Appendix C
Jurisdictional Assessment of Wetlands and Waters
((Available on the Town website for review)

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

WSP USA Environment & Infrastructure Inc. (WSP USA) conducted a Jurisdictional assessment for aquatic resources for the proposed project on a 39-acre site, located north of Fresno Road, south of Gustine Street, and east of Dakota Road, in the town of Apple Valley, San Bernardino County, California.

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 Town of Apple Valley North, Calif. United States Geological Survey (USGS) quadrangle (Figure 2). It is in Township 6 North, Range 3 West, Section 28. Project topography is level overall at elevations ranging from approximately 2977 to 2996 feet (907-913 meters). The project consists of one (1) parcel totalling approximately 39-acres, located north of Fresno Road, south of Gustine Street, and east of Dakota Road, in the town of Apple Valley, San Bernardino County, California.

2.0 ENVIORNMENTAL SETTING

The average rainfall for the area is 5.52 inches per year (Western Regional Climate Center, 2024). Weather data was recorded in the adjacent city of Victorville.

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.

Categories of Jurisdictional Waters

Under the final rule, the following waters are jurisdictional:

(1) Waters which are: (i) **traditional navigable waters** (TNWs), *i.e.*, all waters currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide; (ii) **territorial seas**; or (iii) **interstate waters**, including interstate wetlands.

(2) **Impoundments** of waters otherwise defined as WUS under this definition, other than impoundments of waters identified under paragraph (5).

(3) **Tributaries** of waters identified in (1) or (2) of this section that:

i. Are relatively permanent, standing or continuously flowing; or

ii. Either alone or in combination with similarly situated waters in the region, significantly affect the chemical, physical, or biological integrity of waters identified in paragraph (1).

- *Tributary is not defined in the regulatory text, but the preamble clarifies that this category includes rivers, streams, lakes, ponds, and impoundments, regardless of their flow regime, that flow directly or indirectly through another water or waters to a TNW, territorial sea, or interstate water.*
- *Tributaries can be natural, modified, or constructed waters and thus, can include ditches and canals.*

(4) **Wetlands adjacent** to:

i. Waters identified in (1); or relatively permanent, standing, or continuously flowing bodies of water identified in (2) or (3)(i) and with a continuous surface connection to those waters;

ii. Waters identified in (2) or (3) when the wetlands either alone or in combination with similarly situated waters in the region, significantly affect the chemical, physical, or biological integrity of waters identified in paragraph (1).

- *Adjacent is defined as "bordering, contiguous, or neighboring." Wetlands separated from other WUS by man-made dikes or barriers, natural river berms, beach dunes, and the like are adjacent wetlands. Shallow subsurface hydrologic connections can establish adjacency.*
- *The preamble says that in a substantial number of cases, adjacent wetlands abut other WUS and that, on the whole, nationwide, adjacent wetlands are within a few hundred feet from other WUS. In arid areas, adjacent wetlands are likely to be much closer than a few hundred feet, but*

in larger floodplains and riparian areas where rainfall is higher, wetlands can be a few hundred feet away and still be "adjacent."

(5) **Intrastate lakes and ponds, streams, or wetlands** not identified in paragraphs (1) through (4) that:

i. Are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to the waters identified in paragraph (1) or (3)(i) of this section; or

ii. That either alone or in combination with similarly situated waters in the region, significantly affect the chemical, physical, or biological integrity of waters identified in paragraph (1).

- *This is the former (a)(3) "other waters" category. As in the proposed rule, the preamble to the final rule again acknowledges that the agencies have not asserted jurisdiction over (a)(3) waters since 2003. And because this category was not discussed in the 2008* Rapanos *Guidance, the application of the relatively permanent and significant nexus tests to this category represents a clear expansion of the pre-2015 regulatory regime.*
- *The preamble commits both Environmental Protection Agency (EPA) and U.S. Army of Corps of Engineers (USACE) headquarters to review all draft AJDs for waters assessed under (a)(5) based on the significant nexus standard.*

Relatively permanent standard

- The final rule does not define or quantify what constitutes "relatively permanent" flow. The preamble merely says relatively permanent includes features that have flowing or standing water year-round or continuously during certain times of the year.

- The Agencies are no longer using the term "seasonal" and appear to be backing away from the "typically three months" language in the 2008 *Rapnanos* Guidance. Moreover, the preamble could be interpreted to say that "relatively permanent" means flow for more than a short duration in direct response to precipitation, *i.e.*, anything more than ephemeral flow. The preamble suggests that multiple storm events in succession could be enough to create relatively permanent flow.

