US Army Corps of Engineers®

PUBLIC NOTICE

Applicant:
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Controlled Thermal Resources, Inc.

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Los Angeles District
Permit Application No. SPL-2025-00406

TO WHOM IT MAY CONCERN: The Los Angeles District of the U.S. Army Corps of Engineers (Corps) has received an **updated** permit application for the Hell's Kitchen Stage 1 Production Facility (Stage 1) project from Controlled Thermal Resources, Inc. (CTR) for a Department of the Army permit pursuant to Section 404 of the Clean Water Act (33 U.S.C. §1344. **The Corps has determined the changes to the project require notice to the public**. **The original proposal for the Stage 1 project was public noticed on September 8, 2023. The original project included impacts to approximately 40 acres of wetland waters of the U.S., and the additional work as described below may result in impacts to an additional 9.94 acres of wetland waters of the U.S. We are seeking comments regarding the newly submitted work and increased overall impacts in waters of the U.S. described below**:

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HISTORICAL INFORMATION: USACE issued a public notice on September 8, 2023, for the original Stage 1 project proposal that included impacts to approximately 40 acres of Waters of the United States (WOTUS) for the construction of a geothermal energy/ lithium production facility, which included construction of the following features: a permanent geothermal power plant; well pads with geothermal production and injection wells; a mineral-extraction facility; pipelines between PowerCo1 (HKP1) & LithiumCo1 (HKL1) facilities; mineral handing and packaging facilities; shared administrative facilities including offices, repair facilities, shipping and receiving facilities; a dedicated transmission line called a generation tie ("gen-tie") line and co-located power lines; and the paving of Davis Road from MacDonald Road to Noffsinger Road, including ingress and egress to the project site from Davis Road.

USACE is currently seeking public input on the revised project which includes the following additional work and impacts to WOTUS proposed by the applicant.

UPDATED INFORMATION: The applicant has submitted proposed work to be conducted immediately adjacent to the Stage 1 project location, near the city of Niland, Imperial County, CA (33.22731504, -115.5807114) (Enclosure 1). The adjacent project area is bounded by Noffsinger Road to the South, Davis Road to the East, and the Salton Sea to the West.

The proposed work includes construction of a Well Pad 2 Access Road, Well Pad 2, four geothermal monitoring and injection wells within Well Pad 2, and associated pipelines between the proposed Stage 1 facility and Well Pad 2. The additional work would result in impacts to 9.94 acres of potentially jurisdictional WOTUS from vegetation clearing, grading, the placement of fill, and construction of pipelines. Detailed information on the proposed work is described in the section below.

EXISTING CONDITIONS: The project area is within a subsection of the Western Range and Irrigated Region Land Resource Region (LRR D - 31). Regionally and locally, water flow is heavily controlled via the Imperial Irrigation District's (IID) irrigation network, which supplies virtually all the Imperial Valley's water, the majority of which is to support agriculture. This expansive water delivery system redirects freshwater from the Colorado River to the numerous residential, commercial, and industrial users throughout the Imperial Valley, and then accepts the irrigation return flow. Irrigation return flow exits the network in two primary ways: through the Alamo and New Rivers or directly from terminal drainage endpoints near the Salton Sea. The local topography has been heavily transformed by both the introduction of IID's irrigation network in the early 1900s as well as climatological and ensuing anthropogenic changes that have influenced the Salton Sea's surface water elevation for over a century.

As the Salton Sea shoreline began to recede during the early 2000s, vegetation colonized the newly exposed playa and filled in areas that were inundated only a few years prior. Drone imagery of the present-day configuration (as of August 2022) reveals an assemblage of various vegetation types. Southern cattail (*Typha domingensis*) stands, and similar emergent wetland types are consistently found adjacent to and surrounding drain outlets and often encircling open water areas. At the fringes of these emergent marsh areas are scrub-shrub species, such as invasive tamarisk (*Tamarix* spp.) and iodine bush (*Allenrolfea occidentalis*) that occupy areas primarily along the shoreline. However, pockets of both cattail marsh and open water areas are interspersed throughout small depressions in between ridges of marginally higher elevation that support tamarisk and iodine bush.

