



PUBLIC NOTICE

**U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT**

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**APPLICATION FOR PERMIT
Hell's Kitchen Geothermal S-Berm Access Road and Mineral Test Project**

Public Notice/Application No.: SPL-2018-00551-CJA

Project: Hell's Kitchen Geothermal S-Berm Access Road and Minerals Test Project

Comment Period: October 23, 2018 to November 23, 2018

Project Manager: Kyle Dahl; (760) 602-4834; Kyle.J.Dahl@usace.army.mil

Applicant

Jim Turner
Hell's Kitchen Geothermal, LLC
1065 West State Street
El Centro, California 92243

Contact

Susanne Heim
Panorama Environmental, Inc.
717 Market Street, Suite 650
San Francisco, California 94103

Location

The project area is located approximately 0.75 miles west of the intersection of Noffsinger Road and Wister Road, near the city of Calipatria, Imperial County, CA (at: 33.231090, -115.5956) (Figure 1).

Activity

The applicant is proposing to conduct a geothermal and minerals exploration project, specifically conducting test processes related to mineral extraction and conducting test connectivity of geothermal resources onsite. The mineral exploration portion of the project includes the testing of five minerals including lithium, manganese, potash, rubidium, and strontium. To facilitate the project the applicant is proposing to construct a permanent access road, construction of a permanent wellpad, installation of temporary fluid pipelines, and the installation of two permanent geothermal test and monitoring wells. (Figure 2) For more information see Additional Project Information section below.

Interested parties are hereby notified an application has been received for a Department of the Army permit for the activity described herein and shown on the attached drawing(s). We invite you to review today's public notice and provide views on the proposed work. By providing substantive, site-specific comments to the Corps Regulatory Division, you provide information that supports the Corps' decision-making process. All comments received during the comment period become part of the record and will be considered in the decision. This permit will be issued, issued with special conditions, or denied under Section 404 of the Clean Water Act. Comments should be mailed to:

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, U.S. ARMY CORPS OF ENGINEERS
REGULATORY DIVISION
ATTN: Kyle Dahl

Alternatively, comments can be sent electronically to: Kyle.J.Dahl@usace.army.mil

The mission of the U.S. Army Corps of Engineers Regulatory Program is to protect the Nation's aquatic resources, while allowing reasonable development through fair, flexible and balanced permit decisions. The Corps evaluates permit applications for essentially all construction activities that occur in the Nation's waters, including wetlands. The Regulatory Program in the Los Angeles District is executed to protect aquatic resources by developing and implementing short- and long-term initiatives to improve regulatory products, processes, program transparency, and customer feedback considering current staffing levels and historical funding trends.

Corps permits are necessary for any work, including construction and dredging, in the Nation's navigable water and their tributary waters. The Corps balances the reasonably foreseeable benefits and detriments of proposed projects, and makes permit decisions that recognize the essential values of the Nation's aquatic ecosystems to the general public, as well as the property rights of private citizens who want to use their land. The Corps strives to make its permit decisions in a timely manner that minimizes impacts to the regulated public.

During the permit process, the Corps considers the views of other Federal, state and local agencies, interest groups, and the general public. The results of this careful public interest review are fair and equitable decisions that allow reasonable use of private property, infrastructure development, and growth of the economy, while offsetting the authorized impacts to the waters of the United States. The permit review process serves to first avoid and then minimize adverse effects of projects on aquatic resources to the maximum practicable extent. Any remaining unavoidable adverse impacts to the aquatic environment are offset by compensatory mitigation requirements, which may include restoration, enhancement, establishment, and/or preservation of aquatic ecosystem system functions and services.

Evaluation Factors

The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit, which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof. Factors that will be considered include conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food production and, in general, the needs and welfare of the people. In addition, if the proposal would discharge dredged or fill material, the evaluation of the activity will include application of the EPA Guidelines (40 CFR Part 230) as required by Section 404 (b)(1) of the Clean Water Act.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact

Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Preliminary Review of Selected Factors

EIS Determination- A preliminary determination has been made an environmental impact statement is not required for the proposed work.

