

Appendix D-28

Jurisdictional Wetlands

Jurisdictional Wetlands and Other Waters – Alta East Wind Energy Project

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This memorandum describes jurisdictional wetlands and other waters that are present at Alta East Wind Energy Project site and a proposed offsite transmission line connecting the project site to adjacent existing Alta Windpower Development, LLC (AWD) projects. This evaluation is based on a desk-top review, field delineation of jurisdictional features, and experience with other projects in the vicinity.

The project location is shown on Figures 1 and 2. The U. S. Geological Survey National Hydrography Dataset (NHD) blue-line streams are classified as intermittent; these are shown on Figure 2. Additionally, the National Wetland Institute (NWI) has mapped riverine wetlands on Cache Creek, near the project site (Figures 2 and 3).

The project is located in the southwestern portion of the South Lahontan Hydrologic Region (HR). Within the South Lahontan HR, the project straddles the Antelope Hydrologic Unit (HU) and the Fremont HU (see Figure 3). Runoff from the majority of the site flows southeasterly toward Rogers Dry Lake and Rosamond Dry Lake (Figure 3), and infiltrates in soils of the bajada. In some areas, the Los Angeles aqueduct may provide a hydrologic barrier to offsite runoff.

Federal and state laws and regulations that are applicable to wetlands and other waters, methodology used to delineate jurisdictional features, and preliminary review of results are provided in the following sections.

1.0 Overview of Applicable Regulations

1.1 Federal Regulations

Federal Clean Water Act

The CWA seeks to restore and maintain the chemical, physical, and biological integrity of the nation's water. The CWA sets up a system of water quality standards, discharge limitations, and authorization requirements. Authorizations associated with Sections 401 and 404 of the CWA (described below) may be required where waters of the U.S. would be affected by projects.

- Section 401 – Section 401 of the CWA (governed by 33 United States Code [USC] 1341) and 40 Code of Federal Regulations (CFR) 121 requires a Water Quality Certification

from the State Water Resources Control Board (State Board) or Regional Water Quality Control Board (RWQCB) when a project (1) requires a federal license or permit (such as a Section 404 permit), and (2) will result in a discharge to waters of the U.S. The certification may be conditioned. Project activities that typically result in a discharge subject to Section 401 Water Quality Certification are the construction and subsequent operation of a facility.

- Section 404 – Activities that have the potential to discharge fill materials into waters of the U.S., including adjacent wetlands, are regulated under Section 404 of the CWA, governed by 33 USC 1344 and 33 CFR 323, and administered by USACE. Fill activities may be permitted by a Nationwide or Individual Permit. The Nationwide Permit (NWP) Program involves certain activities that have been pre-authorized by USACE because USACE has determined that such activities would have minimal individual and cumulative adverse effects on the aquatic environment. The Individual Permit (IP) program applies to projects that do not meet the significance thresholds or general permit conditions of the NWP program. Under Section 404 (b)(1) guidelines, permittees are allowed to discharge dredged or fill material into the aquatic system only if there is no practicable alternative that will have fewer adverse impacts.

On January 15, 2003, the U.S. Environmental Protection Agency (EPA) and USACE issued joint guidance for determining jurisdiction. USACE and EPA concluded that jurisdiction should not be asserted over isolated waters that are both intrastate and non-navigable, where the only basis for the assertion is the Migratory Bird Rule. Where a wetland is found to be “adjacent” to a navigable water or tributary to navigable water, USACE field staff should assert jurisdiction (USACE and EPA, 2003).

On June 5, 2007, USACE and EPA issued additional guidance. In summary, jurisdiction will be asserted over (1) traditional navigable waters, (2) wetlands adjacent to traditional navigable waters, (3) non-navigable tributaries of traditional navigable waters that are relatively permanent where the tributaries typically flow year-round or have continuous flow at least seasonally (typically 3 months), and (4) wetlands that directly abut such tributaries.

USACE issued Regulatory Guidance Letter No. 08-02 on June 26, 2008, which provided clarification on conducting jurisdictional determinations (USACE, 2008). Specific requirements resulting from this guidance include the following: (1) use of the Approved Jurisdictional Determination Form to provide information to the USACE to make a “significant nexus” ruling; and (2) use of the Preliminary Jurisdictional Process and Approved Jurisdictional Process to expedite applications where there is clear evidence of jurisdictional waters and/or wetlands (Preliminary Jurisdictional Process), or where there is not clear evidence and the project must go through the “significant nexus” test (Approved Jurisdictional Process).