The proposed project area is primarily undeveloped land that potentially contains WOTUS (Enclosure 2). The site contains a previously unauthorized 2,080 linear foot extension of S-Berm Road and a 2,176 linear foot extension of the S-drain that start at the intersection of Davis Road and extend to the west along Noffsinger Road. The

surrounding land uses generally include California Department of Fish and Wildlife (CDFW) actively managed waterfowl ponds and agricultural lands to the east, undeveloped land and CDFW waterfowl ponds to the north, undeveloped land and the Sea to the west, and undeveloped land and Morton Bay to the south. While the area immediately adjacent to the project site is undeveloped land, the vast majority of land in the area is agricultural.

PROJECT PURPOSE:

Basic: 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 for the proposed project is to extract produce geothermal energy and extract critical minerals. The project is **not** water dependent.

Overall: 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 overall project purpose of the revised project remains the same as the previous project as it is a portion of the larger project that was publicly noticed on September 8, 2023. See previous public notice for overall project purpose of the larger project. The Corps will determine the final overall project purpose after considering public comment and through the 404(b)(1) alternatives analysis process for the project.

PROPOSED WORK:

The proposed work for the Stage 1 project remains the same as was public noticed on September 8, 2023.

The additional proposed work would consist of construction of the Well Pad 2 Access Road, Well Pad 2, four the geothermal monitoring and injection wells within Well Pad 2, and associated pipelines between the proposed Stage 1 facility and Well Pad 2.

<u>Well Pad 2 Access Road</u>

The Well Pad 2 Access Road would begin at the intersection of the existing S-Berm Road and Davis Road and extend west approximately 5,300 feet, turn north and extend approximately 2,600 feet, and then turn west and extend 1,600 feet to the eastern boundary of proposed Well Pad 2. The Well Pad 2 Access Road would be approximately 32 feet wide, constructed of imported aggregate fill materials with a 2:1 slope along the road edge and a height of three feet. The roadway would be

approximately 32 feet wide and would extend out with 2:1 slope on either side. Three turnouts would be constructed along the length of the access road, two turnouts on the north side of the road and one on the west side. The Road would be constructed on geotextile stabilizing fabric, Tensar® geogrid2 or equivalent material, approximately 24 inches of 1½-inch crushed rock, and 12 inches of Class II aggregate base fill material. Approximately 12,641 cubic yards of Class II aggregate material and 18,380 cubic yards of crushed rock would be used to construct the Road.

Well Pad 2

Well Pad 2 would be constructed west of the terminus of the Well Pad 2 Access Road. Well Pad 2 would be 300 feet by 600 feet and would be constructed on a geotextile stabilizing fabric and Tensar® geogrid, or equivalent material, to create a stable work surface. The geogrid would be filled with approximately 18 inches of crushed rock, which would be covered with 12 inches of Class II aggregate base. A Drill Rig Pad with an area of (400 feet x 100 feet) and a thickness of 24 inches of crushed rock additional to the 18 inches in the well pad would be placed on the center of the well pad to provide additional support during the drilling operations, compacted to engineering guidelines. The surface of the well pad would be approximately 28 inches above the existing site grade. A one-foot-tall berm would be located at the outer perimeter of the well pad for storm water management, in accordance with County requirements. The berm would have a 2:1 slope and would tie-in to the existing grade at the base of the slope. A total of 6,735 cubic yards of Class II aggregate material and 13,215 cubic yards of crushed rock would be used to construct Well Pad 2 and a six-foot high fence would surround the area to prevent unauthorized access and vandalism. Up to four geothermal exploration and monitoring wells, intended to be used as brine injection wells, would be drilled at Well Pad 2, not expected to exceed a height of 15 feet above the ground surface or 4 feet in diameter. Each well would include surface casing and several valves extending several feet above the pad surface. Overhead lighting would be constructed on the injection well pads, with all lighting angled toward the ground.

