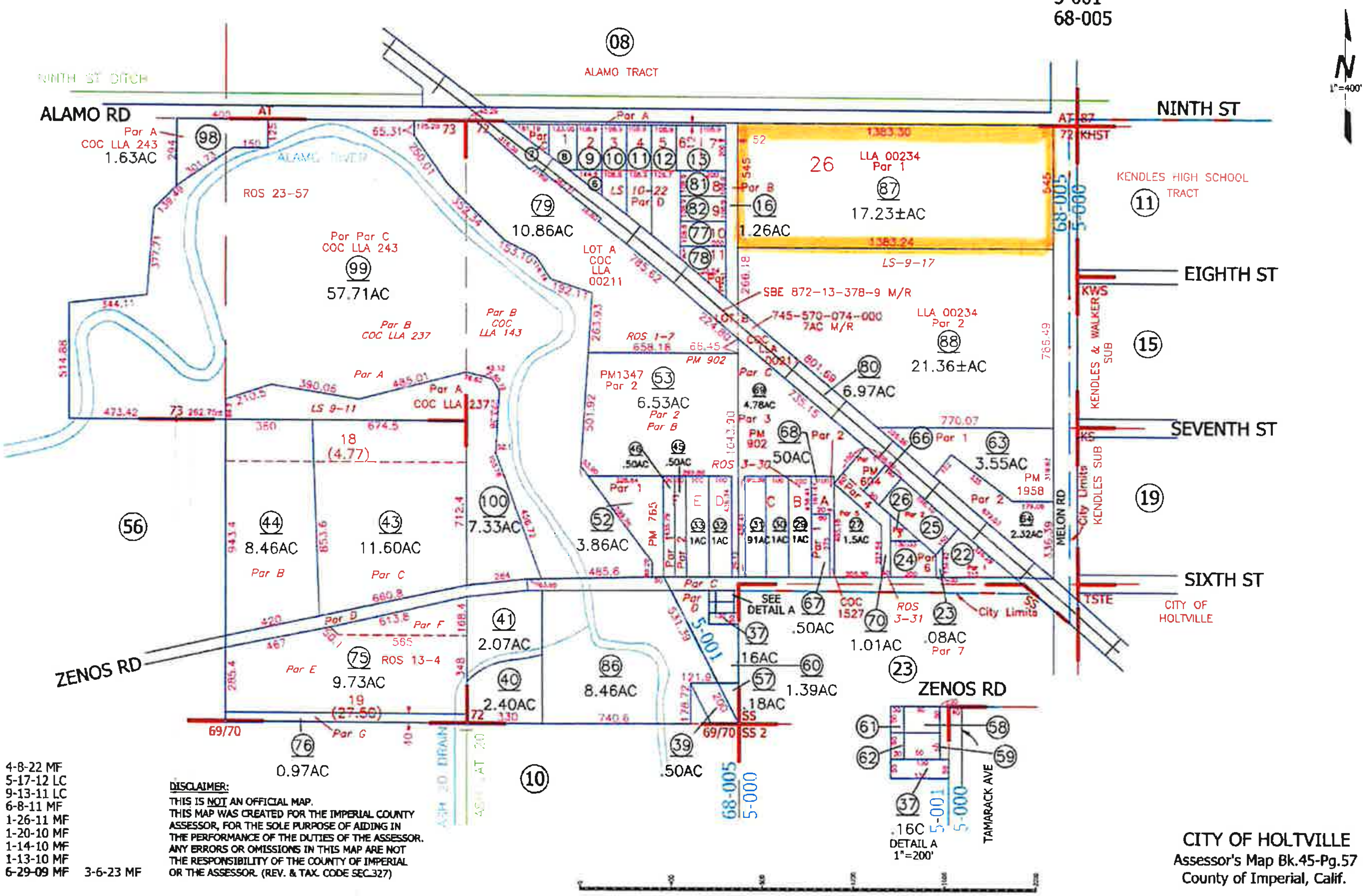
SHEET NO.

E-101

45-57

TRACT 72 & POR TRACT 73 &
POR SEC 26 T15S, R15E

Tax Area Code
5-000
5-001
68-005



6-25-08 MF
6-6-08 MF
10-09-07 MF
6-14-07 MF
5-30-07 MF
3-20-07 MF
05-10-04 AR
8-25-03 AR
5-14-01 AR

4-8-22 MF
5-17-12 LC
9-13-11 LC
6-8-11 MF
1-26-11 MF
1-20-10 MF
1-14-10 MF
1-13-10 MF
6-29-09 MF

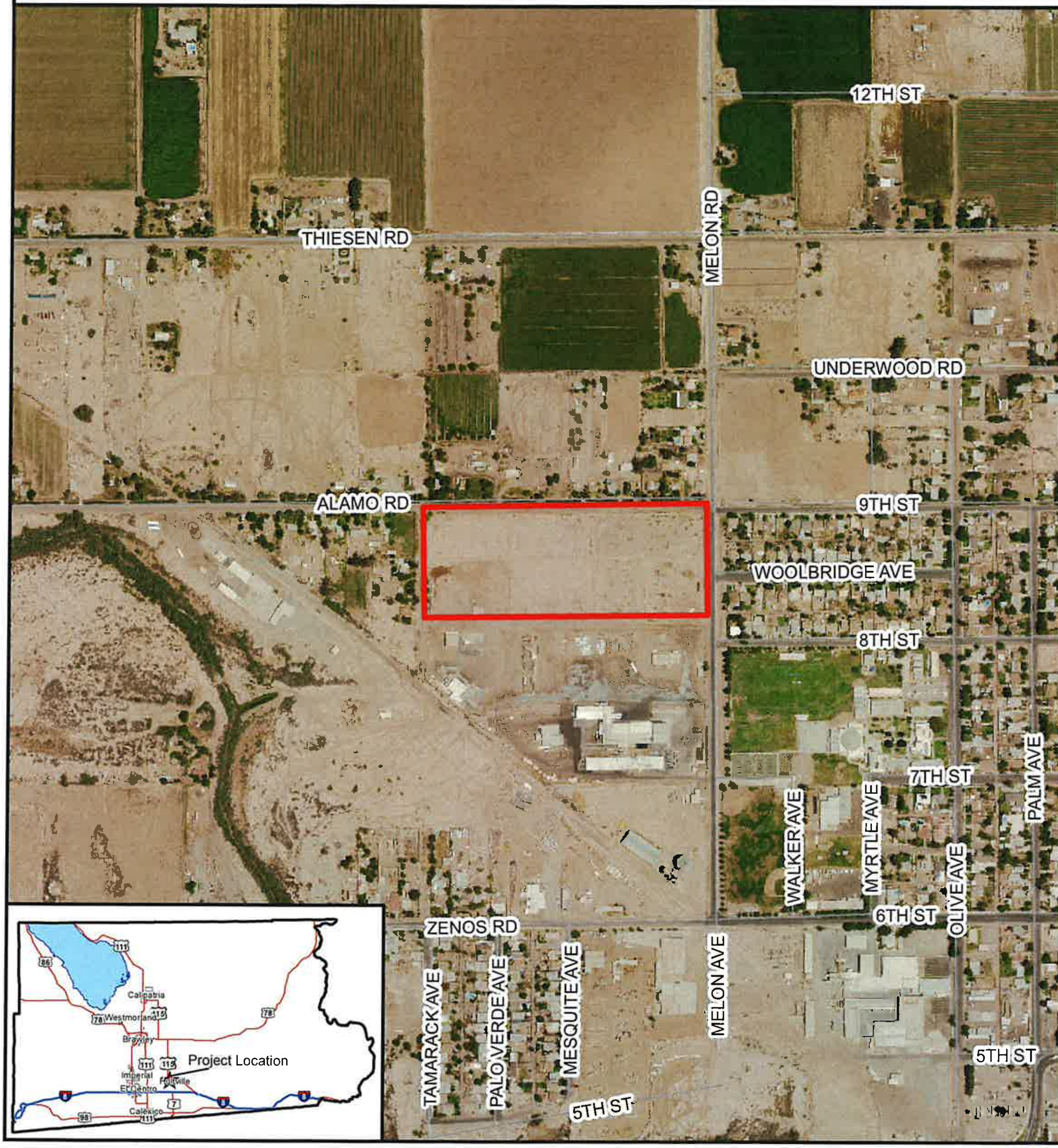
3-6-23 MF

DISCLAIMER:
THIS IS NOT AN OFFICIAL MAP.
THIS MAP WAS CREATED FOR THE IMPERIAL COUNTY ASSESSOR, FOR THE SOLE PURPOSE OF AIDING IN THE PERFORMANCE OF THE DUTIES OF THE ASSESSOR. ANY ERRORS OR OMISSIONS IN THIS MAP ARE NOT THE RESPONSIBILITY OF THE COUNTY OF IMPERIAL OR THE ASSESSOR. (REV. & TAX. CODE SEC.327)

CITY OF HOLTVILLE
Assessor's Map Bk.45-Pg.57
County of Imperial, Calif.

EEC ORIGINAL PKG

PROJECT LOCATION MAP



HOLTVILLE PEAKER BESS FACILITY
CONDITIONAL USE PERMIT #22-0029
APN #045-570-087-000

Project Parcel
Centerline

EEC ORIGINAL PKG

N

RECON

An Employee-Owned Company

February 15, 2023

Mr. Ramon Gonzalez
Senior Project Coordinator
Z Global
750 W. Main Street
El Centro, CA 92243

Reference: Air Quality Analysis for the Holtville Peaker BESS Project, Holtville, California (RECON Number 10247)

Dear Mr. Gonzalez:

The purpose of this report is to assess potential short-term local and regional air quality impacts resulting from development of the Holtville Peaker Battery Energy Storage Site (BESS) Project (project). The analysis of impacts is based on state and federal Ambient Air Quality Standards (AAQS) and assessed in accordance with the regional guidelines, policies, and standards and the Imperial County Air Pollution Control District (ICAPCD).

1.0 Project Description

The 17.2-acre project site consists of a vacant lot located at Assessor Parcel Number 045-570-087, southwest of the intersection of East Alamo Road and Melon Road, in the City of Holtville's (City's) sphere of influence (SOI) within Imperial County, California (Figure 1). The project site is surrounded by residential development with scattered commercial and industrial development (Figure 2).

The project would include development of a BESS facility that would connect to an existing 92-kilovolt gen-tie line (Figure 3). The BESS facility would include battery containers and storage sites, a control room, and associated facilities surrounded by fencing in the south-central portion of the parcel, with the remainder of the parcel used for temporary construction access and staging. Access to the facility would occur from Melon Road.

2.0 Environmental Setting

2.1 Regulatory Setting

2.1.1 Federal Regulations

AAQS represent the maximum levels of background pollution considered safe, with an adequate margin of safety, to protect the public health and welfare. The federal Clean Air Act (CAA) was enacted in 1970 and amended in 1977 and 1990 (42 U.S. Code [U.S.C.] 7401) for the purposes of protecting and enhancing the quality of the nation's air resources to benefit public health, welfare, and productivity. In 1971, in order to achieve the purposes of Section 109 of the CAA [42 U.S.C. 7409], the U.S. Environmental Protection Agency (U.S. EPA) developed primary and secondary National AAQS (NAAQS).

Six pollutants of primary concern were designated: ozone, carbon monoxide (CO), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), lead (Pb), particulate matter with a diameter of 10 microns and less (PM_{10}), and particulate matter with a diameter of 2.5 microns and less ($PM_{2.5}$). The primary NAAQS "in the judgment of the Administrator, based on such criteria and allowing an adequate margin of safety, are requisite to protect the public health . . . ." and the secondary standards ". . . protect the public welfare from any known or anticipated adverse effects associated with the presence of such air pollutant in the ambient air" [42 U.S.C. 7409(b)(2)]. The primary NAAQS were established, with a margin of safety, considering long-term exposure for the most sensitive groups in the general population (i.e., children, senior citizens, and people with breathing difficulties). The NAAQS are presented in Table 1 (California Air Resources Board [CARB] 2016).

If an air basin is not in either federal or state attainment for a particular pollutant, the basin is classified as non-attainment area for that pollutant. The project is located within the Salton Sea Air Basin (SSAB). The County is classified as a federal moderate non-attainment area for the 2008 8-hour ozone standards, marginal non-attainment area for the 2015 8-hour ozone standards, and a partial moderate non-attainment area for the $PM_{2.5}$ standards.

2.1.2 State Regulations

Criteria Pollutants

The CARB has developed the California AAQS (CAAQS) and generally has set more stringent limits on the criteria pollutants than the NAAQS (see Table 1). In addition to the federal criteria pollutants, the CAAQS also specify standards for visibility-reducing particles, sulfates, hydrogen sulfide, and vinyl chloride.

Similar to the federal CAA, the state classifies either "attainment" or "non-attainment" areas for each pollutant based on the comparison of measured data with the CAAQS. The County is a non-attainment area for the state ozone standards and the state PM_{10} standard. The California CAA, which became effective on January 1, 1989, requires all areas of the state to attain the CAAQS at the earliest practicable date. The California CAA has specific air quality management strategies that must be adopted by the agency responsible for the non-attainment area. In the case of the SSAB, the responsible agency is the ICAPCD.

Toxic Air Contaminants

The public's exposure to toxic air contaminants (TACs) is a significant public health issue in California. Diesel particulate matter (DPM) emissions have been identified as TACs. In 1983, the California Legislature enacted a program to identify the health effects of TACs and to reduce exposure to these contaminants to protect the public health (Assembly Bill [AB] 1807: Health and Safety Code Sections 39650–39674). The California Legislature established a two-step process to address the potential health effects from TACs. The first step is the risk assessment (or identification) phase. The second step is the risk management (or control) phase of the process.

The California Air Toxics Program establishes the process for the identification and control of TACs and includes provisions to make the public aware of significant toxic exposures and for reducing risk. Additionally, the Air Toxics "Hot Spots" Information and Assessment Act (AB 2588, 1987, Connelly Bill) was enacted in 1987 and requires stationary sources to report the types and quantities of certain substances routinely released into the air.

The goals of the Air Toxics "Hot Spots" Act are to collect emission data, to identify facilities having localized impacts, to ascertain health risks, to notify nearby residents of significant risks, and to reduce those significant risks to acceptable levels.

Table 1
Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[1] Concentration[3]	California Standards[1] Method[4]	National Standards[2] Primary[3,5]	National Standards[2] Secondary[3,6]	National Standards[2] Method[7]
Ozone[8]	1 Hour	0.09 ppm (180 $\mu g/m^3$)	Ultraviolet Photometry	–	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.07 ppm (137 $\mu g/m^3$)		0.070 ppm (137 $\mu g/m^3$)		
Respirable Particulate Matter (PM_{10})[9]	24 Hour	50 $\mu g/m^3$	Gravimetric or Beta Attenuation	150 $\mu g/m^3$	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 $\mu g/m^3$		–		
Fine Particulate Matter ($PM_{2.5}$)[9]	24 Hour	No Separate State Standard		35 $\mu g/m^3$	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 $\mu g/m^3$	Gravimetric or Beta Attenuation	12 $\mu g/m^3$	15 $\mu g/m^3$	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m^3)	Non-dispersive Infrared Photometry	35 ppm (40 mg/m^3)	–	Non-dispersive Infrared Photometry
	8 Hour	9.0 ppm (10 mg/m^3)		9 ppm (10 mg/m^3)	–	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		–	–	
Nitrogen Dioxide (NO_2)[10]	1 Hour	0.18 ppm (339 $\mu g/m^3$)	Gas Phase Chemi-luminescence	100 ppb (188 $\mu g/m^3$)	–	Gas Phase Chemi-luminescence
	Annual Arithmetic Mean	0.030 ppm (57 $\mu g/m^3$)		0.053 ppm (100 $\mu g/m^3$)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[11]	1 Hour	0.25 ppm (655 $\mu g/m^3$)	Ultraviolet Fluorescence	75 ppb (196 $\mu g/m^3$)	–	Ultraviolet Fluorescence; Spectro-photometry (Pararosaniline Method)
	3 Hour	–		–	0.5 ppm (1,300 $\mu g/m^3$)	
	24 Hour	0.04 ppm (105 $\mu g/m^3$)		0.14 ppm (for certain areas)[11]	–	
	Annual Arithmetic Mean	–		0.030 ppm (for certain areas)[11]	–	
Lead[12,13]	30 Day Average	1.5 $\mu g/m^3$	Atomic Absorption	–	–	High Volume Sampler and Atomic Absorption
	Calendar Quarter	–		1.5 $\mu g/m^3$ (for certain areas)[12]	Same as Primary Standard	
	Rolling 3-Month Average	–		0.15 $\mu g/m^3$		
Visibility Reducing Particles[14]	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 $\mu g/m^3$	Ion Chroma-tography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 $\mu g/m^3$)	Ultraviolet Fluorescence			
Vinyl Chloride[12]	24 Hour	0.01 ppm (26 $\mu g/m^3$)	Gas Chroma-tography			

Table 1
Ambient Air Quality Standards

NOTES:

ppm = parts per million; ppb = parts per billion; $\mu g/m^3$ = micrograms per cubic meter; – = not applicable.

[1] California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, particulate matter (PM_{10}, $PM_{2.5}$, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

[2] National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.

[3] Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

[4] Any equivalent measurement method which can be shown to the satisfaction of the Air Resources Board to give equivalent results at or near the level of the air quality standard may be used.

[5] National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

[6] National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

[7] Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.

[8] On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

[9] On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 $\mu g/m^3$ to 12.0 $\mu g/m^3$. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 $\mu g/m^3$, as was the annual secondary standards of 15 $\mu g/m^3$. The existing 24-hour PM_{10} standards (primary and secondary) of 150 $\mu g/m^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

[10] To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national standards are in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national standards to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

[11] On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.
Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

[12] The CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[13] The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 $\mu g/m^3$ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

[14] In 1989, the CARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

SOURCE: CARB 2016.

The Children's Environmental Health Protection Act, California Senate Bill 25 (Chapter 731, Escutia, Statutes of 1999), focuses on children's exposure to air pollutants. The act requires CARB to review its air quality standards from a children's health perspective, evaluate the statewide air monitoring network, and develop any additional air toxic control measures needed to protect children's health. Locally, toxic air pollutants are regulated through the ICAPCD Regulation X. Of particular concern statewide are DPM emissions. DPM was established as a TAC in 1998, and is estimated to represent a majority of the cancer risk from TACs statewide (based on the statewide average). Diesel exhaust is a complex mixture of gases, vapors, and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by the CARB and are listed as carcinogens either under the state's Proposition 65 or under the federal Hazardous Air Pollutants program.

Following the identification of DPM as a TAC in 1998, CARB has worked on developing strategies and regulations aimed at reducing the risk from DPM. The overall strategy for achieving these reductions is found in the *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles* (CARB 2000). A stated goal of the plan is to reduce the statewide cancer risk arising from exposure to DPM by 85 percent by 2020.

In April 2005, CARB published the *Air Quality and Land Use Handbook: A Community Health Perspective* (CARB 2005). The handbook makes recommendations directed at protecting sensitive land uses from air pollutant emissions while balancing a myriad of other land use issues (e.g., housing, transportation needs, economics, etc.). Sensitive land uses include but are not limited to, schools, hospitals, residences, resident care facilities, and day-care centers. The handbook is not regulatory or binding on local agencies and recognizes that application takes a qualitative approach. Therefore, the CARB has provided guidelines for the siting of land uses near heavily traveled roadways. Of pertinence to this study, the CARB guidelines indicate that siting new sensitive land uses within 500 feet of a freeway or urban roads with 100,000 or more vehicles/day should be avoided when possible.

As an ongoing process, CARB will continue to establish new programs and regulations for the control of DPM and other air-toxics emissions as appropriate. The continued development and implementation of these programs and policies will ensure that the public's exposure to DPM and other TACs will continue to decline.

State Implementation Plan

The State Implementation Plan (SIP) is a collection of documents that set forth the state's strategies for achieving the NAAQS. In California, the SIP is a compilation of new and previously submitted plans, programs (such as air quality management plans, monitoring, modeling, permitting, etc.), district rules, state regulations, and federal controls. The CARB is the lead agency for all purposes related to the SIP under state law. Local air districts and other agencies, such as the Department of Pesticide Regulation and the Bureau of Automotive Repair, prepare SIP elements and submit them to CARB for review and approval. The CARB then forwards SIP revisions to the U.S. EPA for approval and publication in the Federal Register. All of the items included in the California SIP are listed in the Code of Federal Regulations (CFR) at 40 CFR 52.220.

The ICAPCD is the air district responsible for the project area. Applicable ICAPCD SIPs include:

- Imperial County 2009 State Implementation Plan for Particulate Matter Less than 10 Microns in Aerodynamic Diameter;
- Imperial County 2013 State Implementation Plan for the 2006 24-Hour $PM_{2.5}$ Moderate Non-attainment Area; and
- Imperial County 2017 State Implementation Plan for the 2008 8-Hour Ozone Standard.

California Environmental Quality Act

Section 15125(d) of the California Environmental Quality Act (CEQA) Guidelines requires discussion of any inconsistencies between the project and applicable general plans and regional plans, including the applicable air quality attainment or maintenance plan (or SIP).

2.1.3 Local Regulations

CEQA Air Quality Handbook

The ICAPCD adopted its *CEQA Air Quality Handbook: Guidelines for the Implementation of the California Environmental Quality Act of 1970* in 2007 and amended the handbook in December 2017 (ICAPCD 2017a). The ICAPCD CEQA Air Quality Handbook provides guidance on how to determine the significance of impacts, including air pollutant emissions, related to the development of residential, commercial, and industrial projects. Where impacts are determined to be significant, the ICAPCD CEQA Air Quality Handbook provides guidance to mitigate adverse impacts to air quality from development projects.

Stationary Source Permitting

Pursuant to ICAPCD Rule 207 (New & Modified Stationary Source Review) and associated rules such as Rule 201 (Permits Required) and Rule 208 (Permit to Operate), the construction, installation, modification, replacement, and operation of any equipment which may emit air contaminants requires ICAPCD permits. The ICAPCD requires that all such equipment be assessed for the potential to result in health risk impacts, and permits to operate equipment must be renewed each year equipment is in use or upon the modification of equipment.

Policy Number 5–Off-site Mitigation/In-Lieu Fee

The ICAPCD issued Policy Number 5, Off-site Mitigation/In-lieu Fee in April 2014. The policy references the ICAPCD CEQA Air Quality Handbook and discusses how project proponents may achieve additional mitigation by either proposing an off-site mitigation project or paying an in-lieu mitigation fee. Mitigation fees collected by the ICAPCD are used to fund the emissions offsets projects through the ICAPCD Carl Moyer Memorial Air Quality Standards Attainment Program (Carl Moyer Program). Specific projects funded by the program achieve emissions reductions by replacing old, highly polluting equipment with newer, cleaner equipment earlier than required by regulation or through normal attrition. As outlined in Policy Number 5, total in-lieu fees for mitigation of construction emissions are calculated based on the quantity and duration of the project's construction emissions and the cost-effectiveness of the Carl Moyer Program for offsetting oxides of nitrogen (NO_X) and PM_{10} emissions.

Operational Development Fee Mitigation Program

Adopted in November 2007, Rule 310, Operational Development Fee Mitigation Program, is designed to assist in the reduction of excess air emissions resulting from new residential and commercial development (warehousing is considered a commercial use under the program) in Imperial County. Funds collected by the program are used to offset NO_X and PM_{10} emissions through a local emission reduction projects such as paving unpaved roadways to reduce fugitive dust.

Fugitive Dust Control

The ICAPCD Regulation VIII regulates emissions of fugitive dust. Fugitive dust is:

> Particulate Matter entrained in the ambient air which is caused from man-made and natural activities such as, but not limited to, movement of soil, vehicles, equipment, blasting, and wind. This excludes Particulate Matter emitted directly in the exhaust of motor vehicles or other fuel combustion devices, from portable brazing, soldering, or welding equipment, pile drivers, and stack emissions from stationary sources (ICAPCD, Rule 800 (c)(18)).

Regulation VIII includes the following specific rules:

- Rule 800–Fugitive Dust Requirements for Control of $PM_{2.5}$
- Rule 801–Construction and Earthmoving Activities
- Rule 802–Bulk Materials
- Rule 803–Carry Out and Track Out
- Rule 804–Open Areas
- Rule 805–Paved and Unpaved Roads
- Rule 806–Conservation Management Practices

ICAPCD Rule 428

Adopted on September 11, 2018, Rule 428, Wood Burning Appliances, is to limit emissions of particulate matter from wood burning appliances. This rule applies to any person who manufactures, sells, offers for sale, or operates a permanently installed, indoor or outdoor, wood burning appliance within the Imperial County $PM_{2.5}$ nonattainment area. This rule also applies to any person who installs a wood burning appliance in any residential or commercial, single- or multi-building unit within the Imperial County $PM_{2.5}$ nonattainment area.

2.2 Existing Air Quality

2.2.1 Climate and Meteorology

Climate conditions at the project site, like the rest of Imperial County, are governed by the large-scale sinking and warming of air in the semi-permanent tropical high-pressure center of the Pacific Ocean. The high-pressure ridge blocks out most storms except in winter when it is weakest and farthest south. The coastal mountains prevent the intrusion of any cool, damp air found in California coastal environs. Because of the barrier and weakened storms, Imperial County experiences clear skies, extremely hot summers, mild winters, and little rainfall (ICAPCD 2017b).

Winters are mild and dry with daily average temperatures ranging between 65 and 75 degrees Fahrenheit. Summers are extremely hot with daily average temperatures ranging between 104 and 115 degrees Fahrenheit. The flat terrain and the strong temperature differentials created by intense solar heating result in moderate winds and deep thermal convection. The combination of subsiding air, protective mountains, and distance from the ocean all combine to severely limit precipitation (ICAPCD 2017b).

Imperial County experiences surface inversions almost every day of the year. Due to strong surface heating, these inversions are usually broken and allow pollutants to be more easily dispersed. In some circumstances, the presence of the Pacific high-pressure cell can cause the air to warm to a temperature higher than the air below. This highly stable atmospheric condition, termed a subsidence inversion, can act as a nearly impenetrable lid to the vertical mixing of pollutants. The strength of these inversions makes them difficult to disrupt. Consequently, they can persist for one or more days, causing air stagnation and the buildup of pollutants. Highest and worst-case ozone levels are often associated with the presence of subsidence inversions (ICAPCD 2017b).

The large daily oscillation of temperature produces a corresponding large variation in the relative humidity. Nocturnal humidity rises to 50 to 60 percent, but drops to about 10 percent during the day. Prevailing winds are from the west-northwest through southwest; a secondary flow maximum from the southeast is also evident. The prevailing winds from the west and northwest occur seasonally from fall through spring and are known to be from the Los Angeles area. Occasionally, Imperial County experiences periods of extremely high wind speeds. Wind speeds can exceed 31 miles per hour (mph) and this occurs most frequently during the months of April and May. However, speeds of less than 6.8 mph account for more than one-half of the observed wind measurements (ICAPCD 2017b).

2.2.2 Background Air Quality

Air quality at a particular location is a function of the kinds, amounts, and dispersal rates of pollutants being emitted into the air locally and throughout the basin. The major factors affecting pollutant dispersion are wind speed and direction, the vertical dispersion of pollutants (which is affected by inversions), and the local topography.

Air quality is commonly expressed as the number of days in which air pollution levels exceed state standards set by the CARB or federal standards set by the U.S. EPA. The ICAPCD maintains air quality monitoring stations throughout the SSAB. Air pollutant concentrations and meteorological information are continuously recorded at these stations. Measurements are then used by scientists to help forecast daily air pollution levels.

The El Centro – 9th Street monitoring station, located at 150 9th Street, approximately 10 miles west of the project site, is the nearest station to the project site. The El Centro monitoring station measures ozone, NO_2, PM_{10}, and $PM_{2.5}$. Table 2 provides a summary of measurements collected at the El Centro monitoring station for the years 2017 through 2021.