The Agencies interpret "continuous surface connection" to be a physical connection requirement, which does not require a continuous surface water connection. Even linear features (e.g., pipes, swales, ditches) can satisfy the physical connection requirement regardless of how often they carry flow. The preamble does not make it clear whether jurisdiction is dependent on the length/distance of a linear physical connection between an adjacent wetland and a relatively permanent WUS.

Significantly affect (significant nexus) standard

The final rule defines "significantly affect" to mean "a material influence on the chemical, physical, or biological integrity of waters identified in paragraph (a)(1) of this section. To determine whether waters, either alone or in combination with similarly situated waters in the region, have a material influence on the chemical, physical, or biological integrity of waters identified in paragraph (a)(1) of this section," the Agencies will assess the following functions and factors:

o Functions

- Contribution of flow
- Trapping, transformation, filtering, and transport of materials (including nutrients, sediment, and other pollutants)
- Retention and attenuation of floodwaters and runoff
- Modulation of temperature in waters identified in paragraph (a)(1) of this section
- Provision of habitat and food resources for aquatic species located in waters identified in paragraph (a)(1) of this section

o Factors

- The distance from a water identified in paragraph (a)(1) of this section
- Hydrologic factors, such as the frequency, duration, magnitude, timing, and rate of hydrologic connections, including shallow subsurface flow
- The size, density, or number of waters that have been determined to be similarly situated
- Landscape position and geomorphology
- Climatological variables such as temperature, rainfall, and snowpack

Exclusions

The final rule codifies many more exclusions than the proposed rule (and the 1986 regulations). Most of the exclusions resemble those in the 2015 Rule:

- Waste treatment systems, including treatment ponds or lagoons, designed to meet the requirements of the Clean Water Act (CWA).

- *The preamble clarifies that Wastewater Treatment Systems (WTS) constructed prior to the enactment of the CWA can still be excluded and that WTS are not limited to manmade bodies of water consistent with longstanding practice.*

  Prior converted cropland designated by United States Department of Agriculture (USDA). The exclusion would cease upon a change of use, which means that the area is no longer available for the production of agricultural commodities. For CWA purposes, the final authority regarding CWA jurisdiction remains with EPA.

  - o *The preamble implies, but does not clearly state, that lands remain excluded as prior converted cropland even if they change to a non-agricultural use so long as wetland characteristics do not return.*

- Ditches (including roadside ditches) excavated wholly in and draining only dry land and that do not carry a relatively permanent flow of water.

  - o *Excluded ditches would not become jurisdictional solely by virtue of connecting to a downstream WUS or because wetland characteristics develop within the confines of the ditch.*

- Artificially irrigated areas that would revert to dry land if the irrigation ceased.

- Artificial lakes or ponds created by excavating or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing.

  - o *The preamble says this exclusion applies only to lakes/ponds that satisfy the terms of the exclusion, so apparently other types of ponds (e.g., log cleaning ponds) would not qualify.*

- Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating or diking dry land to retain water for primarily aesthetic reasons.

- Waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of WUS.

iii. Swales and erosional features (*e.g.*, gullies, small washes) characterized by low volume, infrequent, or short duration flow

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. USACE, 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 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 TNWs, 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 EPA informed Sackett that the property contained wetlands and that the backfilling violated the CWA, which prohibits discharging pollutants into "WUS," 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 Sacket wetlands as "WUS" 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 WUS (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 "WUS" 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 "WUS" only if "indistinguishable from WUS," having a continuous surface connection to bodies that are WUS 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 "WUS" 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 Regional Water Quality Control Board (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 WUS 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 WUS but also includes waters not in federal jurisdiction.

The following wetlands are WSC:

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 WSC, 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 WSC;
    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 WSC 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 California Department of Fish and Wildlife (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.
- U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) database (Figure 3, Appendix A).
- USDA soil mapping data (Figure 4, Appendix A).

Field surveys were conducted on 3 July 2024 by WSP USA Senior Biologist Dale Hameister and Biologist Emily Urquidi. Field surveys included identifying potential jurisdictional wetlands and/or WUS/WSC within the project area by walking the property within the areas to be impacted. The presence of potentially jurisdictional waters were 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 (USACE 1987 and 2008). Soil pits were dug within the bottom of potential features, and within adjacent uplands to identify changes in soil texture.

The Geographic Information System (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 USDA Natural Resources Conservation Service on-line Web Soil Survey (USDA 2024) was consulted to determine the soil types mapped within the project area.

The USFWS maintains the NWI to identify wetlands and deepwater habitat including descriptions based on the Cowardin Classification System (Cowardin et. al., 1979).