Above ground pipelines would be constructed to interconnect the injection wells to the power plant site facilities. The pipelines would be constructed at ground level on pipeline supports on drilled foundations approximately every 20 feet along the pipeline routes. The pipelines would use a cattleguard type crossing at the S Drain to avoid impacts on the irrigation drains, and the crossing will be constructed in collaboration with IID. Pipeline construction would be conducted concurrently with construction of the power plant. The brine injection pipeline would be either cement-lined carbon steel, alloy, or a combination of both. The brine injection pipeline would be approximately 24-30 inches in diameter and will be insulated then covered with a protective metal sheath appropriately colored to blend with the surrounding area.

AVOIDANCE AND MINIMIZATION: The applicant has provided the following information in support of efforts to avoid and/or minimize impacts to the aquatic environment: Impacts to wetlands and waters have been avoided to the

maximum extent practicable; however, due to the location of the geothermal and mineral resources and the need to ensure sufficient distance between the production and injection zones, some impacts to wetlands and waters are unavoidable. Specific measures to reduce impacts included locating the well pad as close as is feasible to the production zone, siting the well pad and access road on upland playa where available, utilizing the existing dirt road along the S-Drain and reducing the access road from a two lane 50m wide road to a single lane 30m wide road with turnouts.

COMPENSATORY MITIGATION: The applicant offered the following compensatory mitigation plan to offset unavoidable functional loss to the aquatic environment:

The proposed project would require impacting 9.94 acres of wetland waters of the U.S. within the project area, and the impacts are unavoidable. CTR proposes to mitigate permanent wetland impacts through the enhancement and creation of freshwater marsh habitat within Section 35 of the HKG Property. The Section 35 Mitigation Plan is a permittee-responsible mitigation plan proposed as part of the Stage 1 404 Permit Application and described in the Hell's Kitchen Geothermal PowerCo1 & LithiumCo1 Mitigation & Monitoring Plan. The plan is being revised at the request of USACE and the EPA to reduce the overall quantity of water required for the design, and the new design will accommodate the additional acres of impact from Well Pad 2 and the access road. The revised mitigation plan would be approved by USACE and EPA and described in the final Hell's Kitchen Geothermal PowerCo1 & LithiumCo1 Mitigation & Monitoring Plan.

CULTURAL RESOURCES:

The Corps is evaluating the undertaking for effects to historic properties as required under Section 106 of the National Historic Preservation Act. This public notice serves to inform the public of the proposed undertaking and invites comments including those from local, State, and Federal government Agencies with respect to historic resources. Our final determination relative to historic resource impacts may be subject to additional coordination with the State Historic Preservation Officer, federally recognized tribes and other interested parties.

The applicant submitted a supplemental cultural resources report for the new project area that included information on the new Area of Potential Effect (APE) including all areas proposed for construction, access and staging. Survey efforts included an archaeological records search and a Phase 1 pedestrian survey of the proposed Well Pad 2 location, Well Pad 2 Access Road, and the linear pipeline.

The applicant conducted an archaeological records search from the South Coastal Information Center (SCIC) of the California Historical Resources Information System (SCIC- CHRIS) at San Diego State University. The records search included a review of all recorded historic-era and prehistoric archaeological sites within a 0.5-mile radius of the Project APE, as well as a review of known cultural resource surveys and technical reports. The records search did not identify any previously recorded cultural resources

within the Project APE; however, one resource, P-13-0000452, is directly south of the proposed Well Pad 2 Access Road.

P-13-0000452 is known as the Southeast Lake Cahuilla Active Cultural District. The Southeast Lake Cahuilla Active Volcanic Cultural District (SELCAVCD) is a nearly 12,000-acre district, encompassing various geological and archaeological features of importance to local tribes. Key features include Obsidian Butte, Rock Hill, Red Island, North Red Hill, Mullet Island, and mudpots along the Calipatria fault. The landscape is recognized as a Tribal Cultural Resource, sacred cultural landscape, and traditional cultural property by local Tribes including the Cahuilla, Cocopah, Quechan, Kumeyaay, Kamia, and Kwaaymii. The District has been recommended for listing on the National Register of Historic Places (NRHP) under Criterion A for its association with Tribal use of the southeast shoreline of the Salton Sea; under Criterion B for its association with Legendary Figures significant to the local Tribes and its association with Alvino Siva, as a distinguished elder of the Cahuilla people; and under Criterion D for its significance to the local Tribes as a dynamic and changing sacred landscape. The District has also been found to maintain integrity of location, design, setting, materials, feeling, and association.