Water Quality- The applicant is required to obtain water quality certification, under Section 401 of the Clean Water Act, from the California Regional Water Quality Control Board. Section 401 requires any applicant for an individual Section 404 permit provide proof of water quality certification to the Corps of Engineers prior to permit issuance.

Coastal Zone Management- This project is located outside the coastal zone and preliminary review indicates it would not affect coastal zone resources. After a review of the comments received on this public notice and in consultation with the California Coastal Commission, the Corps will make a final determination of whether this project affects coastal zone resources after review of the comments received on this Public Notice.

Essential Fish Habitat- No Essential Fish Habitat (EFH), as defined by the Magnuson-Stevens Fishery Conservation and Management Act, occurs within the project area and no EFH is affected by the proposed project.

Cultural Resources- Preliminary determinations indicate that the proposed activity will have no effect on historic properties. Therefore the Corps will initiate consultation with the California State Historic Preservations Officer. Additionally, the Corps will contact the Native American Heritage Commission to determine to the presence of sacred lands and received a list of tribal contacts which will be consulted.

Endangered Species- Preliminary determinations indicate the proposed activity may potentially affect federally-listed endangered or threatened species, or their critical habitat. Therefore, the Corps will initiate consultation with the U.S. Fish and Wildlife Service under Section 7 of the Endangered Species Act.

Public Hearing- Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearing shall state with particularity the reasons for holding a public hearing.

Proposed Activity for Which a Permit is Required

Basic Project Purpose- The basic project purpose comprises the fundamental, essential, or irreducible purpose of the proposed project, and is used by the Corps to determine whether the applicant's project is water dependent (i.e., requires access or proximity to or siting within the special aquatic site to fulfill its basic purpose). Establishment of the basic project purpose is necessary only when the proposed activity would discharge dredged or fill material into a special aquatic site (e.g., wetlands, pool and riffle complex, mudflats, coral reefs). The basic project purpose is to conduct exploratory mining activities. The project **is not** water dependent.

Overall Project Purpose- The overall project purpose serves as the basis for the Corps' 404(b)(1) alternatives analysis and is determined by further defining the basic project purpose in a manner that more specifically describes the applicant's goals for the project, and which allows a reasonable range

of alternatives to be analyzed. The applicants stated overall project purpose is to determine the lithium concentration of the geothermal resources within the applicants lease area.

Additional Project Information

Baseline information- The project is located approximately 0.75 miles west of the intersection of Noffsinger Road and Wister Road, near the town of Calipatria, Imperial County, California. The project area is currently owned by Imperial Irrigation District (IID) and the project applicant has a lease agreement with IID. The western portion of the lease area is within the Salton Sea. The eastern portion consists of the shoreline of the Salton Sea in addition to inland aquatic and upland areas. The Wister Unit of the California Department of Fish and Wildlife (CDFW) Imperial Wildlife Area abuts the eastern portion of the lease area and the Sonny Bono Salton Sea National Wildlife Refuge abuts the western portion of the project area.

Project description- The proposed project includes the construction of an access road and associated berm, road turn outs, a diversion structure, and well pad with associated berm that will allow for the construction of geothermal and mineral extraction wells to facilitate the exploration of geothermal and mineral resources.

The project proposes to lengthen an existing road which currently extends 0.4 miles west of the intersection of Noffsinger Road and Wister Road in order to provide vehicular access to the proposed well pad. The proposed road (S-Berm Access Road and Berm) will extend approximately 0.6 miles west from its exiting terminus to the proposed well pad. The road will be 20 to 24 feet at the top and 36 to 42 feet at the base. The proposed access road will require the permanent discharge of 7,110 cubic yards(cy) of aggregate base and 7,543 cy of 1.5 inch road into 4.42 acres of jurisdictional wetland waters of the U.S. for the purpose of providing vehicular access to the proposed well pad. In addition to the road surface three turn out areas are proposed to be constructed (S-Berm Access Road Turn-Outs). The proposed turn out will be 70 feet in radius extending from the proposed road edge to allow for vehicles to turn out. The proposed road turn outs will require the discharge of 676 cy of aggregate base and 718 cy of 1.5 inch rock into 0.54 acres of wetland waters of the U.S. for the purpose of facilitating vehicular access. Construction of the access road and turn outs will require temporary dewatering onsite. The dewatering will require the temporary discharge of 20 cy of sandbags into 0.09 acres of jurisdictional wetlands waters of the U.S. for the purpose of dewatering to facilitate construction of the access road and turn outs.

