



**JURISDICTIONAL DELINEATION
FOR
ECORP CONSULTING, INC.
NORTH STAR 2
ECORP PROJECT NUMBER: 2022-103

IMPERIAL COUNTY, CALIFORNIA**

Prepared for:

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DECEMBER 2022**Table of Contents**

1.0	Introduction.....	3
1.1	Purpose.....	3
1.2	Project Location.....	3
2.0	Regulatory Background	4
2.1	California Department of Fish and Wildlife Lake and Streambed Alteration Agreement.....	4
2.2	Regional Water Quality Control Board Clean Water Act /Porter-Cologne Act ...	4
2.3	United States Army Corps of Engineers Clean Water Act 404 Permit	5
3.0	Methodology.....	7
3.1	Literature Review.....	7
3.2	Field Survey	7
4.0	Results	8
4.1	Environmental Setting	8
4.2	Existing Hydrological Features	8
4.3	Soils.....	8
4.4	Vegetation.....	9
4.5	Hydrology.....	10
4.6	Existing Wetlands.....	10
4.7	Jurisdictional Waters.....	11
	Due to the isolated nature of the temporary ephemeral depressions within the study area, these features are not considered waters of the United States. These depressions did not contain riparian habitat or were associated with a stream regulated by the CDFW, USACE, or RWQCB.	11
	No stream features, lake or pond areas, wetlands, or riparian habitat subject to jurisdiction under the USACE, CDFW, or RWQCB were found on the project site. HES has determined that the proposed project will have no impacts on state or federal streams or lakes, or adjacent wetlands.....	11
5.0	Recommendations.....	11
6.0	Certification	12
7.0	References	13

FIGURES

Figure 1 – Location Map

Figure 2 – Vicinity Map

Figure 3 – Project Plans

APPENDICES

Appendix A – Site Photographs

Appendix B – Soils Map

1.0 Introduction

Hernandez Environmental Services (HES) was contracted by ECORP Consulting, Inc. to prepare a Jurisdictional Delineation (JD) for the approximate 651.26-acre North Star 2 project site within Imperial County, California.

1.1 Purpose

The purpose of this JD is to:

- Determine if any state or federal jurisdictional waters are present within the project site boundaries;
- Quantify any impacts to jurisdictional waters due to the proposed project, if possible;
- Determine if the project will require state or federal permits for impacts to jurisdictional waters; and,
- Recommend mitigation measures to offset impacts to state or federal jurisdictional waters.

1.2 Project Location

North Star 2 is located north of California State Route 78 (Ben Hulse Highway) within Imperial County, California (Figures 1 and 2). Specifically, the project site can be found in Section 36, Township 13 South, Range 16 East in the United States Geological Survey *Holtville NE 7.5-Minute Quadrangle*. The center point latitude and longitude coordinates for the project site are 32°58'38.3073" North and 115°16'17.8186" West.

1.3 Project Description

The Proposed Project will construct one solar field with a Battery Energy Storage System (BESS). In addition, the Proposed Project will construct an offsite generation tie (gen-tie) route along Ben Hulse Highway, on lands administered by the Bureau of Land Management (BLM) El Centro Field Office. The approximately 1.25-mile gen-tie route that runs west along Ben Hulse Highway would interconnect with the transmission line that is just across the E. Highland Canal.

2.0 Regulatory Background

2.1 California Department of Fish and Wildlife Lake and Streambed Alteration Agreement

The California Department of Fish and Wildlife (CDFW) is responsible for conserving, protecting, and managing California's fish, wildlife, and native plant resources. To meet this responsibility, the California Fish and Game Code (F&GC), requires that the CDFW be consulted if a proposed development project has the potential to detrimentally effect a stream and thereby wildlife resources that depend on a stream for continued viability (F&GC Division 2, Chapter 5, section 1600-1616). A Section 1602 Lake or Streambed Alteration Agreement is required, should the CDFW determine that the proposed project may do one or more of the following:

- Substantially divert or obstruct the natural flow of any river, stream or lake;
- Substantially change or use any material from the bed, channel or bank of any river, stream, or lake; or
- Deposit debris, waste or other materials that could pass into any river, stream, or lake.

For the purposes of clarification, a stream is defined by CDFW as "a body of water that flows perennially or episodically and that is defined by the area in which water currently flows, or has flowed, over a given course during the historic hydrologic regime, and where the width of its course can reasonably be identified by physical or biological indicators." The historic hydrologic regime is defined as circa 1800 to the present (CDFW 2010).