Previous Jurisdictional Determinations

Determinations have been issued recently by the USACE for nearby water features. An approved jurisdictional determination was received from the USACE Los Angeles District office (File No. SPL-2010-01014-BAH) concluding that waters within the Alta-Oak Creek Mojave and Alta Infill (Alta Wind I-VI and Alta Wind VIII) projects located in the Oak Creek watershed (including portions of Oak Creek) were not under USACE jurisdiction

because they are isolated, with no significant nexus to a traditional navigable water. Any intermittent and ephemeral drainages or other water features on the project site would also be considered isolated, with no significant nexus to a traditional navigable water, and not regulated under the CWA.

1.2 State Regulations

As indicated above, the State of California has authority for issuance of CWA Section 401 Water Quality Certifications for projects that require a CWA Section 404 permit from the USACE. Furthermore, the State regulates discharges of waste to non-federal waters of the State, pursuant to the Porter-Cologne Water Quality Control Act (Porter-Cologne).

Porter-Cologne

Water Code section 13260 requires “any person discharging waste, or proposing to discharge waste, within any region that could affect waters of the State to file a report of waste discharge (an application for waste discharge requirements)” (Water Code §13260(a)(1)). The term “waters of the State” is defined as “any surface water or groundwater, including saline waters, within the boundaries of the state” (Water Code §13050(e)).

Under Porter-Cologne, dischargers must notify the regional water board when a project will result in the discharge of dredged or fill material to waters of the State, and the RWQCB is required to issue or waive waste discharge requirements (WDRs) whenever it receives a report of discharge:

The regional board, after any necessary hearing, shall prescribe requirements as to the nature of any proposed discharge, existing discharge, or material change in an existing discharge... with relation to the conditions existing in the disposal area or receiving waters upon, or into which the discharge is made or proposed. The requirements shall implement any relevant water quality control plans that have been adopted, and shall take into consideration the beneficial uses to be protected, the water quality objectives reasonably required for that purpose ...(Water Code § 13263(a)).

Any excavation or fill placement within these features would require authorization under WDRs to be issued by the Lahontan RWQCB. For construction projects having small dredge/fill impacts to non-federal waters of the State, and that are not required to obtain a National Pollutant Discharge Elimination System (NPDES) permit (i.e., the General Construction Permit adopted by the State Board), coverage under general WDRs may be obtained from the Lahontan RWQCB (R6T-2003-0004). Discharges of fill into waters of the State have been authorized under these WDRs for other wind energy projects in the project vicinity.

Section 1602 of the California Fish and Game Code

This code regulates the alteration of the bed, bank, or channel of a stream, river, or lake, including ephemeral washes. The limit of jurisdiction is subject to the judgment of the California Department of Fish and Game (CDFG) and can include up to the 100-year floodplain level. The Fish and Game Code states that “an entity may not substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel or bank of any river, stream or lake...unless certain conditions are met.” Activities

that have the potential to affect jurisdictional areas (i.e., drainages on the project site, including intermittent/ephemeral streams) will require a Streambed Alteration Agreement (SAA) from CDFG. The SAA will specify conditions and mitigation measures that will minimize impacts on water and riparian resources from proposed actions.

3.0 Field Methods

During surveys conducted from April 25–30, 2011, CH2M HILL delineated waters of the State potentially subject to CDFG and RWQCB jurisdiction that could be affected by construction and operation of the project. Field delineations were conducted by field biologists and wetland scientists having substantial experience performing jurisdictional delineations in arid environments. Field methodology and preliminary results are provided below. Representative photographs of stream crossing are attached.

Prior to conducting field surveys, aerial photographs, high-resolution topographic maps, and maps of NHD blue-line streams and NWI wetlands were used to determine potential locations of waters of the State. Surveys for linear facilities (i.e., turbine strings, collection lines, access roads) were conducted within a 400-foot buffer area surrounding the alignment (200 feet either side of the centerline); and surveys of proposed buildings and temporary construction areas were conducted within a 500-foot buffer area surrounding the footprint of the feature. Spatial data for project boundaries, survey areas, and potential drainage features were uploaded onto global positioning system (GPS) equipment having sub-meter accuracy to assist with site navigation and mapping. In the field, transects were walked along linear features and 200 feet on either side of the centerline of these features. For project structures and temporary construction areas, transects were walked perpendicular to the direction of stream flow. Spacing of transects was sufficient to document the presence of any stream or wetland features that might be present. Surveys of a proposed offsite transmission line were also conducted within a 400-foot buffer area surrounding the alignment (200 feet on either side of the centerline).

The RWQCB/CDFG jurisdictional boundaries were identified by measuring the stream widths at the tops of banks (TOB), maximum flood-prone area (if banks were not present), or the edges of the driplines of riparian vegetation, if present. Channel depths were visually estimated at the thalweg (defined as the deepest part of the cross-sectional channel). Changes in vegetation, streambed, and soil characteristics were noted.