4.0 RESULTS

The dominate shrub present is creosote bush (*Larrea tridentata*). Other native shrub species include Nevada ephedra (*Ephedra nevadensis*), rubber rabbit bush (*Ericameria nauseosa*), and Anderson thornbush (*Lycium andersonii*). Non-native annual species observed include red brome (*Bromus rubens*), red stemmed filaree (*Erodium cicutarium*), old han schismus (*Schismus barbatus*), and cheatgrass (*Bromus tectorum*).

Soils mapped within the project area consisted of Helendale-Byman loamy sands.

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˚C (62.5˚F).

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

After field investigation, no OHWM or evidence of any recent flows were observed. Soil pits were dug at several locations and indicated that there were no observable differences in soil profile or texture from the upland slopes and the bottom of the hill contour and no indicators of hydric soils. There was no difference in surface soil texture or sorting. No wetland indicator or hydric plants were observed associated with the features. In several locations, annual grasses were growing in the bottom of the features which also indicates a lack of flow.

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 erosional features and did not meet the requirements to be considered WUS, 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 soil wetland hydrology indicators (USACE 1987 and 2008).

5.0 REFERENCES

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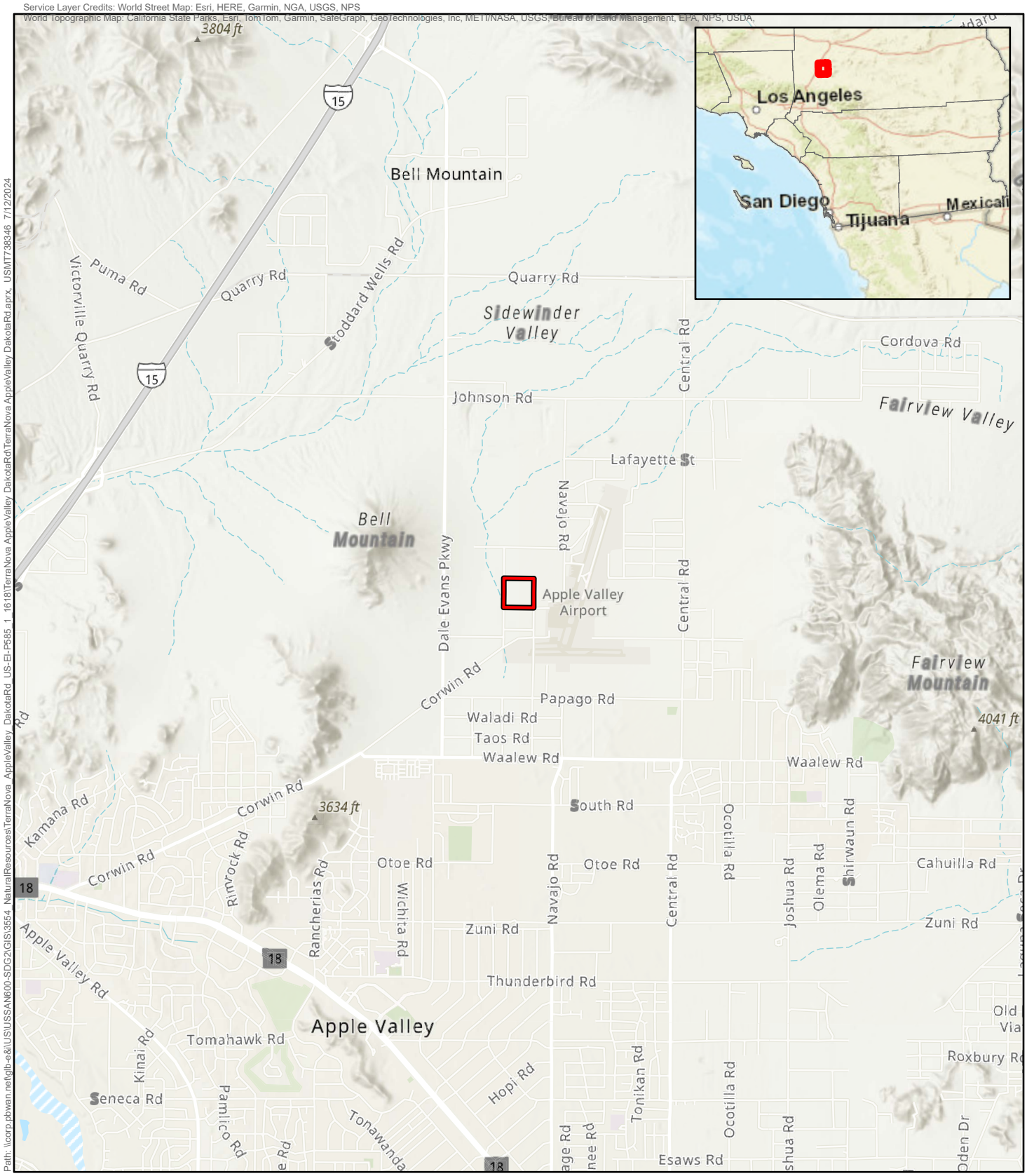
Western Regional Climate Center. Date.

