Initial Study & Environmental Analysis
For:

Hell's Kitchen PowerCo 1 and LithiumCo 1 Project

Prepared By:

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SECTION 1
INTRODUCTION

A. PURPOSE

This document is a ☐ policy-level, ☒ project level Initial Study for evaluation of potential environmental impacts resulting from the proposed Hell's Kitchen PowerCo 1 and LithiumCo 1 Project .

B. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) REQUIREMENTS AND THE IMPERIAL COUNTY'S GUIDELINES FOR IMPLEMENTING CEQA

As defined by Section 15063 of the State California Environmental Quality Act (CEQA) Guidelines and Section 7 of the County's "CEQA Regulations Guidelines for the Implementation of CEQA, as amended", 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 applications will not result in any potentially significant environmental impacts and therefore, an Environmental Impact Report is deemed as the appropriate document to provide necessary environmental evaluations and clearance as identified hereinafter.

This Initial Study (IS) is prepared in conformance with the California Environmental Quality Act of 1970, as amended (Public Resources Code, Section 21000 et. seq.); Section 15070 of the State & County of Imperial's Guidelines for Implementation of the California Environmental Quality Act of 1970, as amended (California Code of Regulations, Title 14, Chapter 3, Section 15000, et. seq.); 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 Guidelines for Implementing 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 AND NEGATIVE DECLARATION

1) This IS and Notice of Preparation (NOP) are informational documents which are 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 IS and NOP prepared for the Project will be circulated for a period of 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 applications and those issue areas that would have either a significant impact, a potentially significant impact, or no impact.

PROJECT SUMMARY, LOCATION, AND EVIRONMENTAL SETTINGS describes the proposed project 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.

IV. PERSONS AND ORGANIZATIONS CONSULTED identifies those persons consulted and involved in preparation of this Initial Study.

V. REFERENCES lists bibliographical materials used in preparation of this document.

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 applications.

2. **Less Than Significant Impact:** The proposed applications 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 applications 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 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 is 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]). This document incorporates by reference appropriate information from the "Final Environmental Impact Report and Environmental Assessment for the "County of Imperial General Plan EIR" prepared by Brian F. Mooney Associates in 1993 and updates.

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 and updates are available, along with this document, at the County of Imperial Planning & Development Services Department, 801 Main Street, El Centro, CA 92243 Ph. (442) 265-1736.

- This document must be available for inspection by the public at an office of the lead agency (CEQA Guidelines Section 15150[b]). These documents are available at the County of Imperial Planning & Development Services Department, 801 Main Street, El Centro, CA 92243 Ph. (442) 265-1736.

- These documents must summarize the portion of the document being incorporated by reference or briefly describe information that cannot be summarized. Furthermore, these documents must describe the relationship between the incorporated information and the analysis in the tiered documents (CEQA Guidelines Section 15150[c]). As discussed above, the tiered EIRs address the entire project site and provide background and inventory information and data which apply to the project site. Incorporated information and/or data will be cited in the appropriate sections.

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

- The material to be incorporated in this document will include general background information (CEQA Guidelines Section 15150[f]). This has been previously discussed in this document.

II. Environmental Checklist

1. **Project Title**: Hell's Kitchen PowerCo 1 and LithiumCo 1 Project
2. **Lead Agency**: Imperial County Planning & Development Services Department
3. **Contact person and phone number**: David Black, Planner , (442)265-1736, ext. 1746
4. **Address**: 801 Main Street, El Centro CA, 92243
5. **E-mail**: DavidBlack@co.imperial.ca.us
6. **Project location**: The Project would be located within Imperial County, California, approximately 3.6 miles west from the town of Niland. The Project would be adjacent to Davis Road and south of Noffsinger Road, within Controlled Thermal Resources (US), Inc. (CTR), geothermal lease area and on lands owned by Imperial Irrigation District (IID). The gen-tie line will run from Noffsigner Road approximately 2 miles south to McDonald Road and then will run approximately 0.3 miles east to Hudson Ranch. The gen-tie line will be located east of Davis Road and north of McDonald Road within Imperial Irrigation District's (IID) transmission right-of-way and within new right-of-way. The geothermal development area and lithium facilities would be within Sections 11 and 12 of Township 11 South, Range 13 East, San Bernardino Base Meridian, and the gen-tie/power line ROW corridor is located within Sections 12, 13, and 14 of Township 11 South, Range 13 East.
7. **Project sponsor's name and address**: Hell's Kitchen PowerCo 1, LLC and Hell's Kitchen Lithium Co1, LLC,

   447 West Aten Road, Suite G, Imperial, CA 92251
8. **General Plan designation**: Agriculture
9. **Zoning**: S-1-G (open space/geothermal overlay zone), S-2-G (open space/preservation/geothermal overlay) and M-2-G-PE (medium industrial/geothermal overlay)
10. **Description of project**: Hell's Kitchen PowerCo 1 LLC is proposing the Hell's Kitchen PowerCo 1 (HKP1), and Hell's Kitchen LithiumCo 1 LLC is proposing the Hell's Kitchen LithiumCo 1 (HKL1) (proposed Project) in Imperial County, California. Hell's Kitchen PowerCo 1 LLC and Hell's Kitchen LithiumCo 1 LLC are both subsidiaries of Controlled Thermal Resources (US), Inc. (CTR). HKP1 involves the development of a geothermal power plant that will produce up to 49.9 megawatts (MW) net of geothermal power. HKL1 proposes to develop mineral extraction and processing facilities capable of producing lithium hydroxide, silica, bulk sulfide, and polymetallic products for commercial sale.
11. **Surrounding land uses and setting**: Imperial Irrigation District (IID)-owned vacant land is located west of the Project site. Vacant private land is located north of the Project site. State of California-owned wildlife areas are located to the east of the Project site. Vacant land owned by IID and the Hudson Ranch 1 facility are located south of the Project site. There are no residential uses within 1 mile of the Project site.
12. **Other public agencies whose approval is required** (e.g., permits, financing approval, or participation agreement):
    - United States Fish and Wildlife (USFWS) – Incidental Take Permit (ITP; if required)
    - United States Army Corps of Engineers – Individual Permit under Section 404 of the Clean Water Act
    - California Department of Transportation (Caltrans) – Encroachment Permit
    - California Department of Fish and Wildlife (CDFW) – Lake or Streambed Alteration Agreement and Incidental Take Permit (if required)
    - California Department of Toxic Substances/Certified Unified Program Agency (CUPA) – Hazardous Materials / Environmental Protection Agency Approvals and Permits
    - California Geologic Energy Management Division (CalGEM) – New well permit(s)
    - Regional Water Quality Control Board – Waste Discharge Requirement and 401 Water Quality Certification
    - Imperial Irrigation District – Encroachment Permit
    - Imperial County Air Pollution Control District – Permit to Construct and Permit to Operate; Use of Generators (if needed)

- Imperial County Public Health Department – Nontransient-Noncommunity Water System Permit
- Imperial County Building Department – Building and Grading Permits
- Imperial County Public Works Department – Encroachment Permit(s)
- Imperial County Fire Department and Office of Emergency Services

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, has consultation begun?

In accordance with California Assembly Bill (AB) 52, Native American tribes with potential resources in the area were notified of the Project on [PENDING] and offered the opportunity for consultation. As of [PENDING], PENDING tribe has requested consultation.

Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code, Section 21083.3.2). Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code, Section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code, Section 21082.3 (c) contains provisions specific to confidentiality.

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 (EEC) DETERMINATION

After Review of the Initial Study, the Environmental Evaluation Committee 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.

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE DE MINIMIS IMPACT FINDING: ☐ Yes ☒ No

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

Jim Minnick, Director of Planning/EEC Chairman Date:

PROJECT SUMMARY

Hell's Kitchen PowerCo 1 LLC is proposing the Hell's Kitchen PowerCo 1 (HKP1), and Hell's Kitchen LithiumCo 1 LLC is proposing the Hell's Kitchen LithiumCo 1 (HKL1) in Imperial County, California. HKP1 involves the development of a geothermal power plant that will produce up to 49.9 megawatts (MW) net of geothermal power. HKL1 involves development of mineral extraction and processing facilities capable of producing lithium hydroxide, silica, bulk sulfide, and polymetallic products for commercial sale. HKP1 and HKL1 (together referred to as the proposed Project) will be constructed and operated by Hell's Kitchen PowerCo 1 LLC and Hell's Kitchen LithiumCo 1 LLC respectively, both subsidiaries of Controlled Thermal Resources (CTR) and will have shared facilities.

A. PROJECT LOCATION

The Project is located within undeveloped land owned by Imperial Irrigation District (IID) and a right-of-way (ROW) corridor for the gen-tie and power line to the IID interconnect station at Hudson Ranch (HR1). The Project would be located within Sections 11 and 12, Township 11 North, Range 13 East in Imperial County near the eastern shore of the Salton Sea (Project site; Figure 1, Project Site Location). The Project is approximately 3.6 miles west of the Town of Niland. A list of the parcels included in the Project are shown in Table 1: Project Assessor Parcel Numbers (APNs). The majority of the proposed HKP1 and HKL1 facilities are located immediately west of Davis Road, with administrative buildings and warehouses located east of Davis Road. The 230-kilovolt (kv) gen-tie line for HKP1 will run from Noffsigner Road approximately 2 miles south to McDonald Road and then will run approximately 0.3 miles east to Hudson Ranch. The gen-tie line would be located east of Davis Road and north of McDonald Road, within the IID's transmission ROW and within new ROW. The power line to supply power to the HKL1 facilities would be collocated on the HKP1 transmission structures/poles. The layout of the Project is shown in the Project Site Plan (Figure 2, Project Site Plan).

Table Error! No text of specified style in document.**: Project Assessor Parcel Numbers (APNs)**

APN	Project Component	Zoning Designation
020-010-012	HKP1 and HKL1 Shared Facilities	S-1-G and S-2-G
020-010-013	HKP1 and HKL1 Shared Facilities	S-1-G
020-070-060	HKP1 and HKL1 Shared Facilities	S-1-G
020-010-042	Gen-Tie and Power Line	S-1-G
020-060-001	Gen-Tie and Power Line	S-1-G
020-060-002	Gen-Tie and Power Line	S-1-G
020-060-039	Gen-Tie and Power Line	S-1-G
020-060-040	Gen-Tie and Power Line	S-1-G
020-070-026	Gen-Tie and Power Line	S-1-G
020-070-025	Gen-Tie and Power Line	S-1-G
020-070-029	Gen-Tie and Power Line	S-1-G
020-070-055	Gen-Tie and Power Line	S-1-G
020-010-031	Gen-Tie and Power Line	S-1-G
020-010-032	Gen-Tie and Power Line	S-1-G
020-010-035	Gen-Tie and Power Line	M-2-G-PE
020-010-044	Gen-Tie and Power Line	M-2-G-PE
Notes: S-1-G (open space/geothermal overlay); S-2-G (open space/preservation/geothermal overlay); M-2-G-PE (medium industrial/geothermal overlay)		

As shown in Table 1, the majority of the development area is zoned S-1-G (open space/geothermal overlay zone)

with a portion zoned S-2-G (open space/preservation/geothermal overlay) and is entirely within the renewable energy/geothermal map overlay zone in the 2015 Renewable Energy and Transmission Element update to the County General Plan (Figure 3, Zoning Map). The gen-tie and power line ROW is zoned S-1-G and M-2-G-PE (medium industrial/geothermal overlay). The General Plan Land Use designation for the entire Project is Agriculture (County, 2007, Figure 4, Land Use Designation Map).

The Project will be accessed from Davis Road via new ingress/egress driveways. Project traffic will access the site from Highway 111 via McDonald Road and Davis Road. County road ingress/egress points will be constructed in conformance with Imperial County Public Works Department and Fire Department requirements. Road access will be restricted during construction, and appropriate traffic controls will be in place during construction of the Project. Following construction, Davis Road will be paved from McDonald Road to Noffsinger Road.

B. CURRENT USE OF THE PROJECT SITE AND SURROUNDING AREAS

The Project is located on vacant land that is generally undeveloped. On June 14, 2017 the County authorized Geothermal CUP #16-0001, which allowed construction of up to four well pads as well as drilling and maintenance of up to six separate geothermal exploratory wells on the Project site. A well pad, Well Pad 1, north of Alcott Road and west of Davis Road, and two geothermal wells were constructed on the site in 2021. Rough grading for Well Pad 3, south of Noffsigner Road and east of Davis Road began in November 2021. The remaining Project site is undeveloped.

Areas to the north and south of the Project site consist of undeveloped open space. Area to the west is open space followed by the Salton Sea. The State of California manages a wildlife management area, including waterfowl ponds to the east of the Project site.

C. PROJECT SUMMARY

The Project will consist of the following activities:

- construction and operation of a 49.9-MW geothermal power plant;
- construction of well pads with geothermal production and injection wells;
- construction of pipelines between HKP1 and HKL1 to facilitate the movement of brine between the facilities;
- construction and operation of a mineral-extraction facility to extract lithium hydroxide, silica, bulk sulfide, and polymetallic products from the geothermal brine;
- construction and operation of minerals handling and packaging facilities;
- construction of ingress and egress to the Project site from Davis Road;
- paving of Davis Road from McDonald Road to Noffsinger Road (approximately 2 miles);
- construction and operation of a 230-kV gen-tie line and collocated power line (approximately 2 miles south and 0.3 miles east); and
- construction of shared administrative facilities, offices, repair facilities, shipping and receiving facilities, and other infrastructure components.

The development area for the Project would be approximately 65 acres. The Project site layout is illustrated in Figure 2.

Structures

HKP1 will include construction of the following structures:

- production and injection wells and well pads
- geothermal fluid production and injection pipelines
- a brine processing facility
- a brine pond
- 49.9-MW net geothermal turbine generator facility

- a cooling tower
- material and equipment storage
- a control building
- administrative and warehouse buildings
- a water storage pond and water storage tank
- an on-site substation
- a 230-kV gen-tie line to the IID interconnect station at Hudson Ranch

HKL1 will include construction of the following structures:

- geothermal pipelines to transfer brine from HKP1
- a cooling tower
- truck entrance security
- a cooling tower and flocculation facilities
- brine crystallizers, clarifiers, thickeners, and filter presses
- a lithium-recovery resin vessel and systems
- raw water filtration, fire-water storage, and reverse osmosis facilities
- electrical buildings to house electric power switchgear and electrical metering
- a substation
- reagent storage and preparation buildings
- two motor-control centers and a control room building
- lithium product handling and packaging buildings (that will house the filtration and drying equipment for the lithium products and bagging and palletizing of finished products)
- polymetallic product handling facilities
- bulk sulfide product handling facilities
- silica product manufacturing facilities
- bulk boron product handling facilities
- two lime silos
- hydrochloric acid offloading and storage tanks
- a reverse osmosis water treatment facility

The two lime silos will be up to 60 feet tall. The evaporator support structure will be up to 80 feet tall and the cooling towers up to 50 feet tall. The crystallizers will be 80 to 110 feet tall. The electrical power line and transmission structures will be up to 120 feet tall. All other buildings and structures will be single-story with a maximum height of 35 feet. The buildings will be an earth-tone color. The Project would require a variance for the increase in height above 35 feet.