2.2 Regional Water Quality Control Board Clean Water Act /Porter-Cologne Act

The Regional Water Quality Control Board (RWQCB) regulates activities pursuant to Section 401(a)(1) of the federal Clean Water Act (CWA) as well as the Porter Cologne Act (Water Code section 13260). Section 401 of the CWA specifies that certification from the State is required for any project requesting a federal license or permit to conduct any activities including, but not limited to, the construction or operation of facilities that may result in any discharge into navigable waters. The certification shall originate from the State in which the discharge originates or will originate, or, if appropriate, from the interstate water pollution control agency having jurisdiction over the navigable water at

the point where the discharge originates or will originate. Any such discharges will comply with the applicable provisions of sections 301, 302, 303, 306, and 307 of the CWA. The Porter Cologne Water Quality Control Act (PCWQCA) requires “any person discharging waste, or proposing to discharge waste, within any region that could affect the waters of the state to file a report of discharge.” Discharge of fill material into “waters” of the State which does not fall under the jurisdiction of the United States Army Corps of Engineers (USACE) pursuant to Section of the Clean Water Act, may require authorization through application of waste discharge requirements or through waiver of Waste Discharge Requirements.

2.3 United States Army Corps of Engineers Clean Water Act 404 Permit

The USACE regulates “discharge of dredged or fill material” into wetlands and waters of the United States, which includes tidal waters, interstate waters, and “all other waters, interstate lakes, rivers, streams (including intermittent streams), mud flats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes or natural ponds, the use, degradation, or destruction of which could affect interstate or foreign commerce or which are tributaries to waters subject to the ebb and flow of the tide” (33 C.F.R. 328.3(a)), pursuant to provisions of Section 404 of the Clean Water Act.

The USACE requires that the 1987 Corps of Engineers Wetland Delineation Manual (Environmental Laboratories, 1987) be used for delineating wetlands and waters of the United States. To qualify for wetlands status, vegetation, soils, and hydrologic parameters must all be met. “Waters” of the U.S. are delineated based upon the “ordinary high-water mark” (OHWM) as determined by erosion, the deposition of vegetation or debris, and changes in vegetation within rivers and streams.

For the purposes of this section, the term “fill” is defined as: material placed in waters of the

United States where the material has the effect of:

- Replacing any portion of a water of the United States with dry land; or
- Changing the bottom elevation of any portion of a water of the United States.

Examples of such fill material include, but are not limited to: rock, sand, soil, clay, plastics, construction debris, wood chips, overburden from mining or other excavation activities,

and materials used to create any structure or infrastructure in the waters of the United States. The term fill material does not include trash or garbage.

The definition of "discharge of dredged material" is defined as: any addition of dredged material into, including redeposit of dredged material other than incidental fallback within, the waters of the United States. The term includes, but is not limited to, the following:

- The addition of dredged material to a specified discharge site located in waters of the United States;
- The runoff or overflow, associated with a dredging operation, from a contained land or water disposal area; and
- Any addition, including redeposit other than incidental fallback, of dredged material, including excavated material, into waters of the United States which is incidental to any activity, including mechanized land clearing, ditching, channelization, or other excavation.

The term discharge of dredged material does not include the following:

- Discharges of pollutants into waters of the United States resulting from the onshore subsequent processing of dredged material that is extracted for any commercial use (other than fill). These discharges are subject to section 402 of the Clean Water Act even though the extraction and deposit of such material may require a permit from the Corps or applicable State.
- Activities that involve only the cutting or removing of vegetation above the ground (e.g., mowing, rotary cutting, and chain-sawing) where the activity neither substantially disturbs the root system nor involves mechanized pushing, dragging, or other similar activities that redeposit excavated soil material.
- Incidental fallback.

3.0 Methodology

3.1 Literature Review

Prior to the site visit, a literature review was conducted to aid in determining the potential for perennial, intermittent, or ephemeral drainages, wetlands, and riparian vegetation. Project background documents, topographic maps, satellite imaging, soils maps, and land use maps were examined to establish an accurate project site location, project description, potential for onsite drainages and wetlands, records of on-site vegetation, watershed, soils, and surrounding land uses.

3.2 Field Survey

On October 26th, 2022, HES conducted a field survey of the west side of the 651.26-acre project area. The purpose of this field survey was to document the existing habitat conditions, obtain plant and animal species information, view the surrounding land uses, and assess the potential for state and federal waters. Representative site photographs were taken and are included in Appendix A.

During the field survey, six transects were walked from the south project boundary to the north project boundary at approximately 250 feet apart. The purpose of the transects was to evaluate the presence or absence of fluvial activity, boundaries of geomorphic units, changes in plant species composition between different geomorphic units, photographing points of transition, and mapping the watercourse and watercourse boundaries. The guidelines followed are those established in the 2014 Mapping Episodic Stream Activity (MESA) Field Guide. Areas measured were recorded using a handheld Global Positioning System (GPS) for accurate location reference, and site photographs were also taken.