Appendix A

Figures

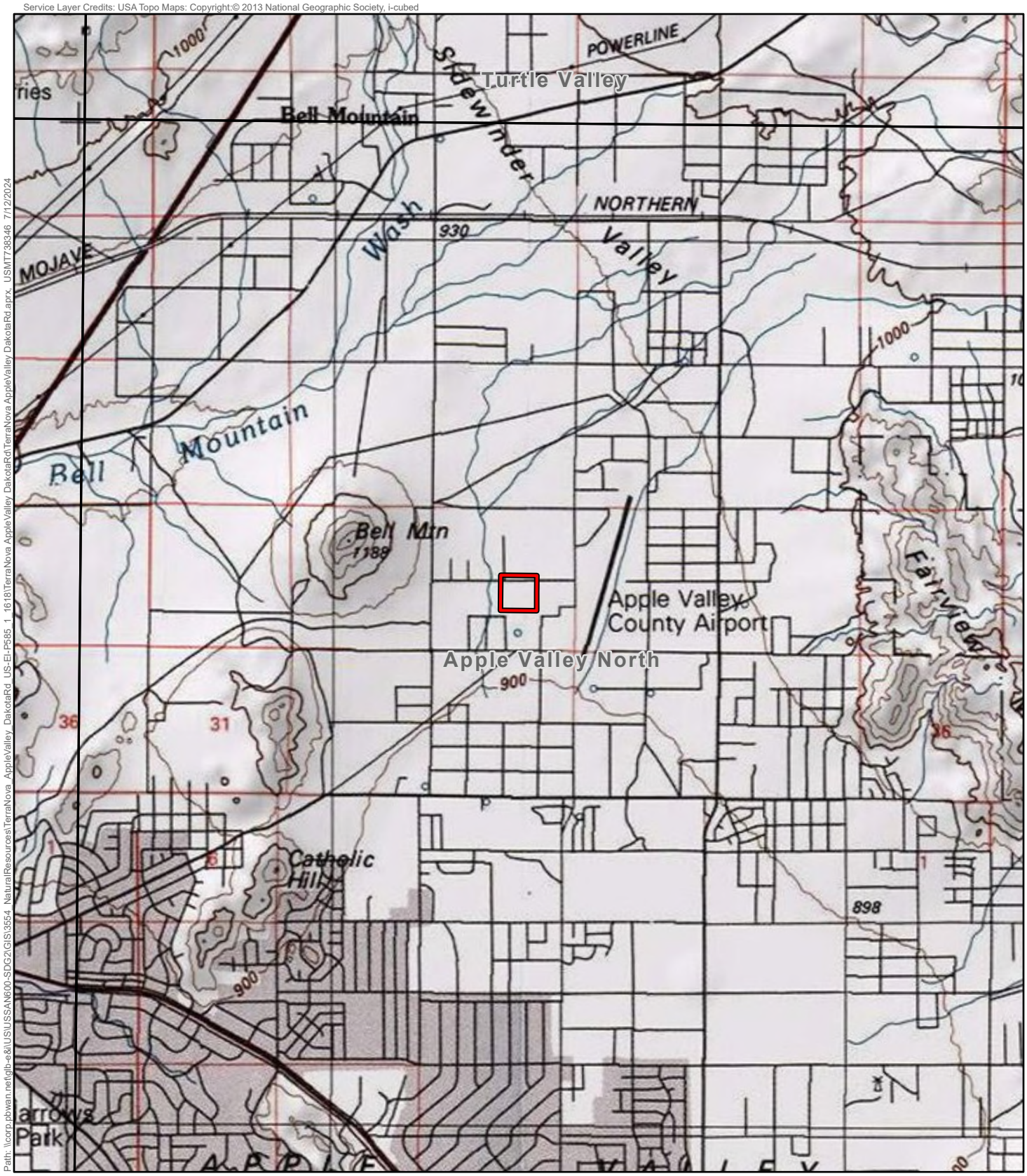


1 inch =1 miles
0 0.5 1 Miles

Project Area

FIGURE 1

Project Region
Jurisdictional Assessment
Terra Nova Dakota Road Project
Apple Valley, CA