HKP1 Facilities

Production and Injection Wells

The Project will use Well Pad 1 and a well pad adjacent and south of the Q Drain for geothermal fluid production and injection. The Project may also use Well Pad 4 for geothermal fluid production or injection. Well Pad 1 was previously approved for geothermal exploration drilling and was constructed in 2021. The geothermal production wells will be drilled at Well Pad 1, and one or two injection wells will also be drilled at Well Pad 1. The existing footprint of Well Pad 1 will be expanded during construction of the commercial facility by approximately 160 feet to the north to accommodate the wells required for commercial operation of the Project. Well Pad 4 was previously approved by the County for geothermal exploration drilling but was not constructed. The Project will include a total of seven wells for production and injection, including one well for injection of aerated fluids. The two previously drilled geothermal exploration wells will be used as commercial production wells for the Project. All production and injection wells will be operated in accordance with California Geologic Energy Management Division (CalGEM) regulations.

Well-Site Production and Injection Equipment

Production and injection wellhead dimensions are not expected to exceed a height of 15 feet above the ground surface or 4 feet in diameter. The wellhead will consist of control valves, warmup bypass valves, and isolation valves. The wellheads will be insulated, and the insulation cladding will be supplied with an appropriate color to blend with the area and minimize visibility.

The injection wells will be located to avoid geothermal fluid interference with the production wells. Each injection well will be remotely monitored for pressure, temperature, and flow rate. Injection pumps located at the power plant site will pump the geothermal injection fluid through the injection pipeline system, providing sufficient pressure to inject the geothermal brine back into the geothermal reservoir. Limited electrical equipment is required at the injection well sites. A flow meter will be integrated into the injection pipeline equipment at the injection well pad and remotely operated from the control room. Overhead lighting will be constructed on the injection well pads. The injection well pad will be fenced.

The geothermal production and injection wells will be drilled from the production and injection well pads using steel, titanium or titanium alloy, nickel alloy, duplex stainless steel, or equivalent as appropriate to the final well completion depth.

Geothermal Pipeline Systems

Above-ground pipelines will be constructed to interconnect the production and injection wells with the power plant site facilities. The pipelines will be constructed at ground level on pipeline supports on drilled foundations approximately every 20 to 40 feet along the pipeline routes. The pipelines will use a cattleguard type crossing at the Q and R Drains to avoid impacts on the irrigation drains, and the crossing will be constructed in collaboration with IID. Pipeline construction will be conducted concurrently with construction of the power plant.

The production wellheads will be located on Well Pad 1, south of the power plant site. An above-ground pipeline will be constructed from the production wells to the brine and steam-handling facilities on the power plant site. The production pipelines will be constructed from alloy or alloy-lined pipe designed, constructed, tested, and inspected pursuant to current industry standards for high temperature, high-pressure piping. Above-ground geothermal fluid pipelines, approximately 30-inches in diameter, will be covered with approximately 2 inches of insulation and a protective metal sheath appropriately colored to blend with the area.

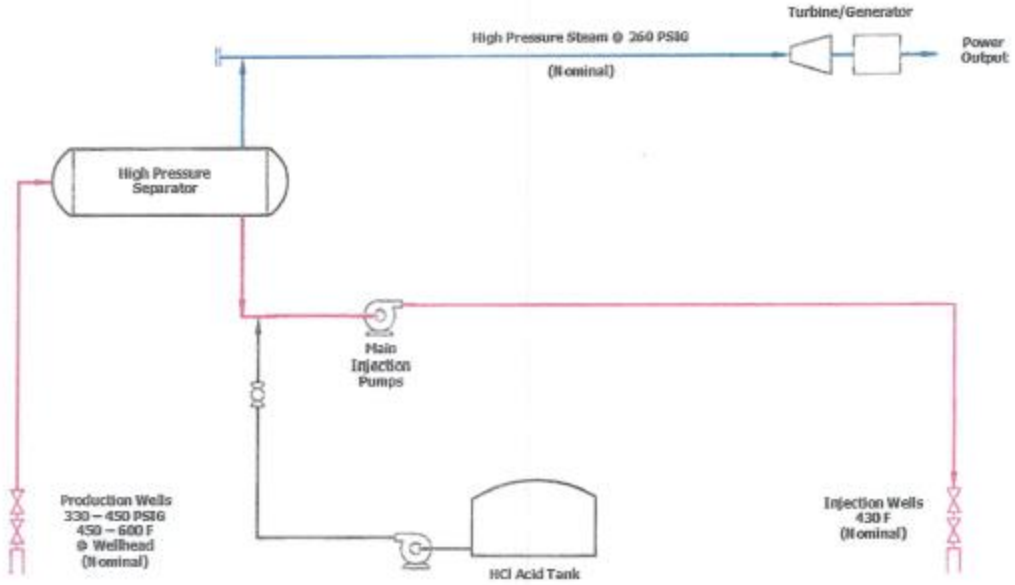
The brine injection pipeline will be either cement-lined carbon steel, alloy, or a combination of both. The brine injection pipeline will be approximately 24 inches in diameter and will be insulated then covered with a protective metal sheath appropriately colored to blend with the area.

Brine Processing Facility

The brine processing facility will prepare the geothermal fluid produced from the production wells for steam extraction. The geothermal fluid will be delivered through aboveground pipelines to the brine-processing facility. The spent brine will be injected back into the geothermal reservoir through injection wells (discussed below).

A pH-modification system will be installed should silica management be necessary to prevent scaling in either surface equipment or injection wellbores. The pH modification system will involve injection of dilute hydrochloric acid (HCl) into the brine stream exiting the high-pressure separator at a rate to establish a known bulk fluid pH value. The pH modification system consists of a concentrated acid storage tank, acid transfer pumps, a diluted acid storage tank, diluted acid injection pumps, and an injection nozzle to distribute the diluted acid into the brine injection pipeline. Concentrated HCl (approx. 32% by weight) will be delivered to the Project site by truck for storage. The concentrated acid will be mixed with service water to create a diluted acid solution (approx. 4% by weight). This diluted acid solution, should it be necessary for silica management, would then be injected into the brine pipeline between the high-pressure separator and the brine-injection pumps.

The brine processing facility would flow through the system as shown in Figure 6 below.



The expected brine composition is in Table 2 below.

Table 2: Expected Brine Composition

Mineral	Value (mg/L)
Ammonium, NH_4	250
Arsenic, As	10
Barium, Ba	250
Boron, B	350
Bromine, Br	100
Calcium, Ca	29,000
Cesium, C	15
Chloride, Cl	156,000
Cobalt, Co	<0.05
Copper, Cu	5
Iodide, I	10
Fluoride, F	25
Iron, Fe	1,600
Lead, Pb	100
Lithium, Li	250
Magnesium, Mg	50
Manganese, Mn	1,400
Potassium, K	17,000
Sodium, Na	54,000
Silica, SiO_2	350
Strontium, Sr	500

Mineral	Value (mg/L)
Sulphate, So_4	5
Zinc, Zn	500

Brine Pond

The brine pond will be cement-lined, with an underliner-leak detection system, and will allow for storage of brine during upset conditions and collection of brine during flow testing and plant start-up. The brine pond will be sized to accommodate two times the volume of the largest vessel and up to six hours of normal-brine-flow equivalent during system upset conditions plus two feet of freeboard. The brine pond will be constructed as a waste management unit (WMU) to meet Colorado River Regional Water Quality Control Board (CRRWQCB) surface-discharge requirements. Groundwater-monitoring wells will be constructed adjacent to the brine pond in conformance with CRRWQCB requirements.

Turbine Generator Facility

The Project will use flash-based power plant technology utilized in the Salton Sea geothermal field since 1982 to convert geothermal-based renewable steam energy into electricity. Steam from the high temperature geothermal fluid in the brine-handling facilities will be delivered to the turbine generator facility. The turbine generator facility will include a 49.9-MW (net) condensing turbine/generator set, a gas removal and emission abatement system, and a heat rejection system (i.e., condenser and cooling tower). The steam will be purified using a scrubber and demister before being admitted into the condensing steam turbine. The turbine will be directly coupled to a totally enclosed water and air-cooled (TEWAC) synchronous-type generator. The turbine-generator unit will be fully equipped with all the necessary auxiliary systems for turbine control and speed protection, lubricating oil, gland sealing, generator excitation, and cooling. Facilities associated with the turbine generator facility include a control building, a service water storage tank, lube oil skid, and other ancillary facilities.

One 3-MW diesel generator will be installed to provide black start[1] capability and emergency site power when the steam turbine generator is shut down. An 800-kW emergency generator will also be installed to provide backup for critical-instrument and equipment-control power. The diesel engines will meet California Air Resources Board (CARB) air pollutant emission limits. The generators are expected to operate fewer than 600 hours per year.

Heat Rejection and Non-Condensible Gas Removal Systems

The heat rejection system will be comprised of a shell-and-tube type condenser, a counterflow cooling tower, and a noncondensible gas (NCG) removal system. The cooling tower, NCG removal system, and condenser design will be similar to those employed at other geothermal power plants at the Salton Sea. The cooling tower will be up to 40 feet tall. Steam from the turbine will be condensed in the condenser. The geothermal steam condensate from the condenser will be collected in an aeration tank and used as a source of makeup water for the cooling tower. Gases that accumulate in the condenser will be evacuated by the NCG removal system. NCG will be pressurized and vented to a hydrogen sulfide (H_2S) abatement system during normal plant operation.

During plant start-up or load rejection (i.e., plant trip offline), steam to the turbine will be diverted to a rock muffler for safe venting as is currently the procedure at the existing geothermal power plants in the Salton Sea KGRA. During this time, H_2S and other NCG will be released to the atmosphere.

A combination of best available control technology, management practices, and process-monitoring equipment will be used to minimize air emissions from the power plant facilities. Permits to construct and operate the facility will be obtained from the Imperial County Air Pollution Control District (ICAPCD).

Hydrogen Sulfide Abatement System

[1] Blackstart service is the capability of generating units to start without an outside electrical supply or the demonstrated ability of a generating unit to automatically remain operating at reduced levels when disconnected from the grid (FERC-NERC, 2018).

H_2S gas is a naturally occurring compound found in Salton Sea geothermal brines. To minimize H2S from being released to the atmosphere and to meet permitted requirements during routine operations, the project will employ proven abatement systems. The H_2S abatement system effectively oxidizes the gas to a sulfate (SO_4^{2-}) that is highly soluble and then returns the sulfate product to injectate streams via the cooling tower blowdown process.

Non-condensable gases, including H_2S, are removed from the main condenser through a series of steam-powered air ejectors, vacuum pumps, and compressors. Once the gas stream is pressurized, it is sent to a sparging system located in the cooling tower basin, where the H_2S reacts with H_2S-abatement chemicals to oxidize the sulfide to sulfate. The sulfate product is injected into the reservoir with cooling tower blowdown.

Additionally, condensate flowing from the main condenser is routed to a tank where oxygen (sparged air) is introduced along with oxidizing chemicals. This process oxidizes any remaining H_2S gas to soluble sulfate. The treated condensate is then introduced to the cooling tower basin as a source of makeup water. As stated above, the sulfate product is subsequently injected into the reservoir as cooling tower blowdown.

Substation and Electrical Power Transmission
The electricity from the geothermal power plant will be converted to 230-kilovolts (kV) in the onsite substation. The output of the turbine generator facility is connected through a generator breaker to a (13.8-kV to 230-kV) main step-up transformer in the facility substation. The transformer will be set on a concrete pad within an oil containment system. The transformer will include gas-insulated switchgear. The high voltage side of the main step-up transformer will be connected to a new gen-tie line located within IID's transmission ROW to the IID interconnect station at HR1. The gen-tie line will be constructed as part of the power plant construction but turned over to IID for ownership and operation. The transmission line will be installed on steel structures that will support up to two 230-kV three-phase electrical circuits, including optical ground and static wire. The steel structures will consist of direct-bury steel poles approximately 120 feet tall and will span an average length of 800 feet.

HKL1 Facilities

Pipe Rack and Process Pipelines
A pipe rack will be constructed from the HKL1 Project's process area to the HKP1 site. A geothermal brine delivery pipeline from HKP1 will feed brine to the HKL1 Project's process area. Steam/steam-condensate pipelines will also be constructed on the pipe rack. After minerals processing, the depleted brine will be delivered to the HKP1 injection system for reinjection into the geothermal reservoir.

The geothermal brine delivery and return pipelines will be constructed with minimal usage of flanged connections to reduce the potential for pipeline leaks. Automatic valves will be integrated into the pipeline system that will close or divert the geothermal brine in the event of a pipeline issue to minimize the size of any potential spill. An Emergency Response Plan will be prepared and implemented should a fluid spill event occur.

Product Extraction Facilities
The lithium extraction areas will be constructed on concrete pads with a containment curb. The lithium extraction processing areas will consist of a series of interconnected tanks, pipelines, and control valves.

Security Fence and Landscaping
A security fence will be constructed around the Project site. The fence will be constructed to meet County standards for obscured fencing around processing areas.

Power Facilities
A power line will be installed for HKL1 on the transmission structures that are being constructed for HKP1. An electrical substation will be constructed on the site to obtain power from IID. Six electrical-control buildings will be located on the site, and each will house pad-mounted transformers and switchgear. An emergency standby diesel generator will provide emergency power supply in case of electrical outage.

HKP1 and HKL1 Shared Facilities and Design

Foundations

Buildings and equipment will be constructed on foundations consistent with the overall site plan. Deep foundations for all major equipment are expected to require subsurface improvements in the form of steel and or concrete pilings. Shallow foundations for buildings are not expecting to require piling supports.

Water Storage

A high-density polyethylene (HDPE)-lined freshwater pond will be constructed at the southern end of the Project site and just north of the Q Drain. The pond will store and provide fresh water for Project operations. The pond will be sized to provide sufficient storage capacity to meet Project demand during foreseeable periodic interruptions in IID canal water availability. A 100,000-gallon water storage tank will be located on site for fire water storage and 5 acre water storage pond for the facility to use would also be on site.

Stormwater Retention

Stormwater retention infrastructure will be constructed along the western boundary of the site. A berm/levee will run along the western boundary of the site to contain any stormwater runoff and prevent stormwater run on. Water accumulated in the stormwater retention basin will be allowed to evaporate or possibly used as a substitute for normal fresh water. The retention basin will be designed to meet State Water Resources Control Board requirements and will include an appropriate mosquito abatement per Imperial County guidelines.

The developed Project facility pad generally will be flat but will be designed to effectively drain to the stormwater retention basin. The stormwater drainage system will be size to accommodate 3 inches of precipitation in a 24-hour period (100 year storm event), and to the comply with applicable local codes and standards. Buildings and equipment will be constructed to provide protection from a 100-year storm event. Spill containment areas and sumps subject to spills of miscible chemicals will drain to an enclosed oil/water separator and collected in a waste oil tank for off-site recycling. The site will be graded and constructed so that any geothermal fluid spills will be collected in sumps that drain to the brine pond rather than the stormwater retention basin.