The study area was examined for jurisdictional drainages by looking for features such as a bed, bank, or channel. If riparian vegetation was present, the drip line of the outer edge of the vegetation would be used as the measuring criteria. Furthermore, an ordinary high-water mark (OHWM) was not found during the survey. The OHWM is defined as: "on non-tidal rivers, the line on the shore established by the fluctuations of water and indicated by the physical characteristics such as a clear, natural line impressed on the bank; shelving; changes in the character of soil; destruction of terrestrial vegetation; the presence of litter

and debris; or other appropriate means that consider the characteristics of the surrounding area.” Where the presence of temporary ephemeral depressions was evident, a measurement was taken for the location of each ephemeral depression, and the measurement was recorded (Appendix A). Areas measured were also recorded using hand-held GPS for accurate location reference.

If changes in plant community composition were apparent, the area would be examined for the possibility of wetlands. Whether or not adjacent to “waters of the U.S.”, the potential wetland area would be evaluated for the presence of the three wetland indicators: hydrology, hydric soils and hydrophytic vegetation. The guidelines followed are those established in the 1987 Army Corps of Engineers Manual.

4.0 Results

4.1 Environmental Setting

The 651.26-acre study area reflects the arid conditions, limited rainfall, and generally poor soils of the Sonoran Desert. The proposed project site plant includes creosote (*Larrea tridentata*) and dye bush (*Psoralea argemone*). The elevation of the action area ranged from -4.36 to 98 feet above mean sea level (AMSL). The peak blooming season for desert vegetation typically occurs during the months of February, March, and April, and in years of abundant annual rainfall.

4.2 Existing Hydrological Features

The water features present throughout the project site are temporary ephemeral depressions due to sand dune habitat.

4.3 Soils

Seven soil classes are identified to occur on the project site by the USDA Web Soil Survey (Appendix B, *Soils Map*). Soils at the project site are classified as follows:

- Antho loamy fine sand (100),
- Holtville loam (108),
- Holtville-Imperial silty clay loams (111),
- Rositas fine sand, 0 to 2 percent slopes (132),

- Rositas fine sand, 2 to 9 percent slopes (133),
- Rositas loamy fine sand, 0 to 2 percent slopes (136); and
- Superstition loamy fine sand (139)

The soils above are not classified as hydric soils.

4.4 Vegetation

The study area supports six habitat types: creosote bush scrub, creosote bush scrub/white bursage scrub, bush seepweed scrub, tamarisk thickets, disturbed and developed habitat. These habitat types are described in more detail below.

Creosote Bush Scrub

The project area contains approximately 639.30 acres of creosote bush scrub habitat. This habitat type is characterized as a shrub canopy with creosote bush as the dominant species and numerous other shrub species below three meters. The shrub canopy is intermittent to open. This habitat type is typically found on alluvial fans, bajadas, upland slopes, and washes. Dominant species observed are creosote, white bursage (*Ambrosia dumosa*), fourwing saltbush (*Atriplex canescens*), longleaf ephedra (*Ephedra trifurca*), and brittlebush (*Encelia farinosa*).

Creosote Bush Scrub/ White bursage scrub

The project area contains approximately 1.47 acres of creosote bush/white bursage scrub habitat. This habitat type is characterized as a shrub canopy with creosote bush and white bursage as co-dominant species. The shrub canopy is intermittent to open. This habitat type is typically found on alluvial fans, bajadas, upland slopes, and washes. Dominant species observed are creosote bush, white bursage, cheesebush (*Ambrosia salsola*), longleaf ephedra, and rush milkweed (*Asclepias subulata*).

Bush Seepweed Scrub

The project area contains approximately 0.22 acres of bush seepweed scrub habitat. This habitat type is characterized by alkali goldenbush (*Isocoma acradenia*) or bush seepweed (*Suaeda moquinii*) as the dominant or co-dominant species. This habitat type is typically found in saline or alkaline soils in valley bottoms, playas, bajadas, and adjacent to alluvial fans. Dominant species observed are alkali goldenbush, white bursage, fourwing saltbush, and annual grasses.

Tamarisk thickets

The project area contains approximately 0.36 acres of tamarisk thickets habitat. This habitat type is characterized by saltcedar (*Tamarix ramosissima*) or other species of tamarisk (*Tamarix* spp.) as the dominant species. Dominant species observed are saltcedar, date palm (*Phoenix dactylifera*) and arrow weed (*Pluchea sericea*).

Disturbed

The project area contains approximately 0.82 acres of creosote bush/desert pavement habitat. This habitat type is characterized by nonnative grasses and bare ground.

Developed

The project area contains approximately 9.09 acres of developed habitat. This habitat type is characterized by sparse vegetation, consisting mostly of saltcedar growing along the edges of the East Highline Canal.