Table 2 Summary of Air Quality Measurements Recorded at the El Centro Monitoring Station					
Pollutant/Standard	2017	2018	2019	2020	2021
Ozone					
Federal Max 8-hour (ppm)	0.092	0.090	0.071	0.077	0.083
Days 2015 Federal 8-hour Standard Exceeded (0.07 ppm)	17	14	1	2	6
Days 2008 Federal 8-hour Standard Exceeded (0.075 ppm)	8	3	0	1	2
State Max 8-hour (ppm)	0.092	0.090	0.071	0.077	0.084
Days State 8-hour Standard Exceeded (0.07 ppm)	17	15	1	2	7
Max. 1-hour (ppm)	0.110	0.102	0.080	0.097	0.096
Days State 1-hour Standard Exceeded (0.09 ppm)	4	2	0	1	1
Nitrogen Dioxide					
Max 1-hour (ppm)	0.0488	0.0341	0.0367	0.0448	0.0558
Days State 1-hour Standard Exceeded (0.18 ppm)	0	0	0	0	0
Days Federal 1-hour Standard Exceeded (0.100 ppb)	0	0	0	0	0
Annual Average (ppm)	--	--	--	--	--
PM_{10}*					
Federal Max. Daily (μg/m³)	268.5	256.3	123.9	197.5	194.5
Measured Days Federal 24-hour Standard Exceeded (150 μg/m³)	5	5	0	2	1
Calculated Days Federal 24-hour Standard Exceeded (150 μg/m³)	5.0	5.1	0.0	2.0	1.0
Federal Annual Average (μg/m³)	41.6	47.3	34.9	41.5	41.8
State Max. Daily (μg/m³)	186.4	253.0	130.0	197.7	186.9
Measured Days State 24-hour Standard Exceeded (50 μg/m³)	60	111	53	92	88
Calculated Days State 24-hour Standard Exceeded (50 μg/m³)	--	113.0	53.7	92.0	88.6
State Annual Average (μg/m³)	--	46.8	35.6	41.5	41.6
$PM_{2.5}$*					
Federal Max. Daily (μg/m³)	23.2	22.4	21.4	28.5	19.1
Measured Days Federal 24-hour Standard Exceeded (35 μg/m³)	0	0	0	0	0
Calculated Days Federal 24-hour Standard Exceeded (35 μg/m³)	0.0	0.0	0.0	0.0	0.0
Federal Annual Average (μg/m³)	8.4	8.6	7.8	9.7	8.2
State Max. Daily (μg/m³)	23.2	22.4	21.4	28.5	19.1
State Annual Average (μg/m³)	8.4	8.7	7.9	9.8	8.3

SOURCE: CARB 2023.
ppm = parts per million; μg/m³ = micrograms per cubic meter; -- = Not available.
*Calculated days value. Calculated days are the estimated number of days that a measurement would have been greater than the level of the standard had measurements been collected every day. The number of days above the standard is not necessarily the number of violations of the standard for the year.

3.0 Thresholds of Significance

Thresholds used to evaluate potential impacts to air quality are based on applicable criteria in the CEQA Guidelines Appendix G. The project would have a significant air quality impact if it would:

1. Conflict with or obstruct implementation of the applicable air quality plan.
2. 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.
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.

EEC ORIGINAL PKG

As stated in the State CEQA Guidelines, these questions are "intended to encourage thoughtful assessment of impacts and do not necessarily represent thresholds of significance" (Title 14, Division 6, Chapter 3 Guidelines for Implementation of the CEQA, Appendix G, Environmental Checklist Form). The State CEQA Guidelines encourage lead agencies to adopt regionally specific thresholds of significance. When adopting these thresholds, the amended Guidelines allow lead agencies to consider thresholds of significance adopted or recommended by other public agencies, or recommended by experts, provided that the thresholds are supported by substantial evidence.

The ICAPCD CEQA Air Quality Handbook establishes the following four separate evaluation categories (ICAPCD 2017a):

1. Comparison of calculated project emissions to ICAPCD emission thresholds.
2. Consistency with the most recent Clean Air Plan for Imperial County.
3. Comparison of predicted ambient pollutant concentrations resulting from the project to state and federal health standards, when applicable.
4. The evaluation of special conditions which apply to certain projects.

Any development with a potential to emit criteria pollutants below significance levels defined by the ICAPCD is called a "Tier I project," and is considered by the ICAPCD to have less than significant potential adverse impacts on local air quality. For Tier I projects, the project proponent should implement a set of feasible "standard" mitigation measures (enumerated by the ICAPCD) to reduce the air quality impact to an insignificant level. A "Tier II project" is one whose emissions exceed any of the thresholds. Its impact is significant and the project proponent should select and implement all feasible "discretionary" mitigation measures (also enumerated by the ICAPCD) in addition to the standard measures.

3.1 Operational Impacts

Table 3 provides general guidelines for determining the significance of impacts based on the total emissions that are expected from project operation established by the ICAPCD.

Table 3
Significance Thresholds for Operations

Pollutant	Tier I	Tier II
NO_X and ROG	Less than 137 lbs/day	137 lbs/day and greater
PM_{10} and SO_X	Less than 150 lbs/day	150 lbs/day and greater
CO and $PM_{2.5}$	Less than 550 lbs/day	550 lbs/day and greater

ROG = reactive organic gas; NO_X = oxides of nitrogen; SO_X = oxides of sulfur; CO = carbon monoxide; PM_{10} = particulate matter with an aerodynamic diameter 10 microns or less; $PM_{2.5}$ = particulate matter with an aerodynamic diameter 2.5 microns or less; lbs/day = pounds per day
SOURCE: ICAPCD 2017a.

As stated above, Tier 1 projects are required to implement all feasible standard measures specified by the ICAPCD. Tier II projects are required to implement all feasible standard measures as well as all feasible discretionary measures specified by the ICAPCD.

3.2 Construction Impacts

The ICAPCD has also established thresholds of significance for project construction. Table 4 provides general guidelines for determining significance of impacts based on the total emissions that are expected from project construction.

Table 4
Significance Thresholds for Construction

Pollutant	Thresholds (pounds/day)
PM_{10}	150
ROG	75
NO_X	100
CO	550

ROG = reactive organic gas; NO_X = oxides of nitrogen; CO = carbon monoxide; PM_{10} = particulate matter with an aerodynamic diameter 10 microns or less.
SOURCE: ICAPCD 2017a.

Regardless of project size, all feasible standard measures specified by the ICAPCD for construction equipment and fugitive PM_{10} control for construction activities should be implemented at construction sites. Control measures for fugitive PM_{10} construction emissions in Imperial County are found in ICAPCD Regulation VIII and in the ICAPCD CEQA Air Quality Handbook and are discussed below.

3.3 Public Nuisance Law (Odors)

State of California Health and Safety Code Sections 41700 and 41705 and ICAPCD Rule 407 prohibit emissions from any source whatsoever in quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to the public health or damage to property.

The ICAPCD CEQA Air Quality Handbook provides screening level distances for potential odor sources. If a project is proposed within one mile of a wastewater treatment plant, sanitary landfill, composting station, feedlot, asphalt plant, painting and coating operation, or rendering plant, a potential odor problem may result (ICAPCD 2017a).

4.0 Emission Calculations

The project would result in air pollutant emissions associated with the construction and operation. Emissions were calculated using California Emissions Estimator Model (CalEEMod) Version 2022.1 (California Air Pollution Control Officers Association [CAPCOA] 2022). The CalEEMod program is a tool used to estimate emissions resulting from land development projects in the state of California. CalEEMod was developed with the participation of several state air districts.

CalEEMod estimates parameters such as the type and amount of construction equipment required, trip generation, and utility consumption based on the size and type of each specific land use using data collected from surveys performed in SCAQMD. Where available, parameters were modified to reflect project-specific data.

4.1 Construction-related Emissions

Construction-related activities are temporary, short-term sources of air pollutant emissions. Sources of construction-related emissions include:

- Fugitive dust from grading activities;
- Exhaust emissions from construction equipment;
- Application of chemical coatings (paints, stains, sealants, etc.); and
- Exhaust and fugitive dust emission from on-road vehicles (trips by workers, delivery trucks, and material-hauling trucks).

Heavy-duty construction equipment is usually diesel powered. Based on CARB's In-Use Off-Road Diesel-Fueled Fleets Regulation, heavy-duty construction equipment includes off-road diesel vehicles 25 horsepower or greater. In general, emissions from diesel-powered equipment contain more NO_X, SO_X, and particulate matter than gasoline-powered engines. However, diesel-powered engines generally produce less CO and less ROG than do gasoline-powered engines. Standard construction equipment includes tractors/loaders/backhoes, rubber-tired dozers, excavators, graders, cranes, forklifts, rollers, paving equipment, generator sets, welders, cement and mortar mixers, and air compressors.

Primary inputs are the numbers of each piece of equipment and the length of each construction stage. The construction equipment estimates are based on surveys performed by the South Coast Air Quality Management District and the Sacramento Metropolitan Air Quality Management District of typical construction projects which provide a basis for scaling equipment needs and schedule with a project's size. Air emission estimates in CalEEMod are based on the duration of construction phases; construction equipment type, quantity, and usage; grading area; season; and ambient temperature, among other parameters.

Construction emissions were calculated assuming construction would begin in June 2023 and last for eight months. Construction stages would include site preparation, grading/trenching, and foundations/equipment installation/wiring/commissioning.

4.1.1 Fugitive Dust

Fugitive dust would be associated with construction activities that involve ground disturbance. Fugitive dust emissions vary greatly during construction and are dependent on the amount and type of activity, silt content of the soil, and the weather. Vehicles moving over paved and unpaved surfaces, demolition, excavation, earth movement, grading, and wind erosion from exposed surfaces are all sources of fugitive dust. Calculation of fugitive dust emissions are based on the area of disturbed ground and the fugitive dust measures implemented. Based on discussion with ICAPCD staff, watering during ground disturbing activities would achieve a 50 percent reduction in fugitive dust.

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 5 acres or more for non-residential developments or 10 acres or more in size for residential developments. The project footprint consists of 4.5 acres of the 17.2-acre project site. However, because other portions of the project site may be used for staging areas, it was assumed that the total disturbed area could exceed 5 acres. 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 and/or washed at delivery site after removal of 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.

4.1.2 Construction Equipment

CalEEMod calculates emissions of all pollutants from construction equipment using emission factors from CARB's off-road diesel equipment emission factors database. The specific required construction equipment amount needed for

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the project is not known at this stage. Modeling was based on the default equipment type and amount for the ground-up construction of a light industrial use. This is conservative since the project would haul the necessary equipment to the site for installation while a light industrial use involves the ground-up construction of buildings which would require more construction equipment. The modeled construction equipment is summarized in Table 5.

Table 5 Construction Phases and Equipment		
Equipment	Quantity	Daily Operation Time (hours)
Site Preparation (3 weeks)		
Rubber Tired Dozers	3	8
Tractors/Loaders/Backhoes	4	8
Grading/Trenching (10 weeks)		
Grader	1	8
Excavator	1	8
Rubber Tired Dozer	1	8
Tractors/Loaders/Backhoes	3	8
Foundations/Installation/Wiring/Commissioning (19 weeks)		
Crane	1	7
Forklifts	3	8
Generator Set	1	8
Tractors/Loaders/Backhoes	3	7
Welder	1	8
NOTE: Each phase would also include vehicles associated with work commutes, dump trucks for hauling, and trucks for deliveries.		

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 5 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).

4.1.3 On-Road Vehicles

Construction would generate mobile source emissions from worker trips, hauling trips, and vendor trips. CalEEMod calculates emissions of all pollutants from on-road trucks and passenger vehicles using emission factors derived from CARB's motor vehicle emission inventory program EMFAC2017 (CARB 2017). Vehicle emission factors were multiplied by the model default total estimated number of trips and the average trip length to calculate the total mobile emissions.

CalEEMod calculates dust emissions from travel on paved and unpaved roads. By default, CalEEMod assumes the percentage of paved and unpaved roads for each district as provided by the district. For Imperial County, the default assumption is 50 percent paved and 50 percent unpaved. However, this is not characteristic of the roads in the vicinity of the project site. During construction, vehicles traveling to and from the project site would not traverse unpaved roads. However, it should be noted that Imperial County roadways do experience higher levels of entrained roadway dust. To account for these dust emissions, ICAPCD recommends modeling 90 percent paved roads during construction activities.

4.1.4 Construction Emission Estimates

Table 6 provides a summary of the criteria pollutant emissions generated by the project construction. CalEEMod output files for project construction and operations are contained in Attachment 1.

Table 6
Maximum Daily Construction Air Pollutant Emissions

Emission Source	Maximum Daily Emissions (pounds)					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Site Preparation	4	40	38	<1	59	11
Grading/Trenching	2	20	22	<1	45	7
Foundations/Installation/ Wiring/Commissioning	1	12	14	<1	28	3
Max Daily Emissions	**4**	**40**	**38**	**<1**	**59**	**11**
Significance Threshold	*75*	*100*	*550*	-	*150*	-
Exceeds Threshold?	***No***	***No***	***No***	-	***No***	-

SOURCE: Attachment 1.
NOTE: Totals may vary due to independent rounding.
ROG = reactive organic gas; NO_X = oxides of nitrogen; CO = carbon monoxide;
PM_{10} = particulate matter with an aerodynamic diameter 10 microns or less;
$PM_{2.5}$ = particulate matter with an aerodynamic diameter 2.5 microns or less.

As shown in Table 6, construction emissions associated with future construction of the project site would be less than all applicable ICAPCD significance thresholds. The emissions summarized in Table 6 account for the 50 percent reduction in dust due to daily watering, but do not account for any other emission reductions from any other standard or discretionary measure for dust control or construction equipment. These emissions are therefore conservative.

With implementation of the standard and discretionary measures for fugitive PM_{10} control and standard measures for construction combustion equipment, project construction impacts would be less than significant.

4.2 Operation-related Emissions

Operation-related sources of air pollutant emissions include the direct emission of criteria pollutants. Common direct emission sources associated with typical projects include mobile sources such as project-generated traffic, area sources such as the use of landscaping equipment, and energy sources such as the combustion of natural gas.

4.2.1 Mobile Sources

CalEEMod calculates mobile source emissions using emission factors derived from CARB's motor vehicle emission inventory program, EMFAC2017 (CARB 2017). 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. To account for these trips, a total of one round trip (two one-way trips) was modeled per weekday. The default trip length was increased to 20 miles. CalEEMod default emission factors for the soonest operational year of 2024 were modeled.

As discussed under the construction emission methodology for on-road vehicles, CalEEMod calculates dust emissions from travel on paved and unpaved roads. For Imperial County, the default assumption is 50 percent paved and 50 percent unpaved. However, this is not characteristic of the roads in the vicinity of the project site. During project operation, vehicles traveling to and from the project site would not traverse unpaved roads. However, the project site access road from Melon Road would be unpaved. However, as with construction activities, to account for these dust emissions and any entrained dust on paved roads, 90 percent paved roads was modeled.

4.2.2 Area and Energy Sources

Area source emissions associated with typical development projects include consumer products, natural gas used in space and water heating, architectural coatings, landscaping equipment, and mechanical equipment such as boilers or backup generators. Hearths (fireplaces) and woodstoves are also a source of area emissions. Emissions are generated from energy use such as the combustion of natural gas used in space and water heating. As discussed, the project would be an unmanned facility that would not be a source of area or energy emissions. However, as a conservative analysis, the project was modeled as a light industrial land use and default emission factors for light industrial area and energy sources were modeled.

4.2.3 Operational Emission Estimates

Table 7 provides a summary of the criteria pollutant emissions generated by the project operations. CalEEMod output files for project construction and operations are contained in Attachment 1.

Table 7
Maximum Daily Operations Air Pollutant Emissions

Emission Source	Maximum Daily Emissions (pounds)					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Mobile Sources	<1	<1	<1	<1	1	<1
Area Sources	1	<1	1	<1	<1	<1
Energy Sources	<1	<1	<1	<1	<1	<1
Total Operations	**1**	**<1**	**1**	**<1**	**1**	**<1**
Significance Threshold	*137*	*137*	*550*	*150*	*150*	*550*
Exceeds Threshold?	***No***	***No***	***No***	***No***	***No***	***No***

SOURCE: Attachment 1.
NOTE: Totals may vary due to independent rounding.
ROG = reactive organic gas; NO_X = oxides of nitrogen; CO = carbon monoxide;
PM_{10} = particulate matter with an aerodynamic diameter 10 microns or less;
$PM_{2.5}$ = particulate matter with an aerodynamic diameter 2.5 microns or less.

As shown in Table 7, operation of the project would result in minimal emissions that would be less than the applicable thresholds for all criteria pollutants. The project would not result in a cumulatively considerable net increase of criteria pollutants, and operational impacts would be less than significant.

5.0 Air Quality Impact Analysis

1. Would the project conflict with or obstruct implementation of the applicable air quality plan?

CARB is the lead agency for preparation of the SIP, which outlines the state measures to achieve NAAQS. CARB delegates responsibility for preparation of SIP elements to local air districts and requires local air districts to prepare Air Quality Attainment Plans outlining measures required to achieve CAAQS.

The ICAPCD is the air district responsible for the project area. Applicable ICAPCD air quality plans include:

- Imperial County 2009 State Implementation Plan for Particulate matter Less than 10 Microns in Aerodynamic Diameter;
- Imperial County 2013 State Implementation Plan for the 2006 24-Hour $PM_{2.5}$ Moderate Non-attainment Area; and
- Imperial County 2017 State Implementation Plan for the 2008 8-Hour Ozone Standard.

The primary concern for assessing consistency with air quality plans is whether the project would induce growth that would result in a net increase in criteria pollutant emissions that exceed the assumptions used to develop the plan. The criteria pollutant emission projections for the ICAPCD air quality plans are based on Southern California Association of Governments' (SCAG) population growth and regional vehicle miles traveled (VMT) projections, which are based in part on the land uses established by local general plans. As such, projects that propose development that is consistent with the local land use plans would be consistent with growth projections and air quality plans criteria pollutant emissions estimates. In the event that a project would result in development that is less dense than anticipated by the growth projections, the project would be considered consistent with the air quality plans. In the event a project would result in development that results in greater than anticipated growth projections, the project would result in air pollutant emissions that may not have been accounted for in the air quality plans and thus may obstruct or conflict with the air quality plans.

The project site is located within the City's SOI and is designated as an Urban Area land use in the Imperial County General Plan. The Urban Area designation includes areas surrounding the following seven incorporated cities: Brawley, El Centro, Westmorland, Holtville, Calipatria, Imperial, and Calexico. It is anticipated that these areas will eventually be annexed or incorporated. The project would construct a BESS that would not be a significant source of emissions. The project would be consistent with the growth projections and air quality plans criteria pollutant emissions estimates. Furthermore, the project would not construct housing or other uses that would result in regional population growth. The project would provide needed energy storage for the region and the state. Therefore, the project would not result in new growth beyond what was originally anticipated in SCAG's growth projections for Imperial County. Additionally, as summarized in Tables 6 and 7, construction and operation of the project would result in emissions that are below all applicable project-level significance thresholds. Therefore, project emissions would be consistent with SCAG's growth projections and the ICAPCD's air quality plans, and impacts would be less than significant.

2. Would the project 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?

The project area is in non-attainment areas for NAAQS and CAAQS for ozone and particulate matter. The majority of regional PM_{10} and $PM_{2.5}$ emissions originate from dust stirred up by wind or by vehicle traffic on unpaved roads (ICAPCD 2009). Other PM_{10} and $PM_{2.5}$ emissions originate from grinding operations, combustion sources such as motor vehicles, power plants, wood burning, forest fires, agricultural burning, and industrial processes. Ozone is not emitted directly, but is a result of atmospheric activity on precursors. NO_X and ROG are known as the chief "precursors" of ozone. These compounds react in the presence of sunlight to produce ozone. Approximately 88 percent of NO_X and 40 percent of ROG regional emissions originate from on- and off-road vehicles (ICAPCD 2010). Other major sources include solvent evaporation and miscellaneous processes such as pesticide application.

As shown in Table 6, project construction would not exceed the applicable regional emissions thresholds. These thresholds are designed to provide limits below which project emissions would not significantly change regional air quality. The project would implement all standard and discretionary measures for fugitive PM_{10} control and standard measures for construction combustion equipment. Therefore, project construction would not result in a cumulatively considerable net increase in emissions of ozone, PM_{10}, or $PM_{2.5}$, and impacts would be less than significant.

Long-term emissions of regional air pollutants occur from operational sources. As shown in Table 7, operation of the project would result in minimal emissions that would be less than the applicable thresholds for all criteria pollutants. Therefore, project operation would not result in a cumulatively considerable net increase in emissions of ozone, PM_{10}, or $PM_{2.5}$, and impacts would be less than significant.

3. *Would the project expose sensitive receptors (including, but not limited to, schools, hospitals, resident care facilities, day-care centers and project residents) to substantial pollutant concentrations?*

Sensitive land uses include schools and schoolyards, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential communities. The project site is located adjacent to residential uses.

Diesel Particulate Matter – Construction

Construction of the project and associated infrastructure would result in short-term diesel exhaust emissions from on-site heavy-duty equipment. Construction of the project would result in the generation of diesel-exhaust DPM emissions from the use of off-road diesel equipment required for site preparation and grading, and other construction activities and on-road diesel equipment used to bring materials to and from the project site.

Generation of DPM from construction projects typically occurs in a single area for a short period. Construction is anticipated to last for approximately one year. The dose of DPM to which the receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the extent of exposure that person has with the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for the Maximally Exposed Individual. The risks estimated for a Maximally Exposed Individual are higher if a fixed exposure occurs over a longer period of time. According to the Office of Environmental Health Hazard Assessment (OEHHA), health risk assessments, which determine the exposure of sensitive receptors to toxic emissions, should be based on a 30-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the project (OEHHA 2015). Thus, if the duration of proposed construction activities near any specific sensitive receptor were eight months, the exposure would be 2 percent (8 months divided by 30 years) of the total exposure period used for health risk calculation. Further, the project would implement the standard measures for construction combustion equipment summarized in Section 4.1.2. Additionally, with ongoing implementation of U.S. EPA and CARB requirements for cleaner fuels; off-road diesel engine retrofits; and new, low-emission diesel engine types, the DPM emissions of individual equipment would be reduced over time. All construction equipment is subject to the CARB In-Use Off-Road Diesel-Fueled Fleets Regulation, which limits unnecessary idling to 5 minutes, requires all construction fleets to be labeled and reported to CARB, bans Tier 0 equipment and phases out Tier 1 and 2 equipment (thereby replacing fleets with cleaner equipment), and requires that fleets comply with Best Available Control Technology requirements. Therefore, due to the limited duration of construction activities, implementation of standard measures for construction combustion equipment, and implementation of the In-Use Off-Road Diesel-Fueled Fleets Regulation, DPM generated by project construction is not expected to create conditions where the probability is greater than 10 in 1 million of contracting cancer for the Maximally Exposed Individual or to generate ground-level concentrations of non-carcinogenic TACs that exceed a Hazard Index greater than 1 for the Maximally Exposed Individual. Therefore, project construction would not expose sensitive receptors to substantial pollutant concentration, and impacts would be less than significant.

Carbon Monoxide Hot Spots

A CO hot spot is an area of localized CO pollution that is caused by severe vehicle congestion on major roadways, typically near intersections. CO hot spots have the potential to violate state and federal CO standards at intersections, even if the broader basin is in attainment for federal and state levels. Due to increased requirements for cleaner vehicles, equipment, and fuels, CO levels in the state have dropped substantially. All air basins are attainment or maintenance areas for CO. Therefore, recent screening procedures based on more current methodologies have been developed. The Sacramento Metropolitan Air Quality Management District developed a screening threshold in 2011, which states that any project involving an intersection experiencing 31,600 vehicles per hour or more will require detailed analysis. In addition, the Bay Area Air Quality Management District developed a screening threshold in 2010, which states that any project involving an intersection experiencing 44,000 vehicles per hour would require detailed analysis. No intersections in the vicinity of the project carry this substantial amount of traffic. Additionally, there are no signalized intersections in the vicinity of the project site. Traffic generated by the project would not result in any heavily congested intersections. Thus, the project is not anticipated to result in a CO hot spot.

4. *Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?*

The potential for an odor impact is dependent on a number of variables including the nature of the odor source, distance between the receptor and odor source, and local meteorological conditions. Project construction would result in the emission of diesel fumes and other odors typically associated with construction activities. Sensitive receptors near the project site include residential uses; however, exposure to odors associated with project construction would be short term (8 months) and temporary in nature. Further, per CARB's Airborne Toxic Control Measures 13 (California Code of Regulations Chapter 10 Section 2485), the applicant shall not allow idling time to exceed 5 minutes unless more time is required per engine manufacturers' specifications or for safety reasons. Therefore, project construction would not generate odors adversely affecting a substantial number of people, and impacts would be less than significant.

The ICAPCD CEQA Air Quality Handbook provides screening level distances for potential odor sources. If a project is proposed within one mile of a wastewater treatment plant, sanitary landfill, composting station, feedlot, asphalt plant, painting and coating operation, or rendering plant, a potential odor problem may result (ICAPCD 2017a). The project does not include the construction of any of these uses. Energy storage facilities are not known to emit odors during operation. Project operation would include occasional inspection and maintenance. These operational activities are not known to emit odors. Therefore, operational impacts related to odor would also be less than significant.

6.0 Conclusions

The project's potential to result in impacts to air quality was assessed in accordance with the guidelines, policies, and standards established by the ICAPCD. The applicable ICAPCD air quality plans include the 2009, 2013, and 2017 SIPs for reducing PM_{10}, $PM_{2.5}$, and ozone. The project would construct a BESS that would not be a significant source of emissions. The project would be consistent with the growth projections and air quality plans criteria pollutant emissions estimates. Additionally, the project would not result in an air quality violation. Therefore, the project would not conflict with or obstruct the implementation of the regional air quality plans, and impacts would be less than significant.

As shown in Table 6, project construction would not exceed the applicable regional emissions thresholds. The project would implement all standard and discretionary measures for fugitive PM_{10} control and standard measures for construction combustion equipment. As shown in Table 7, operation of the project would result in minimal emissions that would be less than the applicable thresholds for all criteria pollutants. Therefore, project construction and operation would not result in a cumulatively considerable net increase in emissions of ozone, PM_{10}, or $PM_{2.5}$, and impacts would be less than significant.

Project construction would not result in the exposure of sensitive receptors to significant levels of DPM that could result in excess cancer risks. Additionally, the project would not result in the creation of a CO hot spot. Therefore, construction and operation of the project would not expose sensitive receptors to substantial pollutant concentrations, and impacts would be less than significant.

During construction, potential odor sources would be associated with construction equipment; however, exposure to odors associated with project construction would be short term and temporary in nature. Operation of the project would not include any uses that would generate substantial odors. Therefore, the project would not generate odors adversely affecting a substantial number of people, and impacts would be less than significant.

If you have any questions about the results of this analysis, please contact me at jfleming@reconenvironmental.com or (619) 308-9333 extension 177.

Sincerely,

Jessica Fleming

Jessica Fleming
Senior Air Quality Specialist

JLF:sh

Attachment

7.0 Certification

The following is a list of preparers, persons, and organizations involved with the air quality analysis.

RECON Environmental, Inc.
- Jessica Fleming, County-approved Air Quality Consultant
- Stacey Higgins, Senior Production Specialist
- Benjamin Arp, GIS Specialist

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8.0 References Cited

California Air Pollution Control Officers Association (CAPCOA)

2022 California Emissions Estimator Model (CalEEMod), Version 2022.1.

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2010 2009 1997 8-Hour Ozone Modified Air Quality Management Plan. July.

2017a *CEQA Air Quality Handbook, Guidelines for the Implementation of the California Environmental Quality Act of 1970*. December.