The project also proposes to construct a diversion structure (S-Drain Diversion) along the south side of the proposed roadway to prevent flows from the existing drainage (S drain) from jeopardizing the constructed road. The proposed diversion will require the permanent discharge of 70 cy of riprap and 50 cy of earthen clay into 0.10 acres of wetland waters of the U.S. for the purpose of divert flows from the existing onsite drainage to prevent the proposed roadway from undermining.

The proposed well pad (Well Pad 4) and berm will allow for the construction of two exploration and monitoring wells as well as ancillary equipment and areas for staging. The proposed pad will be 300 feet by 500 feet at the top of the pad. The surface of the pad will be approximately two feet above the existing grade. In addition the pad will be surrounded by a one foot tall berm for storm water management. The berm will have a 2:1 slope and would tie in to the existing grade at the base of the slope. Construction of the well pad and associated berm would require the permanent discharge of 5,205 cy, crushed rock and 5,205 cy of aggregate base, and 1,400 cy of earthen clay material into 3.67 acres of wetlands waters of the U.S. for the purpose of constructing a well pad to facilitate the placement of equipment necessary to conduct the proposed exploratory mining activities.

Proposed Mitigation– The proposed mitigation may change as a result of comments received in response to this public notice, the applicant's response to those comments, and/or the need for the project to comply with the 404(b)(1) Guidelines. In consideration of the above, the proposed mitigation sequence (avoidance/minimization/compensation), as applied to the proposed project is summarized below:

Avoidance: The applicant has stated the following related to the potential avoidance in impacts to jurisdictional waters of the United States related to the project: “Directional drilling was considered; however, all potential drilling locations that could reach Section 3 and 10 via directional (or vertical) drilling currently contain wetlands or other waters of the U.S. There are no feasible locations or options available that would achieve the project purpose while avoiding WoUS/wetlands.”

Minimization: The applicant has stated the following related to the potential minimization of project related impacts to waters of the United States: “The current project includes use of a 4,000-foot long segment of an existing access road/berm along IID’s S Drain. Use of the existing infrastructure reduces the extent of new access road construction and minimizes the impacts on wetlands and waters of the U.S. Well Pad 4 includes two wells. Installation of two wells within one well pad will minimize the amount of new road and well pad construction within wetlands and waters of the U.S.”

Compensation: The applicant has stated the following related to the compensation for the loss of waters of the U.S. associated with the project. The proposed compensatory mitigation area is located south of the project adjacent to the Bruchard Bay section of the Salton Sea: The applicant “proposes to build water impoundment levees to create/restore freshwater marsh on at least 60 acres and up to potentially 130 acres. Water will be supplied from an adjacent Imperial Irrigation District canal/drain. Water would be channeled to two cattail marsh impoundments. Water from the cattail marsh would be used to seasonally flood a third impoundment, which would be managed as a waterfowl wetland.” The project area is within the service area of a Corps approved In-Lieu Fee program.

For additional information please call Kyle Dahl of my staff at (760) 602-4834 or via e-mail at Kyle.J.Dahl@usace.army.mil. This public notice is issued by the Chief, Regulatory Division.