4.5 Hydrology

The project area is located within the Colorado River Basin Plan and the Imperial Valley hydrologic unit. The Imperial Valley has not been included as part of the Colorado River Aquifer System based on information published by the USGS. The sand dunes on site are associated with the North Algodones Dunes Wilderness to the northeast. The dunes act as a hydrologic divide preventing movement of water between the Colorado River located on the eastern side of the Chocolate Mountain range and the Imperial Valley Basin located southwest of the Chocolate Mountains (Center for Biological Diversity 2022). Surface water quickly drains into the sand and becomes groundwater.

4.6 Existing Wetlands

The study area does not contain federally defined wetlands (a federal wetland needs to have the presence of the three wetland indicators which are hydric soils, hydrophytic vegetation, and hydrology).

4.7 Jurisdictional Waters

Due to the isolated nature of the temporary ephemeral depressions within the study area, these features are not considered waters of the United States. These depressions did not contain riparian habitat or were associated with a stream regulated by the CDFW, USACE, or RWQCB.

No stream features, lake or pond areas, wetlands, or riparian habitat subject to jurisdiction under the USACE, CDFW, or RWQCB were found on the project site. HES has determined that the proposed project will have no impacts on state or federal streams or lakes, or adjacent wetlands.

5.0 Recommendations

The gen-tie route along Ben Hulse Highway will be near the E. Highland Channel. HES recommends that the project activities do not alter or remove vegetation associated with this channel. If the channel will be impacted, it would be regulated under the USACE, CDFW, and RWQCB. Any impacts are considered significant and should be avoided to the greatest extent possible. Impacts to jurisdictional waters require mitigation through habitat creation, restoration, or enhancement as determined by consultation with the regulatory agencies during the permitting process. Any impacts to CDFW jurisdiction would require a 1602 Streambed Alteration Agreement. Any impacts to WUS would require a Section 404 permit authorization from the USACE and a 401 State Water Quality Certification from the RWQCB. Any impacts to waters of the State would require Waste Discharge Requirements under Porter-Cologne from the RWQCB.

HES has determined that no USACE, CDFW, or RWQCB jurisdictional waters occur within the North Star 2 project site and if impacts to the E. Highland Channel are avoided, no CDFW 1602, USACOE 404, or RWQCB 401 Certification/WDR will be required.

6.0 Certification

"CERTIFICATION: *I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this jurisdictional delineation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief."*



DATE 12-22-2022

SIGNED

Project Manager

Fieldwork Performed By:

Elizabeth Gonzalez

ASSOCIATE BIOLOGIST

Sarah Vasquez

ASSOCIATE BIOLOGIST

7.0 References

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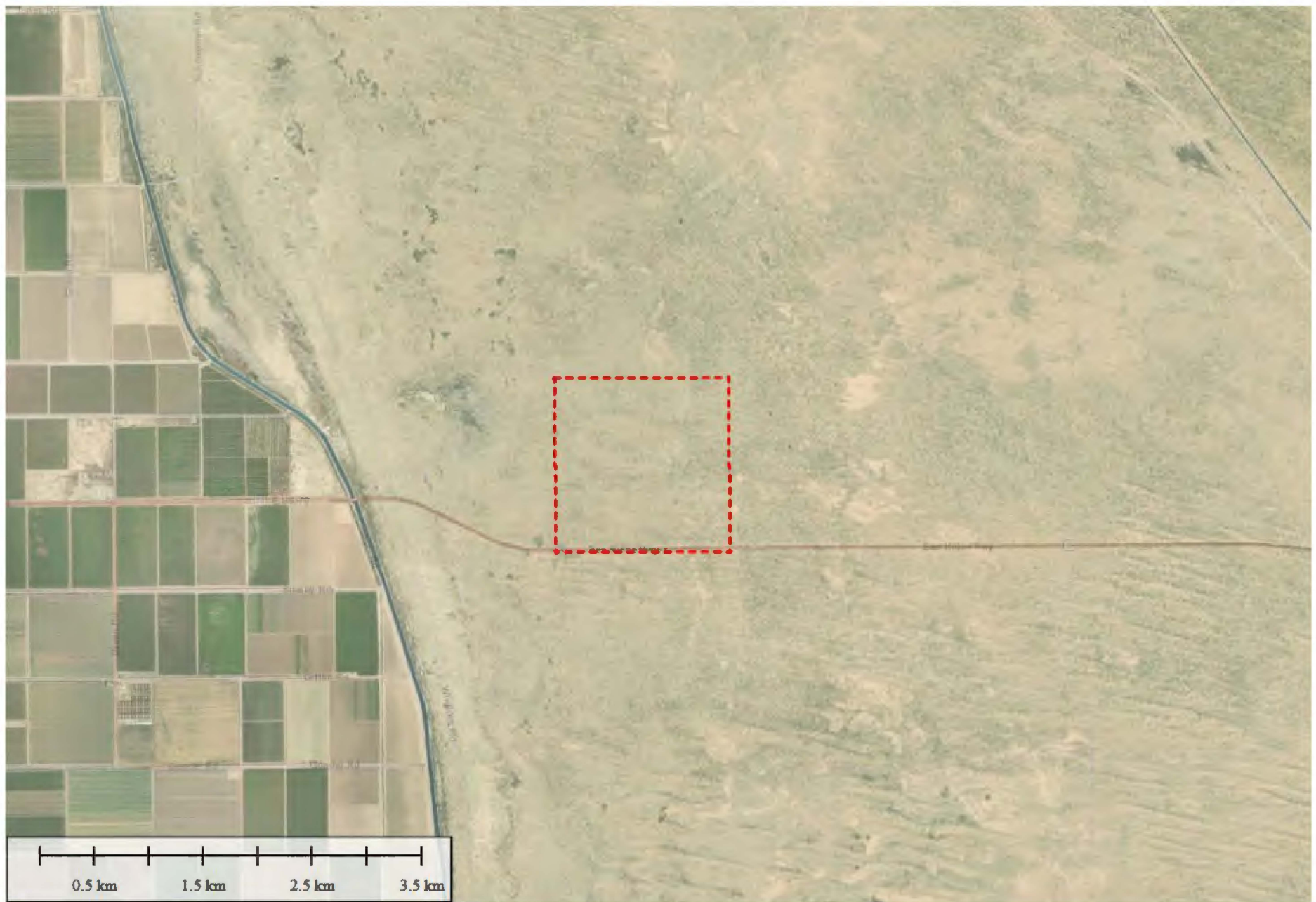
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Location Map