1 inch =5,000 feet
0 1,0002,000
Feet

Project Area

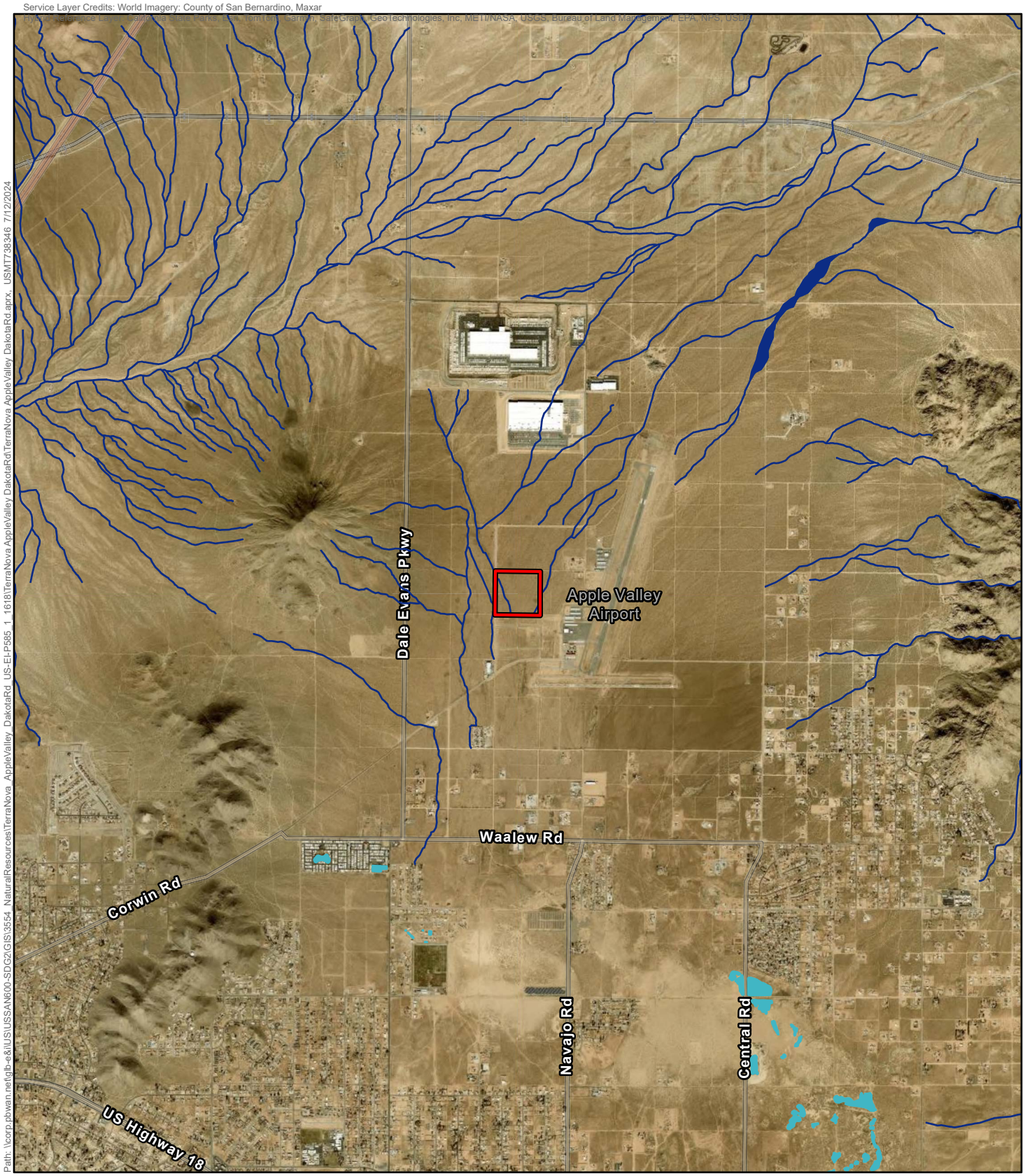
FIGURE 2

USGS 7.5' Topo Quad: Apple Valley
Jurisdictional Assessment
Terra Nova Dakota Road Project
Apple Valley, CA

Project Area
Reservoir
LakePond
Playa
SwampMarsh
Connector
CanalDitch
Pipeline
StreamRiver
ArtificialPath