Most of the streams surveyed were typical of arid ephemeral streams – they were relatively narrow with a single channel and well-defined banks that would contain higher volume flow. Some streams surveyed were alluvial washes or fans. These systems often contained braided and/or multiple channels with islands that are most likely within the active floodplain or flood-prone area. In these systems, the TOB width captures those island/terraces that are part of the active floodplain contained within the braided channels. The active floodplain within these systems contained typical alluvial fan scrub vegetation that was also used to help identify the extent of the active floodplain or flood-prone area.

A 25-foot steel tape measure was used to measure shorter widths and estimate depth. An Impulse 200LR laser range finder was used to measure distances of more than 25 feet and to measure the 200-foot distance to upstream and downstream points.

The stream data was collected at each crossing and recorded using the GPS. Wetlands were assumed to be present if hydrophytic vegetation and wetland hydrology were observed. Photographs were taken at each stream crossing point.

Following field surveys, polygons were created in geographic information system (GIS) for all state jurisdictional stream features, utilizing stream width measurements in conjunction with aerial imagery. Intersections of project features (such as access roads and collector lines) and jurisdictional waters were identified in GIS, and mapped as stream crossings.

4.0 Results

Based on the desktop review, the surveys, and other field evaluations, none of the water features observed on the Project site would be subject to regulation under the federal Clean Water Act.

State jurisdictional ephemeral streams and desert washes were delineated within the survey area. No probable wetlands were delineated as hydrophytic vegetation and no wetland hydrology were observed. In addition, no riparian vegetation was present along stream corridors. The total area of potential waters of the State delineated on site is approximately 42 acres. The portion of Cache Creek on site is approximately 14 acres.

Based on the current preliminary design, proposed project features, such as access roads and collector lines, will intersect ephemeral streams in approximately 99 locations, and will result in approximately 5 acres of dredge/fill impacts (see Figure 4). As shown in Figure 4, crossings are labeled in accordance with the type of project feature present. Access roads are labeled in the 100s, collector lines in the 200s, and in locations where access lines and collector lines occur together they are labeled in the 300s.

As stated above, no riparian or wetland vegetation was observed within the survey areas. Vegetation observed consisted primarily of upland species, as listed in Table 1.

TABLE 1
Plants Observed in the Project Boundary

Common Name	Scientific Name
Indian ricegrass	<i>Achnatherum hymenoides</i>
Desert needlegrass	<i>Achnatherum speciosum</i>
White bursage	<i>Ambrosia dumosa</i>
Fiddleneck	<i>Amsinckia tessellata</i>
Common saltbush	<i>Atriplex polycarpa</i>
Bractscale	<i>Atriplex serenana</i>
Red brome	<i>Bromus madritensis ssp. rubens</i>
Cheat grass	<i>Bromus tectorum</i>
Mojave suncup	<i>Camissonia brevipes</i>
Brittlebush	<i>Encelia farinosa</i>
California ephedra	<i>Ephedra californica</i>

TABLE 1
Plants Observed in the Project Boundary

Common Name	Scientific Name
Interior goldenbush	<i>Ericameria linearifolia</i>
Rubber rabbitbrush	<i>Ericameria nauseosa</i>
California buckwheat	<i>Eriogonum fasciculatum</i>
Redstem filaree	<i>Erodium cicutarium</i>
Rattlesnake weed	<i>Euphorbia albomarginata</i>
Hopsage	<i>Grayia spinosa</i>
Cheesebush	<i>Hymenoclea salsola</i>
California juniper	<i>Juniperus californica</i>
Utah juniper	<i>Juniperus osteosperma</i>
Creosote bush	<i>Larrea tridentata</i>
Desert alyssum	<i>Lepidium fremontii</i>
Scalebroom	<i>Lepidospartum squamatum</i>
Mojave aster	<i>Machaeranthera tortifolia</i>
Beavertail cactus	<i>Opuntia basilaris</i>
Silver cholla	<i>Opuntia echinocarpa</i>
Phacelia	<i>Phacelia</i> sp.
Desert bitterbrush	<i>Purshia tridentata</i> var. <i>glandulosa</i>
Desert bitterbrush	<i>Purshia tridentata</i> var. <i>glandulosa</i>
Chia	<i>Salvia columbariae</i>
Purple sage	<i>Salvia dorrii</i>
Prince's plume	<i>Stanleya pinnata</i>
Tamarisk	<i>Tamarix</i> spp.
Joshua tree	<i>Yucca brevifolia</i>
Mojave yucca	<i>Yucca schidigera</i>

