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Subject: Jurisdictional Assessment of Wetlands and Waters Cordova Road Project, Town of Apple Valley, California

WSP USA Environment & Infrastructure Inc. (WSP USA) conducted a jurisdictional assessment of wetlands and water resources for the proposed project located north of Cordova Road, South of Quarry Road, East of Dale Evans Parkway and West of Navajo Road, in the town of Apple Valley, San Bernadino County 1.0 PROJECT LOCATION

The project is entirely within the town of Apple Valley, San Bernardino County, California (Figure 1). It is located primarily on the 7.5-minute Apple Valley North, California, United States Geological Survey (USGS) topographic quadrangle (Figure 2). It is in Section 16 of Township 6 North and Range 3 West. Project topography is relatively flat overall at elevations ranging from approximately 3072 to 3131 feet (936-954 meters). The project consists of three (3) parcels totalling approximately 100-acres, located north of Cordova Road, South of Quarry Road, East of Dachshund Avenue and West of Navajo Road, in the town of Apple Valley, San Bernadino County.

2.0 ENVIRONMENTAL SETTING

The average rainfall for the area is 5.52 inches per year (Western Regional Climate Center). Weather data was recorded in the adjacent city of Victorville. The delineation survey was conducted two days following Tropical Storm Hillary, which contributed approximately 2 inches of rain in the Victorville and Apple Valley areas. There were some puddles of standing water along Cordova Road observed to the day of the survey.

The project site is generally located within the South Lahontan hydrological region (USGS). It is more specifically located within the Upper Mohave hydrologic area within the Mohave hydrologic unit (Hydrologic Unit Code 18090208) (Appendix A – Figure 3).

3.0 REGULATORY FRAMEWORK

3.1 U.S. Army Corps of Engineers

The USACE regulates the discharge of dredged or fill material in waters of the United States (WUS) pursuant to Section 404 of the Clean Water Act (CWA).

3.1.1 Waters of the U.S.

REGULATORY FRAMEWORK

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Waters of the U.S.

The Environmental Protection Agency (EPA) and the Department of the Army (“the agencies”) finalized a rule defining the scope of waters protected under the Clean Water Act on December 30, 2022. In developing this rule, the agencies considered the text of the relevant provisions of the Clean Water Act and the statute as a whole, the scientific record, relevant Supreme Court case law, and the agencies’ experience and technical expertise after more than 45 years of implementing the longstanding pre-2015 regulations defining “waters of the United States.”

This final rule advances the objective of the Clean Water Act and ensures critical protections for the nation’s vital water resources, which support public health, environmental protection, agricultural activity, and economic growth across the United States.

To summarize some of the most applicable highlights, the agencies’ new rule defines WOTUS as:

A. Features that do not require a site-specific evaluation to be determined to be WOTUS

1. Traditional navigable waters
2. Interstate waters
3. Territorial seas
4. Wetlands adjacent to the features identified in A.1 through A.3
5. Tributaries that are “relatively permanent, standing or continuously flowing,”
 - i. Including adjacent wetlands that have a continuous surface connection to these tributaries
6. Impoundments of features that are otherwise considered WOTUS

B. Features that are WOTUS if they are found to have a significant nexus to a Traditional navigable Water, interstate water, or territorial sea

1. Non-relatively permanent tributaries, including ephemeral and intermittent waters
2. Wetlands adjacent to but lacking a continuous connection with the features identified in A.5.
3. Wetlands adjacent to the features identified in B.1.

C. Features that are not WOTUS

1. Aquatic resources that were considered non-jurisdictional under the pre-2015 regulations, subject to agency discretion
 - i. Upland ditches that are not relatively permanent waters
 - ii. Artificial lakes or ponds created in dry land for such purposes as irrigation, stock watering, settling, or rice growing
 - iii. Water-filled depressions created incidental to mining or construction activities, provided those activities are ongoing at the time of the determination

- iv. Areas that would revert to upland in the absence of irrigation
- v. Prior Converted Cropland designated by the Secretary of Agriculture, but only until there is a change of land use from agricultural purposes
- vi. Waste treatment facilities
- vii. Many stormwater facilities constructed in uplands.

The new rule adds substantially to guidance on determining whether a significant nexus exists through “material influence” on connected waters by evaluation of

- distance to a traditional navigable water or relatively permanent water;
- hydrologic factors such as volume and duration of water flow;
- size, density, or number of similarly situated waters;
- landscape position and geomorphology; and
- regional climate and effects on water flow.

Of these five factors, distance and hydrology will receive the greatest weight in the assessing the strength of connectivity and material influence.

Supreme Court Decisions

Solid Waste Agency of Northern Cook County

On January 9, 2001, the Supreme Court of the United States issued a decision on *Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers, et al.* with respect to whether the USACE could assert jurisdiction over isolated waters. The Solid Waste Agency of North Cook County (SWANCC) ruling stated that the USACE does not have jurisdiction over “non-navigable, isolated, intrastate” waters.