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FIGURE 1
Regional Location

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Image Source: NearMap (flown July 2022)

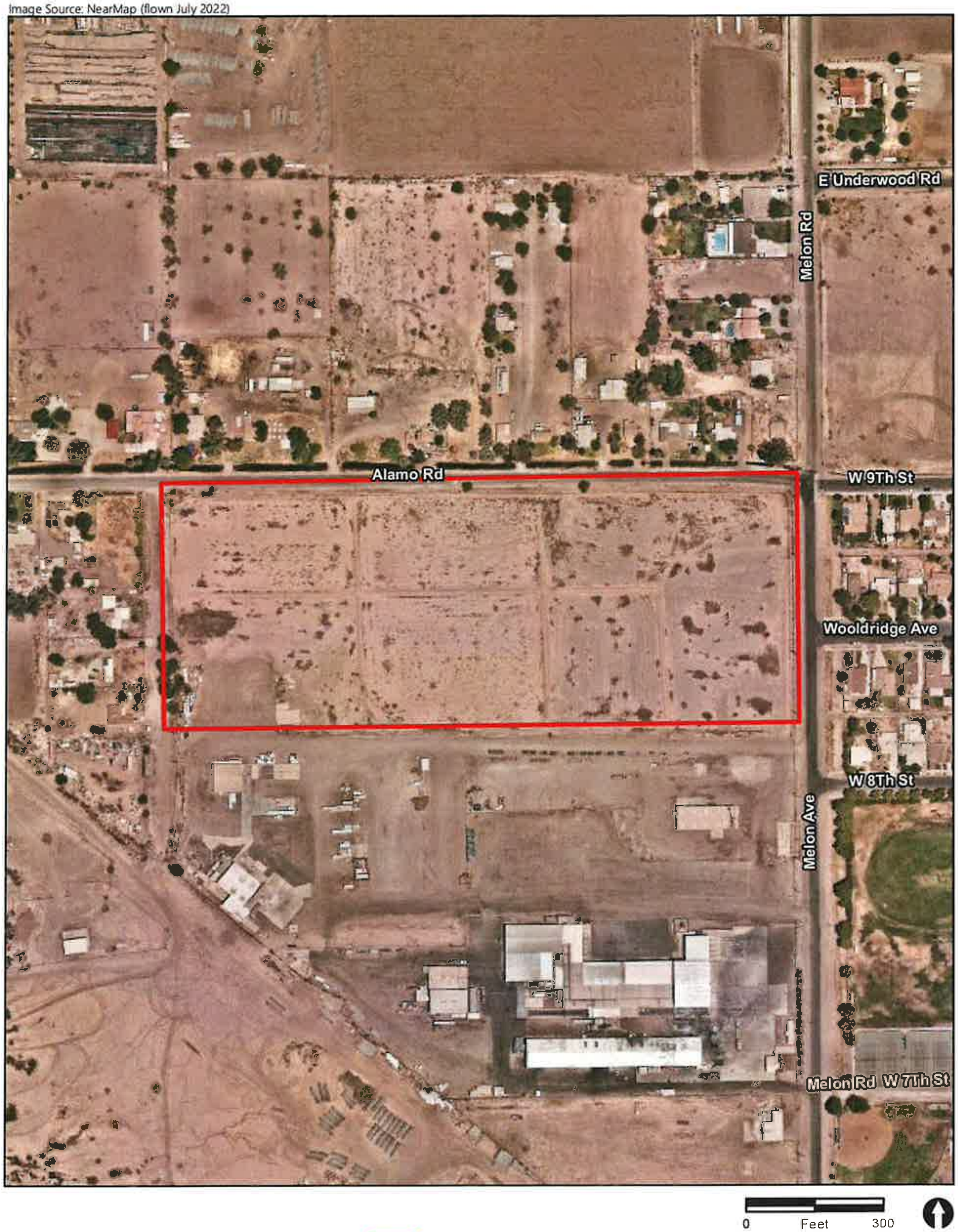

FIGURE 2

Project Location on Aerial Photograph

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Map Source: Stellavise Solar Engineering

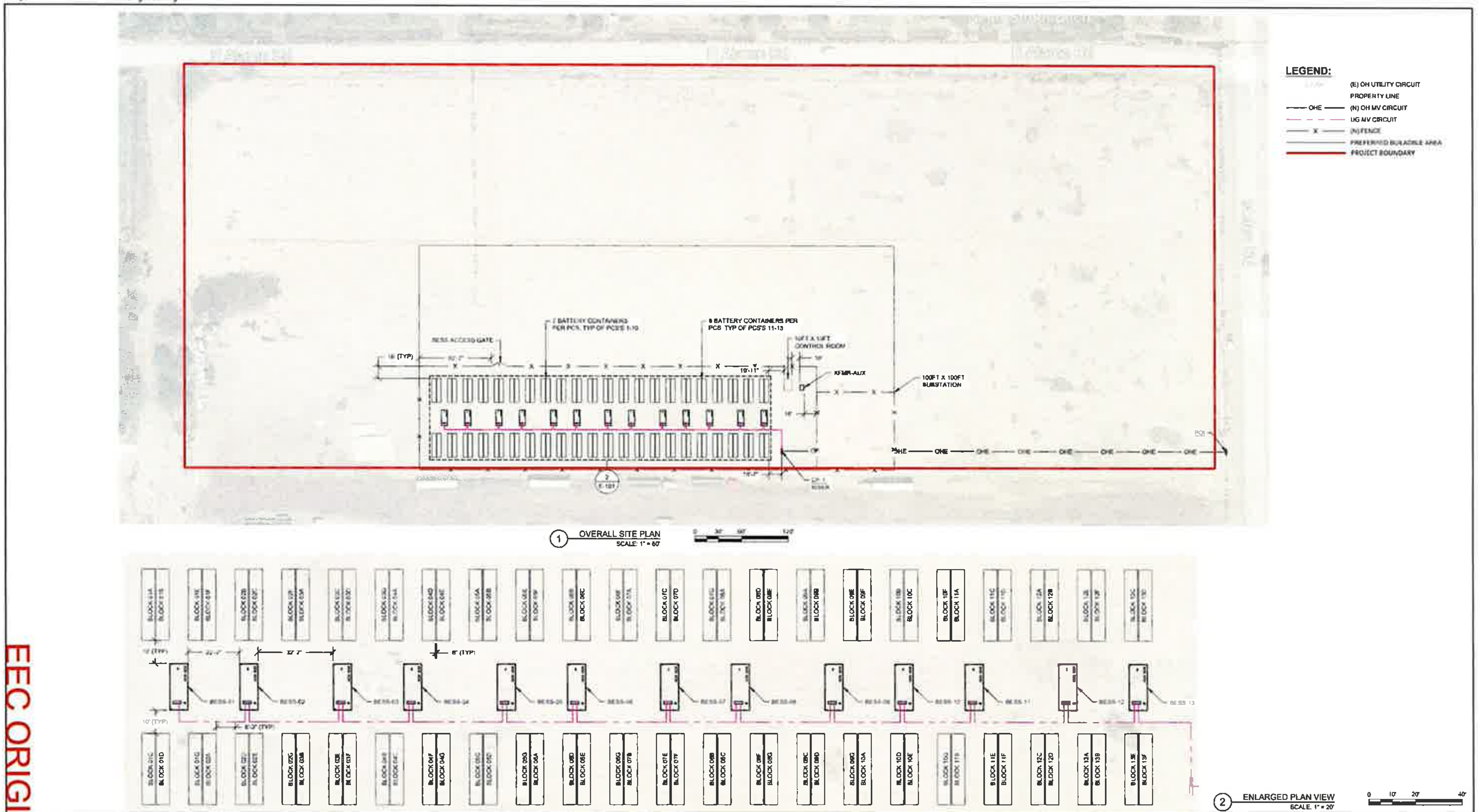

FIGURE 3
Site Plan

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02/07/23

ATTACHMENT 1

Holtville Peaker Detailed Report

Holtville Peaker Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Holtville Peaker
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.40
Precipitation (days)	4.80
Location	32.81815122274024, -115.39010295719622
County	Imperial
City	Unincorporated
Air District	Imperial County APCD
Air Basin	Salton Sea
TAZ	5604
EDFZ	19
Electric Utility	Imperial Irrigation District
Gas Utility	Southern California Gas

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
General Light Industry	20.0	1000sqft	4.50	20,000	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.85	4.08	39.9	37.9	0.05	1.81	57.1	58.9	1.66	9.80	11.5	—	5,577	5,577	0.23	0.05	1.12	5,599
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.57	1.31	12.0	13.9	0.02	0.55	27.6	28.1	0.51	2.77	3.28	—	2,618	2,618	0.10	0.04	0.02	2,632
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.93	0.78	7.29	7.82	0.01	0.34	15.0	15.3	0.31	1.86	2.17	—	1,296	1,296	0.05	0.02	0.16	1,302
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.17	0.14	1.33	1.43	< 0.005	0.06	2.74	2.80	0.06	0.34	0.40	—	214	214	0.01	< 0.005	0.03	216
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	75.0	100	550	—	—	—	150	—	—	—	—	—	—	—	—	—	—
Unmit.	—	No	No	No	—	—	—	No	—	—	—	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Threshol	—	75.0	100	550	—	—	—	150	—	—	—	—	—	—	—	—	—	—
Unmit.	—	No	No	No	—	—	—	No	—	—	—	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	4.85	4.08	39.9	37.9	0.05	1.81	57.1	58.9	1.66	9.80	11.5	—	5,577	5,577	0.23	0.05	1.12	5,599
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	1.57	1.31	12.0	13.9	0.02	0.55	27.6	28.1	0.51	2.77	3.28	—	2,618	2,618	0.10	0.04	0.02	2,632
2024	1.50	1.25	11.4	13.8	0.02	0.50	27.6	28.1	0.46	2.77	3.23	—	2,614	2,614	0.10	0.04	0.02	2,628
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.93	0.78	7.29	7.82	0.01	0.34	15.0	15.3	0.31	1.86	2.17	—	1,296	1,296	0.05	0.02	0.16	1,302
2024	0.03	0.02	0.22	0.27	< 0.005	0.01	0.54	0.55	0.01	0.05	0.06	—	51.3	51.3	< 0.005	< 0.005	0.01	51.6
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.17	0.14	1.33	1.43	< 0.005	0.06	2.74	2.80	0.06	0.34	0.40	—	214	214	0.01	< 0.005	0.03	216
2024	0.01	< 0.005	0.04	0.05	< 0.005	< 0.005	0.10	0.10	< 0.005	0.01	0.01	—	8.50	8.50	< 0.005	< 0.005	< 0.005	8.54

EEC ORIGINAL PKG

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	0.19	0.67	0.20	1.20	< 0.005	0.01	0.58	0.60	0.02	0.09	0.10	0.00	1,008	1,008	0.07	0.01	5.35	1,018
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.03	0.52	0.19	0.26	< 0.005	0.01	0.58	0.60	0.01	0.09	0.10	0.00	1,000	1,000	0.07	0.01	5.21	1,010
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.10	0.59	0.19	0.67	< 0.005	0.01	0.42	0.43	0.01	0.06	0.08	0.00	994	994	0.07	0.01	5.25	1,004
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.02	0.11	0.03	0.12	< 0.005	< 0.005	0.08	0.08	< 0.005	0.01	0.01	0.00	165	165	0.01	< 0.005	0.87	166
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	137	137	550	150	—	—	150	—	—	550	—	—	—	—	—	—	—
Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	137	137	550	150	—	—	150	—	—	550	—	—	—	—	—	—	—
Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—

EEC ORIGINAL PKG

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.01	0.01	0.02	0.18	< 0.005	< 0.005	0.58	0.58	< 0.005	0.09	0.09	—	36.5	36.5	< 0.005	< 0.005	0.14	37.1

Area	0.15	0.65	0.01	0.87	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.58	3.58	< 0.005	< 0.005	—	3.59
Energy	0.02	0.01	0.17	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	968	968	0.07	0.01	—	972
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.21	5.21
Total	0.19	0.67	0.20	1.20	< 0.005	0.01	0.58	0.60	0.02	0.09	0.10	0.00	1,008	1,008	0.07	0.01	5.35	1,018
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.01	0.01	0.02	0.11	< 0.005	< 0.005	0.58	0.58	< 0.005	0.09	0.09	—	32.0	32.0	< 0.005	< 0.005	< 0.005	32.5
Area	—	0.50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.02	0.01	0.17	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	968	968	0.07	0.01	—	972
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.21	5.21
Total	0.03	0.52	0.19	0.26	< 0.005	0.01	0.58	0.60	0.01	0.09	0.10	0.00	1,000	1,000	0.07	0.01	5.21	1,010
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.01	0.01	0.01	0.10	< 0.005	< 0.005	0.42	0.42	< 0.005	0.06	0.06	—	24.2	24.2	< 0.005	< 0.005	0.04	24.5
Area	0.08	0.57	< 0.005	0.43	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.76	1.76	< 0.005	< 0.005	—	1.77
Energy	0.02	0.01	0.17	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	968	968	0.07	0.01	—	972
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.21	5.21
Total	0.10	0.59	0.19	0.67	< 0.005	0.01	0.42	0.43	0.01	0.06	0.08	0.00	994	994	0.07	0.01	5.25	1,004
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	< 0.005	< 0.005	< 0.005	0.02	< 0.005	< 0.005	0.08	0.08	< 0.005	0.01	0.01	—	4.00	4.00	< 0.005	< 0.005	0.01	4.06
Area	0.01	0.10	< 0.005	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.29	0.29	< 0.005	< 0.005	—	0.29
Energy	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	160	160	0.01	< 0.005	—	161

Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.86	0.86
Total	0.02	0.11	0.03	0.12	< 0.005	< 0.005	0.08	0.08	< 0.005	0.01	0.01	0.00	165	165	0.01	< 0.005	0.87	166

3. Construction Emissions Details

3.1. Site Preparation (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.70	3.95	39.7	35.5	0.05	1.81	—	1.81	1.66	—	1.66	—	5,295	5,295	0.21	0.04	—	5,314
Dust From Material Movemen:	—	—	—	—	—	—	9.83	9.83	—	5.05	5.05	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	0.16	1.63	1.46	< 0.005	0.07	—	0.07	0.07	—	0.07	—	218	218	0.01	< 0.005	—	218

Dust From Material Movemen:	—	—	—	—	—	—	0.40	0.40	—	0.21	0.21	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.30	0.27	< 0.005	0.01	—	0.01	0.01	—	0.01	—	36.0	36.0	< 0.005	< 0.005	—	36.2
Dust From Material Movemen:	—	—	—	—	—	—	0.07	0.07	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.13	0.14	2.42	0.00	0.00	47.2	47.2	0.00	4.75	4.75	—	281	281	0.01	0.01	1.12	285
Vendor	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	0.00
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.01	0.07	0.00	0.00	1.94	1.94	0.00	0.20	0.20	—	10.5	10.5	< 0.005	< 0.005	0.02	10.6
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	0.35	0.35	0.00	0.04	0.04	—	1.74	1.74	< 0.005	< 0.005	< 0.005	1.76
Vendor	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	0.00

Hauling	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	0.00

3.3. Grading (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.43	2.04	20.0	19.7	0.03	0.94	—	0.94	0.87	—	0.87	—	2,958	2,958	0.12	0.02	—	2,968
Dust From Material Movemen:	—	—	—	—	—	—	3.54	3.54	—	1.71	1.71	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.33	0.28	2.74	2.70	< 0.005	0.13	—	0.13	0.12	—	0.12	—	405	405	0.02	< 0.005	—	407
Dust From Material Movemen:	—	—	—	—	—	—	0.49	0.49	—	0.23	0.23	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.50	0.49	< 0.005	0.02	—	0.02	0.02	—	0.02	—	67.1	67.1	< 0.005	< 0.005	—	67.3

Dust From Material Movement	—	—	—	—	—	—	0.09	0.09	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.12	0.12	2.07	0.00	0.00	40.5	40.5	0.00	4.07	4.07	—	241	241	0.01	0.01	0.96	245
Vendor	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	0.00
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.02	0.20	0.00	0.00	5.55	5.55	0.00	0.56	0.56	—	30.0	30.0	< 0.005	< 0.005	0.06	30.4
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	1.01	1.01	0.00	0.10	0.10	—	4.96	4.96	< 0.005	< 0.005	0.01	5.03
Vendor	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	0.00
Hauling	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	0.00

3.5. Building Construction (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.08	0.66	0.00	0.00	22.7	22.7	0.00	2.28	2.28	—	114	114	0.01	< 0.005	0.01	115
Vendor	0.01	< 0.005	0.14	0.07	< 0.005	< 0.005	4.88	4.89	< 0.005	0.49	0.49	—	107	107	< 0.005	0.01	0.01	111
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.02	0.20	0.00	0.00	5.46	5.46	0.00	0.55	0.55	—	29.5	29.5	< 0.005	< 0.005	0.06	29.9
Vendor	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	1.18	1.18	< 0.005	0.12	0.12	—	25.7	25.7	< 0.005	< 0.005	0.03	26.8
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	1.00	1.00	0.00	0.10	0.10	—	4.88	4.88	< 0.005	< 0.005	0.01	4.95
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.21	0.21	< 0.005	0.02	0.02	—	4.25	4.25	< 0.005	< 0.005	< 0.005	4.43
Hauling	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	0.00

3.7. Building Construction (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	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	0.00

EEC ORIGINAL PKG

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.50	1.26	11.8	13.2	0.02	0.55	—	0.55	0.51	—	0.51	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.50	1.26	11.8	13.2	0.02	0.55	—	0.55	0.51	—	0.51	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.36	0.30	2.84	3.17	0.01	0.13	—	0.13	0.12	—	0.12	—	577	577	0.02	< 0.005	—	579
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.52	0.58	< 0.005	0.02	—	0.02	0.02	—	0.02	—	95.5	95.5	< 0.005	< 0.005	—	95.9
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	1.16	0.00	0.00	22.7	22.7	0.00	2.28	2.28	—	135	135	0.01	< 0.005	0.54	137
Vendor	0.01	0.01	0.13	0.07	< 0.005	< 0.005	4.88	4.89	< 0.005	0.49	0.49	—	107	107	< 0.005	0.01	0.29	111
Hauling	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	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.22	0.26	< 0.005	0.01	—	0.01	0.01	—	0.01	—	46.9	46.9	< 0.005	< 0.005	—	47.1
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	< 0.005	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.77	7.77	< 0.005	< 0.005	—	7.79
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.07	0.61	0.00	0.00	22.7	22.7	0.00	2.28	2.28	—	112	112	0.01	< 0.005	0.01	113
Vendor	0.01	< 0.005	0.13	0.06	< 0.005	< 0.005	4.88	4.89	< 0.005	0.49	0.49	—	105	105	< 0.005	0.01	0.01	110
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.44	0.44	0.00	0.04	0.04	—	2.35	2.35	< 0.005	< 0.005	< 0.005	2.38
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.10	0.10	< 0.005	0.01	0.01	—	2.06	2.06	< 0.005	< 0.005	< 0.005	2.15
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	0.08	0.08	0.00	0.01	0.01	—	0.39	0.39	< 0.005	< 0.005	< 0.005	0.39
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	0.34	0.34	< 0.005	< 0.005	< 0.005	0.36
Hauling	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	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	0.01	0.01	0.02	0.18	< 0.005	< 0.005	0.58	0.58	< 0.005	0.09	0.09	—	36.5	36.5	< 0.005	< 0.005	0.14	37.1
Total	0.01	0.01	0.02	0.18	< 0.005	< 0.005	0.58	0.58	< 0.005	0.09	0.09	—	36.5	36.5	< 0.005	< 0.005	0.14	37.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	0.01	0.01	0.02	0.11	< 0.005	< 0.005	0.58	0.58	< 0.005	0.09	0.09	—	32.0	32.0	< 0.005	< 0.005	< 0.005	32.5
Total	0.01	0.01	0.02	0.11	< 0.005	< 0.005	0.58	0.58	< 0.005	0.09	0.09	—	32.0	32.0	< 0.005	< 0.005	< 0.005	32.5
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	< 0.005	< 0.005	< 0.005	0.02	< 0.005	< 0.005	0.08	0.08	< 0.005	0.01	0.01	—	4.00	4.00	< 0.005	< 0.005	0.01	4.06
Total	< 0.005	< 0.005	< 0.005	0.02	< 0.005	< 0.005	0.08	0.08	< 0.005	0.01	0.01	—	4.00	4.00	< 0.005	< 0.005	0.01	4.06

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	760	760	0.05	0.01	—	763
Total	—	—	—	—	—	—	—	—	—	—	—	—	760	760	0.05	0.01	—	763
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	760	760	0.05	0.01	—	763
Total	—	—	—	—	—	—	—	—	—	—	—	—	760	760	0.05	0.01	—	763
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	126	126	0.01	< 0.005	—	126
Total	—	—	—	—	—	—	—	—	—	—	—	—	126	126	0.01	< 0.005	—	126

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	0.02	0.01	0.17	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	208	208	0.02	< 0.005	—	209

Total	0.02	0.01	0.17	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	208	208	0.02	< 0.005	—	209
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	0.02	0.01	0.17	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	208	208	0.02	< 0.005	—	209
Total	0.02	0.01	0.17	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	208	208	0.02	< 0.005	—	209
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	34.5	34.5	< 0.005	< 0.005	—	34.6
Total	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	34.5	34.5	< 0.005	< 0.005	—	34.6

4.3. Area Emissions by Source

4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.43	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.15	0.14	0.01	0.87	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.58	3.58	< 0.005	< 0.005	—	3.59
Total	0.15	0.65	0.01	0.87	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.58	3.58	< 0.005	< 0.005	—	3.59

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.43	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	0.50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.01	0.01	< 0.005	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.29	0.29	< 0.005	< 0.005	—	0.29
Total	0.01	0.10	< 0.005	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.29	0.29	< 0.005	< 0.005	—	0.29

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

EEC ORIGINAL PKG

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Light Industry	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Light Industry	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.21	5.21
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.21	5.21
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.21	5.21
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.21	5.21
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.86	0.86
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.86	0.86

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

EEC ORIGINAL PKG

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequest ered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequest ered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	6/1/2023	6/21/2023	5.00	15.0	—
Grading	Grading	6/22/2023	8/30/2023	5.00	50.0	—
Building Construction	Building Construction	8/31/2023	1/10/2024	5.00	95.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29

Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	8.40	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	3.28	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT

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5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	0.00	0.00	22.5	0.00	—
Grading	0.00	0.00	50.0	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	Other	50%	50%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
General Light Industry	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2023	0.00	457	0.03	< 0.005

2024	0.00	457	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
General Light Industry	2.00	0.00	0.00	521	40.0	0.00	0.00	10,429

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	30,000	10,000	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
General Light Industry	607,489	457	0.0330	0.0040	649,692

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
General Light Industry	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
General Light Industry	0.00	0.00

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
General Light Industry	Other commercial A/C and heat pumps	R-410A	2,088	0.30	4.00	4.00	18.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type
—	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	31.1	annual days of extreme heat
Extreme Precipitation	0.00	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A

Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	0	0	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	1	1	1	2
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	59.9
AQ-PM	43.9
AQ-DPM	8.23
Drinking Water	56.2
Lead Risk Housing	39.6
Pesticides	82.1
Toxic Releases	28.8
Traffic	3.59
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	26.6
Haz Waste Facilities/Generators	16.6
Impaired Water Bodies	96.3
Solid Waste	0.00
Sensitive Population	—
Asthma	86.7
Cardio-vascular	87.5
Low Birth Weights	29.9
Socioeconomic Factor Indicators	—
Education	86.1
Housing	46.0
Linguistic	94.3
Poverty	78.2

Unemployment	99.4

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	18.58077762
Employed	17.20775055
Median HI	3.695624278
Education	—
Bachelor's or higher	19.41485949
High school enrollment	100
Preschool enrollment	23.26446811
Transportation	—
Auto Access	37.4566919
Active commuting	32.84999358
Social	—
2-parent households	37.08456307
Voting	34.2871808
Neighborhood	—
Alcohol availability	43.85987425
Park access	48.27409213
Retail density	15.98870781
Supermarket access	64.72475298
Tree canopy	8.905427948
Housing	—
Homeownership	46.24663159

Housing habitability	54.08700115
Low-inc homeowner severe housing cost burden	73.96381368
Low-inc renter severe housing cost burden	28.6154241
Uncrowded housing	45.96432696
Health Outcomes	—
Insured adults	47.60682664
Arthritis	0.0
Asthma ER Admissions	8.1
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	48.3
Cognitively Disabled	19.2
Physically Disabled	8.8
Heart Attack ER Admissions	3.8
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0

No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	7.8
Elderly	39.0
English Speaking	4.8
Foreign-born	56.6
Outdoor Workers	4.4
Climate Change Adaptive Capacity	—
Impervious Surface Cover	65.7
Traffic Density	7.3
Traffic Access	23.0
Other Indices	—
Hardship	88.7
Other Decision Support	—
2016 Voting	0.0

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	68.0
Healthy Places Index Score for Project Location (b)	22.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Approximately 19,386 square feet inverters and BESS containers, rounded up to 20,000 4.5 acre project impact area
Construction: Construction Phases	6-8 month construction duration Site preparation - 3 weeks Grading/trenching - 10 weeks Foundations/BESS installation/wiring/commissioning - 19 weeks
Construction: On-Road Fugitive Dust	All roads used to access project site are paved. ICAPCD recommends modeling 90 percent paved roads during construction activities.
Operations: Vehicle Data	Unmanned/remote facility. 1 round trip modeled to account for any routine maintenance. Trip length increased to 20 miles.
Operations: Road Dust	Used same paved road % as construction workers
Operations: Water and Waste Water	Unmanned facility, no water use
Operations: Solid Waste	Unmanned facility, no solid waste

RECON

An Employee-Owned Company

February 15, 2023

Mr. Ramon Gonzalez
Senior Project Coordinator
Z Global
750 W. Main Street
El Centro, CA 92243

Reference: Greenhouse Gas Analysis for the Peaker Holtville BESS Project, Holtville, California (RECON Number 10247)

Dear Mr. Gonzalez:

The purpose of this letter report is to assess potential greenhouse gas (GHG) impacts associated with construction and operation of the Holtville Peaker Battery Energy Storage Site (BESS) Project (project). As discussed in this analysis, the project would not make a cumulatively considerable contribution to total GHG emissions in Imperial County or California. As California procures increasing amounts of renewable energy to meet the goals of Senate Bill (SB) 100, the state will need to deploy a significant amount of energy storage capability. As the project would provide energy storage, it would assist the state's goal of utilizing 100 percent renewable energy by 2045. Therefore, the project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emission of GHGs, and impacts would be less than significant.

1.0 Project Description

The 17.2-acre project site consists of a vacant lot located at Assessor Parcel Number 045-570-087, southwest of the intersection of East Alamo Road and Melon Road in the City of Holtville's (City's) sphere of influence (SOI) within Imperial County, California (Figure 1). The project site is surrounded by residential development with scattered commercial and industrial development (Figure 2).

The project would include development of a BESS that would connect to an existing 92-kilovolt gen-tie line (Figure 3). The BESS facility would include battery containers and storage sites, a control room, and associated facilities surrounded by fencing in the south-central portion of the parcel, with the remainder of the parcel used for temporary construction access and staging. Access to the facility would occur from Melon Road.

2.0 Environmental Setting

2.1 State GHG Inventory

The California Air Resources Board (CARB) performs statewide GHG inventories. The inventory is divided into nine broad sectors of economic activity: agriculture, commercial, electricity generation, forestry, high global warming potential (GWP) emitters, industrial, recycling and waste, residential, and transportation. Emissions are quantified in million metric tons of carbon dioxide equivalent (MMT CO_2E). Table 1 shows the estimated statewide GHG emissions for the years 1990, 2005, 2012, and 2018. Although annual GHG inventory data is available for years 2000 through 2020, the years 1990, 2005, 2012, and 2018 are highlighted in Table 1 because 1990 is the baseline year for established reduction targets, and 2005, 2012, and 2018 correspond to the same years for which inventory data for the region is available.

Table 1 California GHG Emissions by Sector				
Sector	1990[1] Emissions in MMT CO_2E (% total)[2]	2005[3] Emissions in MMT CO_2E (% total)[2]	2012[3] Emissions in MMT CO_2E (% total)[2]	2018[3] Emissions in MMT CO_2E (% total)[2]
Electricity Generation	110.5 (25.7%)	108.1 (22.6%)	99.1 (22.8%)	65.1 (15.8%)
Transportation	150.6 (35.0%)	187.6 (39.2%)	161.8 (37.2%)	169.6 (41.3%)
Industrial	105.3 (24.4%)	102.3 (21.4%)	91.0 (20.9%)	93.7 (22.8%)
Commercial	14.4 (3.4%)	16.1 (3.4%)	19.6 (4.5%)	22.3 (5.4%)
Residential	29.7 (6.9%)	30.3 (7.0%)	27.9 (6.4%)	28.1 (6.8%)
Agriculture & Forestry	18.9 (4.4%)	33.7 (7.0%)	35.2 (8.1%)	32.2 (7.8%)
Not Specified	1.3 (0.3%)	--	--	--
Total[4]	**430.7**	**478.1**	**434.6**	**411.0**

SOURCE: CARB 2007 and 2022a.
[1]1990 data was obtained from the CARB 2007 source and are based on Intergovernmental Panel on Climate Change (IPCC) fourth assessment report GWPs.
[2]Percentages may not total 100 due to rounding.
[3]2005, 2012, and 2018 data was retrieved from the CARB 2022a source and are based on IPCC fourth assessment report GWPs.
[4]Totals may vary due to independent rounding.