North Star 2
APNs 039-140-013 & -014
Imperial County, California

Legend



Property Boundary





Vicinity Map

North Star 2

APNs 039-140-013 & -014

Imperial County, California

Legend



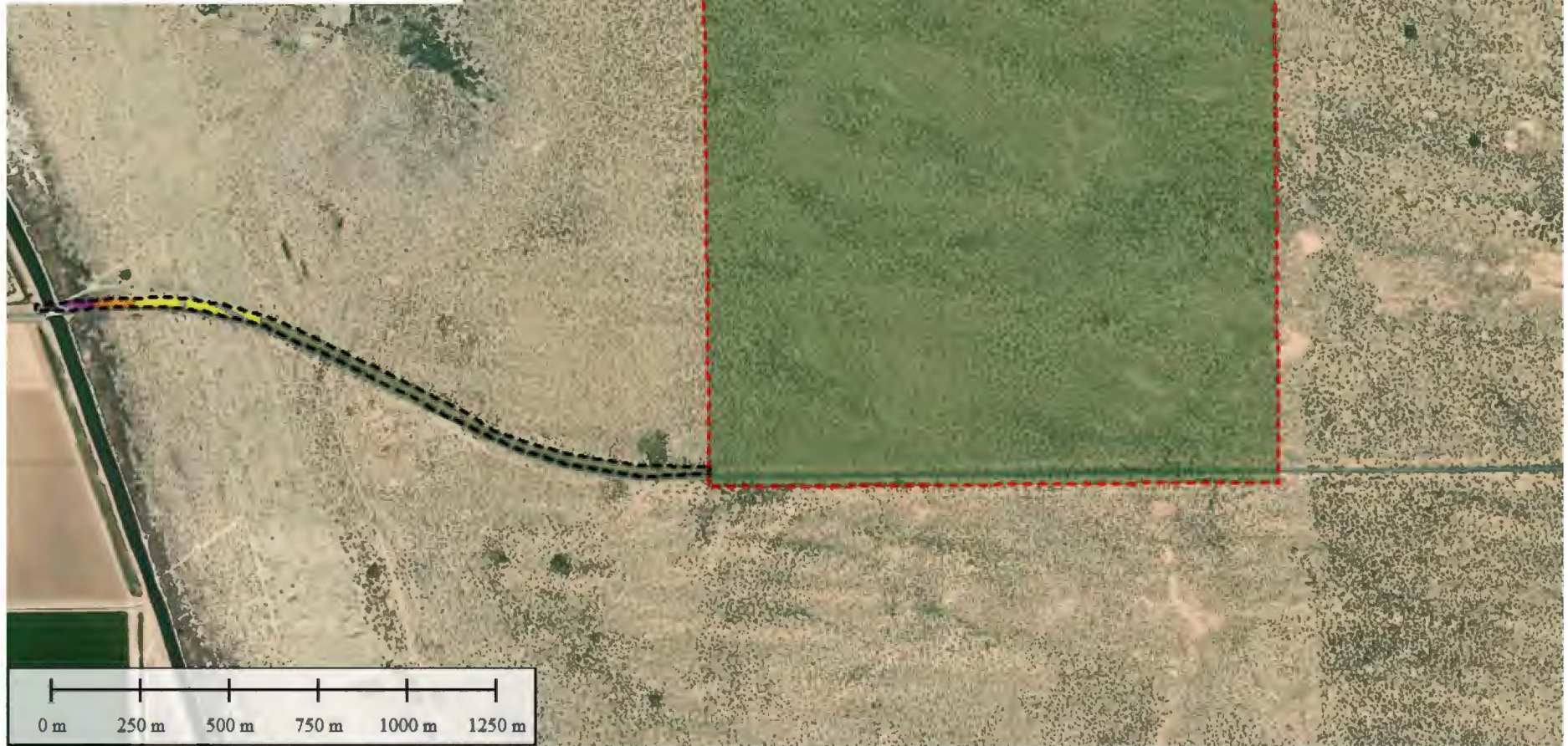
Property Boundary



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Legend

-  Property Line
-  Gen-tie line
-  Creosote Bush Scrub (639.3 Ac.)
-  Creosote Bush - White Bursage Scrub (1.47 Ac.)
-  Tamarisk thickets (0.36 Ac.)