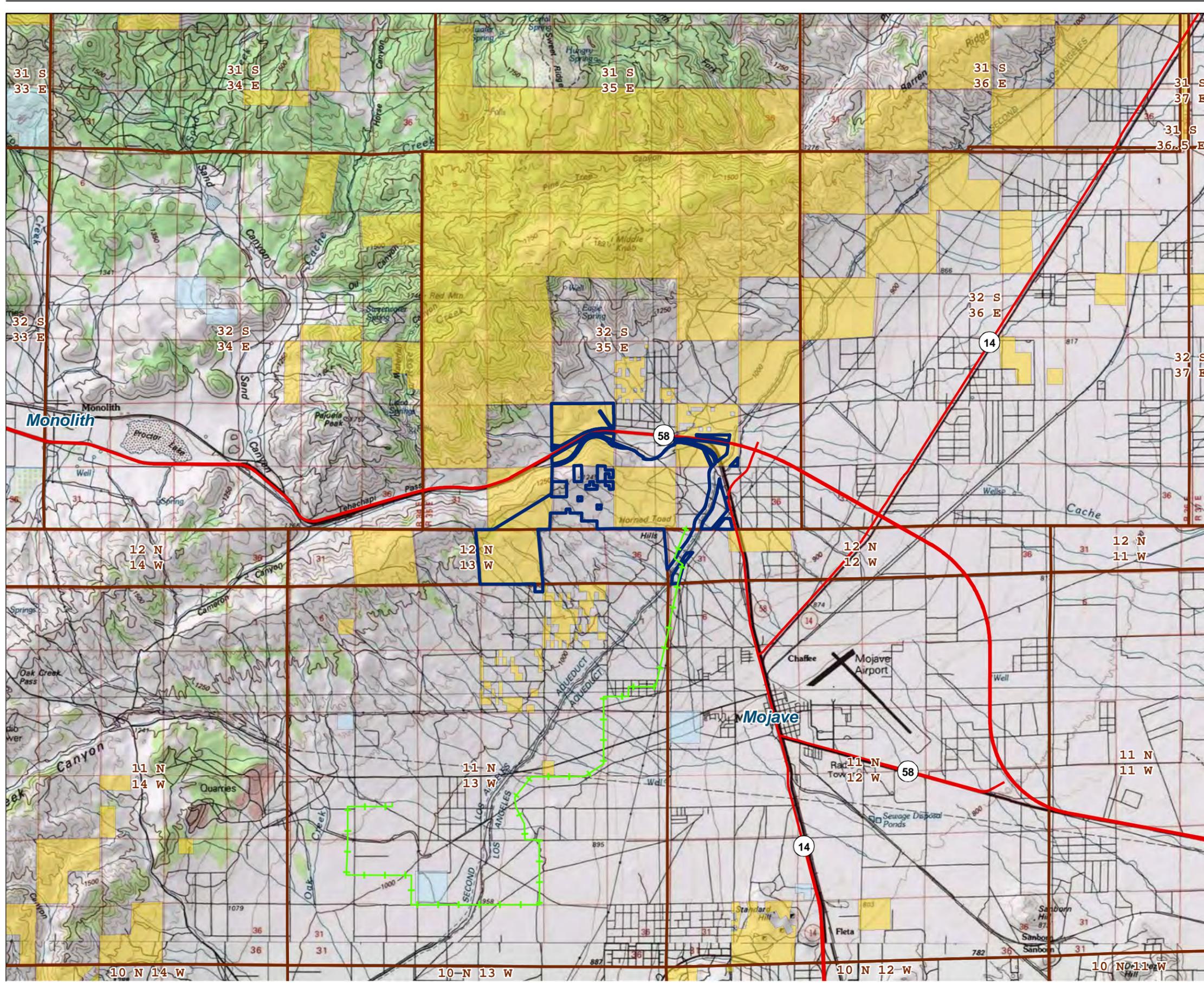
5.0 References

U.S. Army Corps of Engineers (USACE). 2008. Regulatory Guidance Letter 08-02: Jurisdictional Determinations. 26 June.

U.S. Army Corps of Engineers (USACE) and Environmental Protection Agency (EPA). 2003. Federal Register Vol. 68, No. 10. Appendix A: Joint Memorandum.

U.S. Army Corps of Engineers (USACE) and Environmental Protection Agency (EPA). 2007. Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in *Rapanos v. United States & Carabell v. United States*. June 5.