A phase 1 pedestrian survey was also completed for the new APE. The archaeologist examined the APE with parallel transects spaced at 10-meter intervals where not constrained by dense vegetation. The western portion of the Project APE was located within wetlands. In that location, transects running parallel to the waterline were completed. The APE was documented with color digital photographs. No cultural materials were observed.

In summary, according to the information provided, no cultural resources have been identified within the Project APE. A review of historic topographic maps and aerial photographs revealed that the Project APE and surrounding areas remained vacant throughout the historic period and through the present. Additionally, a previous geoarchaeological analysis completed by CRM TECH determined that the Project APE and vicinity are relatively low in sensitivity for intact subsurface archaeological deposits

The District Engineer's final eligibility and effect determination will be based upon coordination with the SHPO and/or THPO, as appropriate and required, and with full consideration given to the proposed undertaking's potential direct and indirect effects on historic properties within the Corps-identified permit area.

ENDANGERED SPECIES: The Corps has performed an initial review of the application, the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC), to determine if any threatened, endangered, proposed, or candidate species, as well as the proposed and final designated critical habitat may occur in the vicinity of the proposed project. Based on this initial review, the Corps has made a preliminary determination that the proposed project may affect the listed species and critical habitat listed below. Information provided by the applicant indicates the federally endangered Yuma Ridgway's rail (*Rallus obsoletus Yumanensis*) and desert pupfish (*Cyprinodon*

macularius) may be present and have suitable habitat within the project area. Therefore, consultation under Section 7 of the Endangered Species Act will be required.

This notice serves as request to the USFWS for any additional information on whether any listed or proposed to be listed endangered or threatened species or critical habitat may be present in the area which would be affected by the proposed activity.

NAVIGATION: The proposed structure or activity is not located in the vicinity of a federal navigation channel.

SECTION 408: The applicant will not require permission under Section 14 of the Rivers and Harbors Act of 1899 (33 USC 408) because the activity, in whole or in part, would not alter, occupy, or use a Corps Civil Works project.

WATER QUALITY CERTIFICATION: 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.

NOTE: This public notice is being issued based on information furnished by the applicant. This information has not been verified or evaluated to ensure compliance with laws and regulation governing the regulatory program.

EVALUATION: 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 benefits, 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 cumulative impacts thereof; among these are conservation, economics, esthetics, general environmental concerns, wetlands, historical properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food, and fiber production, mineral needs, considerations of property ownership, and in general, the needs and welfare of the people. Evaluation of the impact of the activity on the public interest will also include application of the guidelines promulgated by the Administrator, EPA, under authority of Section 404(b) of the Clean Water Act or the criteria established under authority of Section 102(a) of the Marine Protection Research and Sanctuaries Act of 1972. A permit will be granted unless its issuance is found to be contrary to the public interest.

COMMENTS: The Corps 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 to determine whether to issue, modify, condition, or deny a

permit for this proposal. To make this determination, comments are used to assess impacts to 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 (EA) and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act (NEPA). Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

The Los Angeles District will receive written comments on the proposed work, as outlined above, until **December 20, 2025**. Comments should be submitted electronically via the Regulatory Request System (RRS) at https://rrs.usace.army.mil/rrs or to Kasey Sirkin at L.K.Sirkin@usace.army.mil.

Please refer to the permit application number in your comments.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider the application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing. Requests for a public hearing will be granted, unless the District Engineer determines that the issues raised are insubstantial or there is otherwise no valid interest to be served by a hearing.