As shown in Table 1, statewide GHG source emissions totaled approximately 431 MMT CO_2E in 1990, 478 MMT CO_2E in 2005, 435 MMT CO_2E in 2012, and 411 MMT CO_2E in 2018. Many factors affect year-to-year changes in GHG emissions, including economic activity, demographic influences, environmental conditions such as drought, and the impact of regulatory efforts to control GHG emissions. As shown in Table 1, transportation-related emissions consistently contribute to the most GHG emissions.

2.2 Regional GHG Inventory

The Imperial County (County) Regional Climate Action Plan (Regional CAP) was adopted in June 2021 (Imperial County 2021). The Regional CAP inventoried existing emissions within the County and each of its incorporated cities including Holtville. The results of the countywide emissions inventories are summarized in Table 2. As shown, agricultural-related GHG emissions contributed the most countywide.

Table 2 Imperial Valley Regional GHG Emissions Inventory							
	2005		2012		2018		
Emissions Sector	MT CO_2E[1]	% Total	MT CO_2E[1]	% Total	MT CO_2E[1]	% Total	%Change from 2005
Transportation	656,655	16.3%	650,729	17.3%	748,111	19.7%	+13.9%
Energy	1,006,987	25.1%	757,037	20.2%	484,863	12.8%	-51.9%
Water	28,114	0.7%	30,158	0.8%	34,291	0.9%	+22.0%
Solid Waste	218,847	5.4%	132,773	3.5%	148,337	3.9%	-32.2%
Agriculture	2,081,481	51.8%	2,155,325	57.4%	2,354,168	61.9%	+13.1%
Propane	13,698	0.3%	14,856	0.4%	19,112	0.5%	+39.5%
Calexico POE[2]	12,649	0.3%	12,649	0.3%	12,649	0.3%	0.0%
Total[3]	**4,018,430**	**100%**	**3,753,527**	**100%**	**3,801,531**	**100%**	**-5.4%**

SOURCE: Imperial County 2021.
NOTE: Totals may vary due to independent rounding.
[1]MT CO_2E = metric tons of carbon dioxide equivalent.
[2]Data for emissions at the ports of entry (POEs) was only available for 2015. For purposes of this inventory, emissions estimates from 2015 were assumed constant for each inventory year. Emissions from POEs are not apportioned to individual jurisdictions.
[3]Electricity consumption associated with potable water treatment and delivery is not included in this total, as data for this activity was not available for unincorporated County.

2.3 Local GHG Inventory

The local GHG inventory for the City was prepared as part of the Regional CAP, and is summarized in Table 3. As shown, energy-related GHG emissions contributed the most citywide.

Table 3 City of Holtville GHG Emissions Inventory			
	MT CO_2E		
Source	2005	2012	2018
Energy	48,136	34,478	22,948
Transportation	19,925	19,278	19,015
Water	886	991	983
Waste	5,523	2,988	2,667
Agriculture	39	40	44
Total	**74,509**	**57,776**	**45,657**
% Change from 2005	--	*-22%*	*-39%*
Wastewater Collection and Treatment[1]	555	465	304
Potable Water Consumption[1]	398	236	119

SOURCE: Imperial County 2021.
NOTE: Totals may vary due to independent rounding.
[1]For informational purposes only.

2.4 Regulatory Setting

In response to rising concern associated with increasing GHG emissions and global climate change impacts, several plans and regulations have been adopted at the international, national, and state levels with the aim of reducing GHG

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emissions. The main source of GHG emissions associated with the project would be construction activities. The following is a discussion of the plans and regulations most applicable to the project.

2.4.1 Federal

On September 27, 2019, the United States Environmental Protection Agency (U.S. EPA) and the National Highway Traffic Safety Administration (NHTSA) published the "Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program" (84 Federal Register 51310). The Part One Rule revokes California's authority to set its own GHG emissions standards and set zero-emission vehicle mandates in California. On April 30, 2020, the U.S. EPA and NHTSA published the final SAFE Vehicles Rule: Part Two (85 Federal Register 24174). The SAFE Vehicles Rule proposes amended Corporate Average Fuel Economy (CAFE) and Light-Duty Vehicle Greenhouse Gas Emissions Standards. The SAFE Rule relaxed federal GHG emissions and CAFE standards to increase in stringency at only about 1.5 percent per year from model year 2020 levels over model years 2021 through 2026. The previously established emission standards and related "augural" fuel economy standards would have achieved about 4 percent per year improvements through model year 2025. Part Two of the SAFE Vehicles Rule set amended fuel economy and CO_2 standards for Passenger Cars and Light Trucks for model years 2021 through 2026.

2.4.2 State

2.4.2.1 Executive Orders and statewide GHG Emission Targets

Executive Order S-3-05

This Executive Order (EO) established the following GHG emission reduction targets for the state of California:

- by 2010, reduce GHG emissions to 2000 levels;
- by 2020, reduce GHG emissions to 1990 levels; and
- by 2050, reduce GHG emissions to 80 percent below 1990 levels.

This EO also directs the secretary of the California Environmental Protection Agency to oversee the efforts made to reach these targets, and to prepare biannual reports on the progress made toward meeting the targets and on the impacts to California related to global warming, including impacts to water supply, public health, agriculture, the coastline, and forestry. With regard to impacts, the report shall also prepare and report on mitigation and adaptation plans to combat the impacts. The first Climate Action Team Assessment Report was produced in March 2006 and has been updated every two years.

Executive Order B-30-15

This EO establishes an GHG emission reduction goal for the State of California by 2030 of 40 percent below 1990 levels. This EO also directed all state agencies with jurisdiction over GHG-emitting sources to implement measures designed to achieve the 2030 goal, as well as the pre-existing, long-term 2050 goal identified in EO S-3-05. Additionally, this EO directed California Air Resources Board (CARB) to update its Climate Change Scoping Plan to address the 2030 goal.

2.4.2.2 California Global Warming Solutions Act

In response to EO S-3-05, the California Legislature passed Assembly Bill 32 (AB) 32, the California Global Warming Solutions Act of 2006, and thereby enacted Sections 38500–38599 of the California Health and Safety Code. The heart of AB 32 is its requirement that CARB establish an emissions cap and adopt rules and regulations that would reduce GHG emissions to 1990 levels by 2020. AB 32 also required CARB to adopt a plan by January 1, 2009 indicating how emission reductions would be achieved from significant GHG sources via regulations, market mechanisms, and other actions.

In 2008, CARB estimated that annual statewide GHG emissions were 427 MMT CO_2E in 1990 and would reach 596 MMT CO_2E by 2020 under a business as usual (BAU) condition (CARB 2008). To achieve the mandate of AB 32, CARB determined that a 169 MMT CO_2E (or approximate 28.5 percent) reduction in BAU emissions was needed by 2020. In 2010, CARB prepared an updated 2020 forecast to account for the recession and slower forecasted growth. CARB determined that the economic downturn reduced the 2020 BAU by 55 MMT CO_2E; as a result, achieving the 1990 emissions level by 2020 would require a reduction in GHG emissions of 21.7 (not 28.5) percent from the 2020 BAU. California has achieved its 2020 goal.

Approved in September 2016, SB 32 updates the California Global Warming Solutions Act of 2006 and enacts EO B-30-15. Under SB 32, the state would reduce its GHG emissions to 40 percent below 1990 levels by 2030. This is equivalent to an emissions level of approximately 260 MMT CO_2E for 2030. In implementing the 40 percent reduction goal, CARB is required to prioritize emissions reductions to consider the social costs of the emissions of GHGs; where "social costs" is defined as "an estimate of the economic damages, including, but not limited to, changes in net agricultural productivity; impacts to public health; climate adaptation impacts, such as property damages from increased flood risk; and changes in energy system costs, per metric ton of greenhouse gas emission per year."

2.4.2.3 Climate Change Scoping Plan

As directed by the California Global Warming Solutions Act of 2006, in 2008, CARB adopted the *Climate Change Scoping Plan: A Framework for Change* (*Scoping Plan*), which identified the main strategies California implemented to achieve the GHG reductions necessary to reduce forecasted BAU emissions in 2020 to the state's historic 1990 emissions level (CARB 2008). The 2020 reduction goals were met. In November 2017, CARB released the 2017 Climate Change Scoping Plan Update, the Strategy for Achieving California's 2030 Greenhouse Gas Target (2017 Scoping Plan; CARB 2017a). The 2017 Scoping Plan identifies state strategies for achieving the state's 2030 GHG emissions reduction target codified by SB 32. Measures under the 2017 Scoping Plan Scenario build on existing programs such as the Low Carbon Fuel Standard, Advanced Clean Cars Program, Renewables Portfolio Standard (RPS), Sustainable Communities Strategy (SCS), Short-Lived Climate Pollutant Reduction Strategy, and the Cap-and-Trade Program. Additionally, the 2017 Scoping Plan proposes new policies to address GHG emissions from natural and working lands. The 2022 Scoping Plan was adopted in December 2022. The 2022 Scoping Plan assesses the progress towards the 2030 GHG emissions reduction target identified in the 2017 Scoping Plan, and lays out a path to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions by 85 percent below 1990 levels no later than 2045, as directed by AB 1279. The 2022 Scoping Plan identifies strategies related to clean technology, energy development, natural and working lands, and others, and is designed to meet the state's long-term climate objectives and support a range of economic, environmental, energy security, environmental justice, and public health priorities (CARB 2022b).

2.4.2.4 Regional Emissions Targets – Senate Bill 375

SB 375, the 2008 Sustainable Communities and Climate Protection Act, was signed into law in September 2008 and requires CARB to set regional targets for reducing passenger vehicle GHG emissions in accordance with the Scoping Plan. The purpose of SB 375 is to align regional transportation planning efforts, regional GHG reduction targets, and fair-share housing allocations under state housing law. SB 375 requires Metropolitan Planning Organizations (MPOs) to adopt a SCS or Alternative Planning Strategy to address GHG reduction targets from cars and light-duty trucks in the context of that MPO's Regional Transportation Plan (RTP). The San Diego region's MPO is the San Diego Association of Governments (SANDAG). In 2010, CARB set targets for the SANDAG region of a 7 percent reduction in GHG emissions per capita from automobiles and light-duty trucks compared to 2005 levels by 2020 and a 13 percent

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reduction by 2035. These targets are periodically reviewed and updated. CARB's current targets for the SANDAG region are a reduction of 15 percent by 2020 and 19 percent by 2035.

2.4.2.5 Renewables Portfolio Standard

The RPS promotes diversification of the state's electricity supply and decreased reliance on fossil fuel energy sources. Renewable energy includes (but is not limited to) wind, solar, geothermal, small hydroelectric, biomass, anaerobic digestion, and landfill gas. Originally adopted in 2002 with a goal to achieve a 20 percent renewable energy mix by 2020 (referred to as the "Initial RPS"), the goal has been accelerated and increased by EOs S-14-08 and S-21-09 to a goal of 33 percent by 2020. In April 2011, SB 2 (1X) codified California's 33 percent RPS goal. SB 350 (2015) increased California's renewable energy mix goal to 50 percent by year 2030. SB 100 (2018) further increased the standard set by SB 350 establishing the RPS goal of 44 percent by the end of 2024, 52 percent by the end of 2027, and 60 percent by 2030.

2.4.3 Local

2.4.3.1 Regional Climate Action Plan

The Regional CAP was prepared to address the impacts of climate change and reduce GHG emissions in the Imperial Valley region which includes the County and its seven incorporated cities. The Regional CAP is consistent with statewide legislation and regulatory mandates, and establishes local strategies, measures, and actions aimed at reducing GHG emissions. Reduction targets for the County were established in alignment with SB 32 and EO S-3-05, based on the 2005 GHG inventory and sector-specific targets in the 2017 Scoping Plan. For the County, they include reducing emissions to 24 percent below 2005 levels by 2030 and to 34 percent below 2005 levels by 2050. To meet these targets, the County would need to reduce communitywide emissions to 2,022,285 MT CO_2E by 2030 and 1,771,509 MT CO_2E by 2050. For the City, the targets include reducing emissions to 40 percent below 2005 levels by 2030 and to 64 percent below 2005 levels by 2050. To achieve these reductions, the Regional CAP identifies GHG reduction measures related to transportation, energy, waste, and agricultural sources (Imperial County 2021).

2.4.3.2 Imperial County General Plan

The Imperial County General Plan Renewable Energy and Transmission Element was adopted in October 2015. As stated in the element, the benefits of renewable energy development include reduction in potential GHG by displacing fossil-fuel-generated electricity with renewable energy, which does not add to the greenhouse effect; contribution towards meeting the state's RPS mandate; and minimization of impacts to local communities, agriculture and sensitive resources (Imperial County 2015). Of importance to the project, the General Plan contains the following objectives:

3.3 Encourage the development of services and industrial associated with renewable energy facilities.

5.2 Encourage development of utility-scale distributed generation projects in the County.

2.4.3.3 City of Holtville General Plan

The City of Holtville updated its General Plan in 2017, which identifies a community vision for future urban services (City of Holtville 2017). The Holtville General Plan emphasizes the provision of available public services to residents and businesses and ensure future growth occurs sustainably. Of importance to the project, the General Plan contains the following policies:

6.1 Encourage the implementation and use of renewable energy sources, such as geothermal, solar, and wind.

3.0 Guidelines for Determining Significance

Based on the CEQA Guidelines Appendix G, impacts related to GHG emissions would be significant if the project would:

1. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
2. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emission of GHGs.

As stated in the State CEQA Guidelines, these questions are "intended to encourage thoughtful assessment of impacts and do not necessarily represent thresholds of significance" (Title 14, Division 6, Chapter 3 Guidelines for Implementation of the CEQA, Appendix G, Environmental Checklist Form). The State CEQA Guidelines encourage lead agencies to adopt regionally specific thresholds of significance. When adopting these thresholds, the amended Guidelines allow lead agencies to consider thresholds of significance adopted or recommended by other public agencies, or recommended by experts, provided that the thresholds are supported by substantial evidence.

The project site is in the Salton Sea Air Basin. The Imperial County Air Pollution Control District (ICAPCD) is responsible for regulating air quality within the Imperial County portion of the Salton Sea Air Basin. No GHG emission significance threshold has been adopted by the County or the ICAPCD for land development projects. Thus, in the absence of a threshold of significance for GHG emissions that has been adopted in a public process following environmental review, this analysis considers guidance promulgated by other agencies.

The County is a member of Southern California Association of Governments (SCAG). SCAG is comprised of several different counties including Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura counties. Air districts responsible for managing air quality within the SCAG boundaries include the South Coast Air Quality Management District (AQMD), the Mojave Desert Air Pollution Control District (APCD), Ventura County APCD, and the Antelope Valley AQMD.

Due to the climate and land use patterns, the Antelope Valley AQMD and Mojave Desert APCD are air districts that are most similar to the ICAPCD's jurisdiction. The Antelope Valley AQMD is within the northern part of Los Angeles County, and the Mojave Desert APCD contains San Bernardino County's high desert region and Riverside County's Palo Verde Valley region. These jurisdictions are in inland desert regions with rural land use patterns; with a substantial number large-scale agricultural, warehousing/distribution, industrial, and military operations. Additionally, both of these agencies have adopted GHG thresholds for use in CEQA analysis. As outlined in the Antelope Valley AQMD's 2016 *California Environmental Quality Act (CEQA) and Federal Conformity Guidelines and Mojave Desert APCD's 2016 California Environmental Quality Act (CEQA) and Federal Conformity Guidelines*, the two air districts both recommend use of a GHG emissions significance threshold of 100,000 short tons of CO_2E per year (90,718 MT CO_2E). Projects with emissions that exceed this threshold are required to incorporate mitigation sufficient to reduce emissions to less than this significance threshold or must incorporate all feasible mitigation.

This recommended significance threshold is consistent with the federal trigger level for GHG emissions "subject to regulation" under the U.S. EPA's Clean Air Act Title V Permitting requirements (40 Code of Federal Regulations 70.2). Additionally, as ICAPCD Title IX Regulations are based on Clean Air Act Title V Permitting requirements, this recommended significance threshold is also consistent with local ICAPCD Rule 900–Procedures for Issuing Permits to Operate for Sources Subject to Title V of the Federal Clean Air Act Amendments of 1990 and Rule 904–Prevention of Significant Deterioration Permit Program.

In the absence of adopted GHG significance thresholds, the threshold of 90,718 MT CO_2E is an appropriate CEQA significance threshold for the assessment of GHG emissions for the purposes of this project. The project was also evaluated qualitatively for how it will support the state's renewable energy goals.

4.0 Project Impact Analysis

1. *Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?*

Operational GHG emissions associated with a project break down into the following five categories: mobile (on-road vehicles), energy (electricity, natural gas), area (landscape maintenance equipment), water and wastewater, and solid waste sources. GHG emissions also result from construction activities. Emissions were calculated using California Emissions Estimator Model (CalEEMod) Version 2022.1 (California Air Pollution Control Officers Association [CAPCOA] 2022). The CalEEMod program is a tool used to estimate emissions resulting from land development projects in the state of California. CalEEMod was developed with the participation of several state air districts.

CalEEMod estimates parameters such as the type and amount of construction equipment required, trip generation, and utility consumption based on the size and type of each specific land use using data collected from surveys performed in South Coast Air Quality Management District (SCAQMD). Where available, parameters were modified to reflect project-specific data.

4.1 Construction-related Emissions

Construction activities emit GHGs primarily through combustion of fuels (mostly diesel) in the engines of off-road construction equipment and through combustion of diesel and gasoline in on-road construction vehicles and the commute vehicles of the construction workers.

Primary inputs are the numbers of each piece of equipment and the length of each construction stage. The construction equipment estimates are based on surveys performed by the South Coast Air Quality Management District and the Sacramento Metropolitan Air Quality Management District of typical construction projects which provide a basis for scaling equipment needs and schedule with a project's size. GHG emission estimates in CalEEMod are based on the duration of construction phases; construction equipment type, quantity, and usage; grading area; season; and ambient temperature, among other parameters.

Construction emissions were calculated assuming construction would begin in June 2023 and last for eight months. Construction stages would include site preparation, grading/trenching, and foundations/equipment installation/ wiring/commissioning.

CalEEMod calculates emissions of all pollutants from construction equipment using emission factors from CARB's off-road diesel equipment emission factors database. The specific required construction equipment amount needed for the project is not known at this stage. Modeling was based on the default equipment type and amount for the ground-up construction of a light industrial use. This is conservative since the project would haul the necessary equipment to the site for installation while a light industrial use involves the ground-up construction of buildings which would require more construction equipment. The modeled construction equipment is summarized in Table 4.

Table 4 Construction Phases and Equipment		
Equipment	Quantity	Daily Operation Time (hours)
Site Preparation (3 weeks)		
Rubber Tired Dozers	3	8
Tractors/Loaders/Backhoes	4	8
Grading/Trenching (10 weeks)		
Grader	1	8
Excavator	1	8
Rubber Tired Dozer	1	8
Tractors/Loaders/Backhoes	3	8
Foundations/Installation/Wiring/Commissioning (19 weeks)		
Crane	1	7
Forklifts	3	8
Generator Set	1	8
Tractors/Loaders/Backhoes	3	7
Welder	1	8
NOTE: Each phase would also include vehicles associated with work commutes, dump trucks for hauling, and trucks for deliveries.		

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 (ICAPCD 2017):

<u>Standard Measures for Construction Combustion Equipment</u>

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 5 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 would also generate mobile source emissions from worker trips, hauling trips, and vendor trips. CalEEMod calculates emissions of all pollutants from on-road trucks and passenger vehicles using emission factors derived from CARB's motor vehicle emission inventory program EMFAC2017 (CARB 2017b). Vehicle emission factors were multiplied by the model default total estimated number of trips and the average trip length to calculate the total mobile emissions.

Based on guidance from the SCAQMD, total construction GHG emissions resulting from a project should be amortized over 30 years and added to operational GHG emissions to account for their contribution to GHG emissions over the lifetime of a project (SCAQMD 2009).

4.2 Operation-related Emissions

4.2.1 Mobile Sources

GHG emissions from vehicles come from the combustion of fossil fuels in vehicle engines. The vehicle emissions are calculated based on the vehicle type and the trip rate for each land use. CalEEMod calculates mobile source emissions using emission factors derived from CARB's motor vehicle emission inventory program, EMFAC2017 (CARB 2017b). 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. To account for these trips, a total of one round trip (two one-way trips) was modeled per weekday. The default trip length was increased to 20 miles. CalEEMod default emission factors for the soonest operational year of 2024 were modeled.

4.2.2 Energy Sources

GHGs are emitted as a result of activities in buildings for which electricity and natural gas are used as energy sources. GHGs are emitted during the generation of electricity from fossil fuels off-site in power plants. These emissions are considered indirect but are calculated in association with a building's operation. Combustion of fossil fuel emits criteria pollutants and GHGs directly into the atmosphere. When this occurs in a building, this is considered a direct emissions source associated with that building. Energy source GHG emissions were calculated using the default emission factors for a light industrial land use. This is conservative since the project would not be a source of natural gas emissions.

4.2.3 Area Sources

Area sources include GHG emissions that would occur from the use of landscaping equipment. The use of landscape equipment emits GHGs associated with the equipment's fuel combustion. The project would not include any landscape maintenance. However, as a conservative analysis, area-source emissions were calculated using the default emission factors for a light industrial land use.

4.2.4 Water and Wastewater Sources

The amount of water used and wastewater generated by a project has indirect GHG emissions associated with it. These emissions are a result of the energy used to supply, distribute, and treat the water and wastewater. In addition to the indirect GHG emissions associated with energy use, wastewater treatment can directly emit both methane and nitrous oxide. As the project would be an unmanned facility, it would not include any water use.

4.2.5 Solid Waste Sources

The disposal of solid waste produces GHG emissions from anaerobic decomposition in landfills, incineration, and transportation of waste. As the project would be an unmanned facility, it would not generate any operational waste.

4.2.6 Refrigerant Sources

Small amounts of GHG emissions result from refrigerants used in air conditioning and refrigeration equipment. CalEEMod quantifies refrigerant emissions from leaks during regular operation and routine servicing over the equipment lifetime and then derives average annual emissions from the lifetime estimate. Emissions due to refrigerants were calculated using CalEEMod default values for a light industrial land use, which are based on industry data from the U.S. EPA.

4.3 Total GHG Emissions

Table 5 shows the estimated annual GHG construction emissions associated with the project, as well as the amortized construction emissions over a 30-year project life. Table 6 summarizes the total project GHG emissions.

Table 5 Construction-Related GHG Emissions	
Year	GHG Emissions (MT CO_2E)
2023	216
2024	9
Total	**225**
Amortized Over 30 Years	*7*
SOURCE: Attachment 1.	

Table 6 Total GHG Emissions	
Source	GHG Emissions (MT CO_2E)
Mobile	4
Energy	161
Area	<1
Water	0
Solid Waste	0
Refrigerants	1
Construction	7
Total	**173**
Screening Threshold	*90,718*
Exceeds Threshold?	No
SOURCE: Attachment 1. NOTE: Totals may vary due to independent rounding.	

As shown in Table 6, the project would result in a total emission of 173 MT CO_2E annually. This is less than the 90,718 MT CO_2E screening threshold. As the project would not exceed the screening threshold for GHG emissions, GHG impacts associated with the project would be less than significant.

2. *Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emission of GHGs?*

State GHG emissions reduction policy was established by EOs S-3-05 and B-30-15 and was subsequently codified by AB 32 and SB 32. EO S-3-05 established GHG emission reduction targets of year 2000 GHG emission levels by 2010, year 1990 GHG emission levels by 2020, and 80 percent below year 1990 levels by 2050; and EO B-30-15 established an interim GHG emission reduction target of 40 percent below year 1990 levels by 2030. AB 32 launched the CARB Climate Change Scoping Plan that outlined the reduction measures needed to reach the 2020 target, which has been achieved. SB 32 enacts the EO B-30-15 target of reducing GHG emissions to 40 percent below year 1990 levels by 2030.

As shown in Table 6 above, the project's annual GHG emissions would be less than the screening threshold of 90,718 MT CO_2E per year. Additionally, the project would support the state's goal to increase use of renewable energy. In September 2018, the California Legislature passed SB 100, which set a goal that "renewable energy resources and zero-carbon resources supply 100 percent of retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all state agencies by December 31, 2045." As California procures increasing amounts of renewable energy to meet the goals of SB 100, the state will need to deploy a significant amount of energy storage capability. Renewable energy resources such as wind and solar generate electricity intermittently. Energy storage allows utilities and system operators to manage the effect of intermittent renewable generation on the grid and create reliable, dispatchable generation upon demand. Energy storage also allows excess solar energy produced during the day to be stored and dispatched optimally during peak evening hours or other periods of high demand. The project would, therefore, serve as an integral component of the state's overarching renewable energy strategy that would reduce use of fossil fuel and associated GHG emissions by providing necessary energy storage. The project would assist the state's goal of utilizing 100 percent renewable energy by 2045, which would result in a net decrease in use of fossil fuel and GHG emissions. Therefore, the project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emission of GHGs, and impacts would be less than significant.

If you have any questions about the results of this analysis, please contact me at jfleming@reconenvironmental.com or (619) 308-9333 extension 177.

Sincerely,

Jessica Fleming

Jessica Fleming
Air Quality Specialist

JLF:sh

5.0 Certification

The following is a list of preparers, persons, and organizations involved with the GHG analysis.