Figures



- LEGEND**
- Project Boundary
 - Transmission Line
 - Townships
 - Highway
- AGENCY**
- BLM
 - Private
 - State

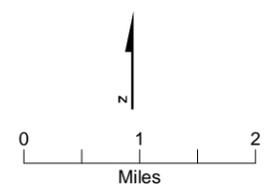
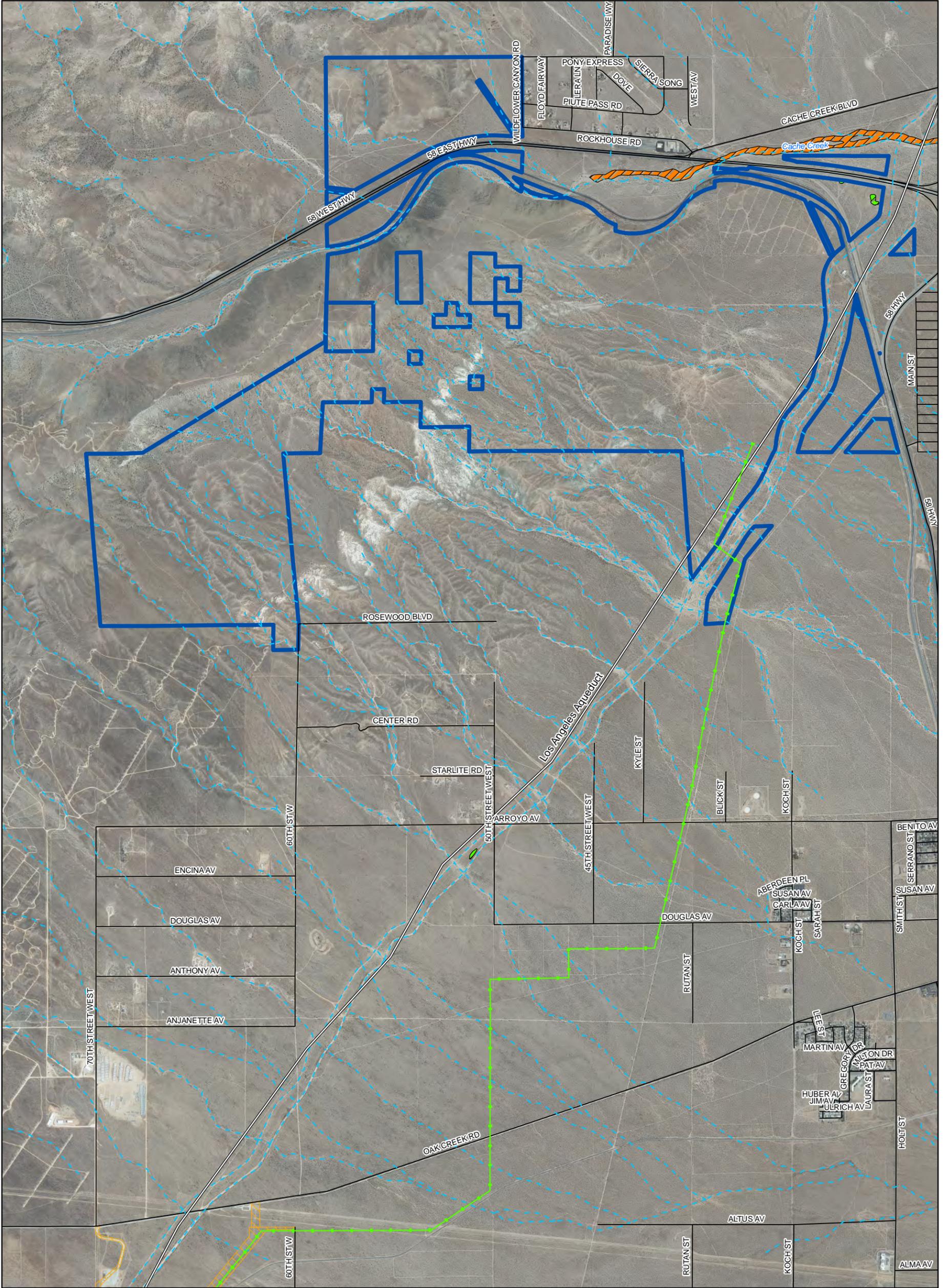


FIGURE 1
Regional Vicinity Map
 Alta East Wind Energy Project
 Kern County, California



LEGEND

- Project Boundary
- NHD Streamline
- Alta Oak Creek Mojave and Alta Infill Shared Areas
- Riverine
- Kern County Roads
- LA Aqueduct
- Transmission Line
- Other