Rapanos/Carabell

In the Supreme Court cases of *Rapanos v. United States* and *Carabell v. United States* (herein referred to as *Rapanos*), the court attempted to clarify the extent of USACE jurisdiction under the CWA. The nine Supreme Court justices issued five separate opinions (one plurality opinion, two concurring opinions, and two dissenting opinions) with no single opinion commanding a majority of the Court. In light of the *Rapanos* decision, the USACE will assert jurisdiction over a traditional navigable waterway (TNW), wetlands adjacent to TNWs, non-navigable tributaries of TNWs that are a relatively permanent waterway (RPW) where the tributaries typically flow year-round or have continuous flow at least seasonally (e.g., typically three months) and wetlands that directly abut such tributaries. The USACE will decide jurisdiction over the following waters based on a fact-specific analysis to determine whether they have a significant nexus with a TNW: non-navigable tributaries that are not relatively permanent, wetlands adjacent to non-navigable tributaries that are not RPWs, and wetlands adjacent to but that do not directly abut a non-navigable RPW.

Flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary indicate whether they significantly affect the chemical, physical and biological integrity of downstream TNWs. Analysis of potentially jurisdictional streams includes consideration of

hydrologic and ecologic factors. The consideration of hydrological factors includes volume, duration, and frequency of flow, proximity to traditional navigable waters, size of watershed, average annual rainfall, and average annual winter snowpack. The consideration of ecological factors also includes the ability for tributaries to carry pollutants and flood waters to a TNW, the ability of a tributary to provide aquatic habitat that supports a TNW, the ability of wetlands to trap and filter pollutants or store flood waters, and maintenance of water quality.

Sackett v. EPA Supreme Court

Sackett began backfilling an Idaho lot with dirt to build a home. The Environmental Protection Agency informed Sackett that the property contained wetlands and that the backfilling violated the Clean Water Act, which prohibits discharging pollutants into “the waters of the United States,” 33 U.S.C. 1362(7). The EPA ordered Sackett to restore the site, threatening penalties of over \$40,000 per day. The EPA classified the Sackett wetlands as “waters of the United States” because they were near a ditch that fed into a creek, which fed into Priest Lake, a navigable, intrastate lake. The Ninth Circuit affirmed summary judgment in favor of the EPA.

The Supreme Court reversed. CWA jurisdiction over an adjacent wetland requires that the adjacent body of water constitutes waters of the United States (a relatively permanent body of water connected to traditional interstate navigable waters) and a continuous surface connection between the wetland and that water, making it difficult to determine where the ‘water’ ends and the ‘wetland’ begins.”

The Court reviewed the history of judicial interpretation of “the waters of the United States” and enforcement by federal agencies, which argued that the significant-nexus test was sufficient to establish jurisdiction over “adjacent” wetlands. Under that test, nearly all waters and wetlands are potentially susceptible to regulation, “putting a staggering array of landowners at risk of criminal prosecution for such mundane activities as moving dirt.” The CWA’s use of “waters” encompasses only relatively permanent, standing, or continuously flowing bodies, ordinarily called streams, oceans, rivers, and lakes. Wetlands qualify as “waters of the United States” only if “indistinguishable from waters of the United States,” having a continuous surface connection to bodies that are waters of the United States in their own right, with no clear demarcation between waters and wetlands.

On August 29, 2023, the EPA and USACE announced a final rule amending the 2023 definition of “waters of the United States” to conform with the recent Supreme Court decision in Sackett v. EPA. The ruling removes the significant nexus test and confirms that only drainages with relatively permanent flows will fall under USACE jurisdiction.

3.2 Regional Water Quality Control Board

The RWQCB regulates activities pursuant to Section 401(a)(1) of the CWA. Section 401 of the CWA specifies that certification from the State is required for any applicant requesting a federal license or permit including a Section 404 permit. Through the Porter Cologne Water Quality Control Act, the RWQCB asserts jurisdiction over Waters of the State of California (WSC) which is generally the same as WOTUS but may also include waters not in federal jurisdiction.

The State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State was adopted in April 2020 and put into effect statewide on May 28, 2020 (State Water Resources Control Board, 2020).

The Water Boards define an area as wetland as follows:

An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation.

The Water Code defines WSC broadly to include "any surface water or groundwater, including saline waters, within the boundaries of the state." WSC include all WOTUS but also includes waters not in federal jurisdiction.

The following wetlands are waters of the state:

1. Natural wetlands,
2. Wetlands created by modification of a surface water of the state, and
3. Artificial wetlands that meet any of the following criteria:
 - a. Approved by an agency as compensatory mitigation for impacts to other waters of the state, except where the approving agency explicitly identifies the mitigation as being of limited duration;
 - b. Specifically identified in a water quality control plan as a wetland or other water of the state;
 - c. Resulted from historic human activity, is not subject to ongoing operation and maintenance, and has become a relatively permanent part of the natural landscape; or
 - d. Greater than or equal to one acre in size, unless the artificial wetland was constructed, and is currently used and maintained, primarily for one or more of the following purposes (i.e., the following artificial wetlands are not waters of the state unless they also satisfy the criteria set forth in 2, 3a, or 3b):
 - i. Industrial or municipal wastewater treatment or disposal,
 - ii. Settling of sediment,
 - iii. Detention, retention, infiltration, or treatment of stormwater runoff and other pollutants or runoff subject to regulation under a municipal, construction, or industrial stormwater permitting program,
 - iv. Treatment of surface waters,
 - v. Agricultural crop irrigation or stock watering,
 - vi. Fire suppression,
 - vii. Industrial processing or cooling,
 - viii. Active surface mining – even if the site is managed for interim wetlands functions and values,
 - ix. Log storage,
 - x. Treatment, storage, or distribution of recycled water, or
 - xi. Maximizing groundwater recharge (this does not include wetlands that have incidental groundwater recharge benefits); or
 - xii. Fields flooded for rice growing.

All artificial wetlands that are less than an acre in size and do not satisfy the criteria set forth in 2, 3.a, 3.b, or 3.c are not WSC.

3.3 California Department of Fish and Wildlife

The CDFW regulates water resources under Section 1600-1616 of the California Fish and Game Code. Section 1602 states:

“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, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake (CDFW, 2015).”

Evaluation of CDFW jurisdiction followed guidance in the Fish and Game Code and A Review of Stream Processes and Forms in Dryland Watersheds. In general, under 1602 of the Fish and Game Code, CDFW jurisdiction extends to the maximum extent or expression of a stream on the landscape (CDFW, 2010). It has been the practice of CDFW to define a stream as “a body of water that flows perennially or episodically and that is defined by the area in a channel which water currently flows, or has flowed over a given course during the historic hydrologic course regime, and where the width of its course can reasonably be identified by physical or biological indicators” (Brady and Vyverberg, 2013). Thus, a channel is not defined by a specific flow event, nor by the path of surface water as this path might vary seasonally. Rather, it is CDFW's practice to define the channel based on the topography or elevations of land that confine the water to a definite course when the waters of a creek rise to their highest point.

3.0 METHODS

Prior to conducting fieldwork, the following literature and materials were reviewed:

- Aerial photographs of the project vicinity.
- USGS topographic maps (Figure 2, Appendix A) to determine mapped water features.
- USFWS NWI database (Figure 3, Appendix A).
- USDA soil mapping data (Figure 4, Appendix A).

Field surveys were conducted on 10 February 2023 by WSP USA biologist Dale Hameister. Field surveys included identifying potential jurisdictional wetlands and/or waters of the US/State within the project area by walking the property within the areas to be impacted. The presence of potentially jurisdictional waters was identified within the project area by presence of ordinary high water mark (OHWM) (Lichvar and McColley 2008; Cutis and Lichvar 2010), defined bed and bank, and riparian communities associated with the drainage channel observed within the project area. Data was collected on width and depth of federal and state jurisdiction with Global Positioning System (GPS) using Trimble GeoXT.

Potential wetland features were visually examined for hydrophytic plants, hydric soils, and wetland hydrology (U.S. Army Corps of Engineers [ACOE] 1987 and 2008). Soil pits were dug within the bottom of potential features, and within adjacent uplands to identify changes in soil texture.

The GIS data collected in the field will be overlaid onto aerial photographs to identify project related impacts. Representative site photographs were taken during the field investigation and are included in Appendix B.

The U.S. Department of Agriculture (USDA) Natural Resources Conservation Service on-line Web Soil Survey (USDA 2019) was consulted to determine the soil types mapped within the project area.

The United States Fish and Wildlife Service (USFWS) maintains the National Wetlands Inventory (NWI) to identify wetlands and deepwater habitat including descriptions based on the Cowardin Classification System (Cowardin et. al., 1979).

4.0 RESULTS

The vegetation community present throughout the project area is Creosote Bush Scrub dominated by creosote bush (*Larrea tridentata*) with various co-dominants including Anderson thornbush (*Lycium andersonii*), and burrobush (*Ambrosia salsola*). There were also ten (10) Joshua trees scattered throughout the project area.

Soils mapped within the project area include Helendale-Byman loamy sands, Mirage-Joshua complex, and Nebona-Cuddeback complex.

The Helendale series consists of very deep, well drained soils that formed in alluvium from granitoid rocks. Helendale soils are on fan piedmonts, fan remnants, alluvial fans and terraces. Slopes range from 0 to 15 percent. The mean annual precipitation is about 125 millimeters (5 inches) and the mean annual temperature is about 17 degrees C (62.5 degrees F).

The Mirage series consist of deep, well drained soils that formed in mixed alluvium, dominantly from granitic sources. Mirage soils are on old terraces with well developed erosion pavement and have slopes of 2 to 5 percent. The mean annual precipitation is about 4 inches and the mean annual temperature is about 63 degrees.

The Nebona series consists of shallow, well drained soils that formed in mixed alluvium. Nebona soils are on terraces and have slopes of 2 to 9 percent. The mean annual precipitation is about 4 inches and the mean annual temperature is about 63 degrees F. No signs of redox, staining, or any other wetland soil indicators were observed within the drainage. Therefore, the project area has no evidence of hydric soils. Therefore, the drainage feature within the project site does not meet the minimum criteria to be considered a wetland.