Enclosure 1. Well Pad 2 Access Road and Well Pad Footprint

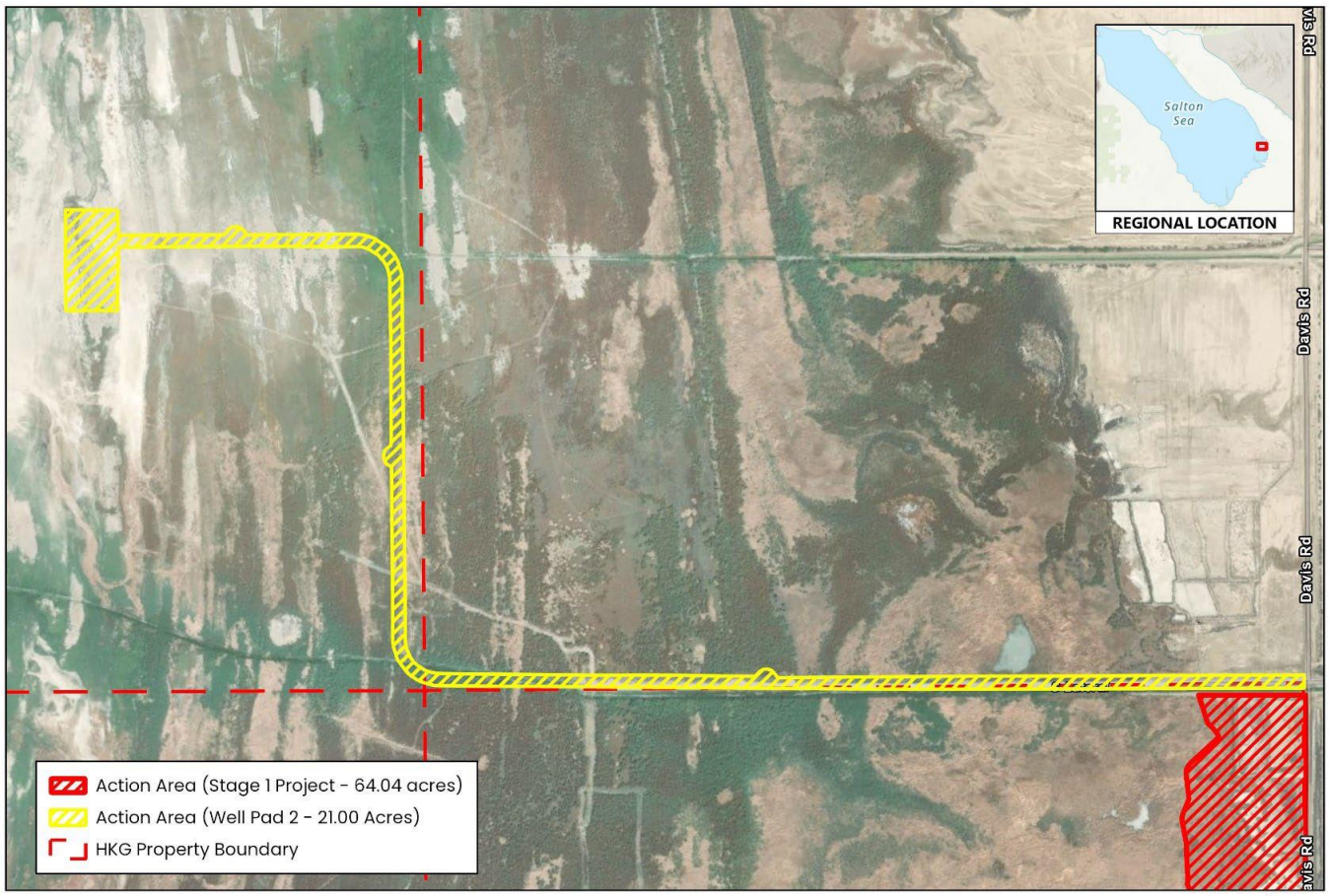

FIGURE 3: WELL PAD 2 ACTION AREA

NAD 1983/2011 STATE PLANE CALIFORNIA ZONE VI
DATE REVISED: 10/27/2025 BY DS
SOURCE: ESRI, HKG, PLSS
BASEMAP: ESRI WORLD IMAGERY (03/09/2022)