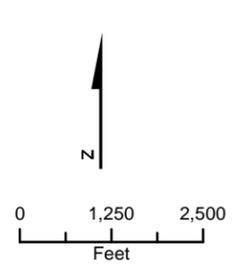
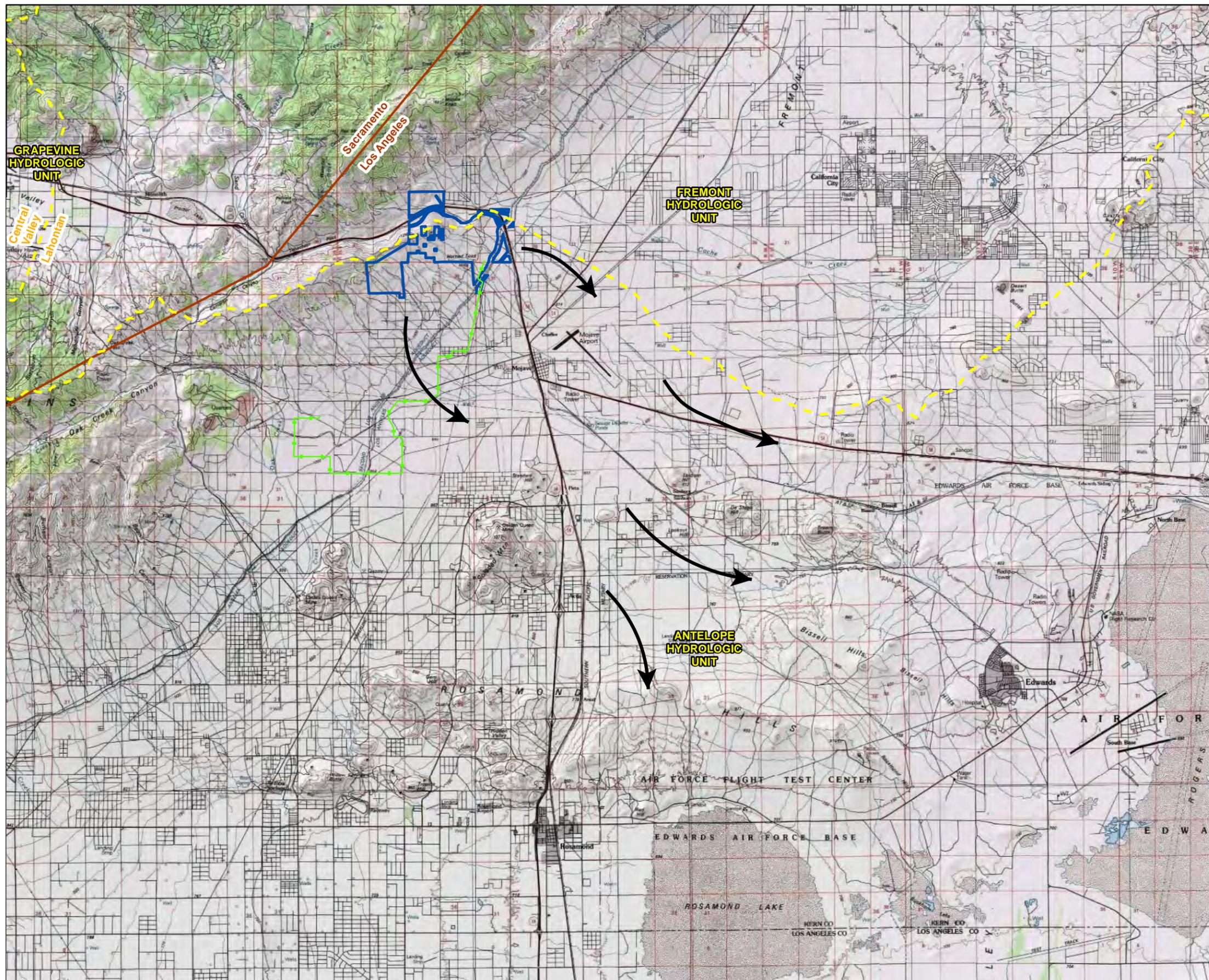


Figure 2
Location Map
 Alta East Wind Energy Project
 Kern County, California



- LEGEND**
- Transmission Line
 - Project Boundary
 - RWQCB
 - USACE Boundary
 - Hydrologic Unit
 - ➔ Surface Water Flow