There are several riverine features mapped within the project site in the National Wetland Inventory. These features are areas of bare soil and appear to be washes from an aerial view.

During the field investigation, it was determined that no OHWM or evidence of any recent flows were observed. There had been heavy rain two days prior to the survey so if any features were jurisdictional on-site, then flows should be clearly evident.

There were no signs of OHWM or clearly defined bed and bank features within any of the potential wash features identified during the literature review. Soil pits were dug at several locations and indicated that there were no observable differences in soil profile or texture. There was no difference in surface soil texture or sorting. No wetland indicator or hydric plants were observed associated with the features.

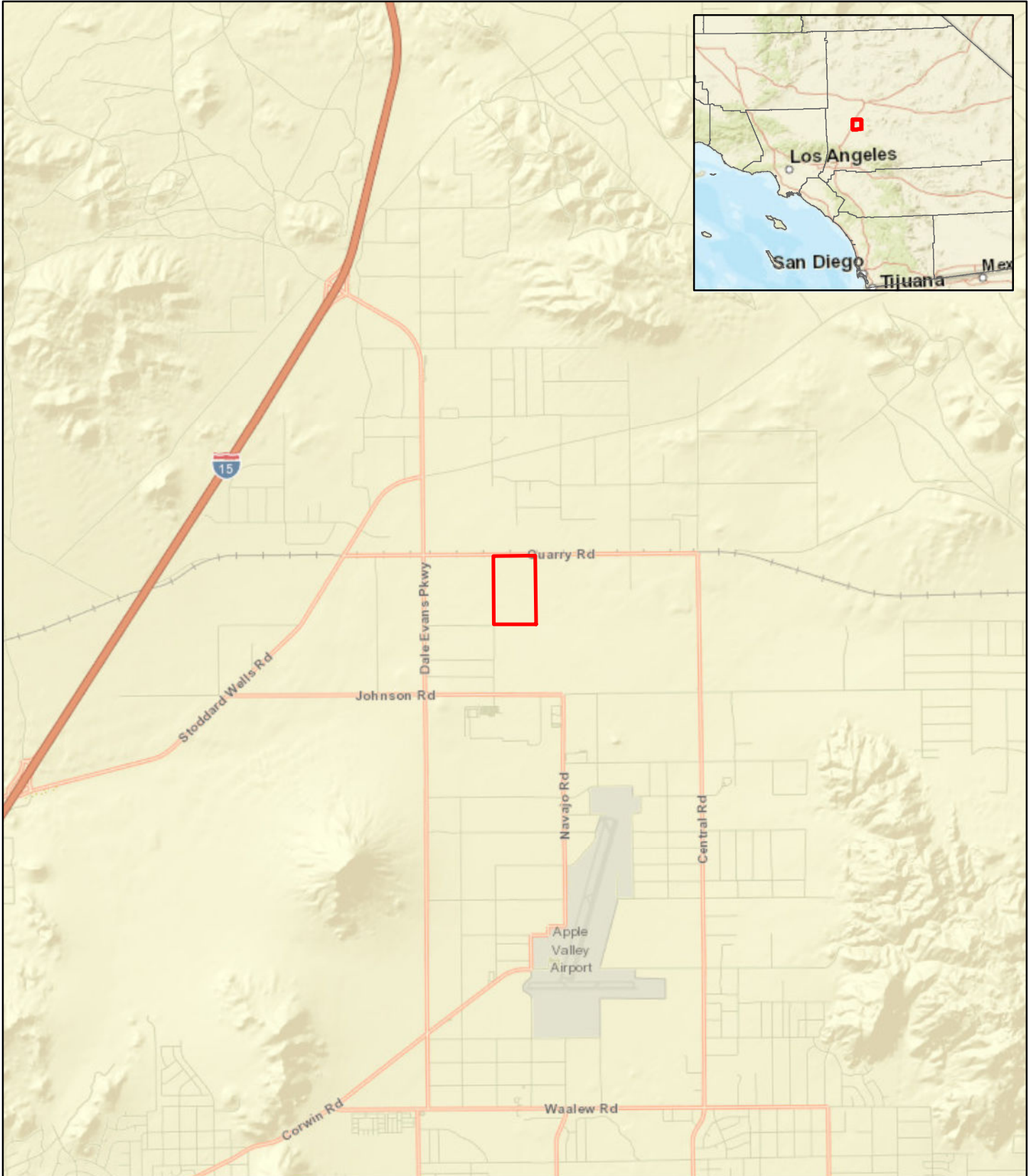
These features did not contain riparian vegetation or hydric soils, did not show evidence of periodic or episodic flow, and do not have a defined bed and bank. The features were determined to be upland erosional features and did not meet the requirements to be considered WOTUS, WSC, or CDFW jurisdictional. These features were evaluated and determine to be non-jurisdictional in an otherwise upland area.

No potential federally regulated wetlands were identified within the impact areas based on lack of hydric soils, hydrophytic vegetation, and wetland hydrology indicators (ACOE 1987 and 2008).