-  Developed (9.09 Ac.)
-  Disturbed (0.82 Ac.)
-  Bush seepweed scrub (0.22 Ac.)



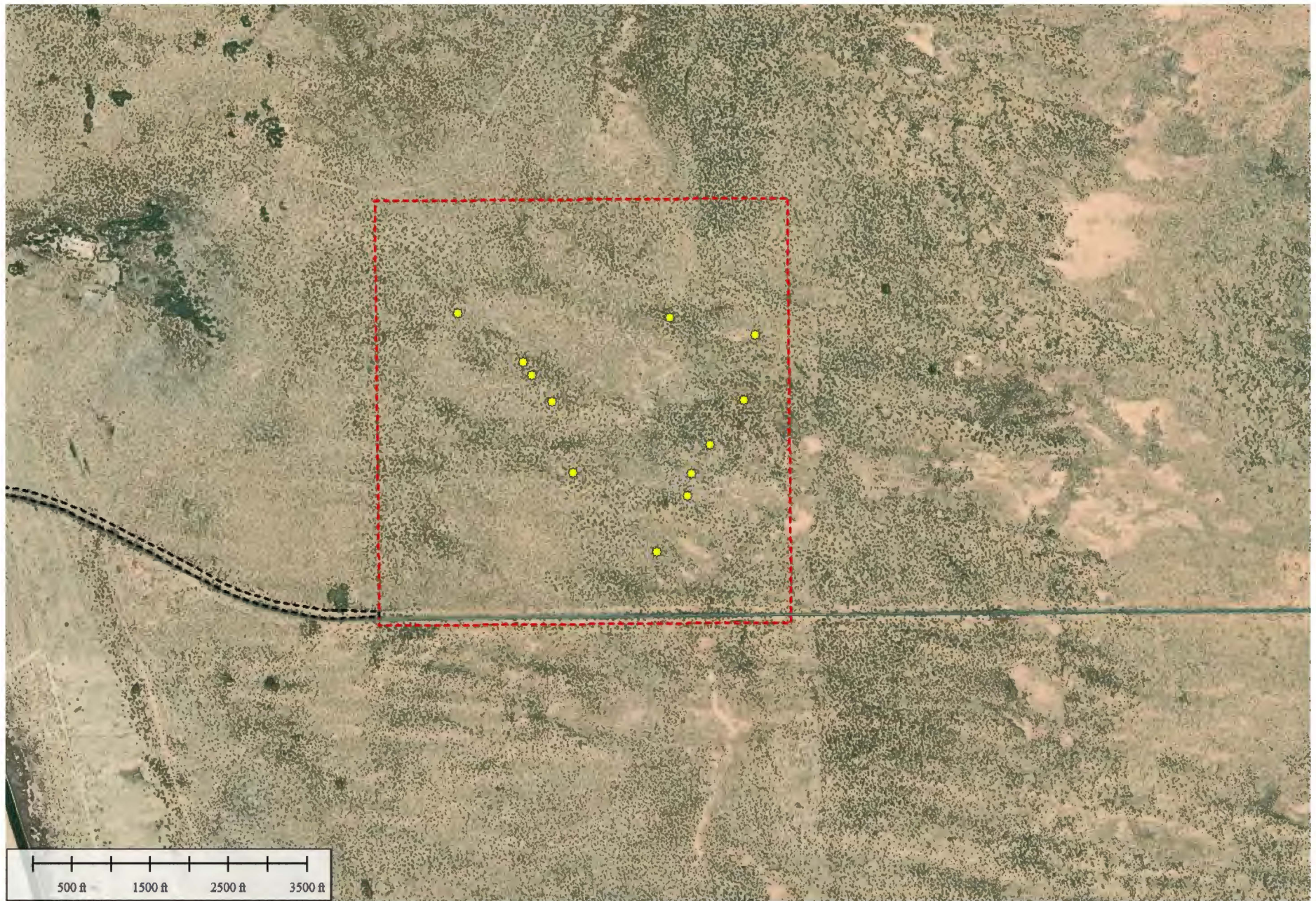
Habitat Map

North Star 2

APNs 039-140-013 & -014

Imperial County, California





North Star 2

APNs 039-140-013 & -014
Imperial County, California

Legend



Property Boundary



Ephemeral Depressions



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View of sand dune habitat with creosote scrub (*Larrea tridentata*).