FIGURE 3

Hydrology
Jurisdictional Assessment
Terra Nova Dakota Road Project
Apple Valley, CA



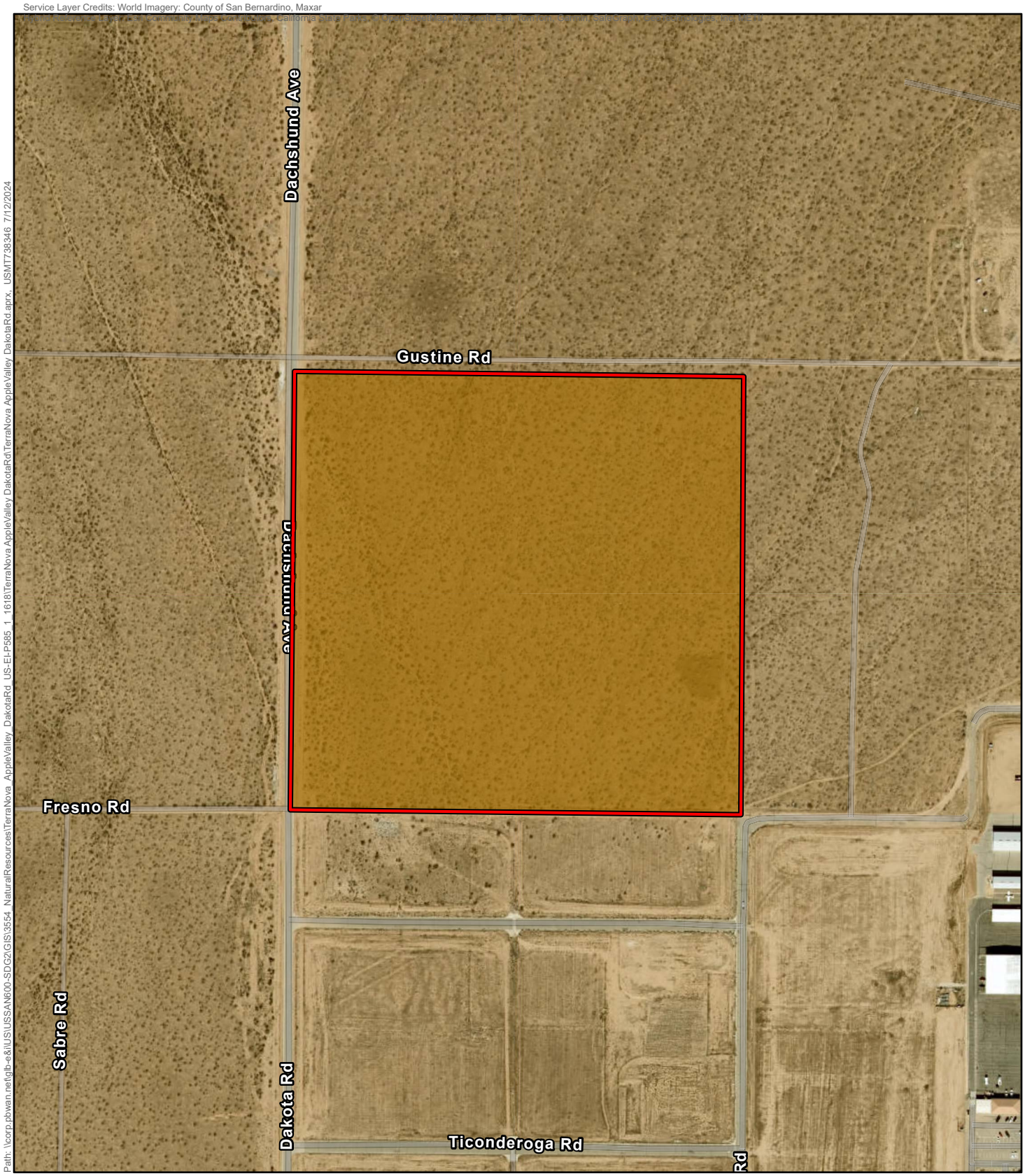
Path: \\corp.pbwan.net\gb-e&i\US\USSAN600-SDG2\GIS\3554_NaturalResources\TerraNova_AppleValley_DakotaRd_US-EI-P585_1_1618\TerraNova AppleValley DakotaRd\TerraNova AppleValley DakotaRd.aprx, USMT738346 7/12/2024