5.0 REFERENCES

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- ACOE. 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region. September.
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- National Resource Conservation Service Field Office Technical Guide (FOTG), <https://efotg.sc.gov.usda.gov/>
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- U.S. Fish and Wildlife Service (USFWS). 2023. National Wetlands Inventory Mapper. From: <http://www.fws.gov/wetlands/Data/Mapper.html>. Accessed September 2023.

Appendix A
Figures



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 Project Boundary

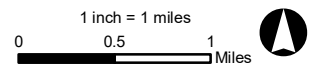
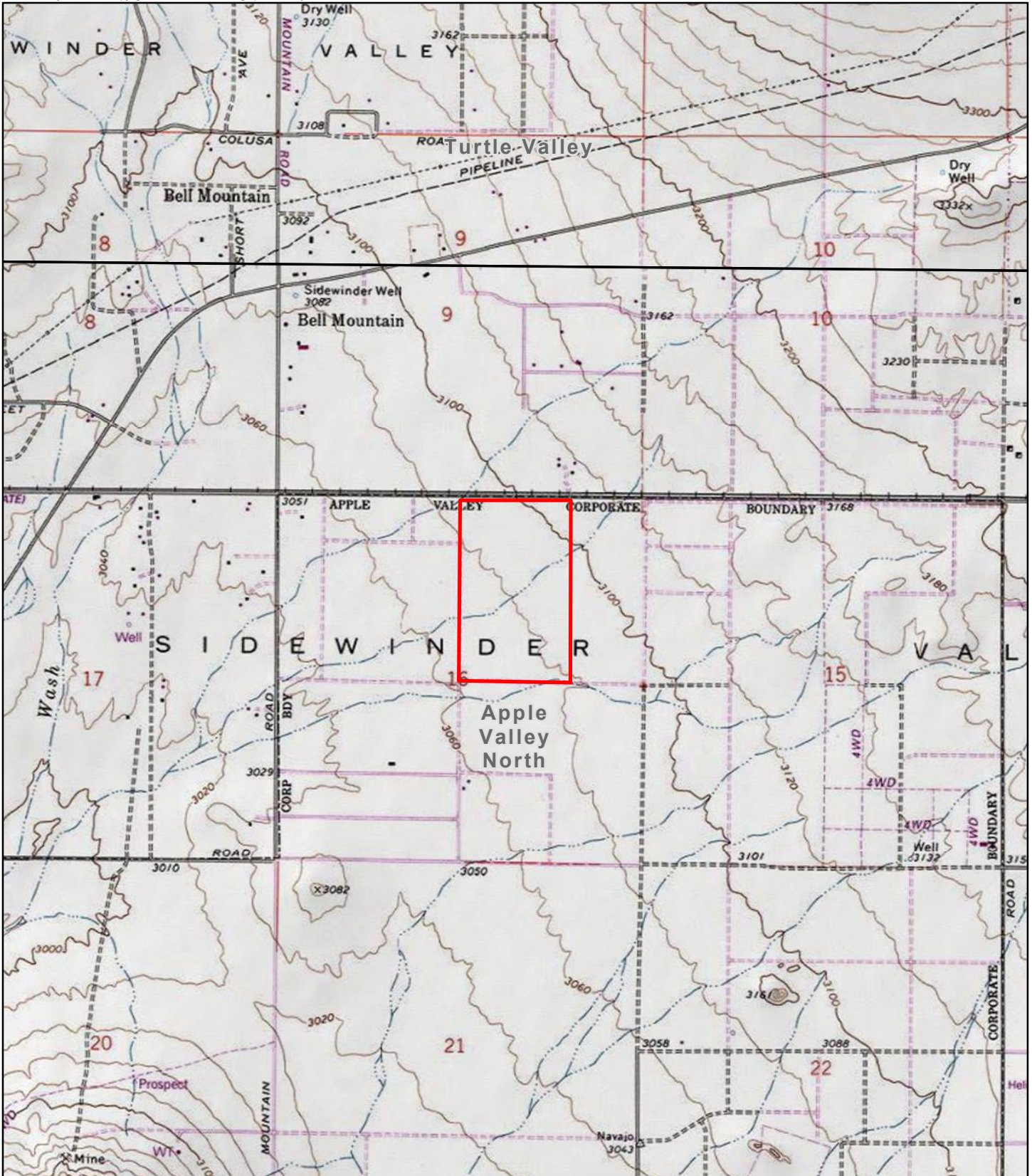
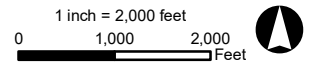


FIGURE 1
Regional Location
Jurisdictional Assessment
Cordova Road Project
Riverside County, California



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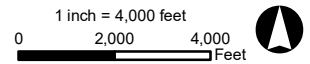


 Project Boundary

FIGURE 2
USGS 7.5' Topo Quad: Apple Valley North
Jurisdictional Assessment
Cordova Road Project
Riverside County, California