Generation Tie Line and Power Facilities

The 230-kV gen-tie structures constructed for the HKP1 project will be used to support the new power line for the HKL1 Project. The gen-tie line will run from Noffsigner Road approximately 2 miles south to McDonald Road and then will run approximately 0.3 miles east to Hudson Ranch. The gen-tie line will be located east of Davis Road and north of McDonald Road within Imperial Irrigation District's (IID) transmission right-of-way and within new right-of-way.

Parking and Site Access

Parking will be available in the administration and control building area. The Project will be accessed from Davis Road via new ingress/egress driveways. Davis Road will be upgraded with aggregate base during construction of the HKP1 Project. Project traffic will access the site from Highway 111 via McDonald Road and Davis Road. A bridge will be constructed across the R Drain to connect the northern and southern portions of the Project site. County road ingress/egress points will be constructed in conformance with Imperial County Public Works Department and Fire Department requirements. Road access will be restricted during construction, and appropriate traffic controls will be in place during construction of the Project. Davis Road will be paved from McDonald Road to Noffsinger Road at the completion of HKL1 Project construction. All structures within IID right-of-way (ROW), including the bridge over the R Drain, will require IID ROW and approval.

D. PROJECT CONSTRUCTION:

Site Preparation

Prior to construction of the power plant facility, the limits of the power plant site impact area will be staked and flagged. All vegetation within the power plant site impact area will be cleared. Vegetation will be removed using a

brush hog or functional equivalent. The removed vegetation will either be chipped on site for dust control, reused in landscaping, or composted. Sediment and erosion-control best management practices will be installed along the work areas as needed to protect water quality and control sedimentation and erosion during construction.

Shallow groundwater encountered in excavations (e.g., foundations, water storage pond) would be removed from the excavation via a submersible pump and would be either be applied as irrigation in upland areas via perforated pipe, discharged through a sediment filter bag, or pumped to a Baker Tank and removed from the site. The groundwater dewatering method would comply with all water quality standards. A Colorado River Regional Water Quality Control Board permit will be obtained prior to any groundwater discharge to land.

Approximately 400,000 cubic yards of engineered fill material will be imported and compacted within the Project site to construct the Project facilities. The geothermal power production facilities will be on a pad of compacted fill material approximately 2 to 3 feet in elevation over existing grade. The Project will be constructed to an elevation above the Imperial County designated special flood hazard for lands near the Salton Sea and will have a berm extended to the outer perimeter of the site as part of the stormwater infrastructure described above.

Well Pad 1 will be extended by approximately 160 feet to the north. The injection well pad and access road will be constructed on imported fill and compacted to finished grade. Grading will occur at the administration and warehouse area east of Davis Road, to provide a flat space for construction of the proposed buildings and foundations. Limited grading is proposed for the gen-tie line. A flat, approximately 100 foot by 100 foot pad will be constructed at each transmission structure location, to support the cranes and heavy equipment that will be required to install the transmission structures.

Material staging and laydown will occur within the Project area after site preparation. The area between Well Pad 1 and HKP1 facilities west of Davis Road will be available for material staging and laydown during construction.

Construction Workforce and Schedule

The construction phase of the Project is anticipated to last 25 months in total. CTR anticipates starting HKP1 construction of the power plant and developing the well field in November 2022 and ending September 2023, followed by HKL1 construction starting in February 2023 through December 2024.

Construction will generally be conducted Monday through Saturday from 7 a.m. to 6 p.m. over the 25-month construction period. Construction work will also occur during nighttime hours during periods of extreme heat in the summer.

The HKP1 Project construction is anticipated to span an approximately 10-month period and will commence November 2022. The HKP1 well drilling will be conducted 24 hours a day, seven days a week until the well depth is obtained and the wells are complete. Well drilling is anticipated to last approximately 8 weeks at each well and will involve a workforce of approximately 12 to 20 people, depending upon the activity. An average of 225 workers will be on site daily during construction of HKP1, with a maximum of up to 450 workers per day during peak construction.

The HKL1 Project construction will begin after the HKP1 construction has started and when all necessary permits are obtained. The HKL1 construction is expected span approximately 23 months and start in February 2023 and is expected to be complete in December 2024. Approximately 200 construction workers, on average, and 500 workers at peak construction periods are anticipated.

Trailers may be brought to the site to provide temporary worker housing for drilling staff who need to be on site 24 hours/day. The temporary housing will be located on site during the drilling process which would occur over approximately 6 months. Portable sanitary facilities will be housed on trailers, and sanitary waste from construction will be serviced regularly and removed from the site in compliance with all federal, State, and local regulations.

Construction Truck Trips

The HKP1 Project will require approximately 54,000 truck trips over the course of the project construction. The HKL1 Project is estimated to have an average of 25 trucks per day to and from the construction site, except during site grading, when about 250 trucks will travel to and from the Project construction site daily. Up to 500 workers will travel to the site per day at the peak of construction.

Construction Equipment

Below is a typical list of construction equipment anticipated to be required for the Project:

- Off-highway trucks
- Rollers
- Crawler tractors
- Excavators
- Graders
- Water trucks
- Compactors
- Rubber-tired loaders
- Scrapers
- Cranes
- Generator sets
- Concrete pump
- Plate compactors
- Rough terrain forklifts
- Skid steer loaders
- Tractor/Loader/Backhoe
- Aerial lifts
- Welders
- Air compressors
- Pavers
- Paving equipment

Construction Water Supply Source and Requirements

Water will be used during construction for dust control and compaction. Water for dust control and compaction will be obtained from IID and transported to the site via truck. It is estimated that up to 50,000 gallons per day would be needed. Water will be applied for dust control to meet Imperial County dust control requirements.

Construction Power Supply Source

A new electrical drop from IID's distribution line will be installed at the Project site to provide temporary construction power. Alternatively, a generator may be used to provide construction power where a power line is not practical. Any generator use will be permitted with the Imperial County Air Pollution Control District (ICAPCD).

E. PROJECT OPERATIONS

Routine operations and maintenance of the facility will include preventative maintenance and repairs of any damaged or otherwise inoperable equipment on an as-needed basis. The operation and maintenance staff will monitor the facility operations over the project life to ensure the power plant is operating to meet design standards.

The HKP1 facility will utilize geothermal brine to create geothermal energy which will be sold to IID through the gen-tie line. The HKL1 facility will utilize geothermal brine produced from the geothermal fluid management activities on the neighboring HKP1 power plant site for the commercial production of lithium hydroxide, silica, bulk sulfide, and polymetallic products. The production processing steps may be altered over time as production methods and efficiencies evolve and new or revised product lines are developed at the facility. The process includes the following steps:

- brine cooling
- silica, bulk sulfide and polymetallic product production
- lithium and metals extraction
- concentration of lithium extractant
- processing of lithium extractant to lithium hydroxide
- drying and packaging of lithium and polymetallic products
- offsite product shipping

Each of the general processing steps is discussed further below. After processing of the geothermal brine, the depleted brine will be returned to HKP1 for injection at the wells, developed for HKP1, south of the Q Drain.

Metal Recovery
Geothermal brine from the HKP1 will feed two parallel vacuum-flash brine cooling trains sized for the full operating flow of approximately 5 million lbs./hr. The cooled brine will be fed to the mineral extraction process. Silica, bulk sulfide, and polymetallic products will be extracted from the brine using proprietary technology. Silica, bulk sulfide, and polymetallic products will be filtered and shipped offsite in roll-off bins. A lithium chloride (LiCl) product stream will also be produced using a proprietary extraction process. The LiCl will be processed in the subsequent lithium process steps.

Lithium Production
The LiCl product stream will be concentrated and purified. The purified, concentrated LiCl will be transported via pipeline from the lithium purification/concentration operation to the lithium product production buildings. Proprietary technology will be used to convert the LiCl into a LiOH•H2O product.

The LiOH•H2O product stream will be crystallized and transported to a lithium product handling, production, and warehouse building, where the crystals will be separated from the lithium-rich process fluid in a filtration system. LiOH•H2O crystals will be dried and packaged in bulk bags. Packaging is expected to be into 20-kilogram (kg) bags or into 1,000-kg super sacks.

Product Shipping to Offsite Markets
The HKL1 plant will produce multiple products for offsite shipment to market by truck. The average annual amount of product shipped out of the plant operating at 5,000,000 lbs./hr brine flow capacity is estimated at approximately 5,100 lbs./hr dry lithium product (LiOH•H2O), 3,100 lbs./hr silica, 9,800 lbs./hr bulk sulfide and 60,000 lbs./hr polymetallic products. All products will be transported by freight truck on existing roadways to shipping distribution point(s).

Operational Workforce, Schedule, and Traffic
The HKP1 facility will require up to 22 full-time onsite employees during operation. Operational staff will include operators, management and supervisors, maintenance technicians, and lab technicians. On a typical day, the operators will assume a two-shift, 24-hour workday, and all other personnel will assume a standard 8-hour workday. Approximately 22 worker trips, 3 vendor trips, and 1 haul-truck trip will take place during daily operations.

The HKL1 facility is expected to require 90 full-time onsite employees during operation. Facility operations will continue 24 hours per day, 7-days per week. It is projected that up to 44 employees will be on site at any given time, with 28 day-staff employees and two rotating shifts of 16 additional employees overlapping the day staff and covering nights, weekends, and holidays. Approximately 48 trucks per day will travel in and out of the Project site during normal operations. Daily truck traffic includes up to 40 trucks for product shipping. All trucks used for product shipping will be electric. Truck traffic will also include approximately eight truck deliveries of reagent chemicals, cooling tower treatment chemicals, consumptive media, product-packaging materials, and fuel. Outgoing general waste generated on the site will be removed by truck as needed and is expected to require less than one truck per day.

Operational Water Supply and Requirements
The HKP1 will require up to approximately 200 acre-feet per year (AFY) of fresh water for normal operation, including supplemental cooling tower makeup and other plant uses when operating at full plant load. Average annual demand requirements will vary, depending on the capacity factor of the overall facility. It is anticipated that steam condensate will be utilized to offset fresh water requirements.

The primary source of fresh water for the facility is anticipated to be irrigation water made available under a supply contract and purchased through IID. Water will be obtained from the “Q,” “R,” or “S” lateral adjacent to the Project site. Water will be transferred to a water storage pond, with a capacity of approximately 18-acre feet, located

adjacent to the Q Drain. The water would then be transferred to 100,000-gallon aboveground water storage tank via an aboveground fresh-water pipeline. Additional pipelines will be constructed to transport the water from the water storage tank to the power plant facility. The water will be used for steam wash water, purged water for pump seals, and the reverse osmosis (RO) potable water system, process wash water, and, at times, cooling water makeup. The project is designed to minimize reliance on external sources of water supply for process needs as well by using condensed steam from the geothermal steam condensate to the greatest extent practical.

A filtration-based or reverse osmosis potable water system will be used to process IID fresh water for the non-drinking potable water needs at the site. A Nontransient-Noncommunity Water System Permit will be obtained from the Imperial County Public Health Department (ICPHD) for the onsite potable water system. Bottled drinking water will be purchased for consumption.

The HKL1 facility will require approximately 6,500 acre-feet per year (AFY) of water to be purchased from the IID for project cooling water makeup and additional process water. Approximately 3 AFY of the purchased water will be used for potable water purposes, including potable washbasin water, eyewash equipment water, water for showers and toilets in the administration and control buildings, and sink water in the sample laboratory.

Operational Energy Requirements
HKP1 would generate 49.9 MW of renewable energy which would be sold to IID. HKL1 would require approximately 35 MW of power and have a peak power demand of 40 MW, which would be obtained from IID. Overall, the power demand would be less than what is produced by HKP1. Additionally, HKP1 will require the use of generators for up to 600 hours per year for startups during black start situations. HKL1 generators will only be used in emergency situations and will be operated less than 50 hours per year.

Fire Protection and Safety
The fire protection system will consist of an underground fire main and surface distribution equipment, such as yard hydrants and hose houses, monitors around the perimeter of the cooling tower, automatic sprinklers for the turbine generator and auxiliary equipment, and a complete detection and alarm system. The firewater supply and pumping system will provide an adequate quantity of fire fighting water. The systems will be designed in accordance with federal, State, and local fire codes, occupational health and safety regulations and other jurisdictional codes, requirements and standard practices.

Spent Fluid and Wastewater
Under normal operation, the spent brine will be pumped via the main injection system. Spent geothermal brine will be injected into the subsurface geothermal reservoir via the primary injection wells. Geothermal brine will be discharged into the bring pond during upset conditions or maintenance activities (start up and shut down). The fluids from the brine pond also will be injected into the subsurface geothermal reservoir via the dedicated aerated brine injection well. All subsurface fluid injection will conform with CalGEM requirements.

Wastewater including non-process wash water and sanitary waste, will be generated during operations. Sanitary drains will collect all sanitary waste and non-process wash water and discharge to an approximately sized and County-approved septic system. The septic system will be engineered and operated to meet County Environmental Health requirements.

Hazardous Materials and Waste

<u>Hazardous Material Management</u>
The Project will develop and implement a Hazardous Materials Business Plan (HMBP), in compliance with California Health and Safety Code, Division 20, Chapter 6.95, Sections 25500-25519 and California Code of Regulations, Title 19, Division 2, Chapter 4. The HMBP will be provided to the California Office of Emergency Services, the Imperial County Fire Department, and the Certified Unified Program Agency for Imperial County (the local California Department of Toxic Substances Control office), for review and approval before plant operation. The HMBP will

include, at a minimum, procedures for:

- Hazardous materials handling, use and storage;
- Emergency response;
- Spill control and prevention;
- Employee training, and
- Reporting and record keeping.

Portable bins or other storage containers will be on site for storage of maintenance lube oils, chemicals, paints, and other construction materials, as needed. Secondary containment will be provided in all petroleum hydrocarbon and hazardous material storage areas, and all brine processing areas. Safety showers and eyewash stations will be provided in or adjacent to chemical storage and use areas. Safety equipment will be provided for staff use if required during chemical containment and cleanup activities. All staff working with chemicals will be trained in proper handling and emergency response to chemical spills or accidental releases. Water hose connections will be provided near the chemical storage and feed areas, to flush spills and leaks, and absorbent materials will be stored on site for spill cleanup.

The HKP1 facility may include transformer oil for transformer operation, lube oil for the turbine generator operation, diesel for generator fueling, and HCl (32% by weight). The transformer oil will be contained within the transformers; the lube oil will be stored on a skid. Diesel will be stored in a diesel storage tank with a capacity of approximately 3,000 gallons. Two polymer or fiber-reinforced plastic HCl tanks, with capacities of approximately 20,000 and 75,000 gallons, will store the HCI for the acid modification process. The HCI tanks will be fitted with scrubbers. All chemicals will be stored outdoors on impervious surfaces in above-ground storage tanks with secondary containment. The secondary containment areas for the bulk storage tanks will not have drains. Any chemical spill occurring in these areas will be removed with portable equipment and re-used or disposed properly. Other chemicals will be stored and used in their delivery containers.