Enclosure 2. Potential WOTUS within new project location

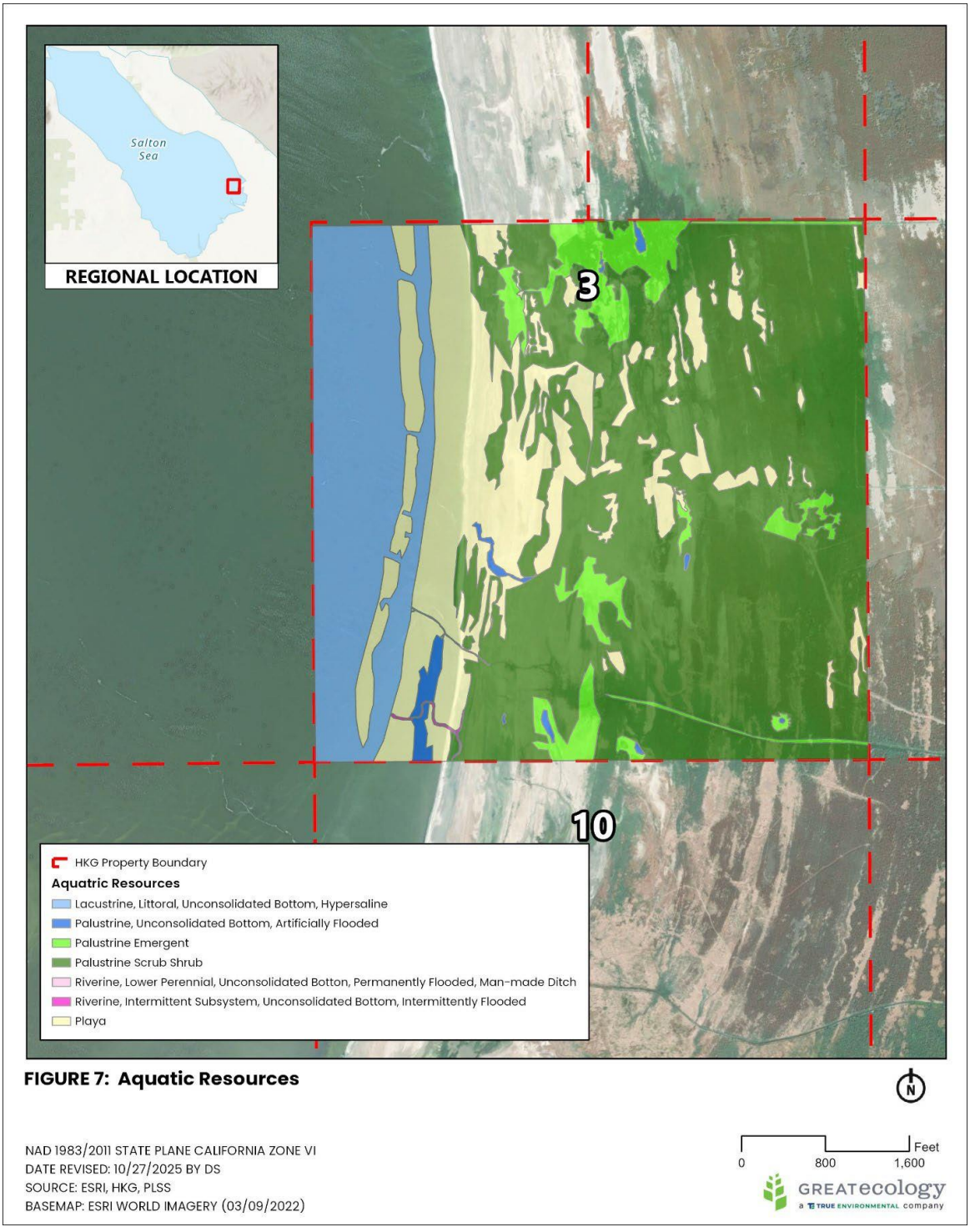

FIGURE 7: Aquatic Resources

NAD 1983/2011 STATE PLANE CALIFORNIA ZONE VI
DATE REVISED: 10/27/2025 BY DS
SOURCE: ESRI, HKG, PLSS
BASEMAP: ESRI WORLD IMAGERY (03/09/2022)