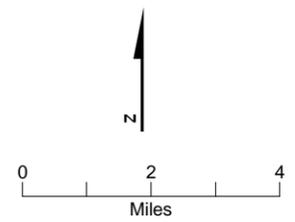
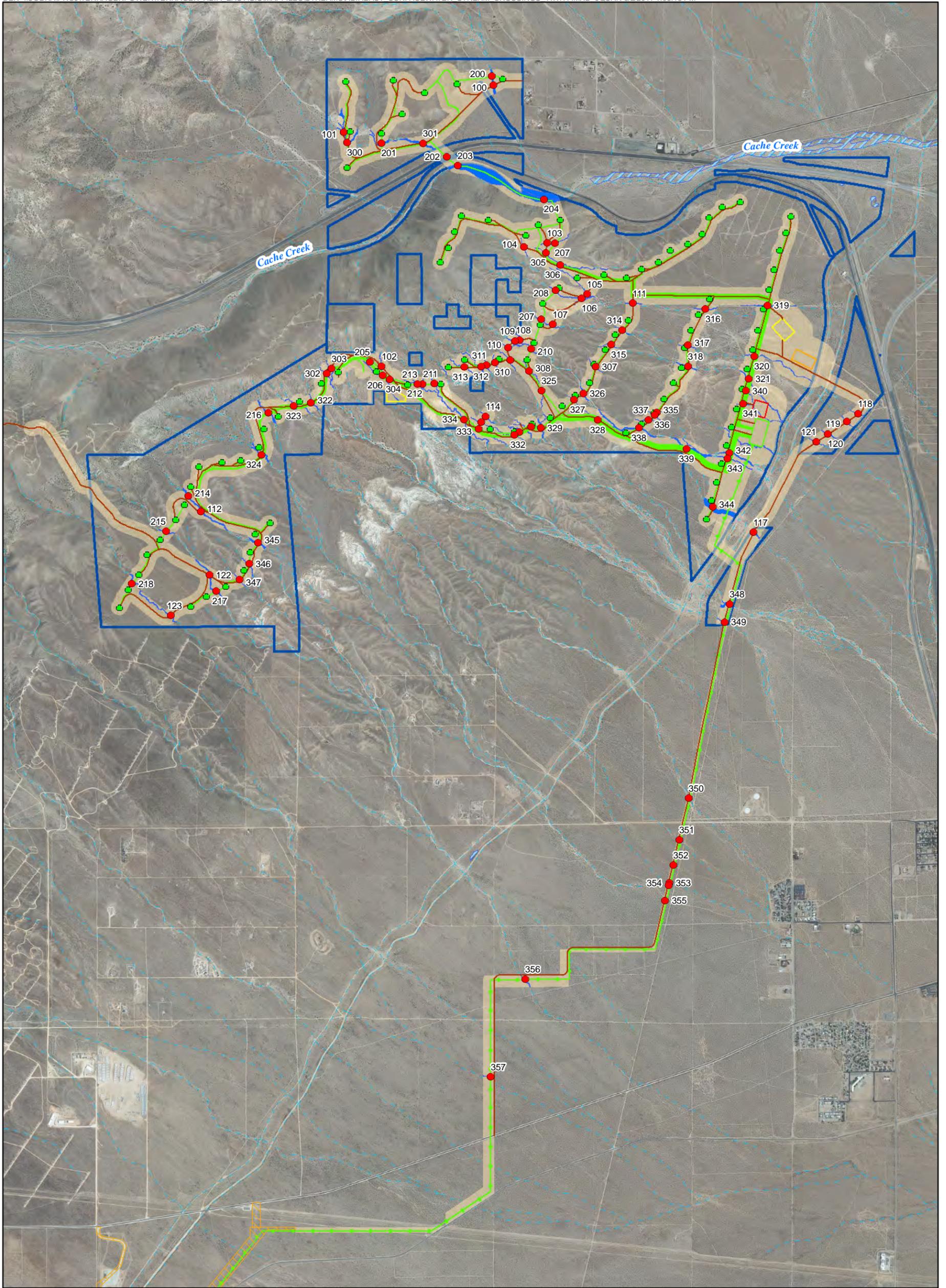


FIGURE 3
Hydrology Map
 Alta East Wind Energy Project
 Kern County, California



LEGEND

● Stream Crossing	□ Laydown
● Turbine	□ Batch Plant
— Collectors	▨ Alta Oak Creek Mojave and Alta Infill Shared Areas
— Access Road	□ Survey Area
— Transmission Line	- - - NHD Streamline
□ Project Boundary	▨ NWI Wetland
□ Substation	□ Stream Delineation
□ O&M Building	