Hazardous materials that are expected to be used during construction of HKL1 will include:

- Unleaded gasoline
- Diesel fuel
- Oil
- Hydraulic fluids
- Lubricants
- Solvents
- Adhesives
- Paint material

Hazardous materials that are expected to be used during operation of HKL1 will include:

- Unleaded gasoline
- Diesel fuel
- Transformer Oil
- Hydraulic fluid
- Hydrochloric acid (32% by weight)
- Calcium oxide
- Sodium sulfide
- Sodium hydroxide
- Manganese

No feasible alternatives exist to avoid use of these materials for construction or operation of construction vehicles and equipment, or for painting and caulking buildings and equipment. Hydrochloric acid, calcium oxide, sodium

hydroxide, and sodium sulfide will be required for the mineral extraction process. Manganese will be produced for commercial sale. Manganese will be stored in indestructible containers for shipping.

Hazardous Materials Transportation

Hazardous material carriers and hazardous waste transporters are required by law to adhere to applicable local, State, and federal regulations regarding proper truck signage, indicating the materials being transported, carrying a shipping/waste manifest of the types and concentrations of materials being transported, and other appropriate measures. Hazardous material carriers also are responsible for their loads, reporting spills, and initiating appropriate emergency response to releases of any transported hazardous materials, from the point of origin up to the destination of the hazardous material delivery.

HKL1 will communicate with the locally responsible emergency response agencies before shipment of any bulk hazardous materials to or from the Project site. Continuing coordination and communications with these agencies relevant to hazardous material shipments will be undertaken as required by the agencies. HKL1 will also develop an Emergency Action Plan for responding to spills or releases of hazardous substances by hazardous material carriers in the Project area. This plan will conform to all applicable federal, State, and local requirements for notifications, reporting, and emergency response of hazardous substance release incidents. The plan also will describe cleanup of spilled substances and site reclamation, if required. In the unlikely event of a hazardous materials spill during transportation of materials to or from the plant site, HKL1 will cooperate with the responsible agencies and provide all available information and knowledge about the materials to facilitate the spill response cleanup and spill site remediation.

Solid Waste

Construction and operation of the facility will generate both nonhazardous and hazardous wastes as follows.

Nonhazardous Wastes

Solid waste from construction activities may include lumber, excess concrete, metal, glass scrap, empty nonhazardous containers, and waste generated by workers. Management of these wastes will be the responsibility of the construction contractor(s). Typical management practices required for nonhazardous waste management will include recycling when possible, proper storage of waste and debris to prevent wind dispersion, and weekly pickup and disposal of wastes to local Class III landfills.

The primary source of solid waste during operation will be office waste and other waste generated by workers. Non-hazardous waste will be collected in appropriate on-site storage receptacles, designated for waste and recycling. Recyclable materials will be brought to a recycling center, and non-recyclable waste will be removed and taken to a Class III landfill.

Hazardous Wastes

Hazardous wastes may be generated over the course of construction from spills of hazardous materials used during construction, empty hazardous material containers, or spill cleanup wastes. Hazardous materials that are expected to be used during construction include paints, oil and lubricants, solvents, and welding materials. Used oil will be recycled, and oil or heavy metal contaminated materials (e.g., filters) requiring disposal will be transported to an off-site waste disposal facility that is authorized to accept such wastes. Scale from pipe and equipment cleaning operations will be disposed in a similar manner.

All hazardous wastes generated during construction and operation will be handled and disposed in accordance with applicable laws, ordinances, regulations, and standards. Any hazardous wastes generated during construction will be collected in hazardous waste accumulation containers near the point of generation and moved daily to the contractor's 90- day hazardous waste storage area on site. The accumulated wastes subsequently will be delivered to an authorized waste management facility, which may be as far as Yuma, Arizona. Hazardous wastes will be managed and disposed properly in a licensed Class I waste disposal facility that is authorized to accept the waste.

F. PROJECT DECOMMISSIONING AND ABANDONMENT

The projected life of the Project is 50 years. At the end of operations, a Site Abandonment Plan will be prepared and implemented in conformance with Imperial County and CalGEM requirements, for consideration by the Planning Commission prior to Project approval. The Plan will describe the proposed equipment dismantling and site restoration program in conformance with the wishes of the respective landowners/lessors and requirements in effect at the time of abandonment and would be implemented at the end of Project operations.

The geothermal wells will be abandoned in conformance with the well abandonment requirements of CalGEM. Abandonment of a geothermal well involves plugging the well bore with clean drilling mud and cement sufficient to ensure that fluids will not move across into different aquifers. The wellhead (and any other equipment) will be removed, the casing cut off below grade, and the well site reclaimed. Prior to Project approval, HKL1 will provide the County with a bond, letter of credit, or other acceptable surety which guarantees restoration of the land at the HKL1 plant site to its condition prior to development.

G. REQUIRED PERMITS AND APPROVALS

Lead Agency Approval
Imperial County Planning Department is the lead agency for the proposed Project. The following permits would be required from the lead agency:

- Imperial County Planning Department – Conditional Use Permit
- Imperial County Planning Department – Zoning Variance
- Imperial County Planning Department – Development Agreement (if required)
- Imperial County Building Department – Building and Grading Permits
- Imperial County Public Works Department – Encroachment Permit(s)

Reviewing Agencies
Federal Agencies:

- United States Fish and Wildlife (USFWS) – Incidental Take Permit (ITP; if needed)
- United State Army Corps of Engineers (USACE) – Individual Permit under Section 404 of the Clean Water Act

State Agencies:

- California Department of Transportation (Caltrans) – Encroachment Permit
- California Department of Fish and Wildlife (CDFW) – Lake or Streambed Alteration Agreement and Incidental Take Permit (if needed)
- California Department of Toxic Substances/Certified Unified Program Agency (CUPA) – Hazardous Materials / Environmental Protection Agency Approvals and Permits
- California Geologic Energy Management Division (CalGEM) – Permit(s) to drill

Regional Agencies:

- Regional Water Quality Control Board – Waste Discharge Requirement and 401 Water Quality Certification
- Imperial Irrigation District – Encroachment Permit
- Imperial County Air Pollution Control District – Permit to Construct and Permit to Operate; Use of Generators (if needed)
- Imperial County Public Health Department – Nontransient-Noncommunity Water System Permit
- Imperial County Building Department – Building and Grading Permits

- Imperial County Public Works Department – Encroachment Permit(s)
- Imperial County Fire Department and Office of Emergency Services

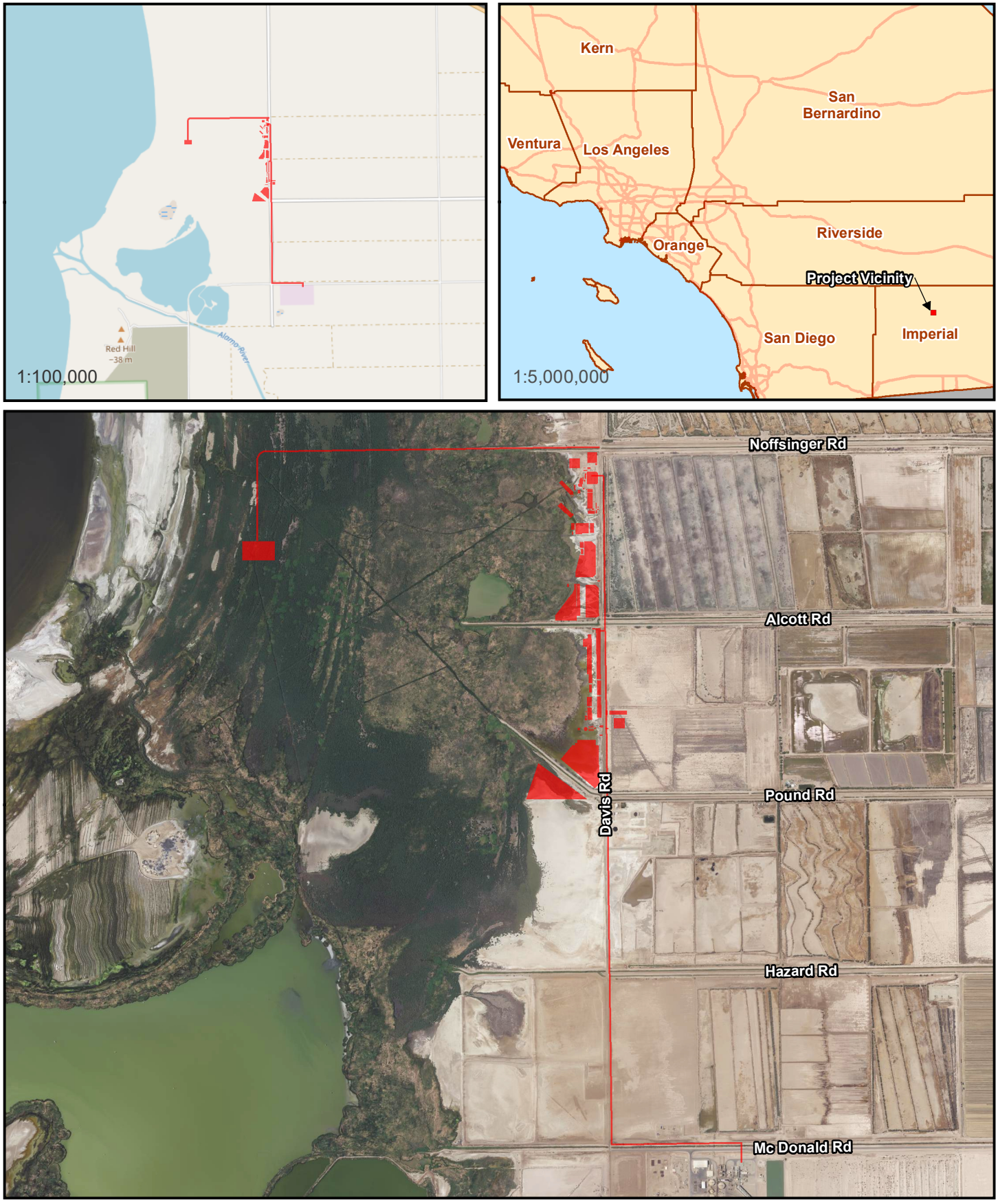
H. OBJECTIVES

The HKP1 objectives include the following:

- To produce 49.9MW (net) of geothermal power from within CTR's geothermal lease area.
- To provide power to the Imperial Irrigation District.
- To minimize and mitigate potential impacts to sensitive environmental resources while producing renewable energy and creating jobs.

The HKL1 objectives include the following:

- To provide a sustainable domestic source of lithium, a designated critical material identified by the U.S. Department of Energy.
- To extract and produce lithium hydroxide, silica, bulk sulfide, and polymetallic products for commercial sale from the geothermal brine within the Hell's Kitchen lease area
- To minimize the distance between the geothermal power plant and lithium extraction plant for production efficiency and to reduce the extent of pipeline required to convey brine and steam to and from the geothermal power facility to the mineral extraction plant, therefore minimizing the overall industrial footprint of the combined power and mineral operations
- To minimize and mitigate potential impacts to sensitive environmental resources within the Project area.



Project Location

Figure 1
Hell's Kitchen Power
Project Location and Vicinity

N

0 750 1,500 3,000
Feet

Name: 21344 PLAN Fig 1 Project Location and Vicinity.Mxd
Print Date: 3/9/2022 7:33:33 PM Author: pcarlos

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Hell's Kitchen PowerCo 1 Facility
Hell's Kitchen LithiumCo 1 Facility
Shared PowerCo 1 and Lithium Co 1 Facility
Gen-tie/Powerline
S-Berm Extension Road

N

0 500 1,000 2,000
Feet

Figure 2
Hell's Kitchen Power
Project Site Plan

Name: 21344 PLAN Fig 2 Project Site Plan.Mxd
Print Date: 3/9/2022 7:58:50 PM Author: pcarlos

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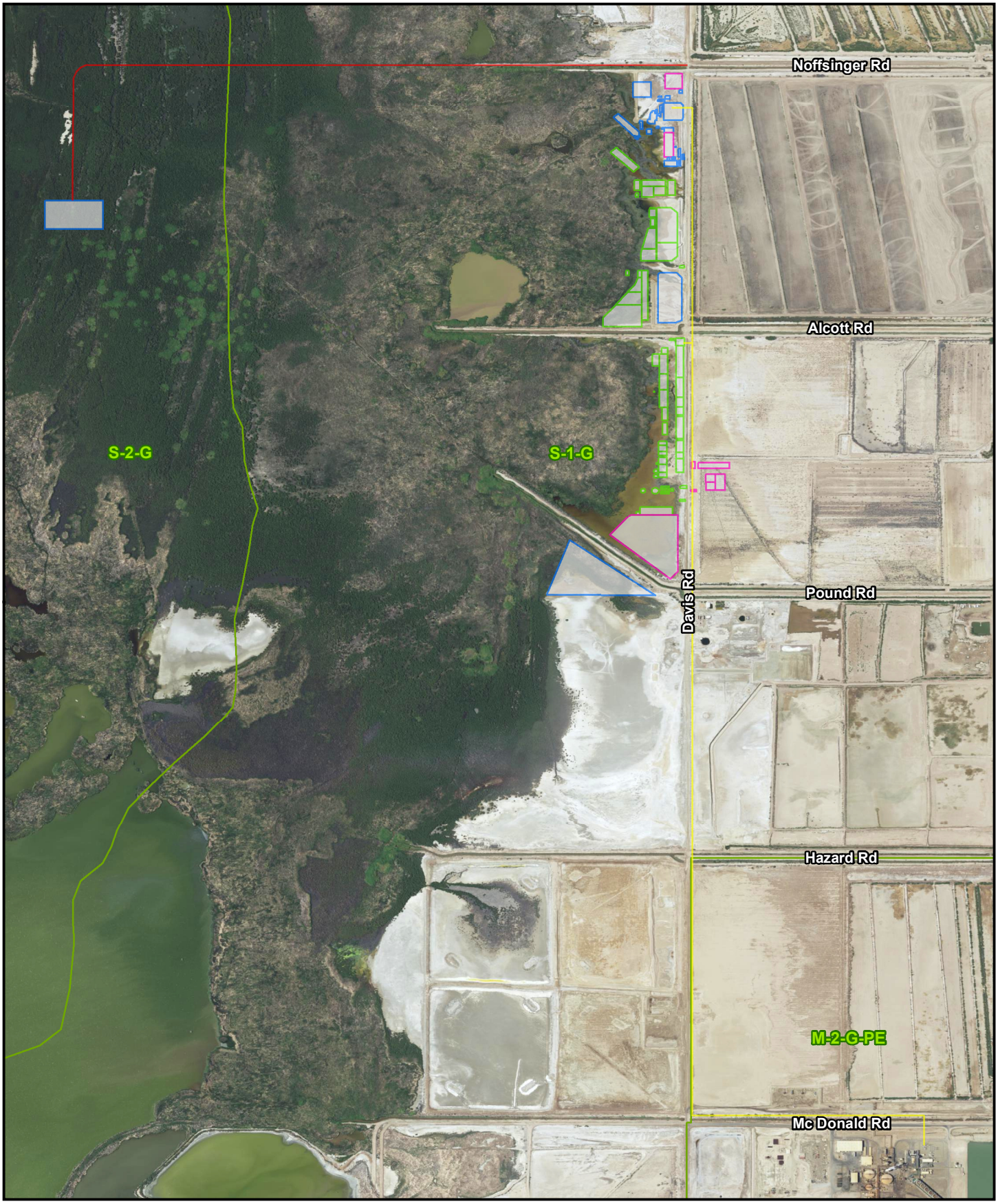