RECON Environmental, Inc.
- Jessica Fleming, County-approved Air Quality Consultant
- Stacey Higgins, Senior Production Specialist
- Benjamin Arp, GIS Specialist

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Project Location

RECON

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FIGURE 1
Regional Location

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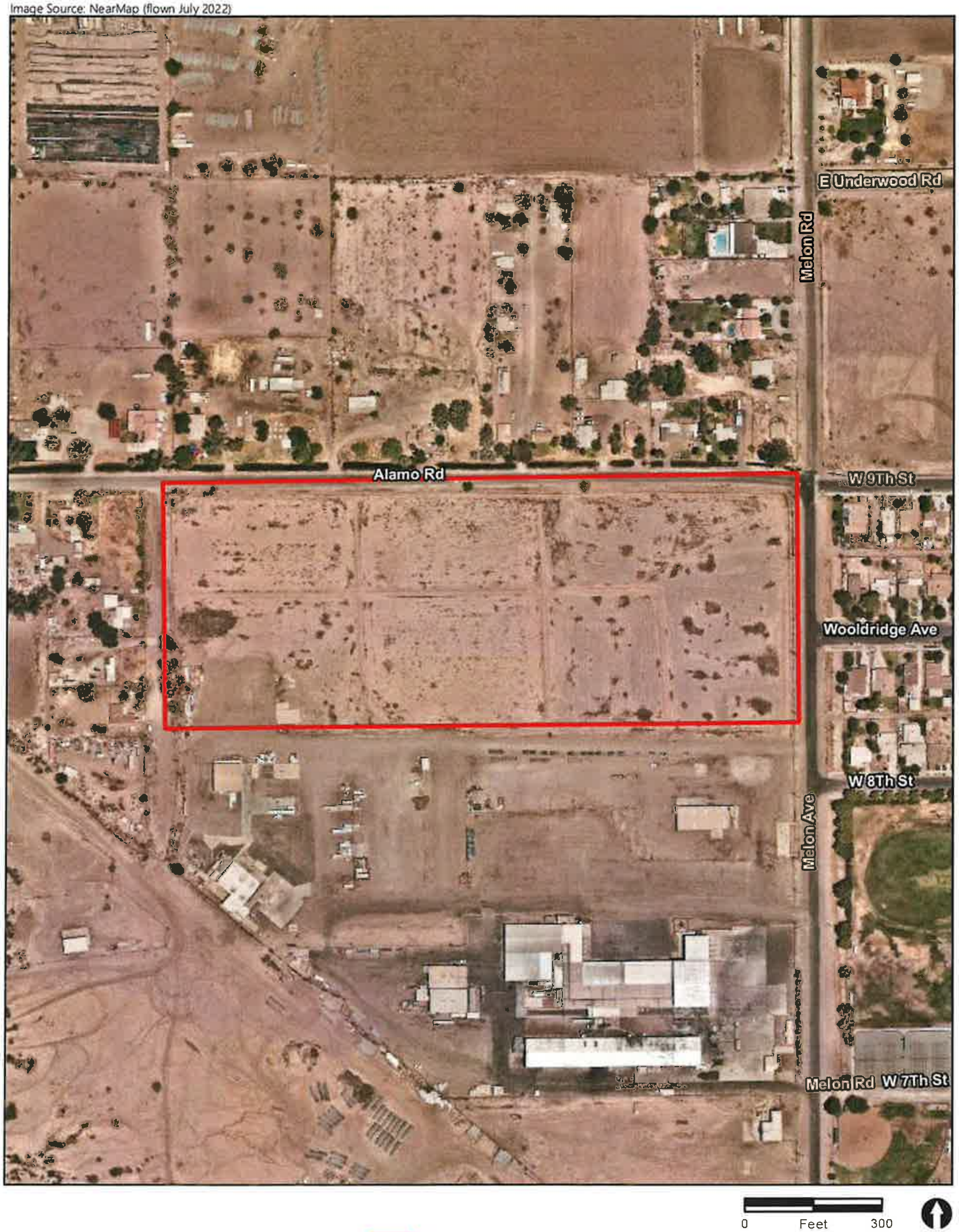
Image Source: NearMap (flown July 2022)



Project Boundary

RECON

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FIGURE 2
Project Location on Aerial Photograph

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Map Source: Stellavise Solar Engineering

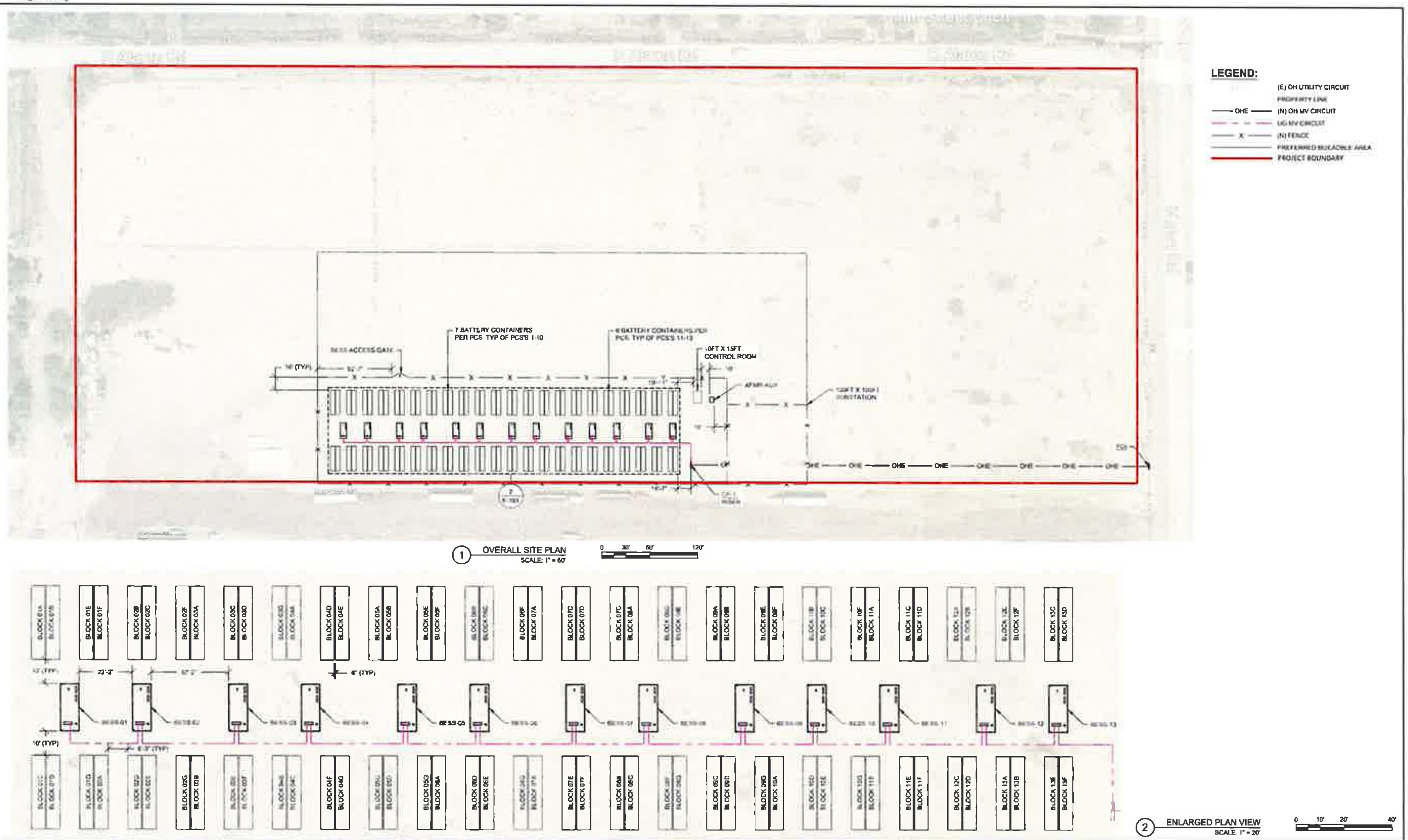

FIGURE 3
Site Plan

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ATTACHMENT 1

Holtville Peaker Detailed Report

Holtville Peaker Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Holtville Peaker
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.40
Precipitation (days)	4.80
Location	32.81815122274024, -115.39010295719622
County	Imperial
City	Unincorporated
Air District	Imperial County APCD
Air Basin	Salton Sea
TAZ	5604
EDFZ	19
Electric Utility	Imperial Irrigation District
Gas Utility	Southern California Gas

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
General Light Industry	20.0	1000sqft	4.50	20,000	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.85	4.08	39.9	37.9	0.05	1.81	57.1	58.9	1.66	9.80	11.5	—	5,577	5,577	0.23	0.05	1.12	5,599
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.57	1.31	12.0	13.9	0.02	0.55	27.6	28.1	0.51	2.77	3.28	—	2,618	2,618	0.10	0.04	0.02	2,632
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.93	0.78	7.29	7.82	0.01	0.34	15.0	15.3	0.31	1.86	2.17	—	1,296	1,296	0.05	0.02	0.16	1,302
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.17	0.14	1.33	1.43	< 0.005	0.06	2.74	2.80	0.06	0.34	0.40	—	214	214	0.01	< 0.005	0.03	216
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	75.0	100	550	—	—	—	150	—	—	—	—	—	—	—	—	—	—
Unmit.	—	No	No	No	—	—	—	No	—	—	—	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Threshol	—	75.0	100	550	—	—	—	150	—	—	—	—	—	—	—	—	—	—
Unmit.	—	No	No	No	—	—	—	No	—	—	—	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	4.85	4.08	39.9	37.9	0.05	1.81	57.1	58.9	1.66	9.80	11.5	—	5,577	5,577	0.23	0.05	1.12	5,599
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	1.57	1.31	12.0	13.9	0.02	0.55	27.6	28.1	0.51	2.77	3.28	—	2,618	2,618	0.10	0.04	0.02	2,632
2024	1.50	1.25	11.4	13.8	0.02	0.50	27.6	28.1	0.46	2.77	3.23	—	2,614	2,614	0.10	0.04	0.02	2,628
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.93	0.78	7.29	7.82	0.01	0.34	15.0	15.3	0.31	1.86	2.17	—	1,296	1,296	0.05	0.02	0.16	1,302
2024	0.03	0.02	0.22	0.27	< 0.005	0.01	0.54	0.55	0.01	0.05	0.06	—	51.3	51.3	< 0.005	< 0.005	0.01	51.6
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.17	0.14	1.33	1.43	< 0.005	0.06	2.74	2.80	0.06	0.34	0.40	—	214	214	0.01	< 0.005	0.03	216
2024	0.01	< 0.005	0.04	0.05	< 0.005	< 0.005	0.10	0.10	< 0.005	0.01	0.01	—	8.50	8.50	< 0.005	< 0.005	< 0.005	8.54

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	0.19	0.67	0.20	1.20	< 0.005	0.01	0.58	0.60	0.02	0.09	0.10	0.00	1,008	1,008	0.07	0.01	5.35	1,018
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.03	0.52	0.19	0.26	< 0.005	0.01	0.58	0.60	0.01	0.09	0.10	0.00	1,000	1,000	0.07	0.01	5.21	1,010
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.10	0.59	0.19	0.67	< 0.005	0.01	0.42	0.43	0.01	0.06	0.08	0.00	994	994	0.07	0.01	5.25	1,004
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.02	0.11	0.03	0.12	< 0.005	< 0.005	0.08	0.08	< 0.005	0.01	0.01	0.00	165	165	0.01	< 0.005	0.87	166
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	137	137	550	150	—	—	150	—	—	550	—	—	—	—	—	—	—
Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	137	137	550	150	—	—	150	—	—	550	—	—	—	—	—	—	—
Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.01	0.01	0.02	0.18	< 0.005	< 0.005	0.58	0.58	< 0.005	0.09	0.09	—	36.5	36.5	< 0.005	< 0.005	0.14	37.1

Area	0.15	0.65	0.01	0.87	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.58	3.58	< 0.005	< 0.005	—	3.59
Energy	0.02	0.01	0.17	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	968	968	0.07	0.01	—	972
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.21	5.21
Total	0.19	0.67	0.20	1.20	< 0.005	0.01	0.58	0.60	0.02	0.09	0.10	0.00	1,008	1,008	0.07	0.01	5.35	1,018
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.01	0.01	0.02	0.11	< 0.005	< 0.005	0.58	0.58	< 0.005	0.09	0.09	—	32.0	32.0	< 0.005	< 0.005	< 0.005	32.5
Area	—	0.50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.02	0.01	0.17	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	968	968	0.07	0.01	—	972
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.21	5.21
Total	0.03	0.52	0.19	0.26	< 0.005	0.01	0.58	0.60	0.01	0.09	0.10	0.00	1,000	1,000	0.07	0.01	5.21	1,010
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.01	0.01	0.01	0.10	< 0.005	< 0.005	0.42	0.42	< 0.005	0.06	0.06	—	24.2	24.2	< 0.005	< 0.005	0.04	24.5
Area	0.08	0.57	< 0.005	0.43	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.76	1.76	< 0.005	< 0.005	—	1.77
Energy	0.02	0.01	0.17	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	968	968	0.07	0.01	—	972
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.21	5.21
Total	0.10	0.59	0.19	0.67	< 0.005	0.01	0.42	0.43	0.01	0.06	0.08	0.00	994	994	0.07	0.01	5.25	1,004
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	< 0.005	< 0.005	< 0.005	0.02	< 0.005	< 0.005	0.08	0.08	< 0.005	0.01	0.01	—	4.00	4.00	< 0.005	< 0.005	0.01	4.06
Area	0.01	0.10	< 0.005	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.29	0.29	< 0.005	< 0.005	—	0.29
Energy	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	160	160	0.01	< 0.005	—	161

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Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.86	0.86
Total	0.02	0.11	0.03	0.12	< 0.005	< 0.005	0.08	0.08	< 0.005	0.01	0.01	0.00	165	165	0.01	< 0.005	0.87	166

3. Construction Emissions Details

3.1. Site Preparation (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.70	3.95	39.7	35.5	0.05	1.81	—	1.81	1.66	—	1.66	—	5,295	5,295	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	9.83	9.83	—	5.05	5.05	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	0.16	1.63	1.46	< 0.005	0.07	—	0.07	0.07	—	0.07	—	218	218	0.01	< 0.005	—	218

Dust From Material Movemen:	—	—	—	—	—	—	0.40	0.40	—	0.21	0.21	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.30	0.27	< 0.005	0.01	—	0.01	0.01	—	0.01	—	36.0	36.0	< 0.005	< 0.005	—	36.2
Dust From Material Movement	—	—	—	—	—	—	0.07	0.07	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.13	0.14	2.42	0.00	0.00	47.2	47.2	0.00	4.75	4.75	—	281	281	0.01	0.01	1.12	285
Vendor	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	0.00
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.01	0.07	0.00	0.00	1.94	1.94	0.00	0.20	0.20	—	10.5	10.5	< 0.005	< 0.005	0.02	10.6
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	0.35	0.35	0.00	0.04	0.04	—	1.74	1.74	< 0.005	< 0.005	< 0.005	1.76
Vendor	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	0.00

Hauling	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	0.00

3.3. Grading (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.43	2.04	20.0	19.7	0.03	0.94	—	0.94	0.87	—	0.87	—	2,958	2,958	0.12	0.02	—	2,968
Dust From Material Movemen:	—	—	—	—	—	—	3.54	3.54	—	1.71	1.71	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.33	0.28	2.74	2.70	< 0.005	0.13	—	0.13	0.12	—	0.12	—	405	405	0.02	< 0.005	—	407
Dust From Material Movemen:	—	—	—	—	—	—	0.49	0.49	—	0.23	0.23	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.50	0.49	< 0.005	0.02	—	0.02	0.02	—	0.02	—	67.1	67.1	< 0.005	< 0.005	—	67.3

Dust From Material Movement	—	—	—	—	—	—	0.09	0.09	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.12	0.12	2.07	0.00	0.00	40.5	40.5	0.00	4.07	4.07	—	241	241	0.01	0.01	0.96	245
Vendor	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	0.00
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.02	0.20	0.00	0.00	5.55	5.55	0.00	0.56	0.56	—	30.0	30.0	< 0.005	< 0.005	0.06	30.4
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	1.01	1.01	0.00	0.10	0.10	—	4.96	4.96	< 0.005	< 0.005	0.01	5.03
Vendor	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	0.00
Hauling	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	0.00

3.5. Building Construction (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.50	1.26	11.8	13.2	0.02	0.55	—	0.55	0.51	—	0.51	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.50	1.26	11.8	13.2	0.02	0.55	—	0.55	0.51	—	0.51	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.36	0.30	2.84	3.17	0.01	0.13	—	0.13	0.12	—	0.12	—	577	577	0.02	< 0.005	—	579
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.52	0.58	< 0.005	0.02	—	0.02	0.02	—	0.02	—	95.5	95.5	< 0.005	< 0.005	—	95.9
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	1.16	0.00	0.00	22.7	22.7	0.00	2.28	2.28	—	135	135	0.01	< 0.005	0.54	137
Vendor	0.01	0.01	0.13	0.07	< 0.005	< 0.005	4.88	4.89	< 0.005	0.49	0.49	—	107	107	< 0.005	0.01	0.29	111
Hauling	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	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.08	0.66	0.00	0.00	22.7	22.7	0.00	2.28	2.28	—	114	114	0.01	< 0.005	0.01	115
Vendor	0.01	< 0.005	0.14	0.07	< 0.005	< 0.005	4.88	4.89	< 0.005	0.49	0.49	—	107	107	< 0.005	0.01	0.01	111
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.02	0.20	0.00	0.00	5.46	5.46	0.00	0.55	0.55	—	29.5	29.5	< 0.005	< 0.005	0.06	29.9
Vendor	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	1.18	1.18	< 0.005	0.12	0.12	—	25.7	25.7	< 0.005	< 0.005	0.03	26.8
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	1.00	1.00	0.00	0.10	0.10	—	4.88	4.88	< 0.005	< 0.005	0.01	4.95
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.21	0.21	< 0.005	0.02	0.02	—	4.25	4.25	< 0.005	< 0.005	< 0.005	4.43
Hauling	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	0.00

3.7. Building Construction (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	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	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.22	0.26	< 0.005	0.01	—	0.01	0.01	—	0.01	—	46.9	46.9	< 0.005	< 0.005	—	47.1
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	< 0.005	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.77	7.77	< 0.005	< 0.005	—	7.79
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.07	0.61	0.00	0.00	22.7	22.7	0.00	2.28	2.28	—	112	112	0.01	< 0.005	0.01	113
Vendor	0.01	< 0.005	0.13	0.06	< 0.005	< 0.005	4.88	4.89	< 0.005	0.49	0.49	—	105	105	< 0.005	0.01	0.01	110
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.44	0.44	0.00	0.04	0.04	—	2.35	2.35	< 0.005	< 0.005	< 0.005	2.38
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.10	0.10	< 0.005	0.01	0.01	—	2.06	2.06	< 0.005	< 0.005	< 0.005	2.15
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	0.08	0.08	0.00	0.01	0.01	—	0.39	0.39	< 0.005	< 0.005	< 0.005	0.39
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	0.34	0.34	< 0.005	< 0.005	< 0.005	0.36
Hauling	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	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	0.01	0.01	0.02	0.18	< 0.005	< 0.005	0.58	0.58	< 0.005	0.09	0.09	—	36.5	36.5	< 0.005	< 0.005	0.14	37.1
Total	0.01	0.01	0.02	0.18	< 0.005	< 0.005	0.58	0.58	< 0.005	0.09	0.09	—	36.5	36.5	< 0.005	< 0.005	0.14	37.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	0.01	0.01	0.02	0.11	< 0.005	< 0.005	0.58	0.58	< 0.005	0.09	0.09	—	32.0	32.0	< 0.005	< 0.005	< 0.005	32.5
Total	0.01	0.01	0.02	0.11	< 0.005	< 0.005	0.58	0.58	< 0.005	0.09	0.09	—	32.0	32.0	< 0.005	< 0.005	< 0.005	32.5
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	< 0.005	< 0.005	< 0.005	0.02	< 0.005	< 0.005	0.08	0.08	< 0.005	0.01	0.01	—	4.00	4.00	< 0.005	< 0.005	0.01	4.06
Total	< 0.005	< 0.005	< 0.005	0.02	< 0.005	< 0.005	0.08	0.08	< 0.005	0.01	0.01	—	4.00	4.00	< 0.005	< 0.005	0.01	4.06

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	760	760	0.05	0.01	—	763
Total	—	—	—	—	—	—	—	—	—	—	—	—	760	760	0.05	0.01	—	763
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	760	760	0.05	0.01	—	763
Total	—	—	—	—	—	—	—	—	—	—	—	—	760	760	0.05	0.01	—	763
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	126	126	0.01	< 0.005	—	126
Total	—	—	—	—	—	—	—	—	—	—	—	—	126	126	0.01	< 0.005	—	126

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	0.02	0.01	0.17	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	208	208	0.02	< 0.005	—	209

Total	0.02	0.01	0.17	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	208	208	0.02	< 0.005	—	209
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	0.02	0.01	0.17	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	208	208	0.02	< 0.005	—	209
Total	0.02	0.01	0.17	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	208	208	0.02	< 0.005	—	209
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	34.5	34.5	< 0.005	< 0.005	—	34.6
Total	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	34.5	34.5	< 0.005	< 0.005	—	34.6

4.3. Area Emissions by Source

4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.43	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.15	0.14	0.01	0.87	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.58	3.58	< 0.005	< 0.005	—	3.59
Total	0.15	0.65	0.01	0.87	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.58	3.58	< 0.005	< 0.005	—	3.59

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.43	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	0.50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.01	0.01	< 0.005	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.29	0.29	< 0.005	< 0.005	—	0.29
Total	0.01	0.10	< 0.005	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.29	0.29	< 0.005	< 0.005	—	0.29

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Light Industry	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Light Industry	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.21	5.21
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.21	5.21
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.21	5.21
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.21	5.21
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.86	0.86
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.86	0.86

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	6/1/2023	6/21/2023	5.00	15.0	—
Grading	Grading	6/22/2023	8/30/2023	5.00	50.0	—
Building Construction	Building Construction	8/31/2023	1/10/2024	5.00	95.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29

Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	8.40	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	3.28	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	0.00	0.00	22.5	0.00	—
Grading	0.00	0.00	50.0	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	Other	50%	50%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
General Light Industry	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2023	0.00	457	0.03	< 0.005

2024	0.00	457	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
General Light Industry	2.00	0.00	0.00	521	40.0	0.00	0.00	10,429

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	30,000	10,000	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
General Light Industry	607,489	457	0.0330	0.0040	649,692

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
General Light Industry	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
General Light Industry	0.00	0.00

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
General Light Industry	Other commercial A/C and heat pumps	R-410A	2,088	0.30	4.00	4.00	18.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type
—	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	31.1	annual days of extreme heat
Extreme Precipitation	0.00	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A

Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	0	0	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	1	1	1	2
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	59.9
AQ-PM	43.9
AQ-DPM	8.23
Drinking Water	56.2
Lead Risk Housing	39.6
Pesticides	82.1
Toxic Releases	28.8
Traffic	3.59
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	26.6
Haz Waste Facilities/Generators	16.6
Impaired Water Bodies	96.3
Solid Waste	0.00
Sensitive Population	—
Asthma	86.7
Cardio-vascular	87.5
Low Birth Weights	29.9
Socioeconomic Factor Indicators	—
Education	86.1
Housing	46.0
Linguistic	94.3
Poverty	78.2

Unemployment	99.4

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	18.58077762
Employed	17.20775055
Median HI	3.695624278
Education	—
Bachelor's or higher	19.41485949
High school enrollment	100
Preschool enrollment	23.26446811
Transportation	—
Auto Access	37.4566919
Active commuting	32.84999358
Social	—
2-parent households	37.08456307
Voting	34.2871808
Neighborhood	—
Alcohol availability	43.85987425
Park access	48.27409213
Retail density	15.98870781
Supermarket access	64.72475298
Tree canopy	8.905427948
Housing	—
Homeownership	46.24663159

Housing habitability	54.08700115
Low-inc homeowner severe housing cost burden	73.96381368
Low-inc renter severe housing cost burden	28.6154241
Uncrowded housing	45.96432696
Health Outcomes	—
Insured adults	47.60682664
Arthritis	0.0
Asthma ER Admissions	8.1
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	48.3
Cognitively Disabled	19.2
Physically Disabled	8.8
Heart Attack ER Admissions	3.8
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0

No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	7.8
Elderly	39.0
English Speaking	4.8
Foreign-born	56.6
Outdoor Workers	4.4
Climate Change Adaptive Capacity	—
Impervious Surface Cover	65.7
Traffic Density	7.3
Traffic Access	23.0
Other Indices	—
Hardship	88.7
Other Decision Support	—
2016 Voting	0.0

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	68.0
Healthy Places Index Score for Project Location (b)	22.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Approximately 19,386 square feet inverters and BESS containers, rounded up to 20,000 4.5 acre project impact area
Construction: Construction Phases	6-8 month construction duration Site preparation - 3 weeks Grading/trenching - 10 weeks Foundations/BESS installation/wiring/commissioning - 19 weeks
Construction: On-Road Fugitive Dust	All roads used to access project site are paved. ICAPCD recommends modeling 90 percent paved roads during construction activities.
Operations: Vehicle Data	Unmanned/remote facility. 1 round trip modeled to account for any routine maintenance. Trip length increased to 20 miles.
Operations: Road Dust	Used same paved road % as construction workers
Operations: Water and Waste Water	Unmanned facility, no water use
Operations: Solid Waste	Unmanned facility, no solid waste

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February 15, 2023

Mr. Ramon Gonzalez
Senior Project Coordinator
Z Global
750 W. Main Street
El Centro CA 92243

Reference: Noise Analysis for the Holtville Peaker BESS Project, Holtville, California (RECON Number 10247)

Dear Mr. Gonzalez:

The purpose of this report is to assess potential noise impacts from construction and operation of the Holtville Peaker Battery Energy Storage Site (BESS) Project (project). Noise impacts were evaluated using standards established by the City of Holtville (City) and Imperial County (County).

1.0 Project Description

The 17.2-acre project site consists of an undeveloped lot located at Assessor Parcel Number 045-570-087, southwest of the intersection of East Alamo Road and Melon Road in the City's sphere of influence (SOI) within Imperial County, California (Figure 1). The project site is surrounded by residential development with scattered commercial and industrial development (Figure 2).

The project would include development of a BESS that would connect to an existing 92-kilovolt gen-tie line (Figure 3). The BESS facility would include battery containers and storage sites, a control room, and associated facilities surrounded by fencing in the south-central portion of the parcel, with the remainder of the parcel used for temporary construction access and staging. Access to the facility would occur from Melon Road.

2.0 Environmental Setting

2.1 Noise Terminology

Sound levels are described in units called the decibel (dB). Decibels are measured on a logarithmic scale that quantifies sound intensity in a manner similar to the Richter scale used for earthquake magnitudes. Thus, a doubling of the energy of a noise source, such as doubling of traffic volume, would increase the noise level by 3 dB; a halving of the energy would result in a 3 dB decrease. Additionally, in technical terms, sound levels are described as either a "sound power level" or a "sound pressure level," which while commonly confused, are two distinct characteristics of sound.

Both share the same unit of measure, the dB. However, sound power, expressed as L_{pw}, is the energy converted into sound by the source. The L_{pw} is used to estimate how far a noise will travel and to predict the sound levels at various distances from the source. As sound energy travels through the air, it creates a sound wave that exerts pressure on receivers such as an eardrum or microphone and is the sound pressure level. Noise measurement instruments only measure sound pressure, and noise level limits used in standards are generally sound pressure levels.

The human ear is not equally sensitive to all frequencies within the sound spectrum. To accommodate this phenomenon, the A-scale, which approximates the frequency response of the average young ear when listening to most ordinary everyday sounds, was devised. When people make relative judgments of the loudness or annoyance of a sound, their judgments correlate well with the A-scale sound levels of those sounds. Therefore, the "A-weighted" noise scale is used for measurements and standards involving the human perception of noise. Noise levels using A-weighted measurements are designated with the notation dB(A).

The impact of noise is not a function of loudness alone. The time of day when noise occurs and the duration of the noise are also important. In addition, most noise that lasts for more than a few seconds is variable in its intensity. Consequently, a variety of noise descriptors has been developed. The noise descriptors used for this study are the one-hour equivalent noise level (L_{eq}), the community noise equivalent level (CNEL), and the sound exposure level. The CNEL is a 24-hour equivalent sound level. The CNEL calculation applies an additional 5 dB(A) penalty to noise occurring during evening hours, between 7:00 p.m. and 10:00 p.m., and an additional 10 dB(A) penalty is added to noise occurring during the night, between 10:00 p.m. and 7:00 a.m. These increases for certain times are intended to account for the added sensitivity of humans to noise during the evening and night. The sound exposure level is a noise level over a stated period of time or event and normalized to one second. Sound from a small, localized source (approximating a "point" source) radiates uniformly outward as it travels away from the source in a spherical pattern, known as geometric spreading. The sound level decreases or drops off at a rate of 6 dB(A) for each doubling of the distance.

Traffic noise is not a single, stationary point source of sound. The movement of vehicles makes the source of the sound appear to emanate from a line (line source) rather than a point when viewed over some time interval. The drop-off rate for a line source is 3 dB(A) for each doubling of distance.

The propagation of noise is also affected by the intervening ground, known as ground absorption. A hard site (such as parking lots or smooth bodies of water) receives no additional ground attenuation, and the changes in noise levels with distance (drop-off rate) are simply the geometric spreading of the source. A soft site (such as soft dirt, grass, or scattered bushes and trees) receives an additional ground attenuation value of 1.5 dB(A) per doubling of distance. Thus, a point source over a soft site would attenuate at 7.5 dB(A) per doubling of distance.

Human perception of noise has no simple correlation with acoustical energy. A change in noise levels is generally perceived as follows: 3 dB(A) barely perceptible, 5 dB(A) readily perceptible, and 10 dB(A) perceived as a doubling or halving of noise (California Department of Transportation 2013).

2.2 Applicable Standards

The project site is located within the City's SOI and is designated as an Urban Area land use in the Imperial County General Plan. The Urban Area designation includes areas surrounding the following seven incorporated cities: Brawley, El Centro, Westmorland, Holtville, Calipatria, Imperial, and Calexico. It is anticipated that these areas will eventually be annexed or incorporated. The Holtville Urban Area is generally bounded on the west by State Highway 115, Zenos Road, and Country Club Road; on the north by Kamm Road; on the east by Towland Road; and on the south by Haven Road, the Ash Main Canal, and Edwards Road. The project site is located adjacent to the western City boundary. Due to the project site's location and Urban Area designation, noise generated by the project was evaluated using the standards established by both the City and the County.

2.2.1 City of Holtville

2.2.1.1 Construction

Section 8.24.070 of the City's Municipal Code addresses construction-related noise near residential uses. It states:

- It shall be unlawful for any person to make, continue or cause to be made or continued, within the limits of the city of Holtville, any disturbing, excessive or offensive noise which causes discomfort or annoyance to any reasonable persons of normal sensitivity residing in the area.
- The following acts, among others, are declared to be offensive, loud, disturbing, and unnecessary noises originating from residential properties or on public ways in violation of this section, but such enumeration shall not be deemed to be exclusive:
  - Construction work or related activity which is adjacent to or across a street or right-of-way from a residential use, except between the hours of 7:00 a.m. and 7:00 p.m. on weekdays, or between 8:00 a.m. and 7:00 p.m. on Saturday and Sunday. No such construction is permitted on federal holidays. As used in this section, "construction" shall mean any site preparation, assembly, erection, substantial repair, alteration, demolition or similar action, for or on any private property, public or private right-of-way, streets, structures, utilities, facilities, or other similar property. An exception to this rule is during summer months when a special permit may be obtained from Imperial County planning development services. This does not apply to emergency repair work performed by or on behalf of public agencies.