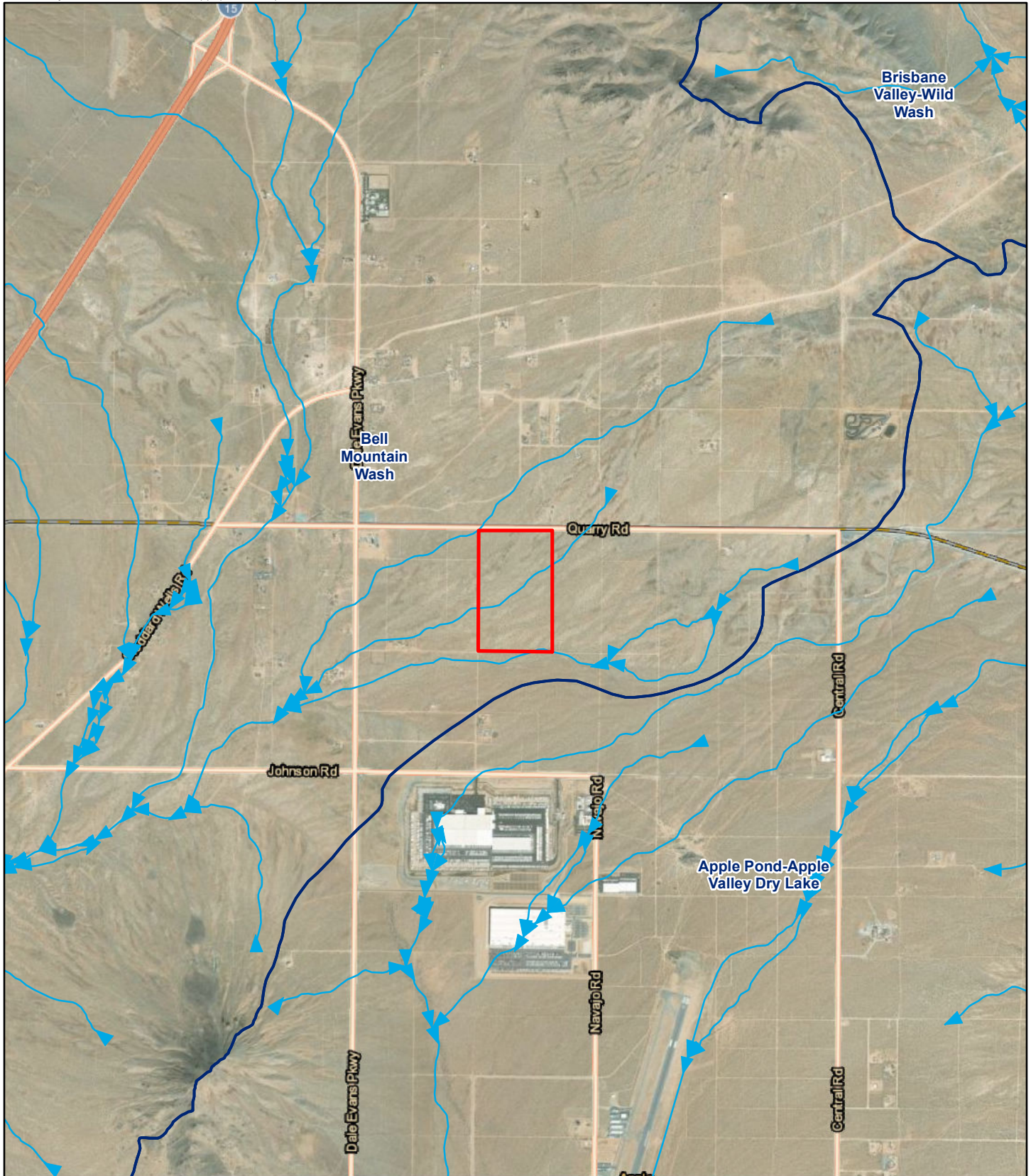


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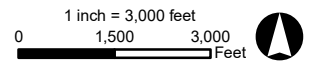


 Project Boundary

FIGURE 3
Vicinity Map
Jurisdictional Assessment
Cordova Road Project
Riverside County, California