Figure 3
Hell's Kitchen Power
Zoning

Name: 21344 PLAN Fig 3 Zoning.Mxd
Print Date: 3/10/2022 8:28:28 AM Author: pcarlos

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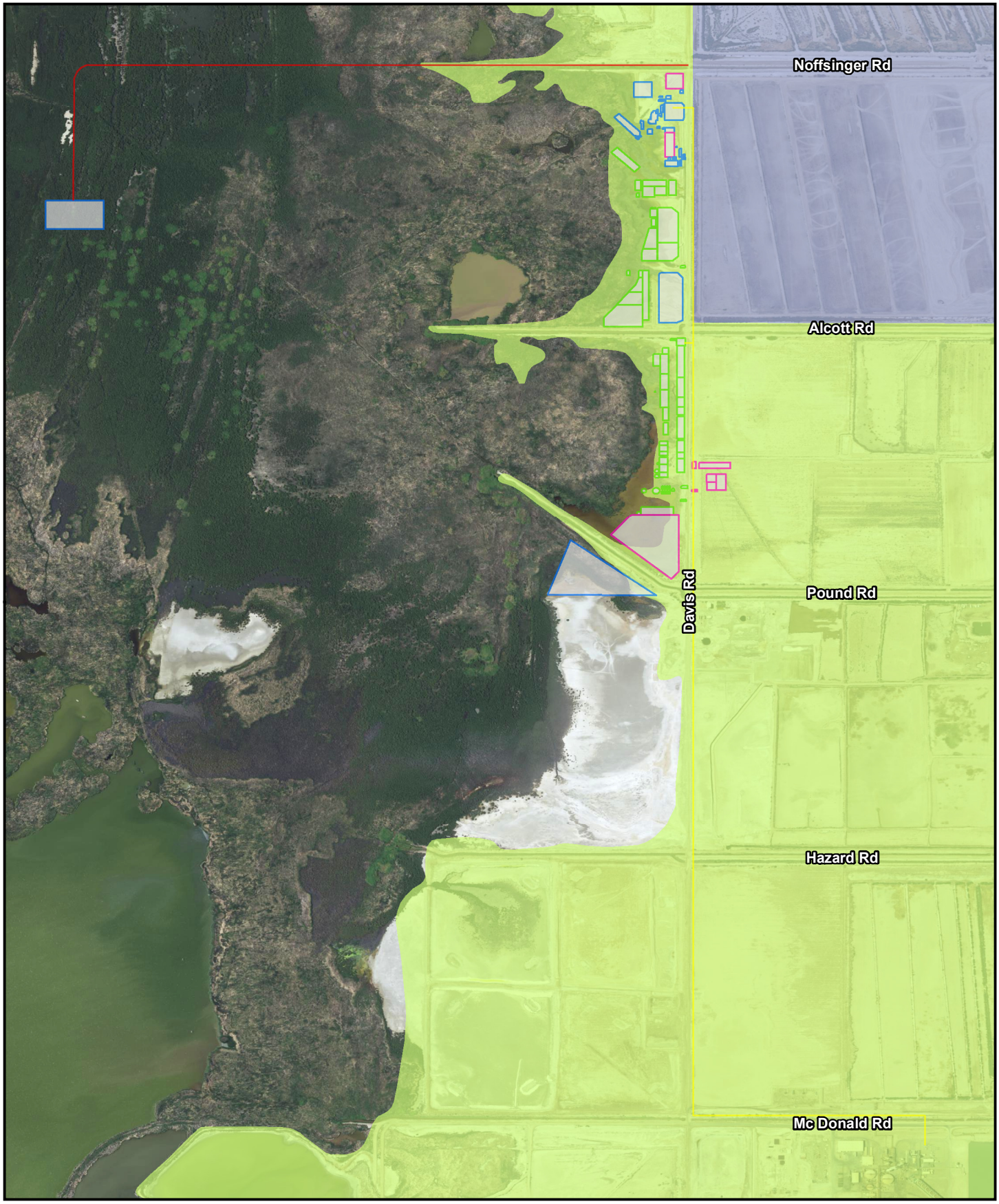

Hell's Kitchen PowerCo 1 Facility
Hell's Kitchen LithiumCo 1 Facility
Shared PowerCo 1 and Lithium Co 1 Facility
Gen-tie/Powerline
S-Berm Extension Road

Land Use Designation

Agriculture
Government/Special Public

N

0 500 1,000 2,000

Feet

Figure 4
Hell's Kitchen Power
Land Use Designation

Name: 21344 PLAN Fig 4 Land Use Designation.Mxd
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EVALUATION OF ENVIRONMENTAL IMPACTS:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

    a) Earlier Analysis Used. Identify and state where they are available for review.
    b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
    c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify:

    a) the significance criteria or threshold, if any, used to evaluate each question; and
    b) the mitigation measure identified, if any, to reduce the impact to less than significance

	Potentially Significant Impact **(PSI)**	Potentially Significant Unless Mitigation Incorporated **(PSUMI)**	Less Than Significant Impact **(LTSI)**	No Impact **(NI)**

I. *AESTHETICS*

Except as provided in Public Resources Code Section 21099, would the project:

a) Have a substantial adverse effect on a scenic vista or scenic highway? ☒ ☐ ☐ ☐

a) Potentially Significant Impact. The closest scenic viewpoint is an observation deck located within the Sonny Bono Salton Sea National Wildlife Refuge, approximately 4 miles southwest of the Project site (USFWS 2019). Although the area is relatively flat, an extensive shrub-covered marsh and the Alamo River separate the viewpoint from the Project site. Nonetheless, the Project would require a zoning variance to increase some of the heights of the proposed structures from the allowed 35 feet, including two lime silos up to 60 feet tall, the evaporator support structure up to 80 feet tall and the cooling towers up to 50 feet tall, the crystallizers which will be 80 to 110 feet tall and the electrical power line and transmission structures up to 120 feet tall. Based on the height of these proposed structures and proximity to a scenic viewpoint, there is the potential for significant impacts to a scenic vista. A visual impact analysis will be prepared for the Project and this issue will be addressed in the EIR.

b) Substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway? ☐ ☐ ☐ ☒

b) No Impact. The Project is not located within the viewshed of any officially designated State scenic highways. HWY 111, which is approximately 3 miles east of the Project site, is listed by Caltrans as eligible for State scenic highway designation. However, the eligible section of HWY 111 is from Bombay Beach to the Imperial County–Riverside County line, approximately 13 miles northwest of the Project site at the closest point (Caltrans 2018), and the Project site is not visible from the eligible scenic-designated highway segment. Further, the Project site is void of any trees, rock outcrops, or historic buildings and, therefore, no scenic resources would be damaged as a result of the Project. No impacts would occur to scenic resources along a State scenic highway, and no further analysis is required.

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surrounding? (Public views are those that are experienced from publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality? ☒ ☐ ☐ ☐

c) Potentially Significant Impact. The Project is located on a vacant, non-urbanized area characterized by agricultural and open space uses, near the Salton Sea. Public viewers of the Project site would be limited to workers at the Project site and limited passersby on nearby roads. There is one residence approximately 0.50 miles east of the site, however, there are no recreation areas in proximity of the Project site. Views of Project operations will be consistent with current views of the area, which include the nearby HR1 power plant and other power plants within the Salton Sea Known Geothermal Resource Area. The Project would require zoning variances for the structures above 35 feet including two lime silos up to 60 feet tall, the evaporator support structure up to 80 feet tall and the cooling towers up to 50 feet tall, the crystallizers which will be 80 to 110 feet tall and the electrical power line and transmission structures up to 120 feet tall. A visual impact analysis will be prepared for the Project and this issue will be addressed in the EIR.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? ☐ ☐ ☒ ☐

d) Less Than Significant Impact. As part of the Project design, industrial grade lighting sources would be required for Project operations and safety purposes. Lighting would be covered and directed downward (down shielded) or towards the proposed facility to avoid backscatter. Nighttime illumination features for the Project would be controlled with sensors or switches operated such that lighting would only be activated when needed. During construction of the Project, nighttime lighting would be required during the period of temporary nighttime construction. Nighttime construction would be temporarily required during the drilling of the HKP1 geothermal wells as well as times of extreme daytime heat, in which it would be safer to work during cooler nighttime hours. The Project will introduce new structures built with metallic materials including transmission poles and conductors that could produce glare. However, the steel and metal alloy pipelines and vessels within the HKP1 and HKL1 will be painted and will not be a major source of glare. The Project is in a rural area of the County, with the closest residence approximately 1 mile east of the Project site on Pound Road. Davis Road is an unpaved road that typically does not experience through traffic. Therefore, workers and individuals visiting the Project would be the majority viewers of the glare or new light. Impacts related to increased light and glare from construction and operation of the proposed Project would be less than significant, and no further analysis is required.

II. *AGRICULTURE AND FOREST RESOURCES*

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

	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

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? ☐ ☐ ☐ ☒

a) No Impact. According to the California Department of Conservation's Farmland Mapping and Monitoring Program, the Project site is designated as "Other Land" (DOC 2022a). No Prime Farmland, Unique Farmland, or Farmland of Statewide Importance is located within or in proximity to the Project site. The County General Plan designates the Project site as Agriculture land use; however, according to the General Plan Land Use Element, a non-agricultural land use may be permitted within General Plan-designated agricultural land if the use does not conflict with agricultural operations and will not result in the premature elimination of agricultural operations (County 1993). There is no existing agricultural land on the Project site, thus the Project would not conflict with or eliminate agricultural operations. No impacts would occur and no further analysis is required.

b) Conflict with existing zoning for agricultural use, or a Williamson Act Contract? ☐ ☐ ☐ ☒

b) No Impact. The Project site is zoned S-1, S-2, and M-2 and is located within the geothermal overlay zone (G) and pre-existing allowed/restricted overlay zone (PE). No land within the Project site is zoned for agricultural use. The Project site is not subject to the provisions of a Williamson Act contract (DOC 2018). No impacts would occur and no further analysis is required.

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? ☐ ☐ ☐ ☒

c) and d) No Impact. As previously mentioned, the Project site is zoned S-1-G, S-2-G, and M-2-G-PE. No land within the Project site is zoned forest land or timberland and there is no existing forest land on the Project site or in the immediate vicinity. The Project would not result in the loss of forest land or the conversion of forest land to non-forest use; no impacts would occur and no further analysis is required.

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? ☐ ☐ ☐ ☒

e) No Impact. The Project site is zoned S-1-G, S-2-G, and M-2-G-PE and does not contain agricultural land or forest land. The Project would not result in the conversion of agricultural land or forest land. No impacts would occur and no further analysis is required.

III. *AIR QUALITY*

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to the following determinations. Would the Project:

a) Conflict with or obstruct implementation of the applicable air quality plan? ☒ ☐ ☐ ☐

a) Potentially Significant Impact. The Project is located within the Salton Sea Air Basin (SSAB) and is subject to the jurisdiction of the Imperial County Air Pollution Control District (ICAPCD) Rules and Regulations (CARB 1999). The ICAPCD is charged with upholding ambient air quality standards set forth by the state and federal government for the area within its jurisdictional limits. The ICAPCD also serves as a regional authority to legally enforce air pollution regulations related to the release of toxic and hazardous emissions.

The Project has potential to create emissions during construction and operation including dust, fumes, equipment exhaust, and other air contaminates that could conflict with the ICAPCD Rules and Regulations as well as the County's Air Quality Attainment Plan. To limit impacts during site construction, the Project will implement a dust control plan consisting of dust-reducing Best Management Practices (BMPs). Some of these BMPs include frequent watering of the Project site during construction activities and limiting vehicle traffic to 15 miles per hour on unpaved onsite access roads. In addition, the Project would comply with the applicable ICAPCD regulations, including but not limited to Rule 801, Rule 803, Rule 804, and Rule 805 (Imperial County Air Pollution Control District, 2020).

During Project operations, criteria air pollutants, criteria air pollutant precursors, and hazardous air pollutants would be released during

	Potentially Significant Impact **(PSI)**	Potentially Significant Unless Mitigation Incorporated **(PSUMI)**	Less Than Significant Impact **(LTSI)**	No Impact **(NI)**

extraction, processing, material transport and packaging activities. Additionally, the Project will utilize a backup diesel generator for black starts of the power plant. A Permit to Construct and a Permit to Operate would be obtained, as required by ICAPCD, for the facility's stationary air pollutant emission sources and air pollutant control equipment.

Although Project emissions may be reduced through the use of pollution control devices and dust control measures, Imperial County is currently designated as a serious nonattainment area for PM10 (US EPA 2022), and therefore potentially significant impacts may still result and impacts will be further addressed in the EIR.

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? ☒ ☐ ☐ ☐

b) Potentially Significant Impact. Currently, the SSAB is either in attainment or unclassified for all State air pollutant standards except for PM10 and ozone (O3) (CARB, 2022). The SSAB is either in attainment or unclassified for all federal air pollutants standards except for O3 and PM10 (US EPA, 2022). As mentioned above, both Project construction and operations have the potential to create emissions that could result in a cumulatively considerable net increase of a criteria pollutant for which the Project region is in nonattainment for O3 and PM10. The impact is considered potentially significant and will be addressed in the EIR.

c) Expose sensitive receptors to substantial pollutants concentrations? ☒ ☐ ☐ ☐

d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people)? ☒ ☐ ☐ ☐

c and d) Potentially Significant Impact. The Project is located in a rural area of the County and is not in close proximity to any sensitive receptors such as residences, hospitals, or schools. The closest residence is over a half mile southeast of the Project site along Pound Road. The closest school is approximately 3 miles east of the Project site in Niland, and the closest hospital is approximately 18 miles south of the Project site in Brawley (Google, 2022). Approximately 112 full-time employees are expected to be working onsite, for both the HKP1 and HKL1, but these employees will be provided the proper personal protective equipment (PPE) and training in accordance with Occupational Safety and Health Administration (OSHA) regulations to protect them from substantial pollutant concentrations. Any odors onsite are expected to only affect employees and are not anticipated to affect a substantial amount of people or sensitive receptors. A less-than-significant impact is expected to result, however further analysis is required and these issues will be evaluated in the EIR.