View of dyebush (*Psoralethamnus emoryi*) followed by creosote scrub.



View of temporary ephemeral depression between creosote scrub. Waypoint 2613.



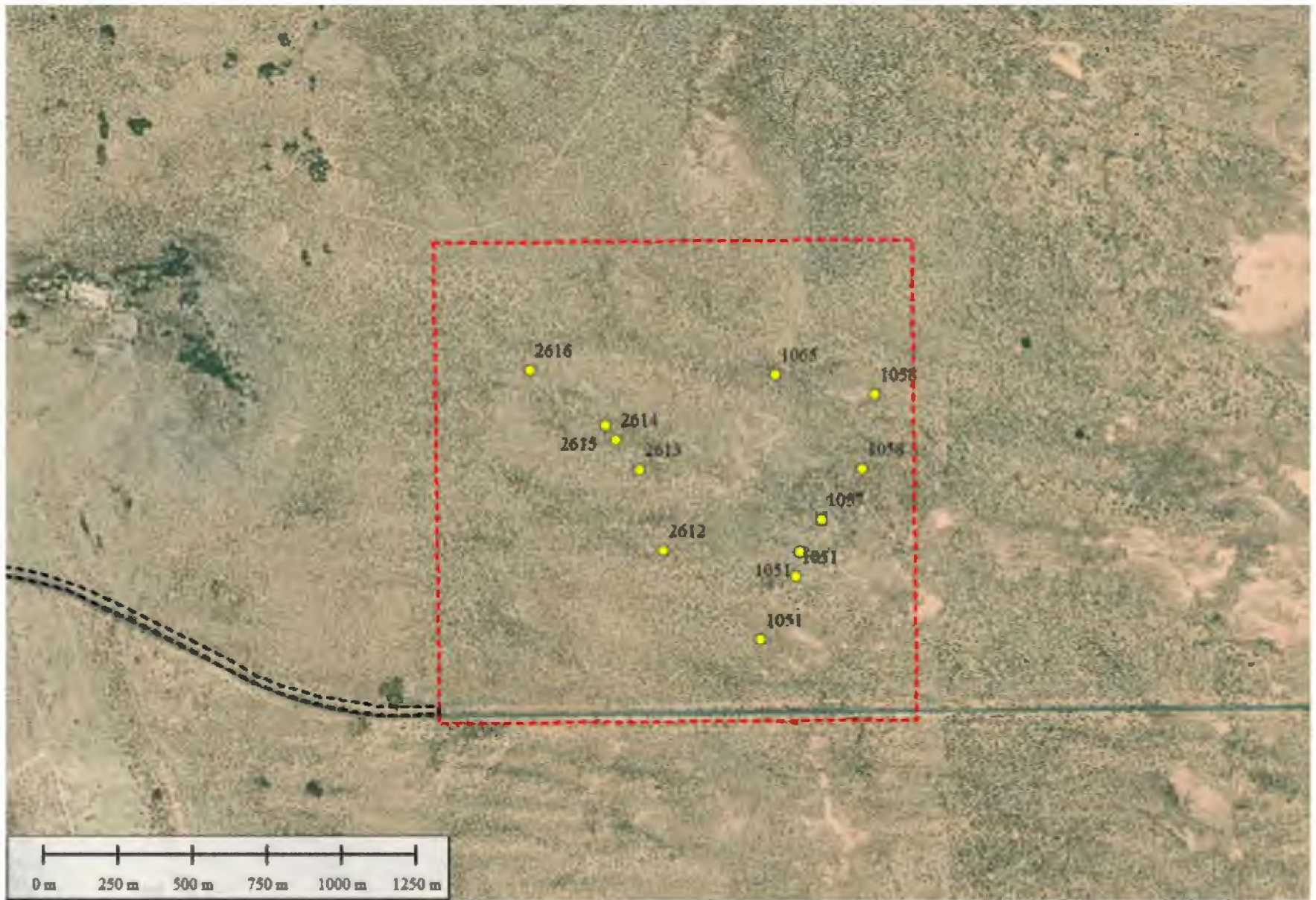
View of sand dunes looking north.



View of creosote scrub followed by Chocolate Mountains in the distance looking northeast.



View of temporary ephemeral depression between creosote scrub. Waypoint 2614.