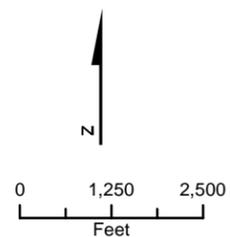
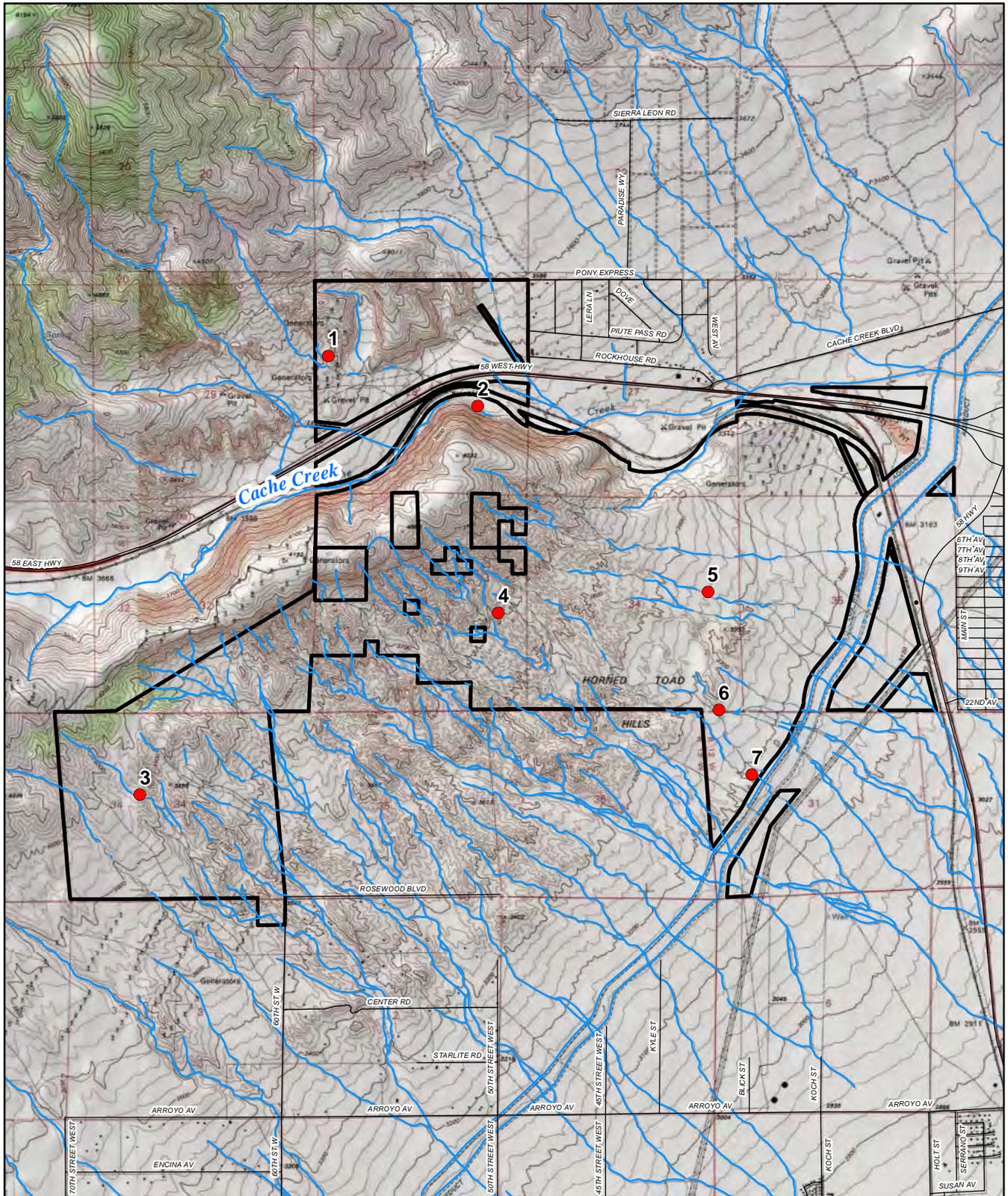


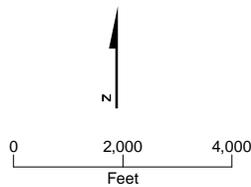
Figure 4
Stream Crossings
 Alta East Wind Energy Project
 Kern County, California

Attachment
Representative Stream Crossing Photographs



LEGEND

- Photo Locations
- Kern County Road
- NHD Streamline
- ▭ Project Area



Overview

Alta East Wind Energy Project
Kern County, California



Photo Location 1. Delineated drainage feature, north of Hwy. 58. Approximate elevation 3,704 feet.



Photo Location 2. Delineated drainage feature, Cache Creek, south of Hwy. 58. Approximate elevation 3,423 feet.



Photo Location 3. Delineated drainage feature showing OHV use, southwest side of Project. Approximate elevation 3,841 feet.



Photo Location 4. Delineated drainage feature, south central Project area. Approximate elevation 3,596 feet.



Photo location 5. Delineated drainage feature, east side of Project site. Approximate elevation 3,337 feet.



Photo location 6. Delineated drainage feature, southeast Project area. Approximate elevation 3,260 feet.



Photo location 7. Delineated drainage along transmission line, southeast Project area. Approximate elevation 3,192 feet.