Project Area
Freshwater Pond
Riverine

1 inch =1 miles
0 0.5 1 Miles

FIGURE 4

NWI
Jurisdictional Assessment
Terra Nova Dakota Road Project
Apple Valley, CA



Project Area

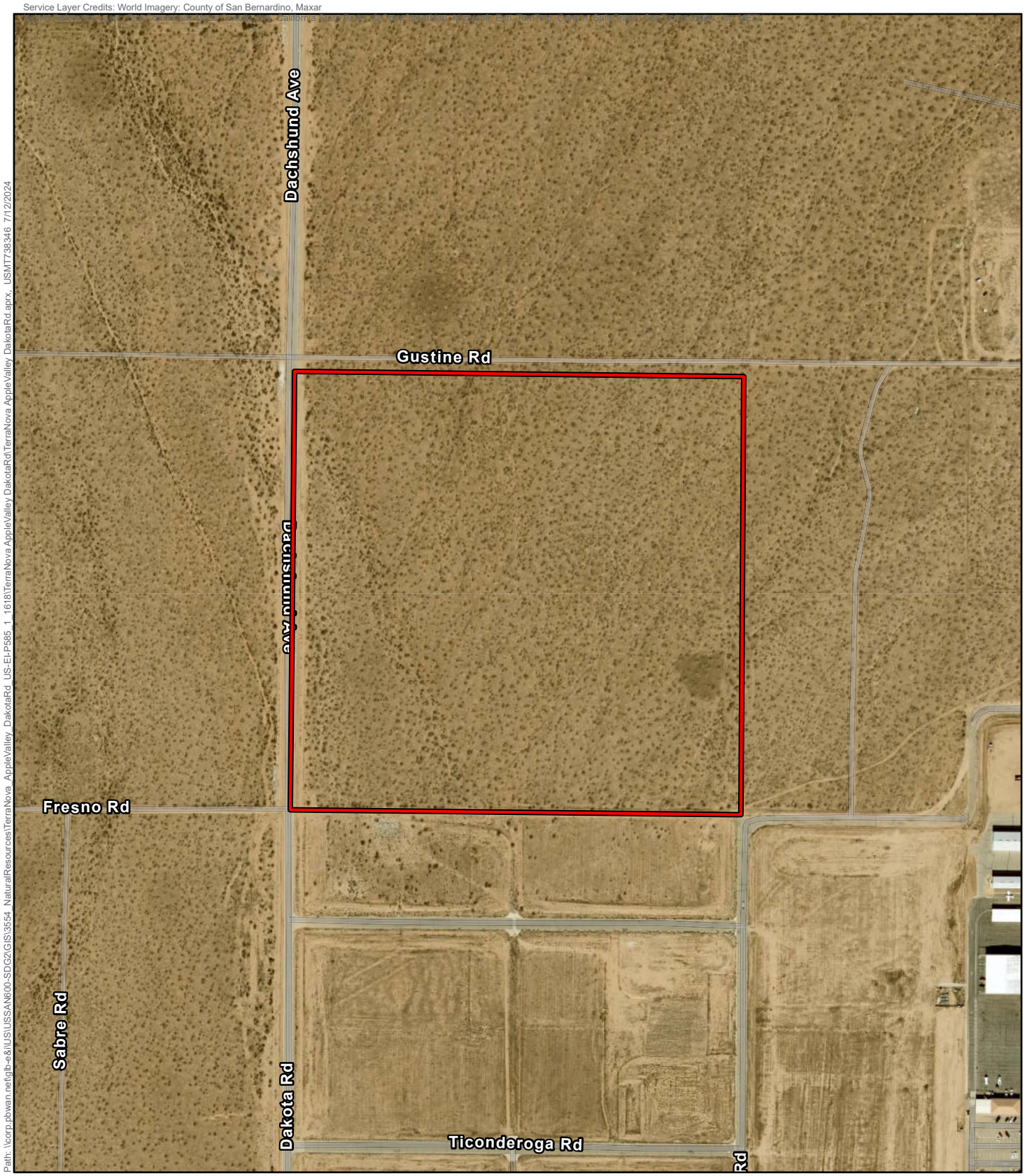
HELENDALE-BRYMAN LOAMY SANDS, 2 TO 5 PERCENT SLOPES*

1 inch =400 feet

0 200 400 Feet

FIGURE 5

Soils
Jurisdictional Assessment
Terra Nova Dakota Road Project
Apple Valley, CA



1 inch =400 feet
0 200 400 Feet

Project Area