IV. *BIOLOGICAL RESOURCES* *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 Wildlife or U.S. Fish and Wildlife Service? ☒ ☐ ☐ ☐

a) Potentially Significant Impact. The Project site is approximately one mile east of the Salton Sea, which serves as an important wintering and staging site for migratory birds and several endangered species populations. Biological surveys were conducted by biologists at Panorama Environmental, Inc. in the spring and fall of 2021.A Biological Technical Report will be prepared for the Project to identify the potential for endangered, threatened, sensitive or species of concern within the Project area; map habitats; and ascertain the probability of the presence of sensitive species onsite. Special-status species were found to occur within the project area and adjacent habitats. The impacts from the Project on special-status species are considered potentially significant and will be further addressed in the EIR.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife 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? ☒ ☐ ☐ ☐

b) and c) Potentially Significant Impact. The Project site contains wetlands and riparian habitats that are potentially subject to RWQCB, CDFW, and USACE jurisdiction. The Project site also contains iodine bush scrub habitat, which is defined as a sensitive natural community by the CDFW. The removal of sensitive vegetation communities and discharge of fill to these wetland and riparian resources from temporary construction activities, and permanent conversion to a developed land use during operation of the proposed Project, could be a significant impact. To prevent significant impacts to the nearby wetland and riparian habitat due to increased runoff

at the Project site during operations, a stormwater retention basin will be developed on site. HKP1 and HKL1 will obtain all required USACE, CDFW, and RWQCB permits for impacts to wetlands and riparian areas prior to construction in any jurisdictional wetland or riparian area. The Project site is north of IID canals and agricultural drains that flow into these wetlands and the Salton Sea; however, to prevent offsite impacts to nearby wetlands resulting from stormwater runoff during construction the Project would be required to obtain coverage under a Construction General Permit to comply with National Pollutant Discharge Elimination System (NPDES) requirements. Compliance with the Construction General Permit would require the development and implementation of a Stormwater Pollution Prevent Plan (SWPPP) and associated BMPs. These BMPs will include measures that would be implemented to prevent discharges into adjacent wetland and riparian habitat from the Project site during construction activities. However, the impacts from the Project construction and operation on wetlands and riparian areas are potentially significant and will be further addressed in the EIR.

d)	Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☒	☐	☐	☐

d) Potentially Significant Impact. The Project site is approximately 1 mile east of the Salton Sea, which serves as an important wintering and staging site for migratory birds and several endangered species populations. The Project site would be fenced but would not create a barrier to wildlife corridors because the surrounding areas are undeveloped and flat. Additionally, the Project includes installation of a gen-tie line that could affect migratory birds. The habitats within the Project site and adjacent to the Project include wildlife breeding areas. A Biological Technical Report will be prepared for the Project to identify the potential for native or migratory wildlife within the Project area; map habitats; and ascertain the probability of the presence of sensitive species onsite. The impacts from the Project could be potentially significant and will be addressed in the EIR

e)	Conflict with any local policies or ordinance protecting biological resource, 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?	☒	☐	☐	☐

e) and f) Potentially Significant Impact. The County General Plan Conservation and Open Space Element policies require conservation of native habitat of sensitive plants and animals through the dedication of open space easements or through other means that will ensure their long-term protection and survival. Impacts to native habitat of sensitive plants and animals resulting from the Project could cause a potentially significant impact from conflict with the County plans or policies. This impact will be addressed in the EIR.

V. *CULTURAL RESOURCES 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?	☒	☐	☐	☐

a) and b) Potentially Significant Impact. Unrecorded subsurface archaeological and historical resources may be impacted, if present, by minor grading of the Project site and installation of foundations below the ground surface. A Cultural Resources Report will be prepared for the Project detailing the results of an archaeological literature review, records search, and intensive pedestrian survey of the Project site. Further analysis of the historical and archaeological resources is required and will be addressed in the EIR.

c)	Disturb any human remains, including those interred outside of dedicated cemeteries?	☒	☐	☐	☐

c) Potentially Significant Impact. The Project is not expected to disturb any human remains. However, with grading involved, a potential to find human remains exists. A Cultural Resources Report will be prepared for the Project detailing the results of an archaeological literature review, records search, and intensive pedestrian survey of the Project site. Further analysis of potential impacts to human remains is required and will be addressed in the EIR.

VI. *ENERGY Would the project:*

a)	Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy	☒	☐	☐	☐

	Potentially Significant Impact **(PSI)**	Potentially Significant Unless Mitigation Incorporated **(PSUMI)**	Less Than Significant Impact **(LTSI)**	No Impact **(NI)**

resources, during project construction or operation?

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency? ☒ ☐ ☐ ☐

a) and b) Potentially Significant Impact. Both Project construction and operational activities would require energy consumption. Construction activities consume energy temporarily through the use of heavy construction equipment as well as truck and worker traffic. The Project is estimated to require approximately 54,000 truck trips during grading and facility construction. Construction equipment anticipated for the Project is listed in Section 2D above. The Project will use energy-conserving construction equipment to the extent possible, including standard mitigation measures for construction combustion equipment recommended in the Imperial County Air Pollution Control District (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 Project construction.

The HKP1 Project operations will produce 49.9 MW net of clean renewable energy. Operation of the HKL1 Project will require approximately 35 MW of power, and peak power demand of 40 MW. Power for HKL1 operation will be obtained from IID, and the power demand will be less than the amount of power that will be supplied by HKP1 operation. HKP1 operation will require use of generators for up to 600 hours per year for startups during black-start situations. HKL1 generators will only be used in emergencies and will be operated less than 50 hours per year.

Buildings onsite will be designed in accordance with the California Energy Commission's 2019 Building Energy Efficiency Standards for Residential and Nonresidential Buildings and the California Green Building Standards (CCR, Title 24, Part 11). Additionally, an energy analysis will be prepared for the Project to quantify energy consumption. Further analysis of the Project's energy consumption and consistency with applicable plans, policies, and regulations for reducing wasteful, inefficient, and unnecessary energy usage. Impacts will be analyzed further in the EIR.

VII. *GEOLOGY AND SOILS Would the project:*

a) Directly or indirectly cause potential substantial adverse effects, including risk of loss, injury, or death involving:

1) 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? ☒ ☐ ☐ ☐

1) Less Than Significant Impact. The Project site is not located within an Alquist-Priolo (AP) fault zone and the closest AP fault zone is the San Andreas fault zone approximately 12 miles northwest (DOC 2022b). While the County General Plan shows that the potentially active Calipatria Fault runs underneath the Project site (County 1993), this is not an AP designated fault. Construction of HKP1 will include deep drilling of geothermal well and no fracking would occur as part of the geothermal drilling operation. While there has been significant study of geothermal drilling and correlation with earthquakes, drilling activities are not known to cause earthquakes or fault rupture. Nonetheless, potential impacts will be analyzed further in the EIR.

2) Strong Seismic ground shaking? ☒ ☐ ☐ ☐

2) Potentially Significant Impact. As mentioned above, the Project site is not located within an Alquist-Priolo fault zone and the closest fault zone is the San Andreas fault zone approximately 12 miles northwest (DOC 2022b). However, the Project site is located within a seismically active area of Southern California and the County General Plan shows that the potentially active Calipatria Fault is underlying the Project site (County 1993). Additionally, approximately 112 full-time employees are expected to be working on site, for both the HKP1 and HKL1, 24 hours per day, 7 days a week. The construction phase will also employ up to 500 workers at the peak of construction. Construction and operational employees could be exposed to strong seismic ground shaking because the Project is in a seismically active region. To lessen potential hazards related to seismic ground shaking, Project structures would be analyzed for earthquake loading during design, and would be designed in accordance with the 2019 seismic requirements provided in the California Building Code. A registered professional civil/geotechnical engineer will also prepare a geotechnical investigation of the Project site that includes comprehensive subsurface exploration, appropriate laboratory testing, and detailed evaluation of potential constraints to critical project structures. The geotechnical investigation and proposed site measures may prevent Project activities from exacerbating the risk of loss, injury, or death involving rupture of a known earthquake fault or seismic ground shaking; however, further analysis is required and these issues will be addressed in the EIR.

3) Seismic-related ground failure, including liquefaction and seiche/tsunami? ☒ ☐ ☐ ☐

3) Potentially Significant Impact. The Project site is not located within a Department of Conservation identified liquefaction zone, but the County General Plan identifies that liquefaction is a common hazard in the County due to geologically young,

	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

unconsolidated sediments of the Salton Trough (DOC 2022b; County 1993). Soils on the Project site are also majority wet Imperial silty clay and Imperial-Glenbar silt clay loams, which may be susceptible to ground failure (USDA 2022). Approximately 112 full-time employees are expected to be working on site, for both the HKP1 and HKL1, 24 hours per day, 7 days a week. The construction phase will also employ up to 500 employees at peak construction. Construction and operational employees could be exposed to impacts of seismic-related ground failure, including liquefaction. The impact will be addressed in the EIR.

4) Landslides? ☐ ☐ ☐ ☒

4) No Impact. The Project site is flat and is not located within an identified landslide zone (DOC 2022b). According to the County General Plan, the closest area of landslide activity is on the border of San Diego and Imperial Counties approximately 30 miles west of the Project site (County 1993). The Project would not exacerbate the risk of loss, injury, or death involving landslides. No impacts would occur and no further analysis is required.

b) Result in substantial soil erosion or the loss of topsoil? ☐ ☐ ☒ ☐

b) Less Than Significant Impact. Project construction and operations have the potential to result in soil erosion and loss of topsoil mainly through grading. Approximately 400,000 cubic yards of soil will be brought on site to raise the elevation of the Project site. Existing soil will be covered with aggregate and other materials that will be compacted to achieve final stabilization. The imported materials will be stabilized and will not be subject to erosion. Underlying topsoil would be covered with the aggregate and would not be subject to erosion. Additionally, the Project would implement standard industry methods, such as BMPs, to prevent surface runoff and erosion where applicable. These BMPs would comply with the County Building & Grading Regulations and the SWPPP developed for the Project. Moreover, a Drainage and Grading Plan will be submitted to the County to ensure implementation of all required BMPs. Impacts related to soil erosion would be less than significant and no further analysis is required.

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 landslides, lateral spreading, subsidence, liquefaction or collapse? ☒ ☐ ☐ ☐

d) Be located on expansive soil, as defined in the latest Uniform Building Code, creating substantial direct or indirect risk to life or property? ☒ ☐ ☐ ☐

c) and d) Potentially Significant Impact. As previously discussed, the Project site is flat and is not located within a Department of Conservation identified liquefaction or landslide zone (DOC 2022b). However, the County General Plan identifies that liquefaction is a common hazard in the County (County 1993). Soils on the Project site are also majority wet Imperial silty clay and Imperial-Glenbar silt clay loams, which may be susceptible to soil instabilities causing subsidence, liquefaction, and expansion (USDA 2022). A registered professional civil/geotechnical engineer will prepare a geotechnical investigation of the Project site that includes comprehensive subsurface exploration, appropriate laboratory testing, and detailed evaluation of potential constraints to critical project structures, including liquefaction, subsidence, and expansive soils. Impacts involving geologic unit or soil instability require further analysis and will be addressed in the EIR.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water? ☒ ☐ ☐ ☐

e) Potentially Significant Impact. During construction of the Project, portable toilets would be provided for construction workers, and waste would be transported offsite to a sanitary water treatment plant. A septic system would be constructed to handle wastewater generated during Project operation. The Project is located on areas with clay soils and shallow groundwater, which may not be capable of adequately supporting a septic system. The suitability of the site for the proposed septic system requires further analysis, and the impact will be addressed in the EIR

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? ☒ ☐ ☐ ☐

f) Potentially Significant Impact. Paleontological resources are typically impacted when earthwork activities, such as mass excavation cut into geological deposits (formations) with buried fossils. The Project construction would require excavation, grading, and installation of concrete foundations and steel and/or concrete pilings. The Project also involves drilling of geothermal wells. No unique paleontological resources or unique geologic features are known to occur in the area. However, the potential to disturb previously undiscovered resources exists as many paleontological fossil sites have been recorded in Imperial County and have been discovered during construction activities. Further analysis is required and will be addressed in the EIR.

VIII. *GREENHOUSE GAS EMISSION* *Would the project:*

a) Generate greenhouse gas emissions, either directly or ☒ ☐ ☐ ☐

	Potentially Significant Impact **(PSI)**	Potentially Significant Unless Mitigation Incorporated **(PSUMI)**	Less Than Significant Impact **(LTSI)**	No Impact **(NI)**

indirectly, that may have a significant impact on the environment?

b) Conflict with an applicable plan or policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? ☒ ☐ ☐ ☐

a) and b) Potentially Significant Impact. The primary climate change legislation in California is Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006. AB 32 focuses on reducing greenhouse gas (GHG) emissions in California, and AB 32 required that GHGs emitted in California be reduced to 1990 levels by the year 2020. In addition to AB 32, Executive Order B-30-15 was issued on April 29, 2015 that aims to reduce California's GHG emissions 40 percent below 1990 levels by 2030. In September 2016, AB 197 and Senate Bill (SB) 32 codified into statute the GHG emission reduction targets provided in Executive Order B-20-15.

Project construction activities are expected to emit GHGs, including carbon dioxide (CO2), nitrogen oxides (NOx), and methane (CH4), from the combustion of fossil fuels during the operation of gasoline and diesel-fueled construction equipment and vehicles. A list of anticipated construction equipment for the Project can be found in Section D of the Project Description above. Project operations would create new sources of particulate matter from drying, transfer, and packing lithium products; operation of the cooling tower; and maintenance, testing, and emergency operations of the diesel-engine generators. The diesel-engine generators would also generate NOx, carbon monoxide (CO), PM, and sulfur dioxide (SO2). The Project will produce 49.9 MW of clean renewable energy and will require use of 35 MW of energy, resulting in net production of clean renewable energy. While the Project generation of renewable energy would be consistent with State goals, additional analysis is required to evaluate GHG emissions for Project construction and operation. Further analysis of potential impacts related to GHG emissions generated by the Project, will be quantified and assessed in the EIR.

IX. *HAZARDS AND HAZARDOUS MATERIALS 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 reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment? ☒ ☐ ☐ ☐

a) and b) Potentially Significant Impact. Construction of the Project would require the limited transport and temporary use of materials deemed to be hazardous, including unleaded gasoline, diesel fuel, oil, lubricants (i.e., motor oil, transmission fluid, and hydraulic fluid), solvents, adhesives, and paint materials. However, any potentially hazardous materials used or found onsite during construction would be handled in accordance with state and federal regulations regarding the transport, use, and storage of hazardous materials.

Project operations would create new sources of particulate matter from drying, transfer, and packing lithium products; operation of the cooling tower; and maintenance, testing, and emergency operations of the diesel-engine generators. Hazardous material would be transported for sale and waste would be transported to an approved hazardous waste landfill.