Northstar 2

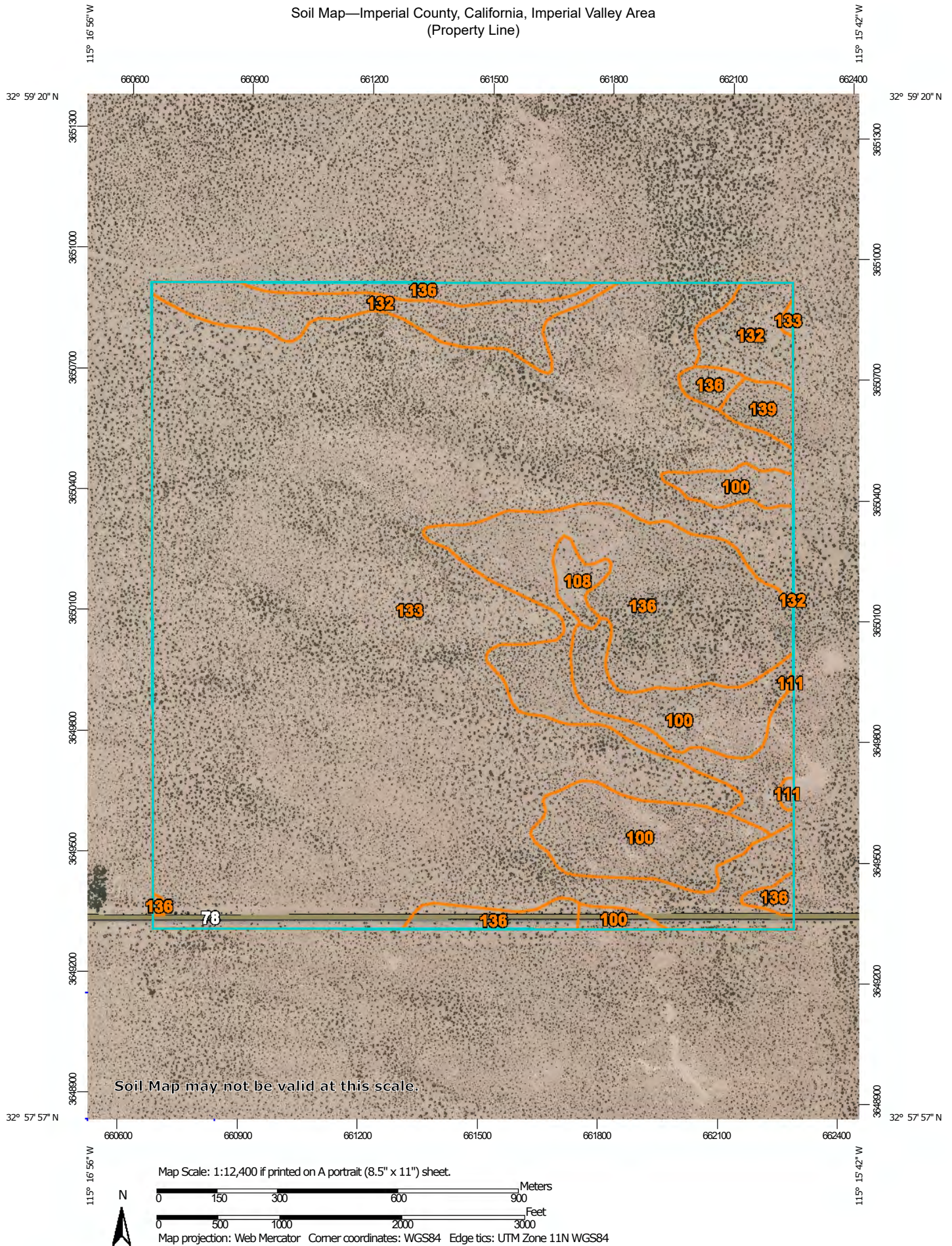
APNs 039-140-013 & -014
Imperial County, California

Legend

 Property Boundary



Soil Map—Imperial County, California, Imperial Valley Area
(Property Line)



Soil Map—Imperial County, California, Imperial Valley Area
(Property Line)

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Imperial County, California, Imperial Valley Area

Survey Area Data: Version 14, Sep 1, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 17, 2021—May 22, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
100	Antho loamy fine sand	53.2	8.3%
108	Holtville loam	4.2	0.7%
111	Holtville-Imperial silty clay loams	0.7	0.1%
132	Rositas fine sand, 0 to 2 percent slopes	34.9	5.5%
133	Rositas fine sand, 2 to 9 percent slopes	442.3	69.4%
136	Rositas loamy fine sand, 0 to 2 percent slopes	97.3	15.3%
139	Superstition loamy fine sand	5.0	0.8%
Totals for Area of Interest		637.8	100.0%