2.2.1.2 Operation

As stated in the Noise Element of the City's General Plan (City of Holtville 2017), the City has adopted a program to develop a Noise Ordinance that will be designed to address business activity and nuisance noise. The ordinance will establish specific interior and exterior standards for noise levels within various types of land uses as well as daytime and nighttime standards. Enforcement of the ordinance ensures that adjacent properties are not exposed to excessive noise from stationary sources or nuisances. Enforcing the ordinance includes requiring proposed development projects to demonstrate compliance with the ordinance. The ordinance will be reviewed periodically for adequacy and amended as needed to address community needs and development patterns.

No specific noise level limits have been adopted to date. However, Section 17.10.150 states:

- No use shall be permitted which creates noise levels that exceed five decibels above the ambient noise level of the area, in accordance with the Occupation Safety and Health Act of 1970.

2.2.2 Imperial County

2.2.2.1 Construction

County General Plan Noise Element Section IV.C.3 addresses noise generated by construction activities. It states:

- 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 operation shall be limited to the hours of 7 a.m. to 7 p.m., Monday through Friday, and 9 a.m. to 5 p.m. Saturday. No commercial construction operations are permitted on Sunday or holidays. 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 a.m. and 5 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.

Based on these standards, the applicable limit for project construction activities is 75 dB(A) L_{eq} at the nearest sensitive receptor.

2.2.2.2 Operation

The County General Plan Noise Element (Imperial County 2015) identifies property line noise level limits that apply to noise generation from one property to an adjacent property (excluding construction noise). As stated in the Noise Element, the property line noise level limits imply the existence of a sensitive receptor on the adjacent, or receiving, property. In the absence of a sensitive receptor, an exception or variance to the standards may be appropriate.

County Code of Ordinances Title 9, Division 7: Noise Abatement and Control, specifies noise level limits. Noise level limits are summarized in Table 1. Noise level limits do not apply to construction equipment.

Table 1
Imperial County Property Line Noise Limits

Zone	Time	One-Hour Average Sound Level [dB(A) L_{eq}]
Low-Density Residential Zones	7:00 a.m. to 10:00 p.m.	50
	10:00 p.m. to 7:00 a.m.	45
Medium to High-Density Residential Zones	7:00 a.m. to 10:00 p.m.	55
	10:00 p.m. to 7:00 a.m.	50
Commercial Zones	7:00 a.m. to 10:00 p.m.	60
	10:00 p.m. to 7:00 a.m.	55
Manufacturing/Light Industrial/ Industrial Park Zones including agriculture	(anytime)	70
General Industrial Zones	(anytime)	75

SOURCE: Imperial County Noise Abatement and Control Ordinance, Tit. 9, Div. 7, § 90702.00(A).

The project site and the property to the south are zoned M1U (Light Industrial Urban), the properties to the west and north are zoned A1U (Limited Agriculture Urban) and C2U (Medium Commercial Urban), and the property to the northeast is zoned R1U (Low Density Residential Urban). The properties to the east are within City boundaries and have a City zoning designation of R-1 (Single Family).

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3.0 Existing Conditions

Existing noise levels at the project site were measured on February 3, 2023, using one Larson-Davis LxT Sound Expert Sound Level Meter, serial number 3896. The following parameters were used:

Filter:	A-weighted
Response:	Slow
Time History Period:	5 seconds

The meter was calibrated before and after the measurements. The meter was set 5 feet above the ground level for each measurement. Noise measurements were taken to obtain typical ambient noise levels at the project site and in the vicinity. The weather was mild and partly cloudy with a slight breeze. Three 15-minute measurements were taken, as described below. The measurement locations are shown on Figure 4, and detailed data is presented in Attachment 1.

Measurement 1 was located at the northern project boundary, approximately 50 feet south of Alamo Road. The main source of noise at this location was vehicle traffic on Alamo Road. Secondary sources of noise included bird vocalizations, barking dogs, and a distant siren. Noise levels were measured for 15 minutes. The average measured noise level was 55.9 dB(A) L_{eq}.

Measurement 2 was located at the western project boundary, approximately 50 feet east of the dirt road. The main source of noise at this location was vehicle traffic on Alamo Road. Secondary sources of noise included bird vocalizations, barking dogs, and roosters. Noise levels were measured for 15 minutes. The average measured noise level was 48.9 dB(A) L_{eq}.

Measurement 3 was located at the eastern project boundary, approximately 50 feet west of Melon Road. The main source of noise at this location was vehicle traffic on Melon Road. Secondary sources of noise included vehicle traffic on Alamo Road, bird vocalizations, and hammering. Noise levels were measured for 15 minutes. The average measured noise level was 52.4 dB(A) L_{eq}.

Noise measurements are summarized in Table 2.

Table 2
Noise Measurements

Measurement	Location	Time	Main Noise Sources	L_{eq}
1	Northern project boundary, 50 feet south of Alamo Road.	9:59 a.m. – 10:14 a.m.	Vehicle traffic on Alamo Road	55.9
2	Western project boundary, 50 feet east of dirt road.	10:30 a.m. – 10:45 a.m.	Vehicle traffic on Alamo Road	48.9
3	Eastern project boundary, 50 feet west of Melon Road.	11:02 a.m. – 11:17 a.m.	Vehicle traffic on Melon Road	52.4
NOTE: Noise measurement data is contained in Attachment 1.				

4.0 Methodology

Noise level predictions and contour mapping for construction and on-site noise sources were developed using noise modeling software, SoundPlan Essential, version 4.1 (Navcon Engineering 2018). SoundPLAN calculates noise propagation based on the International Organization for Standardization method (ISO 9613-2 – Acoustics, Attenuation of Sound during Propagation Outdoors). The model calculates noise levels at selected receiver locations using input parameter estimates such as total noise generated by each noise source; distances between sources, barriers, and receivers; and shielding provided by intervening terrain, barriers, and structures. The model outputs can be developed as noise level contour maps or noise levels at specific receivers. In all cases, receivers were modeled at 5 feet above ground elevation, which represents the average height of the human ear.

4.1 Construction

Construction activities associated with the project would include site preparation, grading, excavation, and foundation work for the placement of the BESS storage containers and inverters. Project construction noise would be generated by diesel engine-driven construction equipment. Noise impacts from construction are a function of the noise generated by equipment, the location and sensitivity of nearby land uses, and the timing and duration of the noise-generating activities. Table 3 presents a list of noise generation levels for various types of construction equipment. The duty cycle is the amount of time that equipment generates the reported noise level during typical, standard equipment operation. The noise levels and duty cycles summarized in Table 3 are based on measurements and studies conducted by Federal Highway Administration and the Federal Transit Authority.

Table 3
Typical Construction Equipment Noise Levels

Equipment	Noise Level at 50 Feet [dB(A) L_{eq}]	Typical Duty Cycle
Auger Drill Rig	85	20%
Backhoe	80	40%
Blasting	94	1%
Chain Saw	85	20%
Clam Shovel	93	20%
Compactor (ground)	80	20%
Compressor (air)	80	40%
Concrete Mixer Truck	85	40%
Concrete Pump	82	20%
Concrete Saw	90	20%
Crane (mobile or stationary)	85	20%
Dozer	85	40%
Dump Truck	84	40%
Excavator	85	40%
Front End Loader	80	40%
Generator (25 kilovolt amps or less)	70	50%
Generator (more than 25 kilovolt amps)	82	50%
Grader	85	40%
Hydra Break Ram	90	10%
Impact Pile Driver (diesel or drop)	95	20%
In situ Soil Sampling Rig	84	20%
Jackhammer	85	20%
Mounted Impact Hammer (hoe ram)	90	20%
Paver	85	50%
Pneumatic Tools	85	50%
Pumps	77	50%
Rock Drill	85	20%
Roller	74	40%

Table 3 Typical Construction Equipment Noise Levels		
Equipment	Noise Level at 50 Feet [dB(A) L_{eq}]	Typical Duty Cycle
Scraper	85	40%
Tractor	84	40%
Vacuum Excavator (vac-truck)	85	40%
Vibratory Concrete Mixer	80	20%
Vibratory Pile Driver	95	20%
SOURCE: Federal Highway Administration 2006 and 2008, Federal Transit Authority 2006. dB(A) L_{eq} = A-weighted decibels average noise level		

The loudest construction activities would be those associated with site preparation and grading. Construction noise levels were calculated assuming the simultaneous use of the following three pieces of construction equipment: a grader, a loader, and a water truck. Water truck noise levels were assumed to be equivalent to a dump truck. Although more construction equipment would be present on-site, not all would be used at the same time. Simultaneous use of this equipment would generate and average hourly noise level of 84.3 dB(A) L_{eq} at 50 feet, which is equivalent to a sound power level of 115.9 dB(A) L_{pw}. This noise level was modeled as an area source distributed over the footprint of the development area.

4.2 Operation

Once construction is complete, the primary noise sources would be the inverters and the BESS containers. The project would include 13 Sungrow Model SC5000UD-MV-US inverters surrounded by 88 Sungrow Model ST2752UX-US BESS containers each consisting of 48 battery units. It was assumed that noise levels generated by the inverters would be similar to Sungrow Model SG3600-UD-MV which generate a sound power level of 92 dB(A) L_{pw} (TRC Companies, Inc. 2022). Manufacturer specifications for the BESS containers indicate that three facades of the containers generate a noise level of 54 dB(A) L_{eq} at 5 meters and one façade generates a noise level of 53 dB(A) L_{eq} at 5 meters (Assured Environmental 2022). The louder noise level, which equates to a sound power level of 76 dB(A) L_{pw}, was modeled. All inverters and BESS containers were modeled with a 100 percent usage factor.

5.0 Noise Impact Analysis

5.1 Construction

Noise associated with project construction would potentially result in short-term impacts to surrounding properties. As discussed, the project is surrounded by residential, commercial, and industrial uses. The nearest sensitive receptors are the residential uses located north, west, and east of the project site. Construction noise levels were calculated based on the simultaneously use of a grader, loader, and water truck.

Noise levels were modeled at a series of 15 receivers located at the adjacent properties. The results are summarized in Table 4. Modeled receiver locations and construction noise contours are shown on Figure 5. SoundPLAN data is contained in Attachment 2.

Table 4 Construction Noise Levels		
Receiver	Zoning/Jurisdiction	Construction Noise Level [dB(A) L_{eq}]
1	R-1 (Single Family)/City	55
2	R-1 (Single Family)/City	55
3	R-1 (Single Family)/City	55
4	R-1 (Single Family)/City	55
5	A1U (Limited Agriculture Urban)/County	57
6	C2U (Medium Commercial Urban)/County	60
7	A1U (Limited Agriculture Urban)/County	61
8	A1U (Limited Agriculture Urban)/County	60
9	A1U (Limited Agriculture Urban)/County	59
10	A1U (Limited Agriculture Urban)/County	57
11	A1U (Limited Agriculture Urban)/County	56
12	A1U (Limited Agriculture Urban)/County	57
13	A1U (Limited Agriculture Urban)/County	58
14	A1U (Limited Agriculture Urban)/County	58
15	A1U (Limited Agriculture Urban)/County	58
dB(A) L_{eq} = A-weighted decibels equivalent noise level.		

As shown, construction noise levels are not anticipated to exceed the County's construction noise level limit of 75 dB(A) L_{eq} at the adjacent properties. Construction activities would only occur during the times allowable by the City and County Municipal Codes (7 a.m. to 7 p.m., Monday through Friday, and 9 a.m. to 5 p.m. Saturday). No construction activities that generate impulsive noise levels would be required. Although the existing adjacent residences would be exposed to construction noise levels that could be heard above ambient conditions, the exposure would be temporary. Therefore, project construction would not exceed noise level limits established in the County's Municipal Code and would only occur during the daytime hours, and temporary increases in noise levels during construction would be less than significant.

5.2 Operation

The primary noise sources on-site would be the inverters and the BESS containers. Using the on-site noise source parameters discussed in Section 4.2, noise levels were modeled at a series of 15 receivers located at the adjacent properties. Modeled receivers and operational noise contours are shown in Figure 6. Modeled data is included in Attachment 3. Future projected noise levels are summarized in Table 5.

Table 5 Operational Noise Levels		
Receiver	Zoning/Jurisdiction	Operational Noise Level [dB(A) L_{eq}]
1	R-1 (Single Family)/City	38
2	R-1 (Single Family)/City	38
3	R-1 (Single Family)/City	38
4	R-1 (Single Family)/City	37
5	A1U (Limited Agriculture Urban)/County	39
6	C2U (Medium Commercial Urban)/County	42
7	A1U (Limited Agriculture Urban)/County	43
8	A1U (Limited Agriculture Urban)/County	43

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Table 5 Operational Noise Levels		
Receiver	Zoning/Jurisdiction	Operational Noise Level [dB(A) L_{eq}]
9	A1U (Limited Agriculture Urban)/County	42
10	A1U (Limited Agriculture Urban)/County	41
11	A1U (Limited Agriculture Urban)/County	39
12	A1U (Limited Agriculture Urban)/County	41
13	A1U (Limited Agriculture Urban)/County	42
14	A1U (Limited Agriculture Urban)/County	43
15	A1U (Limited Agriculture Urban)/County	43
dB(A) L_{eq} = A-weighted decibels equivalent noise level.		

As shown, operational noise levels would not exceed the County's most restrictive noise level limit of 45 dB(A) L_{eq} at the residential uses to north, east, and west. Additionally, as shown in Figure 6, operational noise levels would not exceed the County's industrial noise level limit at the property to the south. Further, Section 17.10.150 of the City's Municipal Code states noise levels shall not exceed five decibels above the ambient noise level of the area. As shown in Table 2, the ambient noise level on the project site ranged from 48.9 to 55.9 dB(A) L_{eq}. Operational noise levels would not exceed five decibels above the ambient noise level. Therefore, project operation would not result in noise levels that exceed City or County standards, and operational noise impacts would be less than significant.

6.0 Conclusions

Based on the preceding analysis, the project is not anticipated to generate construction or operational noise levels that exceed the applicable noise limits. Impacts associated with the project would be less than significant.

If you have any questions about the results of this analysis, please contact me at jfleming@reconenvironmental.com or (619) 308-9333 extension 177.

Sincerely,

Jessica Fleming

Jessica Fleming
Noise Specialist

JLF:jg

7.0 Certification

The following is a list of preparers, persons, and organizations involved with the noise assessment.

RECON Environmental, Inc.
Jessica Fleming, County-approved Noise Consultant
Jennifer Gutierrez, Production Specialist
Benjamin Arp, GIS Specialist

8.0 References Cited

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Project Location

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FIGURE 1
Regional Location

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Image Source: NearMap (flown July 2022)

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FIGURE 2
Project Location on Aerial Photograph

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Map Source: Stellavise Solar Engineering

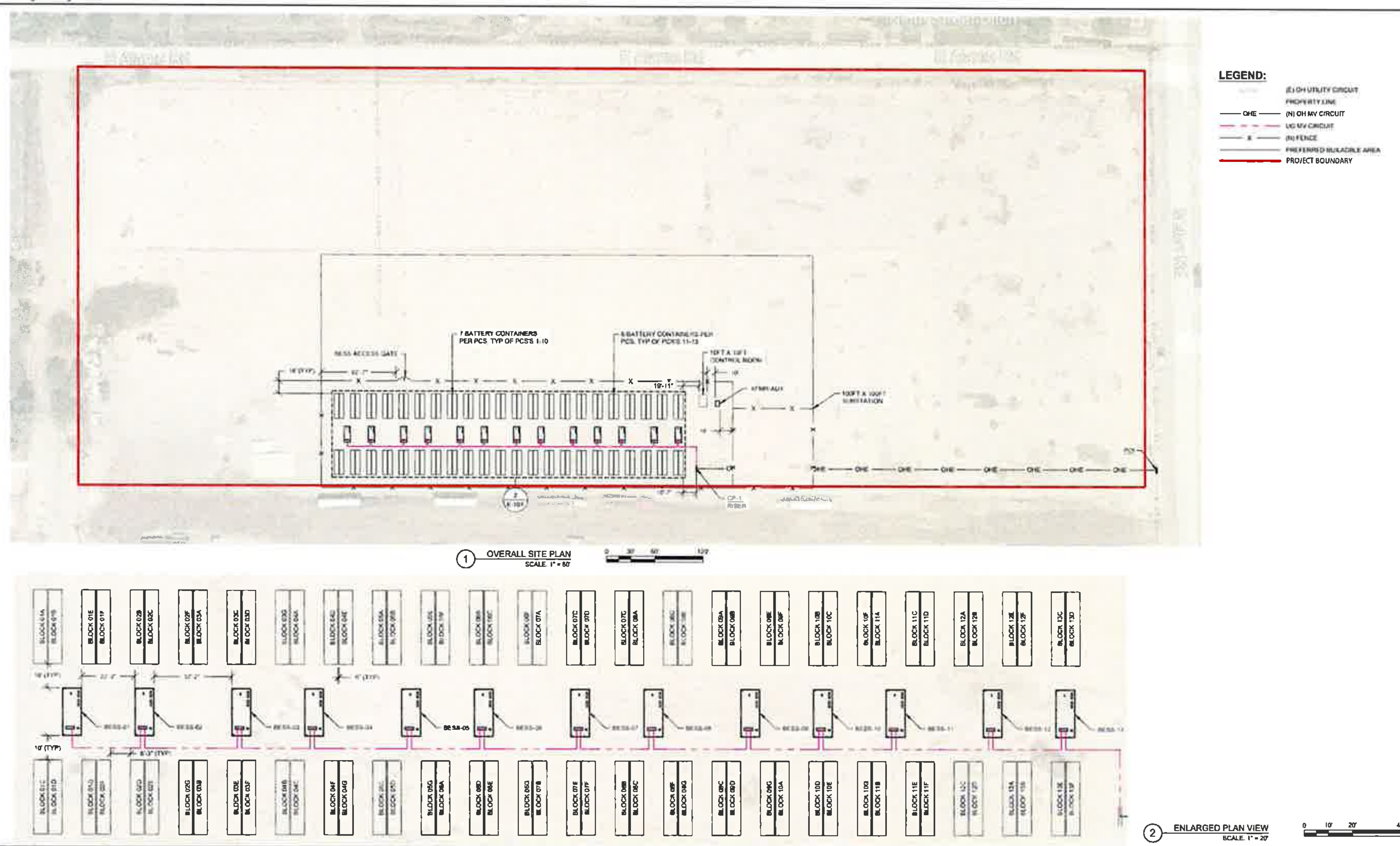

FIGURE 3
Site Plan

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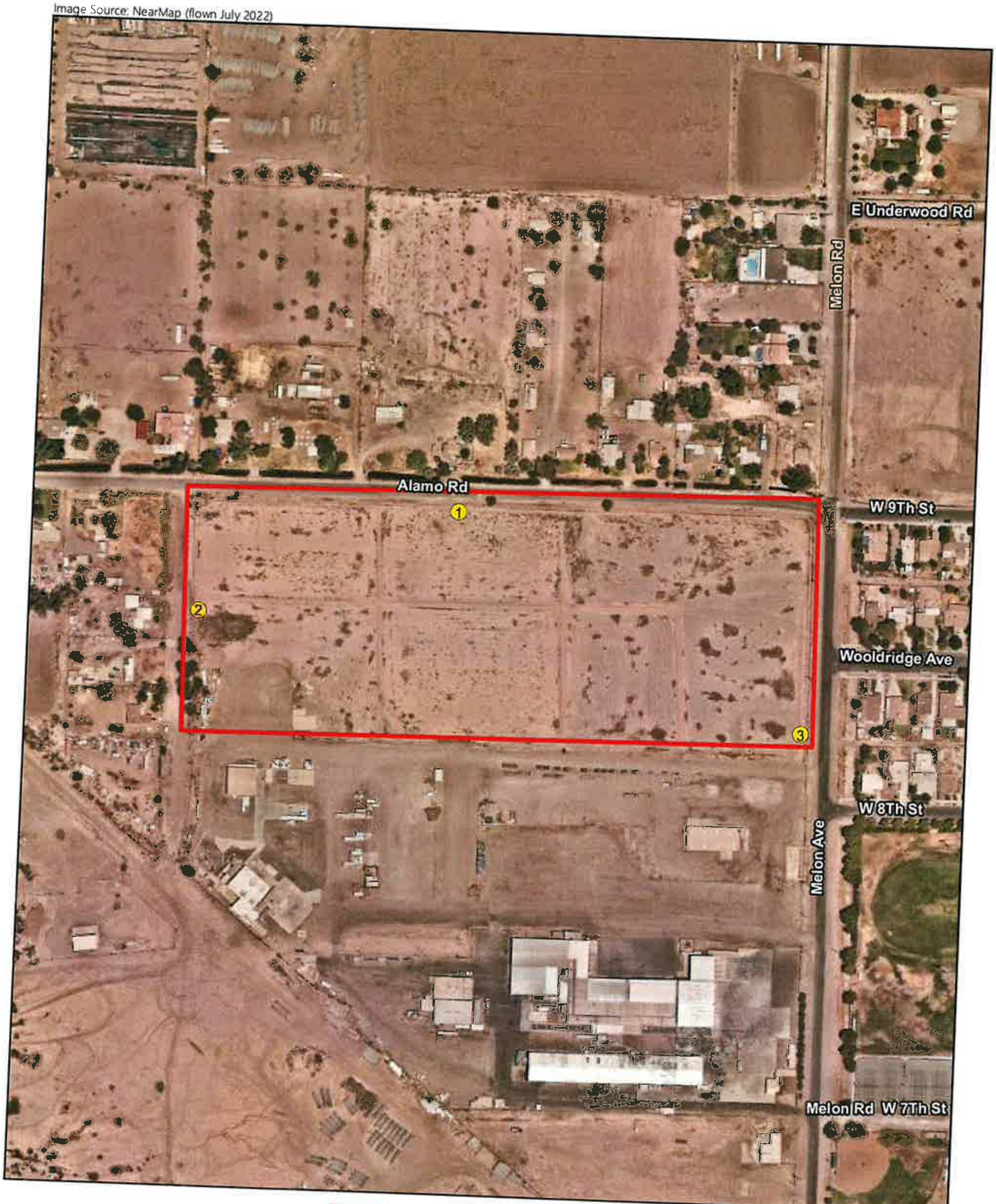
Image Source: NearMap (flown July 2022)



Project Boundary

Noise Measurement Location

0 Feet 300

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FIGURE 4

Noise Measurement Locations

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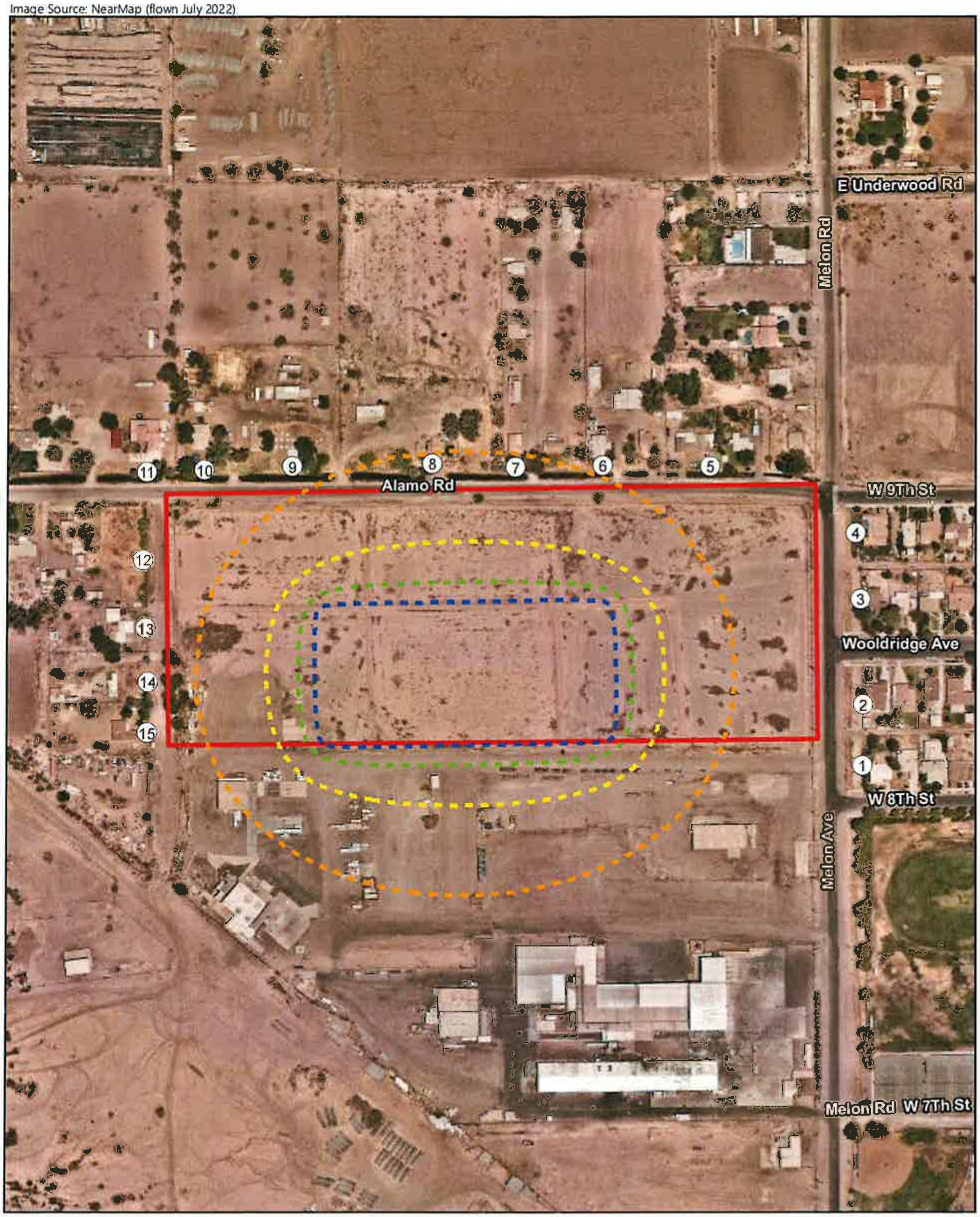
Image Source: NearMap (flown July 2022)