FIGURE 6

JD
Jurisdictional Assessment
Terra Nova Dakota Road Project
Apple Valley, CA

Appendix B

Site Photographs

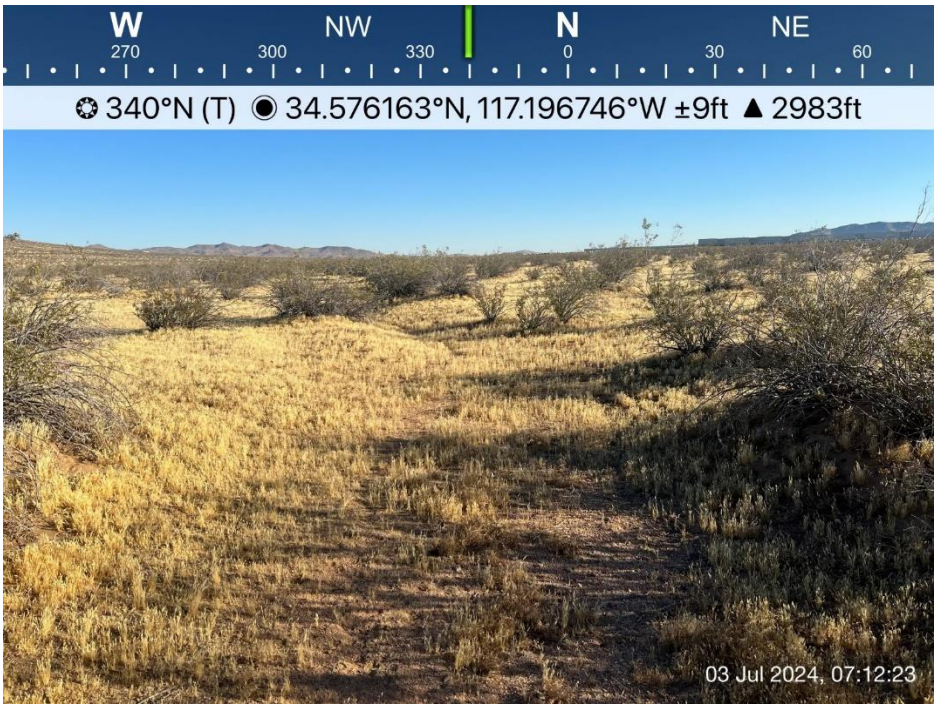


Photo 1: Looking north at potential feature mapped in the NWI. Note lack of OHWM with grasses growing across the feature.

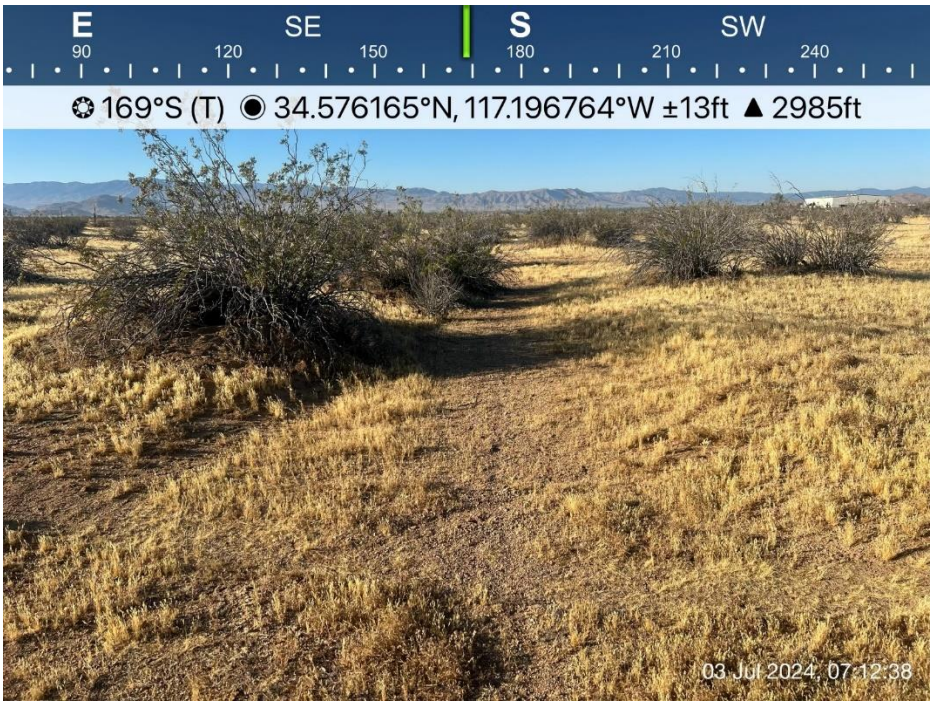


Photo 1: Looking south at potential feature mapped in the NWI. Note lack of OHWM with grasses growing across the feature.