Regulatory Program Goals:

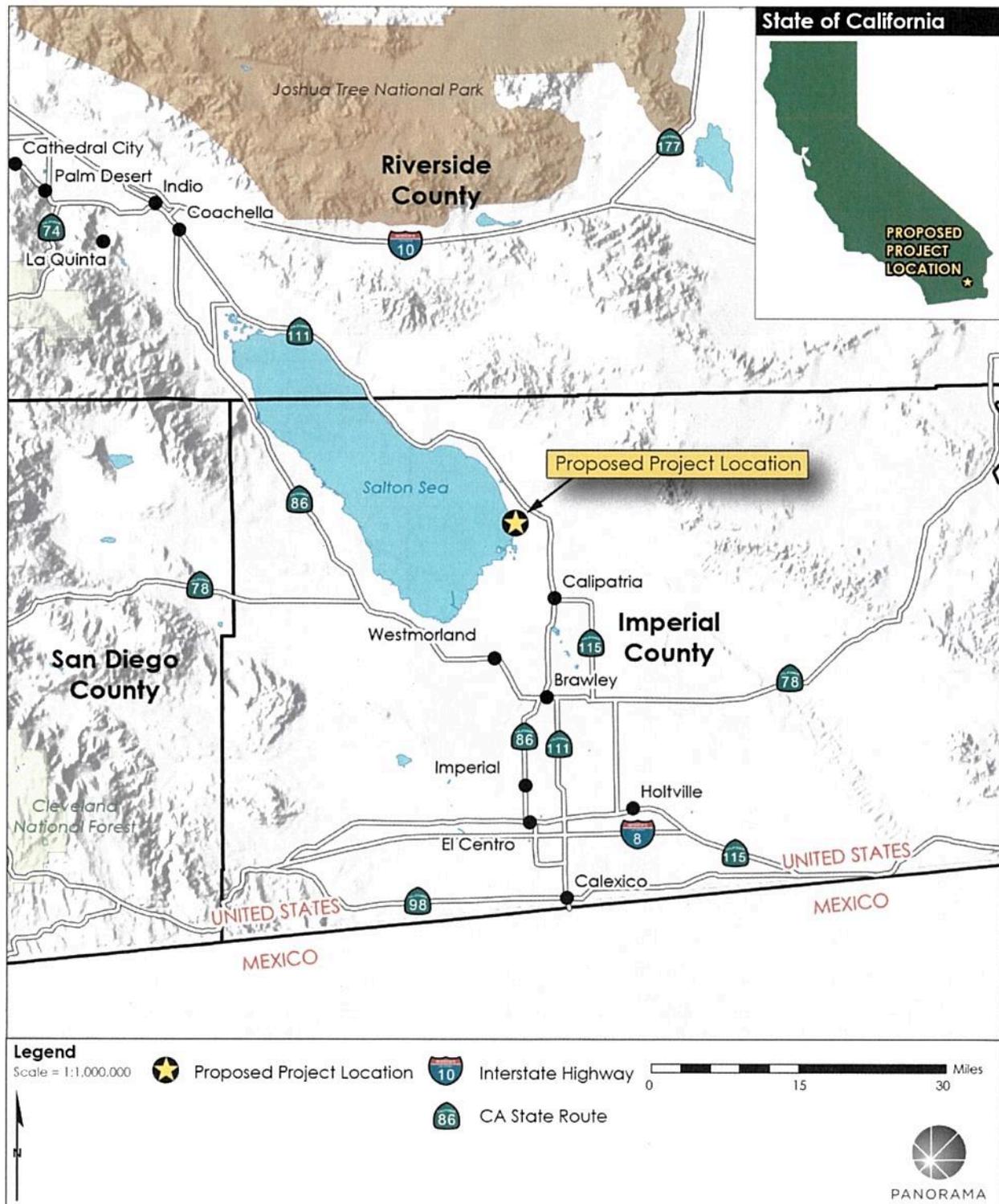
- To provide strong protection of the nation's aquatic environment, including wetlands.
- To ensure the Corps provides the regulated public with fair and reasonable decisions.
- To enhance the efficiency of the Corps' administration of its regulatory program.

**DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, U.S. ARMY CORPS OF ENGINEERS**

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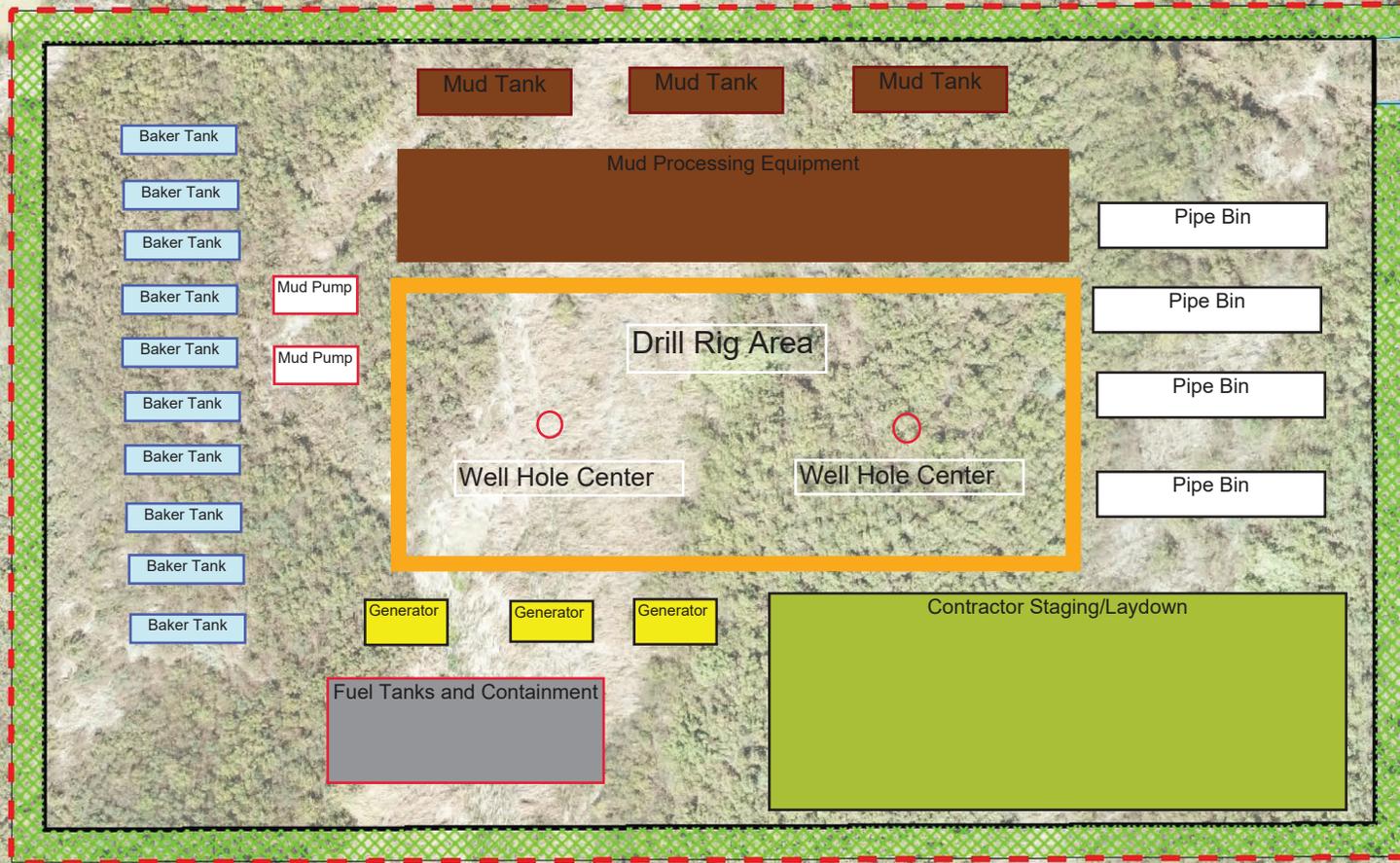
1 INTRODUCTION

Figure 1 Project Location



Source: (U.S. Geological Survey 2016, Tele Atlas North America, Inc. 2018, USGS 2016, Earth Data Analysis Center 2014)

33.231077
-115.597817



33.230106
-115.595483



Legend

- Well Pad Impact Area
- Well Pad
- Berm
- New Road Impact Area
- Access Road



Scale = 1:1,000
1 inch = 83.33 feet
Map Created 8/14/2018 by Corey Fong
Aerial Imagery Flown Spring and Summer 2018
by Controlled Thermal Resources Ltd.