Project Boundary
Receivers

Construction Noise

60 dB(A) L_{eq}
65 dB(A) L_{eq}
70 dB(A) L_{eq}
75 dB(A) L_{eq}

0 Feet 300

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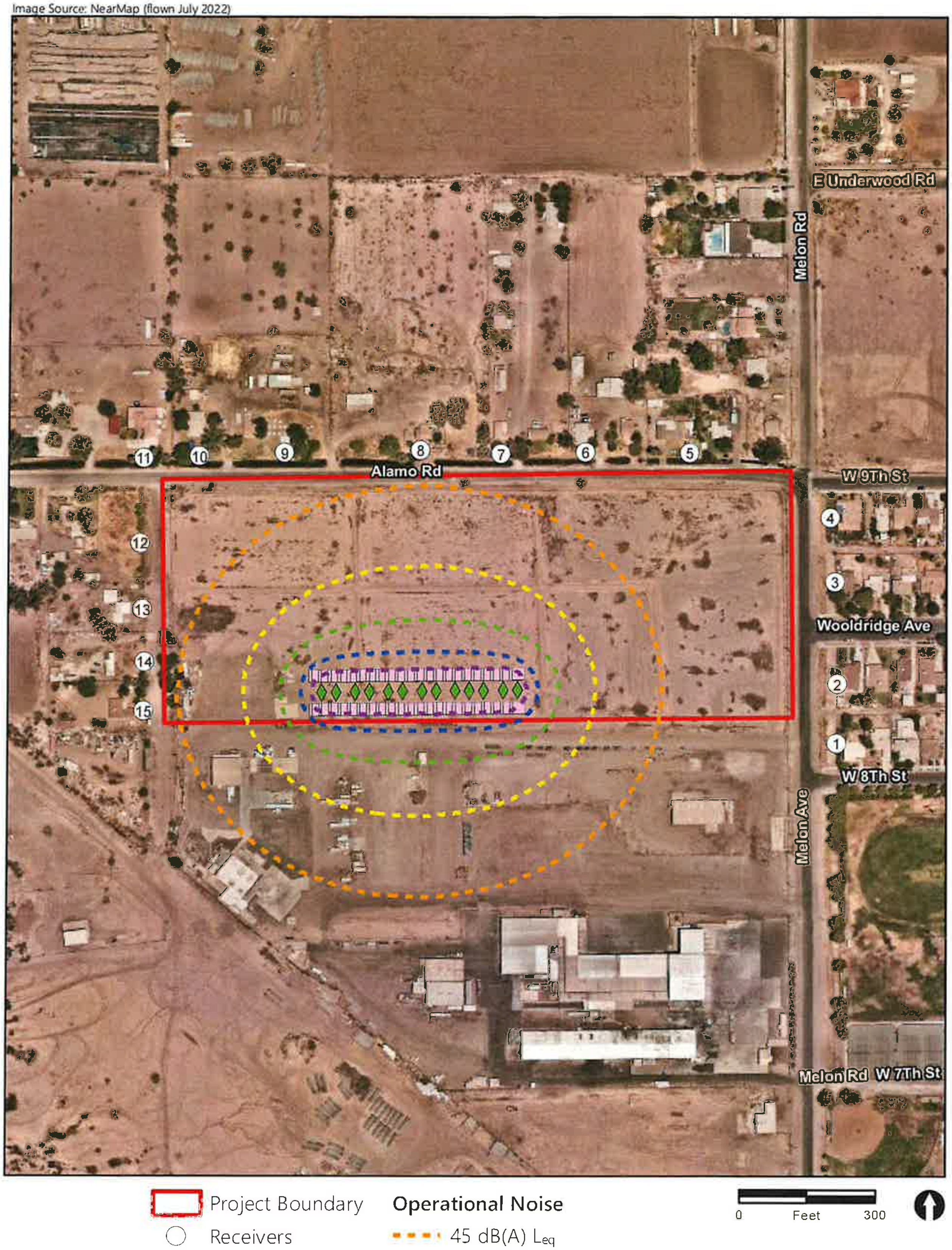
FIGURE 5
Construction Noise Contours

Image Source: NearMap (flown July 2022)



RECON

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FIGURE 6

Operational Noise Contours

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ATTACHMENTS

ATTACHMENT 1

Noise Measurement Data

10247 Holtville Peaker
Noise Measurement Data

Summary		
File Name on Meter	LxT_Data.207.s	
File Name on PC	LxT_0003896-20230203 105511-LxT_Data.207.ldbin	
Serial Number	0003896	
Model	SoundTrack LxT®	
Firmware Version	2.404	
User		
Location	Measurement 1	
Job Description		
Note		

Measurement		
Description		
Start	2023-02-03 10:55:11	
Stop	2023-02-03 11:10:31	
Duration	00:15:19.8	
Run Time	00:15:00.8	
Pause	00:00:19.0	
Pre-Calibration	2023-02-03 10:42:30	
Post-Calibration	None	
Calibration Deviation	---	

Overall Settings			
RMS Weight	A Weighting		
Peak Weight	A Weighting		
Detector	Slow		
Preamplifier	PRMLxT1		
Microphone Correction	Off		
Integration Method	Linear		
Overload	144.6 dB		
	A	C	Z
Under Range Peak	100.6	97.6	102.6 dB
Under Range Limit	37.8	37.5	44.5 dB
Noise Floor	28.7	28.3	35.4 dB

Results		
LAeq	55.9	
LAE	85.4	
EA	38.582 µPa²h	
EA8	1.234 mPa²h	
EA40	6.168 mPa²h	
LApeak (max)	2023-02-03 11:06:07	82.7 dB
LASmax	2023-02-03 11:07:48	67.3 dB
LASmin	2023-02-03 11:00:40	38.5 dB
SEA	dB	
LAS > 60.0 dB (Exceedance Counts / Duration)	50	141.8 s
LAS > 70.0 dB (Exceedance Counts / Duration)	0	0.0 s
LApeak > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
LApeak > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
LApeak > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s
LCeq	61.0 dB	
LAeq	55.9 dB	
LCeq - LAeq	5.2 dB	
LAIeq	61.8 dB	
LAeq	55.9 dB	
LAIeq - LAeq	5.9 dB	

	A		C		Z	
	dB	Time Stamp	dB	Time Stamp	dB	Time Stamp
Leq	55.9		61.0			
LS(max)	67.3	2023/02/03 11:07:48				
LS(min)	38.5	2023/02/03 11:00:40				
LPeak(max)	82.7	2023/02/03 11:06:07				

Overload Count	0	
Overload Duration	0.0 s	

Dose Settings		
Dose Name	OSHA-1	OSHA-2
Exchange Rate	5	5 dB
Threshold	90	80 dB
Criterion Level	90	90 dB
Criterion Duration	8	8 h

Results		
Dose		%
Projected Dose		%
TWA (Projected)		dB
TWA (t)		dB
Lep (t)	40.8	40.8 dB

Statistics	
LA5.00	62.0 dB
LA10.00	60.2 dB
LA33.30	54.5 dB
LA50.00	50.0 dB
LA66.60	46.8 dB
LA90.00	42.0 dB

Summary	
File Name on Meter	LxT_Data.208.s
File Name on PC	LxT_0003896-20230203 112642-LxT_Data.208.ldbin
Serial Number	0003896
Model	SoundTrack LxT®
Firmware Version	2.404
User	
Location	Measurement 2
Job Description	
Note	

Measurement	
Description	
Start	2023-02-03 11:26:42
Stop	2023-02-03 11:42:04
Duration	00:15:21.4
Run Time	00:15:02.3
Pause	00:00:19.1
Pre-Calibration	2023-02-03 10:42:25
Post-Calibration	None
Calibration Deviation	---

Overall Settings			
RMS Weight	A Weighting		
Peak Weight	A Weighting		
Detector	Slow		
Preamplifier	PRMLxT1		
Microphone Correction	Off		
Integration Method	Linear		
Overload	144.6 dB		
	A	C	Z
Under Range Peak	100.6	97.6	102.6 dB
Under Range Limit	37.8	37.5	44.5 dB
Noise Floor	28.7	28.3	35.4 dB

Results		
LAeq	48.9	
LAE	78.4	
EA	7.715 µPa²h	
EA8	246.252 µPa²h	
EA40	1.231 mPa²h	
LApeak (max)	2023-02-03 11:38:44	86.1 dB
LASmax	2023-02-03 11:28:03	64.0 dB
LASmin	2023-02-03 11:41:45	40.8 dB
SEA	dB	
LAS > 60.0 dB (Exceedance Counts / Duration)	2	9.6 s
LAS > 70.0 dB (Exceedance Counts / Duration)	0	0.0 s
LApeak > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
LApeak > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
LApeak > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s
LCeq	60.5 dB	
LAeq	48.9 dB	
LCeq - LAeq	11.6 dB	
LAIeq	52.3 dB	
LAeq	48.9 dB	
LAIeq - LAeq	3.4 dB	

	A		C		Z	
	dB	Time Stamp	dB	Time Stamp	dB	Time Stamp
Leq	48.9		60.5			
Ls(max)	64.0	2023/02/03 11:28:03				
Ls(min)	40.8	2023/02/03 11:41:45				
LPeak(max)	86.1	2023/02/03 11:38:44				

Overload Count	0
Overload Duration	0.0 s

Dose Settings		
Dose Name	OSHA-1	OSHA-2
Exchange Rate	5	5 dB
Threshold	90	80 dB
Criterion Level	90	90 dB
Criterion Duration	8	8 h

Results		
Dose		%
Projected Dose		%
TWA (Projected)		dB
TWA (t)		dB
Lep (t)	33.8	33.8 dB

Statistics	
LA5.00	52.8 dB
LA10.00	51.3 dB
LA33.30	47.4 dB
LA50.00	46.1 dB
LA66.60	45.0 dB
LA90.00	43.3 dB

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Summary			
File Name on Meter	LxT_Data.209.s		
File Name on PC	LxT_0003896-20230203 115809-LxT_Data.209.ldbin		
Serial Number	0003896		
Model	SoundTrack LxT®		
Firmware Version	2.404		
User			
Location	Measurement 3		
Job Description			
Note			

Measurement			
Description			
Start	2023-02-03 11:58:09		
Stop	2023-02-03 12:13:32		
Duration	00:15:22.7		
Run Time	00:15:01.1		
Pause	00:00:21.6		
Pre-Calibration	2023-02-03 10:42:25		
Post-Calibration	None		
Calibration Deviation	---		

Overall Settings			
RMS Weight	A Weighting		
Peak Weight	A Weighting		
Detector	Slow		
Preamplifier	PRMLxT1		
Microphone Correction	Off		
Integration Method	Linear		
Overload	144.6 dB		
	A	C	Z
Under Range Peak	100.6	97.6	102.6 dB
Under Range Limit	37.8	37.5	44.5 dB
Noise Floor	28.7	28.3	35.4 dB

Results		
LAeq	52.4	
LAE	82.0	
EA	17.475 µPa²h	
EA8	558.517 µPa²h	
EA40	2.793 mPa²h	
LApeak (max)	2023-02-03 12:04:25	86.0 dB
LASmax	2023-02-03 12:08:46	70.7 dB
LASmin	2023-02-03 12:10:55	38.6 dB
SEA	dB	
LAS > 60.0 dB (Exceedance Counts / Duration)	3	25.4 s
LAS > 70.0 dB (Exceedance Counts / Duration)	1	2.9 s
LApeak > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
LApeak > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
LApeak > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s
LCeq	62.7 dB	
LAeq	52.4 dB	
LCeq - LAeq	10.2 dB	
LAIeq	54.1 dB	
LAeq	52.4 dB	
LAIeq - LAeq	1.7 dB	

	A		C		Z	
	dB	Time Stamp	dB	Time Stamp	dB	Time Stamp
Leq	52.4		62.7			
Ls(max)	70.7	2023/02/03 12:08:46				
Ls(min)	38.6	2023/02/03 12:10:55				
LPeak(max)	86.0	2023/02/03 12:04:25				

Overload Count	0
Overload Duration	0.0 s

Dose Settings		
Dose Name	OSHA-1	OSHA-2
Exchange Rate	5	5 dB
Threshold	90	80 dB
Criterion Level	90	90 dB
Criterion Duration	8	8 h

Results		
Dose		%
Projected Dose		%
TWA (Projected)		dB
TWA (t)		dB
Lep (t)	37.4	37.4 dB

Statistics	
LA5.00	56.8 dB
LA10.00	54.4 dB
LA33.30	47.1 dB
LA50.00	44.7 dB
LA66.60	43.2 dB
LA90.00	40.6 dB

ATTACHMENT 2

SoundPLAN Data – Construction

10247 Holtville Peaker

SoundPLAN Data - Construction

		Noise	Corrections		
Source name	Reference	Level	Cwall	CI	CT
		dB(A)	dB(A)	dB(A)	dB(A)
Construction	Lw/unit	115.9	-	-	-

10247 Holtville Peaker

SoundPLAN Data - Construction

No.	Coordinates X	Y	Noise Level
	(meters)		dB(A)
1	650832.11	3632119.27	55.0
2	650832.11	3632158.96	55.3
3	650829.99	3632227.75	55.2
4	650826.29	3632270.62	54.8
5	650731.04	3632313.48	57.3
6	650661.19	3632313.48	59.5
7	650604.57	3632311.89	60.5
8	650550.06	3632314.01	60.4
9	650458.52	3632311.36	58.8
10	650401.37	3632308.72	56.9
11	650363.80	3632307.13	55.6
12	650362.21	3632249.98	56.9
13	650364.33	3632205.53	57.7
14	650365.91	3632170.60	57.9
15	650365.39	3632137.27	57.6

ATTACHMENT 3

SoundPLAN Data – Operation

10247 Hubville Peaker
SoundPLAN Data - Operation

Source name	Reference	Level Lw/Lw' dB(A)	20 Hz	25 Hz	31.5 Hz	40 Hz	50 Hz	63 Hz	80 Hz	100 Hz	125 Hz	160 Hz	200 Hz	250 Hz	315 Hz	400 Hz	500 Hz	630 Hz	800 Hz	1 kHz	1.25 kHz	1.6 kHz	2 kHz	2.5 kHz	3.15 kHz	4 kHz	5 kHz	6.3 kHz	8 kHz	10 kHz	Cwall dB(A)	Correction CI dB(A)	CT dB(A)
BESS1	Lw/unit	76																													-	-	-
BESS2	Lw/unit	76																													-	-	-
BESS3	Lw/unit	76																													-	-	-
BESS4	Lw/unit	76																													-	-	-
BESS5	Lw/unit	76																													-	-	-
BESS6	Lw/unit	76																													-	-	-
BESS7	Lw/unit	76																													-	-	-
BESS8	Lw/unit	76																													-	-	-
BESS9	Lw/unit	76																													-	-	-
BESS10	Lw/unit	76																													-	-	-
BESS11	Lw/unit	76																													-	-	-
BESS12	Lw/unit	76																													-	-	-
BESS13	Lw/unit	76																													-	-	-
BESS14	Lw/unit	76																													-	-	-
BESS15	Lw/unit	76																													-	-	-
BESS16	Lw/unit	76																													-	-	-
BESS17	Lw/unit	76																													-	-	-
BESS18	Lw/unit	76																													-	-	-
BESS19	Lw/unit	76																													-	-	-
BESS20	Lw/unit	76																													-	-	-
BESS21	Lw/unit	76																													-	-	-
BESS22	Lw/unit	76																													-	-	-
BESS23	Lw/unit	76																													-	-	-
BESS24	Lw/unit	76																													-	-	-
BESS25	Lw/unit	76																													-	-	-
BESS26	Lw/unit	76																													-	-	-
BESS27	Lw/unit	76																													-	-	-
BESS28	Lw/unit	76																													-	-	-
BESS29	Lw/unit	76																													-	-	-
BESS30	Lw/unit	76																													-	-	-
BESS31	Lw/unit	76																													-	-	-
BESS32	Lw/unit	76																													-	-	-
BESS33	Lw/unit	76																													-	-	-
BESS34	Lw/unit	76																													-	-	-
BESS35	Lw/unit	76																													-	-	-
BESS36	Lw/unit	76																													-	-	-
BESS37	Lw/unit	76																													-	-	-
BESS38	Lw/unit	76																													-	-	-
BESS39	Lw/unit	76																													-	-	-
BESS40	Lw/unit	76																													-	-	-
BESS41	Lw/unit	76																													-	-	-
BESS42	Lw/unit	76																													-	-	-
BESS43	Lw/unit	76																													-	-	-
BESS44	Lw/unit	76																													-	-	-
BESS45	Lw/unit	76																													-	-	-
BESS46	Lw/unit	76																													-	-	-
BESS47	Lw/unit	76																													-	-	-
BESS48	Lw/unit	76																													-	-	-
BESS49	Lw/unit	76																													-	-	-
BESS50	Lw/unit	76																													-	-	-
BESS51	Lw/unit	76																													-	-	-
BESS52	Lw/unit	76																													-	-	-
BESS53	Lw/unit	76																													-	-	-
BESS54	Lw/unit	76																													-	-	-
BESS55	Lw/unit	76																													-	-	-
BESS56	Lw/unit	76																													-	-	-
BESS57	Lw/unit	76																													-	-	-
BESS58	Lw/unit	76																													-	-	-
BESS59	Lw/unit	76																													-	-	-
BESS60	Lw/unit	76																													-	-	-
BESS61	Lw/unit	76																													-	-	-
BESS62	Lw/unit	76																													-	-	-
BESS63	Lw/unit	76																													-	-	-
BESS64	Lw/unit	76																													-	-	-
BESS65	Lw/unit	76																													-	-	-
BESS66	Lw/unit	76																													-	-	-
BESS67	Lw/unit	76																													-	-	-
BESS68	Lw/unit	76																													-	-	-
BESS69	Lw/unit	76																													-	-	-
BESS70	Lw/unit	76																													-	-	-
BESS71	Lw/unit	76																													-	-	-
BESS72	Lw/unit	76																													-	-	-
BESS73	Lw/unit	76																													-	-	-
BESS74	Lw/unit	76																													-	-	-
BESS75	Lw/unit	76																													-	-	-
BESS76	Lw/unit	76																													-	-	-
BESS77	Lw/unit	76																													-	-	-
BESS78	Lw/unit	76																													-	-	-
BESS79	Lw/unit	76																													-	-	-
BESS80	Lw/unit	76																													-	-	-
BESS81	Lw/unit	76																													-	-	-
BESS82	Lw/unit	76																													-	-	-
BESS83	Lw/unit	76																													-	-	-
BESS84	Lw/unit	76																													-	-	-
BESS85	Lw/unit	76																													-	-	-
BESS86	Lw/unit	76																													-	-	-
BESS87	Lw/unit	76																													-	-	-
BESS88	Lw/unit	76																													-	-	-
Inverter 1	Lw/unit	-	[illegible]	31.5	41.8	47.7	51.3	54.2	56.7	61	67.9	66.2	66.6	72.1	76.8	82.2	82.1	78.7	77.3	76	74.8	75.5	76.2	77.6	76.1	71.6	88.1	80.1	72.8	70.6	-	-	-
Inverter 2	Lw/unit	-	[illegible]	31.5	41.8	47.7	51.3	54.2	56.7	61	67.9	66.2	66.6	72.1	76.8	82.2	82.1	78.7	77.3	76	74.8	75.5	76.2	77.6	76.1	71.6	88.1	80.1	72.8	70.6	-	-	-
Inverter 3	Lw/unit	-	[illegible]	31.5	41.8	47.7	51.3	54.2	56.7	61	67.9	66.2	66.6	72.1	76.8	82.2	82.1	78.7	77.3	76	74.8	75.5	76.2	77.6	76.1	71.6	88.1	80.1	72.8	70.6			
Inverter 4	Lw/unit	-	[illegible]	31.5	41.8	47.7	51.3	54.2	56.7	61	67.9	66.2	66.6	72.1	76.8	82.2	82.1	78.7	77.3	76	74.8	75.5	76.2	77.6	76.1	71.6	88.1	80.1	72.8	70.6	-	-	-
Inverter 5	Lw/unit	-	[illegible]	31.5	41.8	47.7	51.3	54.2	56.7	61	67.9	66.2	66.6	72.1	76.8	82.2	82.1	78.7	77.3	76	74.8	75.5	76.2	77.6	76.1	71.6	88.1	80.1	72.8	70.6	-	-	-
Inverter 6	Lw/unit	-	[illegible]	31.5	41.8	47.7	51.3	54.2	56.7	61	67.9	66.2	66.6	72.1	76.8	82.2	82.1	78.7	77.3	76	74.8	75.5	76.2	77.6	76.1	71.6	88.1	80.1	72.8	70.6	-	-	-
Inverter 7	Lw/unit	-	[illegible]	31.5	41.8	47.7	51.3	54.2	56.7	61	67.9	66.2	66.6	72.1	76.8	82.2	82.1	78.7	77.3	76	74.8	75.5	76.2	77.6	76.1	71.6	88.1	80.1	72.8	70.6	-	-	-
Inverter 8	Lw/unit	-	[illegible]	31.5	41.8	47.7	51.3	54.2	56.7	61	67.9	66.2	66.6	72.1	76.8	82.2	82.1	78.7	77.3	76	74.8	75.5	76.2	77.6	76.1	71.6	88.1	80.1	72.8	70.6	-	-	-
Inverter 9	Lw/unit	-	[illegible]	31.5	41.8	47.7	51.3	54.2	56.7	61	67.9	66.2	66.6	72.1	76.8	82.2	82.1	78.7	77.3	76	74.8	75.5	76.2	77.6	76.1	71.6	88.1	80.1	72.8	70.6	-	-	-
Inverter 10	Lw/unit	-	[illegible]	31.5	41.8	47.7	51.3	54.2	56.7	61	67.9	66.2	66.6	72.1	76.8	82.2	82.1	78.7	77.3	76	74.8	75.5	76.2	77.6	76.1	71.6	88.1	80.1	72.8	70.6	-	-	-
Inverter 11	Lw/unit	-	[illegible]	31.5	41.8	47.7	51.3	54.2	56.7	61	67.9	66.2	66.6	72.1	76.8	82.2	82.1	78.7	77.3	76	74.8	75.5	76.2	77.6	76.1	71.6	88.1	80.1	72.8	70.6	-	-	-
Inverter 12	Lw/unit	-	[illegible]	31.5	41.8	47.7	51.3	54.2	56.7	61	67.9	66.2	66.6	72.1	76.8	82.2	82.1	78.7	77.3	76	74.8	75.5	76.2	77.6	76.1	71.6	88.1	80.1	72.8	70.6	-	-	-
Inverter 13	Lw/unit	-	[illegible]	31.5	41.8	47.7	51.3	54.2	56.7	61	67.9	66.2	66.6	72.1	76.8	82.2	82.1	78.7	77.3	76	74.8	75.5	76.2	77.6	76.1	71.6	88.1	80.1	72.8	70.6	-	-	-

Noise Source

EEC ORIGINAL PKG

10247 Holtville Peaker

SoundPLAN Data - Operation

No.	Coordinates X (meters)	Coordinates Y (meters)	Noise Level dB(A)
1	650832.11	3632119.27	37.9
2	650832.11	3632158.96	38.0
3	650829.99	3632227.75	37.6
4	650826.29	3632270.62	37.2
5	650731.04	3632313.48	39.4
6	650661.19	3632313.48	41.6
7	650604.57	3632311.89	43.0
8	650550.06	3632314.01	43.3
9	650458.52	3632311.36	42.2
10	650401.37	3632308.72	40.6
11	650363.80	3632307.13	39.4
12	650362.21	3632249.98	41.1
13	650364.33	3632205.53	42.4
14	650365.91	3632170.60	43.1
15	650365.39	3632137.27	43.1

Receivers

10247 Holtville Peaker
SoundPLAN Data - Operation

Source name				Noise Level dB(A)
1	1 Fl	37.9	0.0	
BESS1				11.7
BESS2				11.8
BESS3				11.8
BESS4				11.9
BESS5				11.9
BESS6				12.0
BESS7				12.0
BESS8				12.0
BESS9				12.1
BESS10				12.1
BESS11				12.2
BESS12				12.2
BESS13				12.3
BESS14				12.3
BESS15				12.3
BESS16				12.4
BESS17				12.5
BESS18				12.5
BESS19				12.5
BESS20				12.6
BESS21				12.6
BESS22				12.7
BESS23				12.7
BESS24				12.8
BESS25				12.8
BESS26				12.9
BESS27				12.9
BESS28				13.0
BESS29				13.0
BESS30				13.1
BESS31				13.1
BESS32				13.2
BESS33				13.2
BESS34				13.3
BESS35				13.3
BESS36				13.4
BESS37				13.4
BESS38				13.5
BESS39				13.5
BESS40				13.6
BESS41				13.6
BESS42				13.7
BESS43				13.7
BESS44				13.8
BESS45				13.8
BESS46				13.9
BESS47				13.9
BESS48				14.0
BESS49				14.0
BESS50				14.1
BESS51				14.2
BESS52				14.2
BESS53				14.3
BESS54				14.3
BESS55				14.4
BESS56				14.4
BESS57				14.5
BESS58				14.6
BESS59				14.6
BESS60				14.7
BESS61				14.7
BESS62				14.8
BESS63				14.8
BESS64				14.9
BESS65				14.9
BESS66				15.0
BESS67				15.1
BESS68				15.2
BESS69				15.2
BESS70				15.3
BESS71				15.3
BESS72				15.4
BESS73				15.4
BESS74				15.5
BESS75				15.6
BESS76				15.7
BESS77				15.7
BESS78				15.8
BESS79				15.8
BESS80				15.9
BESS81				15.9
BESS82				16.0
BESS83				16.1
BESS84				16.2
BESS85				16.2
BESS86				16.3
BESS87				16.4
BESS88				16.5
Inverter 1				21.9
Inverter 2				22.2
Inverter 3				22.6
Inverter 4				23.0
Inverter 5				23.4
Inverter 6				23.8
Inverter 7				24.3
Inverter 8				24.7
Inverter 9				25.3
Inverter 10				25.7
Inverter 11				26.2
Inverter 12				26.8
Inverter 13				27.3

2	1 Fl	38 0	0 0	
BESS1				11.8
BESS2				11.9
BESS3				11.8
BESS4				11.9
BESS5				12.0
BESS6				12.0
BESS7				12.0
BESS8				12.0
BESS9				12.2
BESS10				12.2
BESS11				12.2
BESS12				12.2
BESS13				12.4
BESS14				12.4
BESS15				12.3
BESS16				12.4
BESS17				12.5
BESS18				12.6
BESS19				12.5
BESS20				12.6
BESS21				12.7
BESS22				12.8
BESS23				12.7
BESS24				12.8
BESS25				12.9
BESS26				13.0
BESS27				12.9
BESS28				13.0
BESS29				13.1
BESS30				13.2
BESS31				13.1
BESS32				13.2
BESS33				13.3
BESS34				13.4
BESS35				13.3
BESS36				13.4
BESS37				13.5
BESS38				13.6
BESS39				13.5
BESS40				13.6
BESS41				13.7
BESS42				13.8
BESS43				13.7
BESS44				13.8
BESS45				13.9
BESS46				14.0
BESS47				13.9
BESS48				14.0
BESS49				14.2
BESS50				14.2
BESS51				14.2
BESS52				14.2
BESS53				14.4
BESS54				14.5
BESS55				14.4
BESS56				14.5
BESS57				14.6
BESS58				14.7
BESS59				14.6
BESS60				14.7
BESS61				14.9
BESS62				14.9
BESS63				14.9
BESS64				14.9
BESS65				15.1
BESS66				15.2
BESS67				15.1
BESS68				15.2
BESS69				15.3
BESS70				15.4
BESS71				15.3
BESS72				15.4
BESS73				15.6
BESS74				15.7
BESS75				15.6
BESS76				15.7
BESS77				15.9
BESS78				15.9
BESS79				15.9
BESS80				15.9
BESS81				16.1
BESS82				16.2
BESS83				16.1
BESS84				16.2
BESS85				16.4
BESS86				16.5
BESS87				16.4
BESS88				16.5
Inverter 1				21.9
Inverter 2				22.2
Inverter 3				22.7
Inverter 4				23.0
Inverter 5				23.5
Inverter 6				23.9
Inverter 7				24.4
Inverter 8				24.8
Inverter 9				25.4
Inverter 10				25.8
Inverter 11				26.3
Inverter 12				26.9
Inverter 13				27.5

3	1 Fl	37 6	0.0	
BESS1				11 7
BESS2				11 8
BESS3				11 6
BESS4				11.6
BESS5				11 9
BESS6				11 9
BESS7				11 8
BESS8				11 8
BESS9				12.1
BESS10				12.1
BESS11				11 9
BESS12				12 0
BESS13				12 2
BESS14				12.3
BESS15				12 1
BESS16				12 1
BESS17				12 4
BESS18				12 5
BESS19				12 3
BESS20				12 3
BESS21				12 6
BESS22				12 7
BESS23				12 5
BESS24				12 5
BESS25				12 8
BESS26				12 8
BESS27				12 6
BESS28				12.7
BESS29				13.0
BESS30				13.0
BESS31				12 8
BESS32				12 9
BESS33				13 2
BESS34				13 2
BESS35				13 0
BESS36				13 1
BESS37				13 4
BESS38				13 4
BESS39				13 2
BESS40				13.3
BESS41				13 6
BESS42				13 6
BESS43				13.4
BESS44				13 5
BESS45				13 8
BESS46				13 8
BESS47				13 6
BESS48				13.7
BESS49				14.0
BESS50				14.0
BESS51				13.8
BESS52				13.9
BESS53				14.2
BESS54				14.3
BESS55				14.0
BESS56				14.1
BESS57				14.4
BESS58				14.5
BESS59				14 2
BESS60				14 3
BESS61				14.6
BESS62				14.7
BESS63				14.4
BESS64				14 5
BESS65				14 9
BESS66				14.9
BESS67				14.6
BESS68				14 7
BESS69				15.1
BESS70				15 2
BESS71				14.9
BESS72				14 9
BESS73				15.3
BESS74				15 4
BESS75				15 1
BESS76				15 2
BESS77				15 6
BESS78				15.7
BESS79				15 3
BESS80				15.4
BESS81				15 8
BESS82				15.9
BESS83				15.6
BESS84				15 6
BESS85				16 1
BESS86				16.2
BESS87				15 8
BESS88				15 9
Inverter 1				21 7
Inverter 2				22 0
Inverter 3				22 4
Inverter 4				22 8
Inverter 5				23 2
Inverter 6				23 6
Inverter 7				24.1
Inverter 8				24 5
Inverter 9				25 0
Inverter 10				25 4
Inverter 11				25 8
Inverter 12				26 4
Inverter 13				26 9