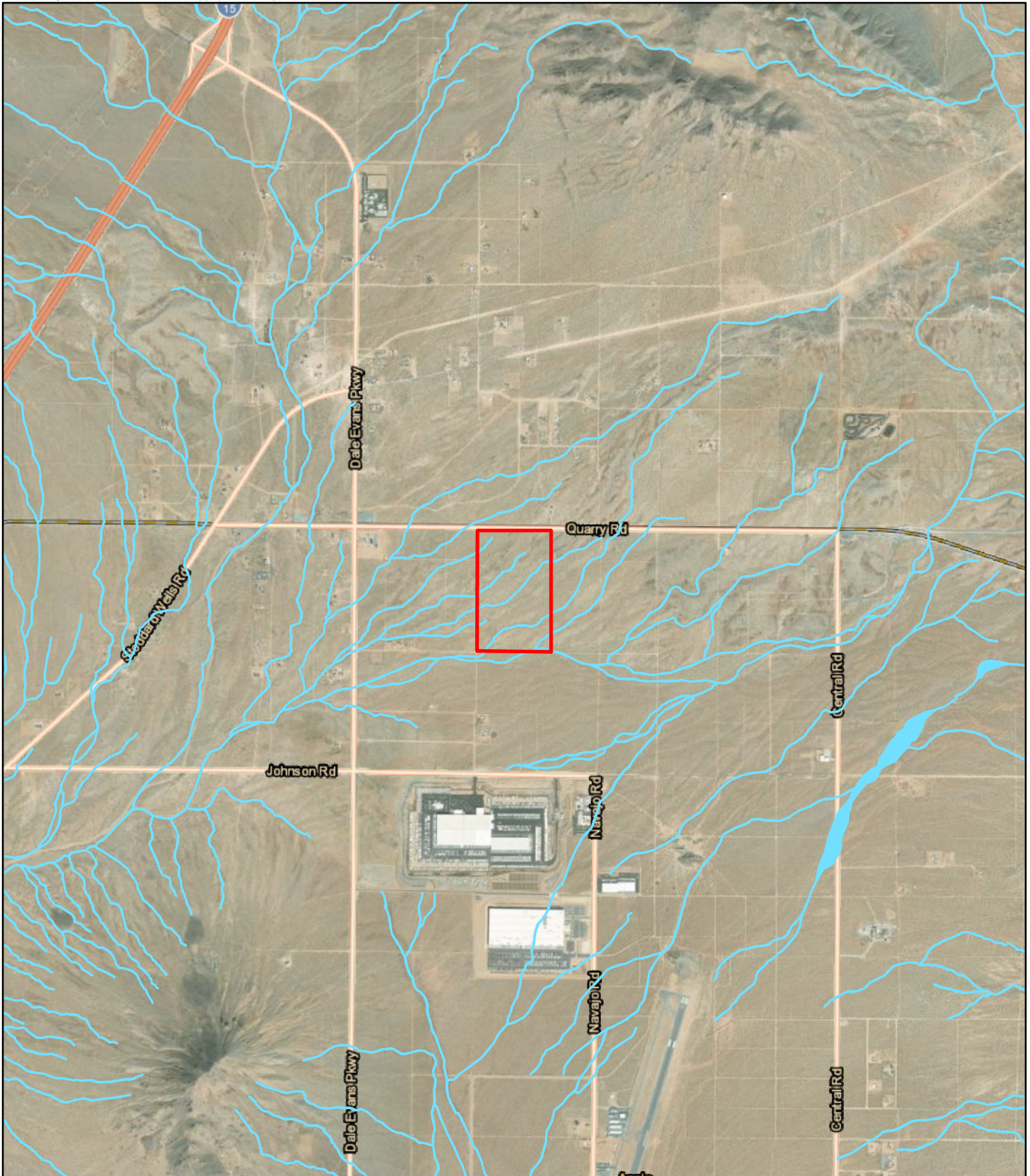


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- Flow Direction
- Project Boundary
- HUC 12 Watershed Boundary

FIGURE 4
Hydrology
Jurisdictional Assessment
Cordova Road Project
Riverside County, California



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-  Project Boundary
-  National Wetlands Inventory
-  Riverine