To prevent accidental release of hazardous materials, spill containment areas and sumps subject to spills of immiscible chemicals would be drained to a dilution water tank. Any oil contamination spills would be collected with absorbent pads and disposed as required by law.

Additionally, a Hazardous Materials Business Plan (HMBP) would be prepared and implemented, which will identify proper hazardous materials handling, use, and storage; emergency response; spill control and prevention; employee training; and reporting and record keeping. This would help to limit human risk and environmental risk associated with exposure to hazardous materials. Nonetheless, impacts from hazardous materials may occur and further analysis would be required. This issue will be addressed in the EIR.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? ☐ ☐ ☒ ☐

c) Less Than Significant Impact. Although the Project has the potential to emit hazardous emissions and/or handle hazardous substances, the Project site is not within one-quarter mile of an existing or proposed school. The closest school to the Project site is Grace Smith Elementary School, approximately 3 miles northeast in Niland, CA. Additionally, the ERP that would be prepared and implemented for the Project will limit human risk associated with exposure to hazardous materials, with special consideration of the schools in the area. Impacts would be less than significant and no further analysis is required.

	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)
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?	☐	☐	☐	☒

d) Potentially Significant Impact. According to the Department of Toxic Substance Control's EnviroStor Database and the State Water Resources Control Board's GeoTracker Database, there are no recorded hazardous material sites within a mile of the Project site (DTSC 2022; SWRCB 2022). The site is currently and has been, vacant undeveloped land. Therefore there is no impact and no further analysis is required.

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?	☐	☐	☐	☒

e) No Impact. The Project site is not located within two miles of a public airport or public use airport or within the boundaries of an airport land use plan. The closest airport is Calipatria Municipal Airport approximately 7 miles southeast of the Project site. Therefore, the Project would not expose people working in the Project area to safety hazards or excessive noise. No impact would occur and no further analysis is required.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐

f) Less Than Significant Impact. Temporary or single-lane closure of Davis Road may occur during the transport of oversized equipment or construction activities. Road closures would be coordinated with County Public Works, the County Sheriff, and Imperial County Fire Department prior to closure. The Project is not located within an emergency evacuation route. Davis Road is currently impassible beyond the Project, and the road is not used for emergency evacuation. The Project's construction and operational activities would be in compliance with the Imperial County Emergency Operations Plan (EOP) and Multi-Jurisdiction Hazard Mitigation Plan (MJHMP) and would not physically interfere with the execution of the policies and procedures in these plans (County 2016 and 2021). Therefore, the Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Impacts would be less than significant, and no further analysis is required.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☒	☐	☐	☐

g) Less Than Significant Impact. The Seismic and Public Safety Element of the County General Plan states that the potential for a major fire in the unincorporated areas of the County is generally low (County 1993). According to the California Department of Forestry and Fire Protection's (CALFIRE) Fire Hazard Severity Zone Viewer, there are no very high, high, or moderate fire hazard severity zones in the local or state responsibility areas within 30 miles of the Project site (CALFIRE 2022). Additionally, the Project will include fire suppression systems designed in accordance with federal, state, and local fire codes; occupational health and safety regulations; and other jurisdictional codes, requirements, and standard practices. Included in the fire suppression system is a 100,000 gallon above-ground water tank to be installed onsite, serving as the primary water supply for the joint fire suppression system. In addition, during construction the Project site and access road will be cleared of all vegetation and cleared areas will be maintained throughout construction. Fire extinguishers will be available around the construction site as well. During operations, a brush control program will be prepared and implemented on those portions of the Project site that will not be developed. The Imperial County Fire District (ICFD) will be consulted to review and approve any and all proposed fire equipment, apparatus, and related fire prevention plans. Nonetheless, the Project would introduce people and structures to the area that could increase the risk of wildfire ignition within the vegetated areas adjacent to the Project. Due to the increased risk of wildfire ignition and risk of wildfire impacts to Project structures, the impact is potentially significant and will be analyzed further in the EIR.

X. *HYDROLOGY AND WATER QUALITY Would the project:*

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐

a) Less Than Significant Impact. The Project site is located within the California Regional Water Quality Control Board's Colorado River Basin Region (RWQCB, 2019). The Project is therefore subject to standards set forth in the Colorado River Basin's (Basin) Water Quality Control Plan. The Project will require dewatering of shallow groundwater and surface water and will discharge fill to waters of the State. The dewatering and discharge of fill will require permits from RWQCB to comply with waste discharge requirements. The Project also includes construction of a brine pond for emergency and maintenance discharge of geothermal brine. The brine pond will also require a permit from RWQCB. The Project construction and operation involves activities that would discharge water and soil, which could violate water quality standards or waste discharge requirements. The impact will be addressed in the EIR

	Potentially Significant Impact **(PSI)**	Potentially Significant Unless Mitigation Incorporated **(PSUMI)**	Less Than Significant Impact **(LTSI)**	No Impact **(NI)**
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐

b) Less Than Significant Impact. The Project will not use groundwater as a source of water supply for construction or operation. The Project would involve dewatering of shallow groundwater during excavation and foundation construction. The short-term and localized dewatering of the areas of excavation and building foundations during construction would not decrease groundwater supplies or interfere substantially with groundwater management. The Project would convert an area that is currently undeveloped to a developed land use and would create approximately 50 acres of impervious surfaces. The increase in impervious surface would result in a small reduction of groundwater recharge; however, the limited rainfall on the area would flow to an unlined retention basin where the groundwater would be allowed to infiltrate into the soil. The impact on groundwater supplies and recharge would therefore be less than significant, and no further analysis is required.

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?	☐	☐	☒	☐

c) i) through iv) Less Than Significant Impact. No rivers or streams travel through the Project site or are directly adjacent to the Project site. The Alamo River is approximately 2 miles southwest of the Project site and drains to the Salton Sea.. Although Project construction and operations would have the potential to result in soil erosion and runoff on and offsite due to grading and increased impervious surfaces, through implementation of a SWPPP and a Drainage and Grading Plan, the Project would implement standard industry BMPs and relevant Basin BMPs to control off-site discharges. Additionally, a stormwater retention basin would be developed on the site. In order to prevent substantial erosion resulting from high winds in the area, a Fugitive Dust Suppression Plan will be prepared and the Project site will be watered as necessary. The site will be permanently stabilized during operation through use of aggregate, gravel, concrete, or other stabilizing materials.

The Project site is not located within a Federal Emergency Management Agency (FEMA) Flood Hazard Zone (FEMA, 2022; FIRM Map Number 06025C0725C). Additionally, a berm/levee will run along the western boundary of the site to contain any stormwater runoff and prevent stormwater run on.

With implementation of BMPs and construction of a new retention basin, substantial erosion and runoff on and offsite is not expected. Less than significant impacts would occur and no further analysis is required.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐

d) Less Than Significant Impact. As mentioned above, the Project site is not within a FEMA Flood Hazard Zone. The Project site is one mile east of the Salton Sea, which is a potential source of seiche. According to the County General Plan's Seismic and Public Safety Element, a seiche at the Salton Sea could occur under the appropriate seismic conditions, but there have been a number of seismic events with no significant seiches occurring to date (County 1993); therefore, a seiche is not expected to impact the Project site and cause discharge of pollutants. Further, all dams within the County are approximately 65 miles east of the Project site, and the Project site is approximately 100 miles from the coast of the Pacific Ocean. Thus, there is no risk of dam inundation or tsunami within the Project site. The impact from a seiche would be less than significant, and no further analysis is required.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

e) Potentially Significant Impact. As discussed above, implementation of a SWPPP and a Drainage and Grading Plan would ensure the Project would implement standard industry BMPs and relevant Basin BMPs to control off-site discharges. Additionally, a stormwater retention basin would be developed on the site. The Project will not allow any offsite discharges that could violate water quality standards or waste discharge requirements, or otherwise substantially degrade surface or ground water quality. Additionally, all water required for the Project would be purchased from the IID, and IID operates no water wells or groundwater recharge areas (IID 2018).

	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

Impacts would be considered less than significant and no further analysis is required.

I. *LAND USE AND PLANNING Would the project:*

a) Physically divide an established community? ☐ ☐ ☐ ☒

a) No Impact. The Project is located in a rural area approximately 3.6 miles west of Niland, CA, which is the closest nearby community. The gen-tie line required by the Project would utilize existing transmission ROW, and traverse the existing area but would not physically divide the area for approximately 2.3 miles southeast. There are no residences in close proximity to the Project site; thus, the Project would not physically divide an established community and no impacts would occur and no further analysis is required.

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? ☐ ☐ ☒ ☐

b) Less than Significant Impact. The power and lithium production facilities are located in an area that is zoned S-1-G (open space / geothermal overlay), S-2-G (open space/preservation/geothermal overly) (S-1-G) and M-2-G-PE (medium industrial/geothermal overlay) and has an Agricultural land use. S-1-G, S-2-G, and M-2-G-PE allow geothermal exploration with a conditional use permit (CUP). Although S-2-G is for preservation only a well pad would be on the site along with a portion of the S-Berm/Extension Road which are allowed uses. The County Land Use Ordinance, Division 17, includes the Renewable Energy (RE) Overlay Zone, which authorizes the development and operation of renewable energy projects, with an approved conditional use permit (CUP). According to the General Plan Land Use Element, a non-agricultural land use may be permitted within General Plan-designated agricultural land if the use does not conflict with agricultural operations and will not result in the premature elimination of agricultural operations (County 1993). As analyzed in Section II, Agriculture and Forest Resources above, there is no existing agricultural land on the Project site and the land is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance by the Department of Conservation. The mineral extraction is associated with the geothermal extraction and would be compatible with the geothermal overlay. Implementation of the Project would require the approval of a CUP by the County to allow for the construction and operation of the proposed geothermal and mineral extraction facility on land designated as agriculture. With obtaining a CUP, the Project would be consistent with the land use plan; therefore, impacts would be less than significant and no further analysis is required.

II. *MINERAL RESOURCES 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? ☐ ☐ ☐ ☒

a) and b) No Impact. Although there are geothermal resources and minerals underlying the Project, there are no designated mineral resource zones or mineral resource recovery sites within the vicinity of the Project site (DOC 2022c). There are a number of mines along the Chocolate Mountain Range to the east, but the closest is approximately 5.3 miles from the Project site (DOC 2022d). Additionally, a part of this Project is a geothermal brine processing plant that would produce commercial-grade lithium hydroxide, silica, bulk sulfide, and polymetallic products, increasing the availability of these mineral resources. In utilizing the waste stream to produce these mineral resources, the Project actually represents a gain in the availability of these resources. The Project would be in alignment with the County General Plan's Renewable Energy and Transmission Element, Objective 3.2, which states that the County should "encourage the continued development of the mineral extraction/production industry for job development using geothermal brines from the existing and future geothermal flash power plants" (County, 1993). No known mineral resources or mineral resource recovery sites would be lost as a result of the Project; thus, no impacts would occur and no further analysis is required.

III. *NOISE 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? ☒ ☐ ☐ ☐

a) Potentially Significant Impact. The Imperial County Municipal Code Title 9 Land Use Code, Division 7, Chapter 2, Section 90702.00 - Sound level limits, establishes one-hour average sound level limits for the County's land use zones. Industrial operations are required to comply with the noise levels prescribed under the general industrial zones. Therefore, the Project is required to maintain noise levels below 75 decibels (dB) (averaged over one hour) during any time of day. The Project would also be expected to comply with the Noise Element of the General Plan, which states that construction noise from a single piece of equipment or a combination of

	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

equipment shall not exceed 75 dB when averaged over an eight-hour period and measured at the nearest sensitive receptor. The County Noise Element also requires construction equipment operation to be limited to the hours of 7 a.m. to 7 p.m., Monday through Friday, and 9 a.m. to 5 p.m. on Saturdays (County 1993). Construction is anticipated to take 25 months, with work being conducted Monday through Saturday 7a.m. to 6p.m. Approximately 90% of Project construction would occur during daylight hours, but the remaining 10% of work would occur during nighttime hours to avoid extreme summer temperatures. Although the closest sensitive receptor is a residence over a half mile southeast on Pound Road, construction would occur outside the allowable construction noise hours set within the County Noise Element. Impacts would therefore be potentially significant and will be analyzed in the EIR.

b) Generation of excessive groundborne vibration or groundborne noise levels? ☐ ☐ ☒ ☐

b) Less Than Significant Impact. Groundborne vibration and groundborne noise could originate from earth movement during the construction phase of the Project and during pile-driving for foundation installation. There are no structures or sensitive receptors in proximity to the Project site with the nearest residence being half mile southeast of the Project site, and vibration attenuates rapidly with distance. Due to the distance between the Project and the nearest structure, the Project would not generate vibration that would be a nuisance or cause damage to any structures. The Project would be expected to comply with all applicable requirements for long-term operation, as well as with measures to reduce excessive groundborne vibration and noise to ensure that the Project would not expose persons or structures to excessive groundborne vibration. The impact from vibration would be less than significant, and no further analysis is required.

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? ☐ ☐ ☐ ☒

c) No Impact. The Project site is not located within two miles of a public airport or public use airport. The closest airport is Calipatria Municipal Airport, approximately 7 miles southeast of the Project site. Therefore, the Project would not expose people working in the Project area to excessive noise levels. No impact would occur, and no further analysis is required.

IV. *POPULATION AND HOUSING* *Would the project:*

a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and business) or indirectly (for example, through extension of roads or other infrastructure)? ☐ ☐ ☒ ☐

a) Less Than Significant Impact. The Project involves construction and operation of a geothermal power plant and a geothermal brine processing plant and does not propose the development of any permanent housing on site. Temporary housing will be provided on site for the well drilling crew that will be working 24 hours a day for approximately 6 months; however, the temporary housing will be removed once the well-drilling phase is complete. The Project operation would require approximately 112 full-time employees who are expected to live in and commute from the local surrounding communities. Therefore, the Project is not anticipated to induce population growth directly or indirectly; thus, impacts would be less than significant, and no further analysis is required.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? ☐ ☐ ☐ ☒

b) No Impact. The Project development site is approximately 65 acres and is not zoned for housing. There are no residences within the Project site or and the closest residence is a single residence more than half mile away; thus, no existing people or housing would be displaced as a result of the Project. No impacts would occur, and no further analysis is required.

V. *PUBLIC SERVICES*

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:

1) Fire Protection? ☐ ☐ ☒ ☐

	Potentially Significant Impact **(PSI)**	Potentially Significant Unless Mitigation Incorporated **(PSUMI)**	Less Than Significant Impact **(LTSI)**	No Impact **(NI)**

1) Less Than Significant Impact. Fire protection and emergency medical services in the Project area are provided by the Imperial County Fire Department (ICFD). The closest station to the Project site is the Niland Station, approximately 4 miles east, or an approximately 9-minute drive (Google, 2022). During construction, the Project site will be cleared of all vegetation and cleared areas will be maintained throughout construction. Fire extinguishers will also be available around the construction site. In case of emergency response during operations, Project access from Davis Road would have turnaround areas to allow clearance for fire trucks per fire department standards. In addition, a 100,000-gallon water storage tank will be located on site for fire-water storage. The fire protection system will consist of a fire main and surface distribution equipment such as yard hydrants and hose houses, monitors around the perimeter of the cooling tower, automatic sprinklers for the turbine generator and auxiliary equipment, and a complete detection and alarm system. The firewater supply and pumping system will provide an adequate quantity of fire-fighting water.