4	1 Fl	37 2	0 0	
BESS1				11 5
BESS2				11 6
BESS3				11 3
BESS4				11.4
BESS5				11 7
BESS6				11 7
BESS7				11 5
BESS8				11 5
BESS9				11 9
BESS10				11 9
BESS11				11.7
BESS12				11 7
BESS13				12 0
BESS14				12 1
BESS15				11 8
BESS16				11 9
BESS17				12 2
BESS18				12 2
BESS19				12 0
BESS20				12 0
BESS21				12.4
BESS22				12.4
BESS23				12 2
BESS24				12 2
BESS25				12 5
BESS26				12 6
BESS27				12 3
BESS28				12 4
BESS29				12 7
BESS30				12 8
BESS31				12 5
BESS32				12 5
BESS33				12 9
BESS34				13.0
BESS35				12 7
BESS36				12.7
BESS37				13 1
BESS38				13 2
BESS39				12 8
BESS40				12 9
BESS41				13.3
BESS42				13 3
BESS43				13 0
BESS44				13 1
BESS45				13 5
BESS46				13 5
BESS47				13 2
BESS48				13 3
BESS49				13.7
BESS50				13 7
BESS51				13 4
BESS52				13.4
BESS53				13 9
BESS54				13 9
BESS55				13 6
BESS56				13.6
BESS57				14.1
BESS58				14.1
BESS59				13 8
BESS60				13 8
BESS61				14 3
BESS62				14 3
BESS63				14.0
BESS64				14.0
BESS65				14 5
BESS66				14 6
BESS67				14.2
BESS68				14.2
BESS69				14 7
BESS70				14.8
BESS71				14.4
BESS72				14 4
BESS73				14 9
BESS74				15 0
BESS75				14 6
BESS76				14 6
BESS77				15.1
BESS78				15 2
BESS79				14.8
BESS80				14.8
BESS81				15 4
BESS82				15 4
BESS83				15 0
BESS84				15.0
BESS85				15 6
BESS86				15.7
BESS87				15 2
BESS88				15 2
Inverter 1				21 4
Inverter 2				21 7
Inverter 3				22 1
Inverter 4				22.4
Inverter 5				22 9
Inverter 6				23 2
Inverter 7				23 6
Inverter 8				24 0
Inverter 9				24.5
Inverter 10				24 9
Inverter 11				25.2
Inverter 12				25 8
Inverter 13				26 2

EEC ORIGINAL PKG

5	1 Fl	39.4	0.0	
BESS1				13.6
BESS2				13.6
BESS3				13.2
BESS4				13.2
BESS5				13.7
BESS6				13.8
BESS7				13.3
BESS8				13.4
BESS9				13.9
BESS10				14.0
BESS11				13.5
BESS12				13.6
BESS13				14.1
BESS14				14.2
BESS15				13.7
BESS16				13.7
BESS17				14.3
BESS18				14.3
BESS19				13.9
BESS20				13.9
BESS21				14.5
BESS22				14.5
BESS23				14.0
BESS24				14.1
BESS25				14.7
BESS26				14.7
BESS27				14.2
BESS28				14.3
BESS29				14.9
BESS30				14.9
BESS31				14.4
BESS32				14.4
BESS33				15.1
BESS34				15.1
BESS35				14.6
BESS36				14.6
BESS37				15.3
BESS38				15.3
BESS39				14.7
BESS40				14.8
BESS41				15.5
BESS42				15.5
BESS43				14.9
BESS44				15.0
BESS45				15.7
BESS46				15.7
BESS47				15.1
BESS48				15.1
BESS49				15.9
BESS50				15.9
BESS51				15.3
BESS52				15.3
BESS53				16.1
BESS54				16.1
BESS55				15.4
BESS56				15.5
BESS57				16.3
BESS58				16.3
BESS59				15.6
BESS60				15.7
BESS61				16.5
BESS62				16.5
BESS63				15.8
BESS64				15.9
BESS65				16.7
BESS66				16.7
BESS67				16.0
BESS68				16.0
BESS69				16.9
BESS70				17.0
BESS71				16.2
BESS72				16.2
BESS73				17.1
BESS74				17.2
BESS75				16.3
BESS76				16.4
BESS77				17.3
BESS78				17.4
BESS79				16.5
BESS80				16.6
BESS81				17.5
BESS82				17.6
BESS83				16.7
BESS84				16.7
BESS85				17.7
BESS86				17.8
BESS87				16.8
BESS88				16.9
Inverter 1				23.8
Inverter 2				24.1
Inverter 3				24.5
Inverter 4				24.9
Inverter 5				25.3
Inverter 6				25.7
Inverter 7				26.1
Inverter 8				26.5
Inverter 9				27.0
Inverter 10				27.3
Inverter 11				27.7
Inverter 12				28.2
Inverter 13				28.5

6	1 Fl	41.6	0.0	
BESS1				15.6
BESS2				15.7
BESS3				15.0
BESS4				15.1
BESS5				15.8
BESS6				15.9
BESS7				15.2
BESS8				15.3
BESS9				16.0
BESS10				16.1
BESS11				15.4
BESS12				15.4
BESS13				16.2
BESS14				16.3
BESS15				15.6
BESS16				15.6
BESS17				16.4
BESS18				16.5
BESS19				15.7
BESS20				15.8
BESS21				16.6
BESS22				16.7
BESS23				15.9
BESS24				16.0
BESS25				16.8
BESS26				16.9
BESS27				16.1
BESS28				16.1
BESS29				17.0
BESS30				17.1
BESS31				16.3
BESS32				16.3
BESS33				17.2
BESS34				17.3
BESS35				16.4
BESS36				16.5
BESS37				17.4
BESS38				17.5
BESS39				16.6
BESS40				16.7
BESS41				17.6
BESS42				17.7
BESS43				16.8
BESS44				16.8
BESS45				17.8
BESS46				17.9
BESS47				16.9
BESS48				17.0
BESS49				18.0
BESS50				18.1
BESS51				17.1
BESS52				17.1
BESS53				18.2
BESS54				18.3
BESS55				17.3
BESS56				17.3
BESS57				18.4
BESS58				18.5
BESS59				17.4
BESS60				17.5
BESS61				18.6
BESS62				18.6
BESS63				17.6
BESS64				17.6
BESS65				18.8
BESS66				18.8
BESS67				17.7
BESS68				17.7
BESS69				18.9
BESS70				19.0
BESS71				17.8
BESS72				17.9
BESS73				19.1
BESS74				19.1
BESS75				18.0
BESS76				18.0
BESS77				19.2
BESS78				19.3
BESS79				18.1
BESS80				18.1
BESS81				19.4
BESS82				19.4
BESS83				18.2
BESS84				18.2
BESS85				19.5
BESS86				19.5
BESS87				18.3
BESS88				18.3
Inverter 1				26.2
Inverter 2				26.5
Inverter 3				27.0
Inverter 4				27.4
Inverter 5				27.9
Inverter 6				28.2
Inverter 7				28.7
Inverter 8				29.0
Inverter 9				29.4
Inverter 10				29.7
Inverter 11				30.0
Inverter 12				30.3
Inverter 13				30.5

7	1 Fl	43 0	0 0	
BESS1				17.4
BESS2				17.5
BESS3				16.6
BESS4				16.6
BESS5				17.6
BESS6				17.7
BESS7				16.8
BESS8				16.8
BESS9				17.8
BESS10				17.9
BESS11				16.9
BESS12				17.0
BESS13				18.0
BESS14				18.1
BESS15				17.1
BESS16				17 1
BESS17				18.2
BESS18				18.3
BESS19				17.2
BESS20				17.3
BESS21				18.4
BESS22				18.4
BESS23				17.4
BESS24				17.4
BESS25				18.6
BESS26				18.6
BESS27				17.5
BESS28				17.6
BESS29				18.7
BESS30				18.8
BESS31				17.7
BESS32				17.7
BESS33				18.9
BESS34				19.0
BESS35				17.8
BESS36				17.9
BESS37				19.1
BESS38				19.1
BESS39				18.0
BESS40				18.0
BESS41				19.2
BESS42				19.3
BESS43				18.1
BESS44				18.1
BESS45				19.4
BESS46				19.4
BESS47				18.2
BESS48				18.2
BESS49				19.5
BESS50				19.5
BESS51				18.3
BESS52				18.3
BESS53				19.6
BESS54				19.7
BESS55				18.4
BESS56				18.4
BESS57				19.7
BESS58				19.8
BESS59				18.5
BESS60				18.5
BESS61				19.8
BESS62				19.8
BESS63				18.5
BESS64				18.5
BESS65				19.9
BESS66				19.9
BESS67				18.6
BESS68				18.6
BESS69				19.9
BESS70				20.0
BESS71				18.6
BESS72				18 6
BESS73				20.0
BESS74				20.0
BESS75				18.6
BESS76				18.7
BESS77				20.0
BESS78				20.0
BESS79				18.7
BESS80				18.7
BESS81				20.0
BESS82				20.0
BESS83				18.7
BESS84				18.7
BESS85				20.0
BESS86				20.0
BESS87				18.7
BESS88				18.6
Inverter 1				28.3
Inverter 2				28.6
Inverter 3				29.1
Inverter 4				29.4
Inverter 5				29.8
Inverter 6				30.1
Inverter 7				30.4
Inverter 8				30.6
Inverter 9				30.8
Inverter 10				31.0
Inverter 11				31.0
Inverter 12				31.1
Inverter 13				31.1

8	1 Fl	43 3	0.0	
BESS1				18.8
BESS2				18.9
BESS3				17.7
BESS4				17.8
BESS5				19.0
BESS6				19.0
BESS7				17.9
BESS8				17.9
BESS9				19.1
BESS10				19.2
BESS11				18.0
BESS12				18.0
BESS13				19.3
BESS14				19.3
BESS15				18.1
BESS16				18.1
BESS17				19.4
BESS18				19.4
BESS19				18.2
BESS20				18.2
BESS21				19.5
BESS22				19.5
BESS23				18.2
BESS24				18.3
BESS25				19.6
BESS26				19.6
BESS27				18.3
BESS28				18.3
BESS29				19.7
BESS30				19.7
BESS31				18.4
BESS32				18.4
BESS33				19.7
BESS34				19.7
BESS35				18.4
BESS36				18.4
BESS37				19.8
BESS38				19.8
BESS39				18.5
BESS40				18.5
BESS41				19.8
BESS42				19.8
BESS43				18.5
BESS44				18.5
BESS45				19.8
BESS46				19.8
BESS47				18.5
BESS48				18.5
BESS49				19.8
BESS50				19.8
BESS51				18.5
BESS52				18.5
BESS53				19.8
BESS54				19.8
BESS55				18.5
BESS56				18.5
BESS57				19.7
BESS58				19.7
BESS59				18.4
BESS60				18.4
BESS61				19.7
BESS62				19.7
BESS63				18.4
BESS64				18.4
BESS65				19.6
BESS66				19.6
BESS67				18.3
BESS68				18.3
BESS69				19.5
BESS70				19.5
BESS71				18.3
BESS72				18.3
BESS73				19.4
BESS74				19.4
BESS75				18.2
BESS76				18.2
BESS77				19.3
BESS78				19.3
BESS79				18.1
BESS80				18.1
BESS81				19.2
BESS82				19.1
BESS83				18.0
BESS84				18.0
BESS85				19.0
BESS86				19.0
BESS87				17.9
BESS88				17.9
Inverter 1			29.9	
Inverter 2			30.1	
Inverter 3			30.4	
Inverter 4			30.6	
Inverter 5			30.7	
Inverter 6			30.8	
Inverter 7			30.8	
Inverter 8			30.8	
Inverter 9			30.7	
Inverter 10			30.6	
Inverter 11			30.5	
Inverter 12			30.2	
Inverter 13			30.0	

9	1 Fl	42 2	0.0	
BESS1				19 8
BESS2				19 8
BESS3				18 5
BESS4				18 5
BESS5				19 7
BESS6				19 7
BESS7				18.4
BESS8				18 4
BESS9				19 6
BESS10				19 6
BESS11				18.4
BESS12				18 3
BESS13				19 5
BESS14				19.5
BESS15				18 3
BESS16				18 3
BESS17				19.4
BESS18				19.4
BESS19				18 2
BESS20				18 2
BESS21				19.3
BESS22				19 3
BESS23				18 1
BESS24				18.1
BESS25				19 2
BESS26				19.2
BESS27				18 0
BESS28				18 0
BESS29				19.1
BESS30				19.0
BESS31				17 9
BESS32				17 9
BESS33				18 9
BESS34				18 9
BESS35				17.8
BESS36				17 8
BESS37				18 7
BESS38				18 7
BESS39				17 7
BESS40				17 6
BESS41				18 6
BESS42				18 5
BESS43				17 5
BESS44				17 5
BESS45				18 4
BESS46				18 3
BESS47				17.4
BESS48				17 3
BESS49				18 2
BESS50				18 2
BESS51				17 2
BESS52				17.2
BESS53				18 0
BESS54				18 0
BESS55				17 1
BESS56				17 0
BESS57				17.8
BESS58				17 8
BESS59				16 9
BESS60				16 9
BESS61				17 6
BESS62				17 6
BESS63				16 8
BESS64				16 7
BESS65				17 4
BESS66				17 4
BESS67				16 6
BESS68				16 6
BESS69				17 2
BESS70				17 2
BESS71				16 4
BESS72				16 4
BESS73				17 0
BESS74				17 0
BESS75				16 3
BESS76				16 2
BESS77				16 8
BESS78				16 8
BESS79				16 1
BESS80				16.1
BESS81				16 6
BESS82				16 6
BESS83				15 9
BESS84				15.9
BESS85				16.4
BESS86				16.4
BESS87				15 8
BESS88				15 7
Inverter 1				30.8
Inverter 2				30 6
Inverter 3				30.4
Inverter 4				30 2
Inverter 5				29 9
Inverter 6				29 6
Inverter 7				29 2
Inverter 8				28 9
Inverter 9				28 5
Inverter 10				28.1
Inverter 11				27 8
Inverter 12				27 3
Inverter 13				27 0

10	1 Fl	40 6	0 0	
BESS1				18.8
BESS2				18.8
BESS3				17.7
BESS4				17.7
BESS5				18.7
BESS6				18.6
BESS7				17.6
BESS8				17.6
BESS9				18.5
BESS10				18.4
BESS11				17.5
BESS12				17.4
BESS13				18.3
BESS14				18.2
BESS15				17.3
BESS16				17.3
BESS17				18.1
BESS18				18.1
BESS19				17.2
BESS20				17.1
BESS21				17.9
BESS22				17.9
BESS23				17.0
BESS24				17.0
BESS25				17.7
BESS26				17.7
BESS27				16.8
BESS28				16.8
BESS29				17.5
BESS30				17.5
BESS31				16.7
BESS32				16.6
BESS33				17.3
BESS34				17.3
BESS35				16.5
BESS36				16.5
BESS37				17.1
BESS38				17.1
BESS39				16.3
BESS40				16.3
BESS41				16.9
BESS42				16.9
BESS43				16.2
BESS44				16.1
BESS45				16.7
BESS46				16.6
BESS47				16.0
BESS48				15.9
BESS49				16.5
BESS50				16.4
BESS51				15.8
BESS52				15.8
BESS53				16.3
BESS54				16.2
BESS55				15.6
BESS56				15.6
BESS57				16.1
BESS58				16.0
BESS59				15.5
BESS60				15.4
BESS61				15.9
BESS62				15.8
BESS63				15.3
BESS64				15.2
BESS65				15.7
BESS66				15.6
BESS67				15.1
BESS68				15.1
BESS69				15.5
BESS70				15.4
BESS71				14.9
BESS72				14.9
BESS73				15.3
BESS74				15.2
BESS75				14.8
BESS76				14.7
BESS77				15.1
BESS78				15.0
BESS79				14.6
BESS80				14.5
BESS81				14.9
BESS82				14.8
BESS83				14.4
BESS84				14.4
BESS85				14.7
BESS86				14.7
BESS87				14.2
BESS88				14.2
Inverter 1				29.6
Inverter 2				29.3
Inverter 3				28.9
Inverter 4				28.6
Inverter 5				28.1
Inverter 6				27.8
Inverter 7				27.3
Inverter 8				26.9
Inverter 9				26.5
Inverter 10				26.1
Inverter 11				25.8
Inverter 12				25.3
Inverter 13				25.0

10247 Holtville Peaker
SoundPLAN Data - Operation

11	1 Fl	39.4	0.0	
BESS1				17.8
BESS2				17.7
BESS3				16.9
BESS4				16.9
BESS5				17.6
BESS6				17.5
BESS7				16.7
BESS8				16.7
BESS9				17.4
BESS10				17.3
BESS11				16.6
BESS12				16.5
BESS13				17.2
BESS14				17.1
BESS15				16.4
BESS16				16.3
BESS17				17.0
BESS18				16.9
BESS19				16.2
BESS20				16.2
BESS21				16.8
BESS22				16.7
BESS23				16.0
BESS24				16.0
BESS25				16.6
BESS26				16.5
BESS27				15.9
BESS28				15.8
BESS29				16.4
BESS30				16.3
BESS31				15.7
BESS32				15.6
BESS33				16.2
BESS34				16.1
BESS35				15.5
BESS36				15.5
BESS37				16.0
BESS38				15.9
BESS39				15.3
BESS40				15.3
BESS41				15.7
BESS42				15.7
BESS43				15.2
BESS44				15.1
BESS45				15.5
BESS46				15.5
BESS47				15.0
BESS48				14.9
BESS49				15.3
BESS50				15.3
BESS51				14.8
BESS52				14.7
BESS53				15.2
BESS54				15.1
BESS55				14.6
BESS56				14.6
BESS57				15.0
BESS58				14.9
BESS59				14.5
BESS60				14.4
BESS61				14.8
BESS62				14.7
BESS63				14.3
BESS64				14.2
BESS65				14.6
BESS66				14.5
BESS67				14.1
BESS68				14.0
BESS69				14.4
BESS70				14.3
BESS71				13.9
BESS72				13.9
BESS73				14.2
BESS74				14.1
BESS75				13.8
BESS76				13.7
BESS77				14.0
BESS78				13.9
BESS79				13.6
BESS80				13.5
BESS81				13.8
BESS82				13.8
BESS83				13.4
BESS84				13.4
BESS85				13.6
BESS86				13.6
BESS87				13.3
BESS88				13.2
Inverter 1				28.4
Inverter 2				28.1
Inverter 3				27.6
Inverter 4				27.3
Inverter 5				26.8
Inverter 6				26.4
Inverter 7				25.9
Inverter 8				25.6
Inverter 9				25.1
Inverter 10				24.8
Inverter 11				24.5
Inverter 12				24.0
Inverter 13				23.7

12	1 Fl	41.1	0.0	
BESS1				20.0
BESS2				19.9
BESS3				19.1
BESS4				19.0
BESS5				19.7
BESS6				19.6
BESS7				18.8
BESS8				18.7
BESS9				19.3
BESS10				19.2
BESS11				18.5
BESS12				18.5
BESS13				19.0
BESS14				18.9
BESS15				18.3
BESS16				18.2
BESS17				18.7
BESS18				18.6
BESS19				18.0
BESS20				17.9
BESS21				18.4
BESS22				18.3
BESS23				17.8
BESS24				17.7
BESS25				18.1
BESS26				18.0
BESS27				17.5
BESS28				17.4
BESS29				17.8
BESS30				17.8
BESS31				17.3
BESS32				17.2
BESS33				17.6
BESS34				17.5
BESS35				17.0
BESS36				16.9
BESS37				17.3
BESS38				17.2
BESS39				16.8
BESS40				16.7
BESS41				17.0
BESS42				16.9
BESS43				16.5
BESS44				16.4
BESS45				16.7
BESS46				16.7
BESS47				16.3
BESS48				16.2
BESS49				16.5
BESS50				16.4
BESS51				16.0
BESS52				16.0
BESS53				16.2
BESS54				16.2
BESS55				15.8
BESS56				15.7
BESS57				16.0
BESS58				15.9
BESS59				15.6
BESS60				15.5
BESS61				15.7
BESS62				15.7
BESS63				15.4
BESS64				15.3
BESS65				15.5
BESS66				15.4
BESS67				15.1
BESS68				15.1
BESS69				15.3
BESS70				15.2
BESS71				14.9
BESS72				14.9
BESS73				15.0
BESS74				15.0
BESS75				14.7
BESS76				14.6
BESS77				14.8
BESS78				14.8
BESS79				14.5
BESS80				14.4
BESS81				14.6
BESS82				14.5
BESS83				14.3
BESS84				14.2
BESS85				14.4
BESS86				14.3
BESS87				14.1
BESS88				14.0
Inverter 1				31.1
Inverter 2				30.6
Inverter 3				29.8
Inverter 4				29.3
Inverter 5				28.6
Inverter 6				28.1
Inverter 7				27.5
Inverter 8				27.0
Inverter 9				26.4
Inverter 10				26.0
Inverter 11				25.6
Inverter 12				25.1
Inverter 13				24.7

13	1 Fl	42 4	0 0	
BESS1				21.6
BESS2				21.5
BESS3				20.9
BESS4				20.8
BESS5				21.2
BESS6				21.0
BESS7				20.5
BESS8				20.4
BESS9				20.7
BESS10				20.6
BESS11				20.1
BESS12				20.0
BESS13				20.3
BESS14				20.2
BESS15				19.8
BESS16				19.6
BESS17				19.9
BESS18				19.8
BESS19				19.4
BESS20				19.3
BESS21				19.5
BESS22				19.4
BESS23				19.1
BESS24				19.0
BESS25				19.2
BESS26				19.1
BESS27				18.7
BESS28				18.6
BESS29				18.8
BESS30				18.7
BESS31				18.4
BESS32				18.3
BESS33				18.5
BESS34				18.4
BESS35				18.1
BESS36				18.0
BESS37				18.1
BESS38				18.0
BESS39				17.8
BESS40				17.7
BESS41				17.8
BESS42				17.7
BESS43				17.5
BESS44				17.4
BESS45				17.5
BESS46				17.4
BESS47				17.2
BESS48				17.1
BESS49				17.2
BESS50				17.1
BESS51				16.9
BESS52				16.8
BESS53				16.9
BESS54				16.8
BESS55				16.6
BESS56				16.6
BESS57				16.6
BESS58				16.6
BESS59				16.4
BESS60				16.3
BESS61				16.4
BESS62				16.3
BESS63				16.1
BESS64				16.0
BESS65				16.1
BESS66				16.0
BESS67				15.9
BESS68				15.8
BESS69				15.8
BESS70				15.8
BESS71				15.6
BESS72				15.5
BESS73				15.6
BESS74				15.5
BESS75				15.4
BESS76				15.3
BESS77				15.3
BESS78				15.3
BESS79				15.1
BESS80				15.1
BESS81				15.1
BESS82				15.0
BESS83				14.9
BESS84				14.8
BESS85				14.8
BESS86				14.8
BESS87				14.7
BESS88				14.6
Inverter 1				33.2
Inverter 2				32.4
Inverter 3				31.5
Inverter 4				30.8
Inverter 5				29.9
Inverter 6				29.3
Inverter 7				28.6
Inverter 8				28.0
Inverter 9				27.3
Inverter 10				26.8
Inverter 11				26.3
Inverter 12				25.7
Inverter 13				25.3

14	1 Fl	43 1	0 0	
BESS1				22.3
BESS2				22.2
BESS3				22.0
BESS4				21.8
BESS5				21.8
BESS6				21.7
BESS7				21.5
BESS8				21.4
BESS9				21.3
BESS10				21.2
BESS11				21.0
BESS12				20.9
BESS13				20.9
BESS14				20.7
BESS15				20.6
BESS16				20.5
BESS17				20.4
BESS18				20.3
BESS19				20.2
BESS20				20.1
BESS21				20.0
BESS22				19.9
BESS23				19.8
BESS24				19.7
BESS25				19.6
BESS26				19.5
BESS27				19.4
BESS28				19.3
BESS29				19.2
BESS30				19.1
BESS31				19.0
BESS32				18.9
BESS33				18.8
BESS34				18.7
BESS35				18.7
BESS36				18.6
BESS37				18.5
BESS38				18.4
BESS39				18.3
BESS40				18.2
BESS41				18.2
BESS42				18.0
BESS43				18.0
BESS44				17.9
BESS45				17.8
BESS46				17.7
BESS47				17.7
BESS48				17.6
BESS49				17.5
BESS50				17.4
BESS51				17.4
BESS52				17.3
BESS53				17.2
BESS54				17.1
BESS55				17.1
BESS56				17.0
BESS57				16.9
BESS58				16.8
BESS59				16.8
BESS60				16.7
BESS61				16.6
BESS62				16.5
BESS63				16.5
BESS64				16.4
BESS65				16.3
BESS66				16.2
BESS67				16.2
BESS68				16.1
BESS69				16.0
BESS70				16.0
BESS71				16.0
BESS72				15.9
BESS73				15.8
BESS74				15.7
BESS75				15.7
BESS76				15.6
BESS77				15.5
BESS78				15.4
BESS79				15.4
BESS80				15.4
BESS81				15.3
BESS82				15.2
BESS83				15.2
BESS84				15.1
BESS85				15.0
BESS86				15.0
BESS87				15.0
BESS88				14.9
Inverter 1				34.3
Inverter 2				33.4
Inverter 3				32.3
Inverter 4				31.5
Inverter 5				30.6
Inverter 6				29.9
Inverter 7				29.1
Inverter 8				28.5
Inverter 9				27.7
Inverter 10				27.2
Inverter 11				26.7
Inverter 12				26.1
Inverter 13				25.6

10247 Holtville Peaker
SoundPLAN Data - Operation

15	1 Fl	43.1	0.0	
BESS1				22.1
BESS2				22.0
BESS3				22.3
BESS4				22.1
BESS5				21.6
BESS6				21.5
BESS7				21.8
BESS8				21.6
BESS9				21.1
BESS10				21.0
BESS11				21.3
BESS12				21.1
BESS13				20.7
BESS14				20.6
BESS15				20.8
BESS16				20.7
BESS17				20.3
BESS18				20.1
BESS19				20.4
BESS20				20.2
BESS21				19.9
BESS22				19.7
BESS23				20.0
BESS24				19.8
BESS25				19.5
BESS26				19.3
BESS27				19.6
BESS28				19.4
BESS29				19.1
BESS30				19.0
BESS31				19.2
BESS32				19.1
BESS33				18.7
BESS34				18.6
BESS35				18.8
BESS36				18.7
BESS37				18.4
BESS38				18.3
BESS39				18.4
BESS40				18.3
BESS41				18.0
BESS42				17.9
BESS43				18.1
BESS44				18.0
BESS45				17.7
BESS46				17.6
BESS47				17.8
BESS48				17.7
BESS49				17.4
BESS50				17.3
BESS51				17.5
BESS52				17.4
BESS53				17.1
BESS54				17.0
BESS55				17.1
BESS56				17.1
BESS57				16.8
BESS58				16.7
BESS59				16.9
BESS60				16.8
BESS61				16.5
BESS62				16.4
BESS63				16.6
BESS64				16.5
BESS65				16.2
BESS66				16.1
BESS67				16.3
BESS68				16.2
BESS69				16.0
BESS70				15.9
BESS71				16.0
BESS72				15.9
BESS73				15.7
BESS74				15.6
BESS75				15.7
BESS76				15.7
BESS77				15.4
BESS78				15.4
BESS79				15.5
BESS80				15.4
BESS81				15.2
BESS82				15.1
BESS83				15.2
BESS84				15.2
BESS85				15.0
BESS86				14.9
BESS87				15.0
BESS88				14.9
Inverter 1			34.3	
Inverter 2			33.4	
Inverter 3			32.3	
Inverter 4			31.5	
Inverter 5			30.6	
Inverter 6			29.9	
Inverter 7			29.1	
Inverter 8			28.5	
Inverter 9			27.7	
Inverter 10			27.2	
Inverter 11			26.7	
Inverter 12			26.0	
Inverter 13			25.6	

Contributions