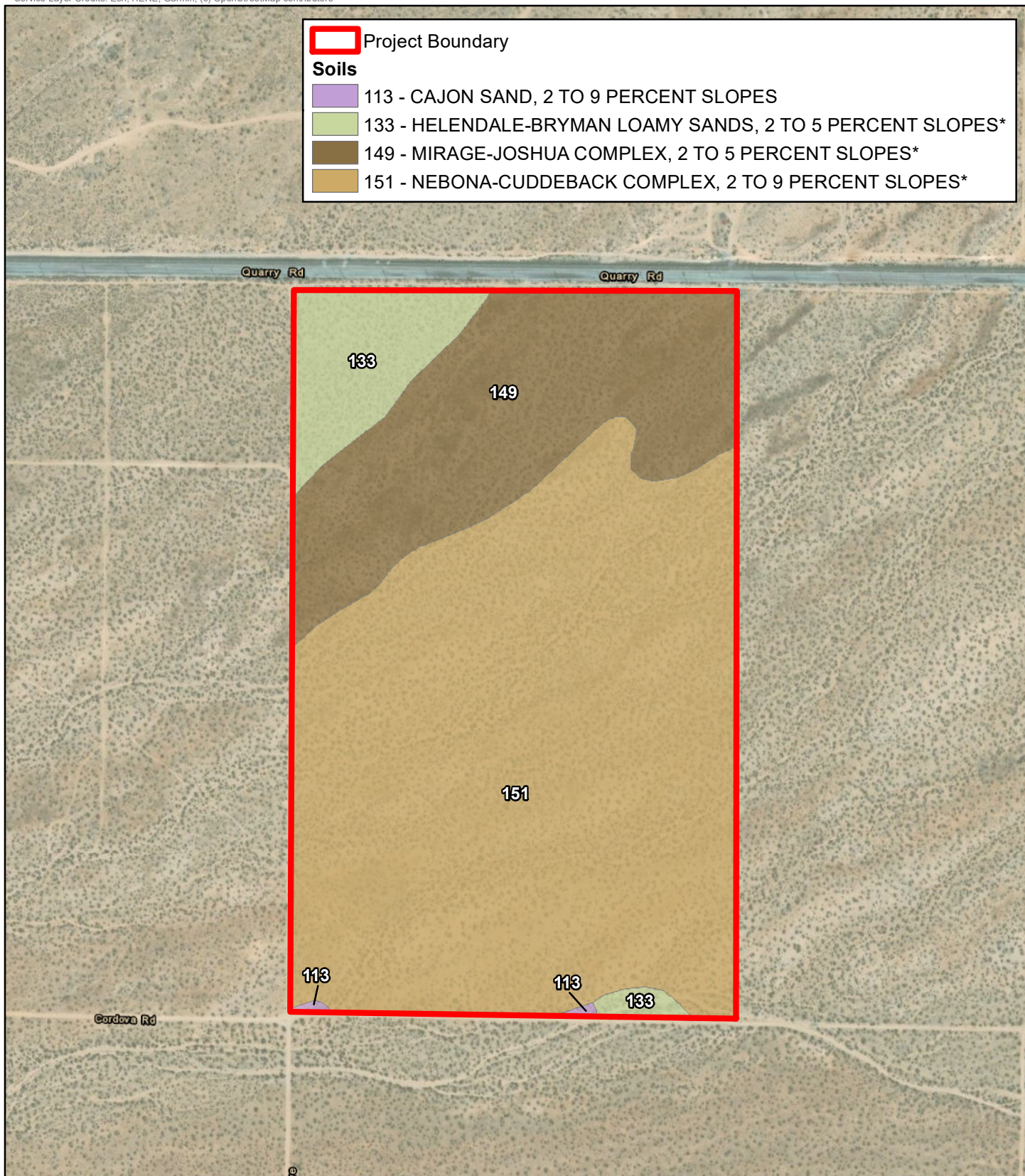
1 inch = 3,000 feet
0 1,500 3,000 Feet 

FIGURE 5
National Wetlands Inventory
Jurisdictional Assessment
Cordova Road Project
Riverside County, California



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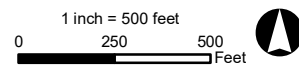


FIGURE 6
Soils
Jurisdictional Assessment
Cordova Road Project
Riverside County, California

Appendix B
Site Photographs



Photo 1: Looking southwest showing an example of features investigated but showing no OWHM or evidence of flow.

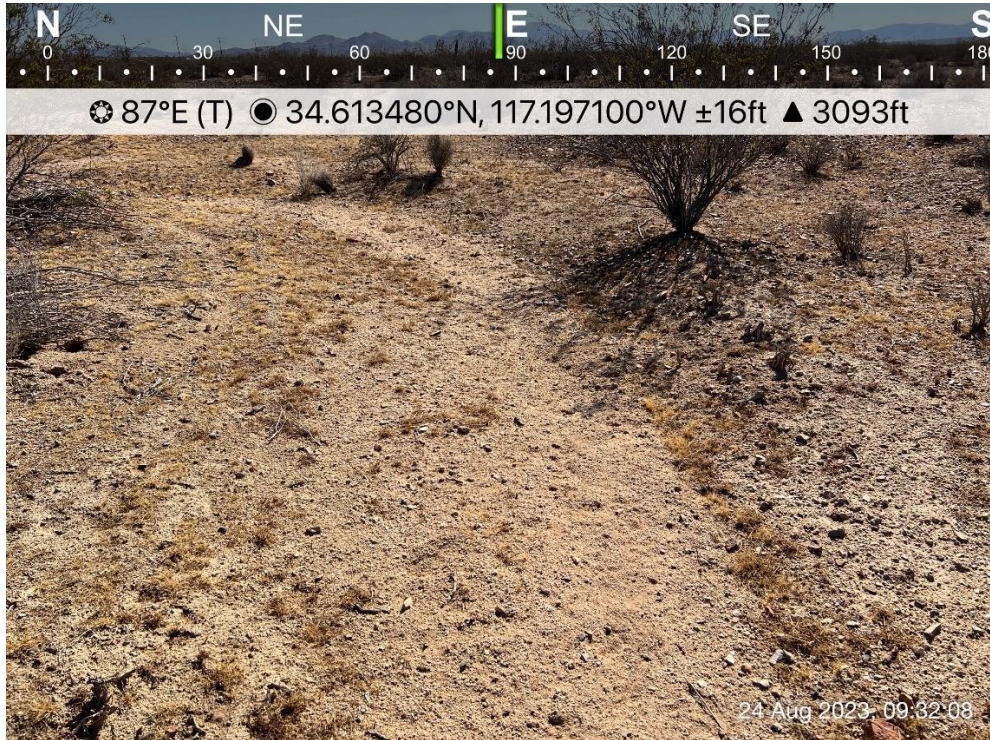


Photo 2: Looking east showing an example of features investigated but showing no OWHM or evidence of flow.