All fire suppression systems will be designed in accordance with federal, State, and local fire codes; OSHA regulations; and other jurisdictional codes, requirements, and standard practices. The ICFD will be consulted to review and approve any and all proposed fire equipment, apparatus, and related fire prevention plans. Acceptable service ratios and response times for fire protection will be maintained following Project implementation through consultation with the ICFD and the County. Impacts would be less than significant, and no further analysis is required.

2) Police Protection?	☐	☐	☒	☐

2) Less Than Significant Impact. Police protection services in the area are provided by the Imperial County Sheriff's Department. The closest police station to the Project site is the Imperial County Sheriff's office in Niland, approximately 4 miles east, or an approximately 10-minute drive (Google, 2022). The increase in construction related traffic is not anticipated to significantly increase demand on law enforcement services due to the rural nature of the Project vicinity. Additionally, the Project site would have a security fence around the Project site and include obscured fencing around processing areas. In addition, approximately 112 full-time employees will be on site 24 hours a day, 7 days a week during operations of the Project, thereby minimizing the need for police surveillance. The workforce for the Project would come from surrounding areas, and the Project workforce would not create a new demand for police protection. Impacts would be less than significant, and no further analysis is required.

3) Schools?	☐	☐	☐	☒
4) Parks?	☐	☐	☐	☒
5) Other Public Facilities?	☐	☐	☐	☒

3) through 5) No Impact. It is estimated that there will be up to 500 workers traveling to the Project site during peak construction and approximately 112 full-time employees during operations. It is expected that most of these workers/employees will commute to the Project site from surrounding communities. Therefore, substantial increases in population that will adversely affect local schools, parks, or other public facilities are not anticipated. No impacts would occur, and no further analysis is required.

VI. *RECREATION*

a) Would the project increase the use of the 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 effect on the environment?	☐	☐	☐	☒

a) and b) No Impact. There are no parks or other developed federal, State, or County recreational facilities in the Project area or immediate vicinity. Further, the Project involves the construction of a geothermal power plant and brine processing plant and would not construct any recreational facilities. It is estimated that there will be up to 500 workers at the Project site during peak construction and approximately 112 full-time employees during operations. These construction workers and employees are expected to come from existing populations that live in and commute from the surrounding local communities. Therefore, the Project would not cause an increase in population that would result in physical deterioration of existing recreational facilities. No impacts would occur, and no further analysis is required.

VII. *TRANSPORTATION* *Would the project:*

a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☒	☐	☐	☐

	Potentially Significant Impact **(PSI)**	Potentially Significant Unless Mitigation Incorporated **(PSUMI)**	Less Than Significant Impact **(LTSI)**	No Impact **(NI)**
b) Would the project conflict or be inconsistent with the CEQA Guidelines section 15064.3, subdivision (b)?	☒	☐	☐	☐

a) and b) Potentially Significant Impact. Primary access to the Project site would be located off of Davis Road. According to the County General Plan's Circulation Element, Davis Road is a Major Collector (County 2008).

HKP1 and HKL1 construction are estimated to have approximately 54,000 trucks trips during the construction and a maximum of 500 construction workers per day on site during peak construction. During normal operations, approximately 112 full-time staff would be commuting to and from the Project site. In addition, approximately 22 worker trips, 3 vendor trips, and 1 haul-truck trip per day to and from the HKP1 Project facilities would occur, while approximately 48 truck trips per day to and from the HKL1 project facilities would occur. The Project would result in permanent generation of vehicle miles traveled (VMT) due to the new worker vehicle trips generated during operation. Further analysis is required to evaluate whether the project would conflict with a program or plan for the transit system or result in significant VMT. The impacts will be addressed in the EIR.

c) Substantially increases 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?	☐	☐	☒	☐

c) and d) Less than Significant Impact. The Project would not increase hazards due to a design feature nor impact emergency access. For emergency response, the Project access road on Davis Road would have turnaround areas to allow clearance for fire trucks per fire department standards: approximately 70 feet by 70 feet, and 20-foot-wide. The County Department of Public Works, the County Sheriff, and ICFD will be consulted as necessary to ensure that any potential impacts to the public or emergency services traveling on Davis Road during Project construction or operations would be minimized. Impacts would be less than significant, and no further analysis is required.

VIII. *TRIBAL CULTURAL RESOURCES*

a) 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:				
(i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as define in Public Resources Code Section 5020.1(k), or	☒	☐	☐	☐
(ii) 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 is subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.	☒	☐	☐	☐

(i) and (ii) Potentially Significant Impact. Unrecorded subsurface Tribal cultural resources may be impacted, if present, by minor grading of the Project site and installation of foundations below the ground surface. In accordance with California Assembly Bill (AB) 52, Native American tribes with potential resources in the area will be notified of the Project and offered the opportunity for consultation. The AB 52 consultation process along with the Cultural Resources Report will assist in determining the possible Tribal cultural resource significance on the Project site. The Cultural Resources Report being prepared for the Project will include the results of an archaeological literature review, records search, and intensive pedestrian survey of the Project site. Further analysis of the potential impact to Tribal cultural resources is required and will be addressed in the EIR.

IX. *UTILITIES AND SERVICE SYSTEMS Would the project:*

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater	☒	☐	☐	☐

	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

drainage, electric power, natural gas, or telecommunications facilities, the construction of which could cause significant environmental effects?

a) Potentially Significant Impact. The proposed Project includes the development of a geothermal power plant and a mineral extraction and processing facilities capable of producing lithium hydroxide, silica, bulk sulfide, and polymetallic products for commercial sale. As part of the Project facilities, there would be a reverse osmosis treatment facility and a freshwater storage pond for water to be used on site. A stormwater retention facility would be constructed on the western boundary of the site for accumulated stormwater on site. The Project would not require or result in relocation or construction of any other utilities, including new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities, other than what is already a part of the Project and the subject of this environmental review. Therefore, the impacts would be considered potentially significant, and further analysis is required in the EIR.

b) Have sufficient water supplies available to serve the project from existing and reasonably foreseeable future development during normal, dry and multiple dry years? ☒ ☐ ☐ ☐

b) Potentially Significant Impact. As described in Section X Hydrology and Water Quality, it is estimated that the Project would require up to 50,000 gallons of water per day during construction for fugitive dust control and approximately and approximately 6,700 acre-feet per year (200 afy for HKP1 and 6,500 afy for HKL1) of fresh water for normal operation. All water required for the Project would be purchased from the IID, whose only source of water is the Colorado River. Climate change scenarios predict a decrease in annual runoff to the Basin from the Colorado River of about 400,000 acre-feet of water 40 percent of the time by 2025 (IID 2012). Therefore, a Water Supply Assessment will be prepared for the Project to analyze potential impacts to the available water supply. Further analysis is required, and potential impacts to water will be analyzed in the EIR.

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? ☐ ☐ ☒ ☐

c) Less than Significant Impact. Wastewater, including non-process wash water and sanitary waste, will be generated during facility operations. Sanitary drains will collect all sanitary waste and non-process wash water and discharge to an appropriately sized and County-approved septic system. The septic system will be engineered and operated to meet County Environmental Health requirements. The project would not affect wastewater treatment capacity. A less than significant impact would occur, and no further analysis is required.

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? ☒ ☐ ☐ ☐

d) and e) Potentially Significant Impact. All non-hazardous and hazardous wastes generated during Project construction and operation would be handled and disposed of in accordance with applicable laws, ordinances, regulations, and standards. Nonhazardous solid waste would be disposed of using a locally licensed waste hauling service, most likely Allied Waste. Nonhazardous solid waste would likely be hauled to the Niland Solid Waste Site located in Niland. The Niland Solid Waste Site has approximately 211,439 cubic yards of remaining capacity and is estimated to remain in operation through 2046 (CalRecycle, 2022). Therefore, there is sufficient capacity in the County to receive the non-hazardous solid waste generated by construction and operation of the Project.

Hazardous materials/waste generated by the Project would not be left on site and would be transported to an approved hazardous waste landfill. The outgoing hazardous waste generated on site would be processed at a facility that is certified to handle hazardous waste that would be identified in further analysis. The Project is not expected to generate a significant amount of waste or hazardous waste since materials extracted from the brine would be put to commercial use. However, further analysis of potential impacts to solid waste is required and would be addressed in the EIR.

X. *WILDFIRE*

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? ☐ ☐ ☒ ☐

a) Less Than Significant Impact. As mentioned in Section IX Hazards and Hazardous Materials above, CALFIRE's Fire Hazard Severity Zone Viewer identifies no very high, high, or moderate fire hazard severity zones in the local or state responsibility areas within 30 miles of the Project site (CALFIRE 2022). Additionally, as mentioned in Section XV Public Services, all fire suppression systems will be designed in accordance with federal, state, and local fire codes; occupational health and safety regulations; and other

	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

jurisdictional codes, requirements, and standard practices. The ICFD will also be consulted to review and approve any and all proposed fire equipment, apparatus, and related fire prevention plans. Compliance with local emergency response and evacuation plans, including the EOP and MJHMP, will be maintained through consultation with the ICFD and the County. Impacts would be less than significant and no further analysis is required.

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? ☐ ☐ ☒ ☐

b) Less Than Significant Impact. As mentioned above, CALFIRE does not have any designated very high, high, or moderate fire hazard severity zones in the local or state responsibility areas within 30 miles of the Project site (CALFIRE 2022). The Seismic and Public Safety Element of the County General Plan also states that the potential for a major fire in the unincorporated areas of the County is generally low (County 1993). Moreover, the Project site is flat and is not within an area of risk due to slope. Although the County has experienced damage from heavy winds in the past, hazards in the County are managed by the MJHMP which is reviewed and updated every 5 years (County 2021). Further, during construction the Project site and access road will be cleared of all vegetation and cleared areas will be maintained throughout construction. Fire extinguishers will be available around the construction site as well. During operations, a brush control program will be prepared and implemented on those portions of the Project site that will not be developed. Hazardous materials onsite during operations may be flammable, but fire suppression systems will be installed and the ICFD will be consulted to review and approve any and all proposed fire equipment, apparatus, and related fire prevention plans. Thus, employees onsite would not be exposed to pollutant concentrations from a wildfire. Impacts would be less than significant and no further analysis is required.

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? ☒ ☐ ☐ ☐

c) Potentially Significant Impact. To prevent fire-related impacts on the Project site, Project access from Davis Road would be constructed with turnaround areas; a 100,000-gallon fire water storage tank will be constructed, and a fire protection system will be installed. These features would help fire suppression efforts; however, the Project includes installation of new power and transmission lines and infrastructure that is known to increase wildfire risk into undeveloped areas that contain vegetation that are susceptible to wildfires. This impact is potentially significant and will be addressed further in the EIR.

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? ☐ ☐ ☒ ☐

d) Less than Significant Impact. The Project site is flat and is not located within an identified landslide zone (DOC 2022b). According to the County General Plan, the closest area of landslide activity is on the border of San Diego and Imperial Counties, approximately 30 miles west of the Project site (County 1993). As described in Section X Hydrology and Water Quality, flooding on site would be prevented by the flood protection berm on the western sides of the Project site. The Project would not expose people or structures to significant risks as a result of runoff, post fire instability, or drainage changes. Impacts would be less than significant, and no further analysis is required.

Note: Authority cited: Sections 21083 and 21083.05, Public Resources Code. Reference: Section 65088.4, Gov. Code; Sections 21080(c), 21080.1, 21080.3, 21083, 21083.05, 21083.3, 21093, 21094, 21095, and 21151, Public Resources Code; Sundstrom v. County of Mendocino,(1988) 202 Cal.App.3d 296; Leonoff v. Monterey Board of Supervisors, (1990) 222 Cal.App.3d 1337; Eureka Citizens for Responsible Govt. v. City of Eureka (2007) 147 Cal.App.4th 357; Protect the Historic Amador Waterways v. Amador Water Agency (2004) 116 Cal.App.4th at 1109; San Franciscans Upholding the Downtown Plan v. City and County of San Francisco (2002) 102 Cal.App.4th 656.

Revised 2009- CEQA
Revised 2011- ICPDS
Revised 2016 – ICPDS
Revised 2017 – ICPDS
Revised 2019 – ICPDS

	Potentially Significant Impact **(PSI)**	Potentially Significant Unless Mitigation Incorporated **(PSUMI)**	Less Than Significant Impact **(LTSI)**	No Impact **(NI)**

SECTION 3
III. MANDATORY FINDINGS OF SIGNIFICANCE

The following are Mandatory Findings of Significance in accordance with Section 15065 of the CEQA Guidelines.

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, eliminate tribal cultural resources or eliminate important examples of the major periods of California history or prehistory?	☒	☐	☐	☐

a) Potentially Significant Impact. As discussed in Sections IV Biological Resources and V Cultural Resources, implementation of the Project has the potential to impact sensitive biological resources and cultural/paleontological resources. A Biological Technical Report and Cultural Resources Assessment will be prepared for the Project. Further analysis is required, and potential impacts will be addressed in the EIR.

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.)	☒	☐	☐	☐

b) Potentially Significant Impact. The Project has the potential to result in significant impacts, and when combined with existing conditions or related projects, may result in a cumulatively considerable impact. Specifically, the Project has the potential to result in a cumulatively considerable net increase in one or more criteria pollutants for which the Project region is in non-attainment under applicable federal and state ambient air quality standards. Therefore, further analysis is required and will be analyzed in the EIR.

c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	☒	☐	☐	☐

c) Potentially Significant Impact. The Project has the potential to result in significant environmental effects, which could directly or indirectly cause adverse effects on human beings. As demonstrated in this Initial Study, the Project has the potential to result in significant impacts to aesthetics, air quality, biological resources, cultural resources, energy, geology and soils, greenhouse gasses, hazards and hazardous materials, hydrology and water quality, noise, transportation, Tribal cultural resources, utilities and services systems, and wildfire. These impact areas could result in direct or indirect adverse effects on human beings. Further analysis is required, and these issues will be discussed in the EIR.

IV. PERSONS AND ORGANIZATIONS CONSULTED

This section identifies those persons who prepared or contributed to preparation of this document. This section is prepared in accordance with Section 15129 of the CEQA Guidelines.

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- Jim Minnick, Director of Planning & Development Services
- Michael Abraham, AICP, Assistant Director of Planning & Development Services
- David Black, Project Planner

B. CHAMBERS GROUP

- Corinne Lytle-Bonine, Principal In Charge
- Victoria Boyd, Project Manager
- Patrick Macpherson, Environmental Planner
- Phillip Carlos, GIS Specialist

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